

DR

DLAMINI

SPATIAL DEVELOPMENTFRAMEWORK 2021/22

NKOSAZANA

ZUMA

DRAFT REPORT

Dr Nkosazana Dlamini Zuma Municipality Address: Main Street, Creighton, 3263 Phone: +27 39 833 1038 Fax: +27 39 833 1179 Website: www.ndz.gov.za

Development and Town Planning Department Contact Person: Mr Sizwe Gwala Contact Number: 039 833 1038

E-mail: gwalas@ndz.gov.za

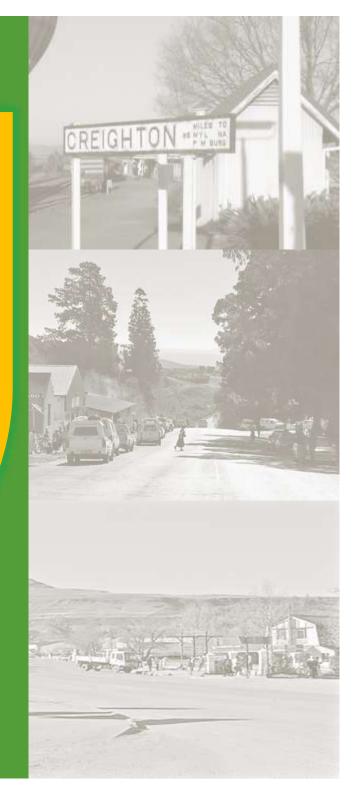


TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 BACKGROUND	1
1.2 AIMS & OBJECTIVES	
1.3 APPROACH	4
1.4 ADDRESSING MEC COMMENTS	
1.4.1 KZN DEPARTMENT OF COOPERATIVE GOVERNANCE AND TRADITIONAL AFFAIRS & DEPARTMENT OF AGRICULT	URE, LAND REFORM AND RURAL
DEVELOPMENT	
1.4.2 KZN DEPARTMENT OF ECONOMIC DEVELOPMENT, TOURISM AND ENVIRONMENTAL AFFAIRS	
1.4.3 DEPARTMENT OF STATISTICS SOUTH AFRICA	7
2. OVERVIEW OF THE MUNICIPALITY	
2.1 REGIONAL CONTEXT	ß
2.2 ADMINISTRATIVE ENTITIES.	
2.2.1 CURRENT WARD BOUNDARIES	
2.2.2 Proposed Ward Delimitation	
2.2.3 TRADITIONAL BOUNDARIES	
	15
3. LEGISLATIVE & POLICY FRAMEWORK	
3.1 GLOBAL CONTEXT	
3.2 NATIONAL LEGISLATIVE CONTEXT	
3.3 NATIONAL & PROVINCIAL POLICY CONTEXT.	
3.3.1 NATIONAL DEVELOPMENT PLAN, VISION 2030	
3.3.2 STATE OF THE NATION ADDRESS (SONA) 2020	
3.3.3 HUMAN SETTLEMENT MASTER PLAN 2017	

3.3.4 INTEGRATED URBAN DEVELOPMENT FRAMEWORK 2016	43
3.3.5 COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME, 2009	44
3.3.6 BREAKING NEW GROUND POLICY 2004	
3.3.7 AGRICULTURE, LAND REFORM & RURAL DEVELOPMENT: DIRECTIONS RELATING TO SPATIAL PLANNING, LAND USE MANAGEMENT AND LAND	
DEVELOPMENT PROCESSES	
3.3.8 PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY (PGDS) 2035	45
3.3.9 PROVINCIAL GROWTH AND DEVELOPMENT PLAN (PGDP) 2018	
3.3.10 PROVINCIAL SPATIAL ECONOMIC DEVELOPMENT STRATEGY (PSEDS) 2017	47
3.3.11 KZN SPATIAL DEVELOPMENT FRAMEWORK (SDF) 2016	49
3.3.12 KZN HUMAN SETTLEMENTS MASTER SPATIAL PLAN 2016	50
3.4 DISTRICT POLICY CONTEXT	
3.4.1 HARRY GWALA DISTRICT RURAL DEVELOPMENT PLAN 2017	50
3.4.2 HARRY GWALA DISTRICT MUNICIPALITY 2017-2022 INTEGRATED DEVELOPMENT PLAN	50
3.4.3 HARRY GWALA DISTRICT SPATIAL DEVELOPMENT FRAMEWORK (2017/22)	
3.4.4 HARRY GWALA CLIMATE CHANGE VULNERABILITY ASSESSMENT AND RESPONSE PLAN 2018	
3.4.5 HARRY GWALA SMALL ENTERPRISE DEVELOPMENT STRATEGY AND IMPLEMENTATION PLAN 2016	
3.4.6 REVIEW OF LED STRATEGY: HARRY GWALA DISTRICT LED STRATEGY AND IMPLEMENTATION PLAN 2015	
3.4.7 TOURISM SECTOR STRATEGY FOR THE HARRY GWALA DISTRICT MUNICIPALITY 2016	53
3.4.8 HARRY GWALA DISTRICT INVESTMENT PROMOTION AND FACILITATION STRATEGY 2016	
3.4.9 HARRY GWALA DISTRICT GROWTH AND DEVELOPMENT PLAN 2014	55
3.4.10 HARRY GWALA DISTRICT MUNICIPALITY DISASTER MANAGEMENT, FIRE & RESCUE SECTOR PLAN 2016/17	55
3.4.11 HARRY GWALA DISTRICT MUNICIPALITY BIODIVERSITY SECTOR PLAN 2014	56
3.4.12 DISASTER MANAGEMENT FRAMEWORK 2013	
3.5 LOCAL POLICY CONTEXT	
3.5.1 DR NKOSAZANA DLAMINI ZUMA INTEGRATED DEVELOPMENT PLAN (IDP) 2017 - 2022	
3.5.2 DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK (SDF) 2017 - 2022	
3.5.3 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY LOCAL ECONOMIC DEVELOPMENT STRATEGIC PLAN 2017	
3.5.4 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY HUMAN SETTLEMENT PLAN 2018	
3.6 IMPLICATIONS FOR DR NKOSAZANA DLAMINI ZUMA SDF	
3.7 COORDINATION, ALIGNMENT AND INTEGRATION OF SECTORAL POLICIES	62

4. DR NKOSAZANA DLAMINI ZUMA WITHIN THE REGIONAL CONTEXT	
4.1 HOME OF THE WORLD HERITAGE SITE	
4.2 GATEWAY TO THE KINGDOM OF LESOTHO	68
4.3 PRODUCTIVE FARMING AREA	
4.4 REMOTE RURAL SETTLEMENTS	68
5. SPATIAL ANALYSIS	70
5.1 ENVIRONMENTAL ANALYSIS	
5.1.1 RIVERS, HYDROLOGICAL WATER FEATURES AND ECOSYSTEM	
5.1.2 GEOLOGY	77
5.1.3 BIODIVERSITY CONSERVATION	77
5.1.4 SLOPE ANALYSIS	
5.1.5 CLIMATE CHANGE	
5.1.6 CONSERVATION AND PROTECTED AREAS	
5.1.7 VEGETATION	
5.1.8 Environmental Interventions	
5.2 DISASTER MANAGEMENT SITUATIONAL ANALYSIS	
5.2.1 BACKGROUND	
5.2.2 Key Performance Area 1: Integrated Institutional Capacity	
5.2.3 SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION VISION 2030	
5.2.4 2.3.1 ESTABLISHMENT OF THE DR. NKOSAZANA DLAMINI ZUMA MUNICIPALITY'S EMERGENCY CEM	√TRE97
5.2.5 FUNDING AND AVAILABLE BUDGET	
5.2.6 EMPLOYMENT OF FIRE SERVICES OFFICIALS	
5.2.7 EQUIPMENT FOR FIRE SERVICES	
5.2.8 INTER-DEPARTMENTAL DISASTER MANAGEMENT COMMITTEE	
5.2.9 STORAGE FACILITIES	
5.2.10 LOCATION OF DISASTER MANAGEMENT	
5.2.11 AN IDEAL DISASTER MANAGEMENT ORGANOGRAM	

5.2.12	WARD BASED VOLUNTEERS	103
	PREVENTION AND MITIGATION	
	ENFORCEMENT OF LEGISLATION	
5.2.15	DISASTER MANAGEMENT INTERDEPARTMENTAL COMMITTEE	103
5.2.16	EY PERFOMANCE INDICATORS	104
5.2.17	DISASTER RISK MANAGEMENT PLAN	104
5.2.18	KEY PERFORMANCE INDICATOR	104
5.2.19	MUNICIPAL SAFETY PLAN	104
5.2.20	ROAD CAMERAS	105
5.2.21	ANIMAL POUNDS	106
	CRIME PREVENTION AND COMBAT	
	MULTI STAKEHOLDER ROAD BLOCKS	
5.2.24	LIGHTNING AND INSTALLATION OF LIGHTNING CONDUCTORS	109
	EMERGENCY EVACUATION PLAN	
	KEY PERFORMANCE INDICATOR	
	KEY PERFORMANCE AREA 2	
	DISASTER RISK ASSESSMENT	
5.2.29	DISASTER MANAGEMENT PLACES OF SAFETY (SOCIAL FACILITIES, HALLS AND SCHOOLS)	132
	DISASTER INCIDENT MAPPING	-
5.2.31	KEY PERFORMANCE INDICATORS	132
	KEY PERFORMANCE AREA 3 -4.1 DISASTER RISK REDUCTION	
	MAJOR HAZARD INSTALLATION	-
	DISASTER SWOT ANALYSIS	
	EMOGRAPHIC INDICATORS	
	POPULATION ESTIMATES	
	JRBANISATION AND POPULATION OUT-MIGRATION	
5.3.3	Gender & Age Group	147
	DUSEHOLD TRENDS	
	HEADED HOUSEHOLDS	
	ECONOMIC INDICATORS	
5.4.3	CAUSES OF DEATH	151

5.5 E	BROAD LAND USE PATTERN	152
5.5.1	RURAL TOWN AND SURROUNDING PERI-URBAN SETTLEMENTS	152
5.5.2	RURAL VILLAGES AND SETTLEMENTS	152
5.5.3	COMMERCIAL AGRICULTURE	152
5.5.4	ENVIRONMENTAL AREAS	152
5.5.5	TOURISM AREAS	152
5.6 5	Settlement Typologies	153
5.6.1	FORMAL URBAN SETTLEMENTS	154
5.6.2	INFORMAL SETTLEMENTS	154
5.6.3	PERI-URBAN SETTLEMENTS	154
5.6.4	RURAL SETTLEMENTS	155
5.6.5	SMALL HOLDINGS	155
5.6.6	FARMLANDS	155
	Settlement Density	
5.7.1	HIGH DENSITY URBAN SETTLEMENTS	155
5.7.2	DENSELY POPULATED RURAL SETTLEMENTS	155
5.7.3	LOW DENSITY RURAL SETTLEMENTS	156
5.7.4	PRESSURE POINTS	156
5.8 L	AND USE MANAGEMENT	169
5.9 L	AND LEGAL ISSUES	169
5.9.1	LAND OWNERSHIP	169
5.9.2	LAND REFORM	169
5.10	TRANSPORT NETWORK	177
	REGIONAL ROAD NETWORK	
	PRIMARY ROAD NETWORK IN DR NKOSAZANA DLAMINI ZUMA	
5.11	LANDSCAPE CHARACTER AND BUILT FORM	179
5.11.1	IMPORTANCE OF LANDSCAPE CHARACTER	181
<u>6. SI</u>	PACE ECONOMY	<u>184</u>
6.1 \$	SIZE AND STRUCTURE OF THE LOCAL ECONOMY	184

6.2 AGRICULTURE AND FARMING	
6.3 HARRY GWALA AGRI-PARKS AND HUBS	
6.4 COMMERCIAL AND SOCIAL SERVICES	
6.5 INFORMAL TRADE	
6.6 TOURISM SERVICES	
6.7 POVERTY ASSESSMENT	
7. INFRASTRUCTURE ASSESSMENT	
7.1 Bulk Water	104
7.1 BULK WATER	
7.1.1 BOLK WATER INFRASTRUCTURE	
7.1.2 AREAS THAT LACK ACCESS TO WATER	
7.2.1 BULK SEWER INFRASTRUCTURE	
7.2.1 BOLK SEWER INFRASTRUCTURE	
7.2.2 AREAS THAT LACK ACCESS TO SANITATION	
7.3.1 BULK ELECTRICITY INFRASTRUCTURE	
7.3.2 AREAS THAT LACK ACCESS TO ELECTRICITY	
 7.4 TELECOMMUNICATION 7.5 REFUSE REMOVAL AND LANDFILL SITE 	
7.5.1 CONTEXTUAL ANALYSIS	
7.5.2 INTEGRATED WASTE MANAGEMENT PLAN	
7.5.3 WASTE COLLECTION SCHEDULE	
7.5.4 WASTE DISPOSAL SITES.	
7.5.5 SOLID WASTE MANAGEMENT CHALLENGES	
7.5.6 ENVIRONMENTAL AWARENESS	
7.5.7 THE MUNICIPALITY HAS BEEN AWARDED R375 000 IN GREENEST MUNICIPALITY COMPETITION	
8. PUBLIC FACILITIES	

8.1 HEALTH	
8.2 SCHOOLS	
8.3 SAFETY AND SECURITY	
8.4 CEMETERIES	
8.5 THUSONG CENTRE AND COMMUNITY HALLS	
8.6 SPORTS AND RECREATION	
9. CROSS-BORDER ALIGNMENT ISSUES	
9.1 HARRY GWALA DISTRICT SDF	
9.2 NEIGHBOURING LOCAL MUNICIPALITIES	
9.2.1 GREATER KOKSTAD LOCAL SDF	
9.2.2 UBUHLEBEZWE LOCAL SDF	
9.2.3 IMPENDLE LOCAL SDF	
9.2.4 MSUNDUZI LOCAL SDF	
9.2.5 RICHMOND LOCAL SDF	
9.2.6 UMZIMKHULU LOCAL SDF	
9.3 IMPLICATIONS FOR DR NKOSAZANA DLAMINI ZUMA SDF	
10. SPATIAL PLANNING ISSUES AND CHALLENGESSIGNIFICANCE OF TOURISM CORI	RIDOR
10.1 SIGNIFICANCE OF AGRICULTURE	
10.2 RURAL TOWNS REHABILITATION	
10.3 FUTURE NEED FOR INTEGRATED MIXED RESIDENTIAL	
10.4 TRANSPORT ROUTE AS AN INFLUENCE FOR FUTURE DEVELOPMENT DIRECTION	
10.5 ENVIRONMENTAL ANXIETIES	
11. SPATIAL DEVELOPMENT STRATEGY	
11.1 SPATIAL DEVELOPMENT VISION AND MISSION	

11.2 FIVE-YEAR SPATIAL DEVELOPMENT PLAN	
11.3 SPATIAL PLANNING PRINCIPLES	210
11.4 DEVELOPMENT OBJECTIVES	211
11.4.1 OVERARCHING OBJECTIVE 1: DEVELOPMENT GROWTH EXPANSION AND BALANCE WITH ENVIRONMENTAL ENDOWMENT	
11.4.2 OVERARCHING OBJECTIVE 2: ECONOMIC OPPORTUNITIES AND EMPLOYMENT CREATION	
11.4.3 OVERARCHING OBJECTIVES 3: EQUITABLE, COHESIVE AND LIVELY TOWN	
12. SPATIAL STRUCTURING ELEMENTS	
12.1 SPATIAL STRUCTURING	
12.1.1 SYSTEM OF ACTIVITY NODES	221
12.1.2 PSEDS PROJECTS WITHIN DNDZ MUNICIPALITY	225
12.2 HIERARCHY OF DEVELOPMENT CORRIDORS	
12.2.1 PRIMARY CORRIDOR	228
12.2.2 SECONDARY CORRIDORS	228
12.2.3 TERTIARY CORRIDORS	229
12.2.4 TOURISM ROUTES	230
12.2.5 PSEDS INTERVENTION CORRIDORS WITHIN DNDZ MUNICIPALITY	230
12.3 INTEGRATED PUBLIC TRANSPORT NETWORK (IPTN)	
12.4 DISASTER MANAGEMENT STRATEGIC INTERVENTION	245
12.4.1 DR NDZ MUNICIPAL LOCAL DISASTER MANAGEMENT STRATEGY	
12.4.2 DR NDZ DISASTER RISK REDUCTION PROJECTS	
12.4.3 DISTRICT DISASTER MANAGEMENT STRATEGY	
12.4.4 DISASTER MANAGEMENT STRATEGIES	252
12.4.5 CLIMATE CHANGE RESPONSE PLANS	253
12.4.6 BIODIVERSITY MANAGEMENT	256
12.5 CONTINUUM OF SUSTAINABLE HUMAN SETTLEMENT CLUSTERS	
12.5.1 HOUSING STRATEGIES	257
12.5.2 AREAS SUITABLE FOR HOUSING DEVELOPMENT	
12.5.3 DEMAND FOR FUTURE HOUSING IN MEDIUM AND LONG-TERM	
12.5.4 LAND REQUIRED	

12.5.5 SPECIAL HOUSING INITIATIVES IN DNDZ LM	
12.5.6 LAND RELEASE	
12.5.7 HOUSING DELIVERY	
12.5.8 INTEGRATED MIXED RESIDENTIAL DEVELOPMENT	
12.5.9 SLUMS CLEARANCE	-
12.5.10 RURAL HOUSING: SUSTAINABLE DENSELY AND SPARSELY POPULATED RURAL SETTLEMENTS	
12.6 PROPOSED LAND USES	
12.6.1 PROPOSED COMMERCIAL	
12.6.2 PROPOSED LIGHT INDUSTRIAL	
12.6.3 PROPOSED MIXED USE	
12.6.4 PROPOSED INTEGRATED RESIDENTIAL SETTLEMENTS	
12.6.5 AGRI-TOURISM DEVELOPMENT	
12.6.6 AGRICULTURE AND ECO-TOURISM	
12.6.7 AGRICULTURAL DEVELOPMENT ONLY	
12.6.8 AGRICULTURAL AND LIMITED TOURISM	
12.6.9 FORMALLY CONSERVED	
12.6.10 HERITAGE ASSETS AND NATURAL RESOURCES	
12.6.11 Environmental Management	
12.7 FUTURE DEVELOPMENT DIRECTION	
13. URBAN EDGE	
14. DENSIFICATION	288
14.1 COST BENEFIT ANALYSIS: COMPARISON OF DIFFERENT FORMS OF DENSITIES	201
14.1 COST BENEFIT ANALYSIS. COMPARISON OF DIFFERENT FORMS OF DENSITIES	
14.2 SOCIO-ECONOMIC BENEFITS OF DENSIFICATION	
14.2.1 INNOVATION	-
14.2.2 DENSITY INDUCED ENTERPRISE DEVELOPMENT	
14.2.4 CULTURAL CONSIDERATIONS	

15. ROBUST ECONOMY AND SUSTAINABLE JOB CREATION	
15.1 DEMAND FOR JOBS IN MEDIUM AND LONG-TERM	
15.2 FUTURE ECONOMIC ACTIVITIES AND JOB CREATION	
15.3 SUSTAINABLE LOCAL ECONOMIC DEVELOPMENT	
15.3.1 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY TOURISM SECTOR	
15.3.2 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY COMMERCE AND INFORMAL SECTOR	
15.3.3 UNDERBERG	
15.3.4 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY DAIRY SECTOR	
15.3.5 Skills Development	
16. AGRICULTURAL STRATEGY	324
16.1 AGRICULTURAL DEVELOPMENT	
16.1.1 AGRO-PROCESSING	
16.1.2 TUNNEL FARMING	
16.1.3 FOOD GARDENS	
16.2 AGRICULTURAL LAND CARE	
16.3 PROTECTION OF AGRICULTURAL LAND	
17. NODAL SPATIAL DEVELOPMENT FRAMEWORKS	333
17.1 BULWER TOWN	
17.2 UNDERBERG TOWN	
17.3 DONNYBROOK	
17.4 CREIGHTON TOWN	
17.5 HIMEVILLE	
17.6 CENTOCOW	
17.7 PHOLELA	

TABLE OF FIGURES	
FIGURE 1: MILESTONES & DELIVERABLES	4
FIGURE 2: SDF PROCESS	5
FIGURE 3: LIST OF PROVINCIAL GAZETTE DATES FOR WRITTEN OBJECTIONS	10
FIGURE 4: NATIONAL LEGISLATIVE POLICY FRAMEWORK	15
FIGURE 5: HIERARCHY OF PLANS	17
FIGURE 6: NATIONAL DEVELOPMENT PLAN, VISION 2030	38
FIGURE 7: SONA 2020	39
FIGURE 8: CORE ELEMENTS OF IUDF	43
FIGURE 9: KZN PGDS STRATEGIC FRAMEWORK	46
FIGURE 10: PSEDS NODES AND CORRIDORS	48
FIGURE 11: KZN SDF	49
FIGURE 11: KZN SDF	54
FIGURE 13: CARS WASHED DIRECTLY IN WATER RESOURCES (WETLAND AND STREAM) IN BULWER	74
FIGURE 14: OVERALL POPULATION	138
FIGURE 15: POPULATION BY RACE	138
FIGURE 16: TREND ANALYSIS OF MORTALITY IN KZN	
FIGURE 17: POPULATION PROJECTION	
FIGURE 18: DNDZ POPULATION FORECAST	
FIGURE 19: GENDER & BROAD POPULATION AGE GROUP	147
FIGURE 20: FEMALE HEADED HOUSEHOLDS	148
FIGURE 21: NUMBER OF HOUSEHOLDS	148
FIGURE 22: CHILD HEADED HOUSEHOLDS	148
FIGURE 23: DNDZ EMPLOYMENT BY INCOME	149
FIGURE 24: DNDZ EMPLOYMENT BY EDUCATION	149
FIGURE 25: INCOME LEVEL BY AGE	
FIGURE 26: CAUSES OF DEATH BY DISEASE CATEGORIES	151
FIGURE 27: TEN LEADING CAUSES OF DEATH	151
FIGURE 28: NUMBER OF DEATHS BY GENDER	
FIGURE 29: LANDSCAPE (A)	180
FIGURE 30: PSYCHOLOGICAL IMPORTANCE	181

FIGURE 31: ECOLOGICAL IMPORTANCE	181
FIGURE 32: ECONOMIC IMPORTANCE	181
FIGURE 33: CULTURAL IMPORTANCE	
FIGURE 34: LANDSCAPE AND BUILT FORM	182
FIGURE 35: POVERTY LEVELS	191
FIGURE 35: POVERTY LEVELS	194
FIGURE 37: IDEAL WASTE WATER TREATMENT WORK SCHEMATIC	195
FIGURE 38: COAL POWERED PLANT SKETCH	198
FIGURE 39: TRANSPORTATION OF ENERGY TO ALL HOUSEHOLDS	198
FIGURE 40: MSUNDUZI SDF LEGEND	222
FIGURE 41: SPATIAL VISION	
FIGURE 42: SPATIAL PRINCIPLES	210
FIGURE 43: PSEDS PROJECTS WITH THE HGDM	226
FIGURE 44: ROAD UPGRADES BY KZN DOT	234
FIGURE 45: HARRY GWALA PUBLIC TRANSPORT CORRIDORS	236
FIGURE 46: PHASE 1 AND 2 PROPOSED SCHEDULED SERVICE ROUTES	238
FIGURE 47: PHASE 1, 2 AND 3 PROPOSED SCHEDULED SERVICE ROUTES	239
FIGURE 48: ROAD UPGRADES AS IDENTIFIED BY THE HGDM IPTN	240
FIGURE 49: PROPOSED RANK UPGRADES	241
FIGURE 50: UNDERBERG CBD SIDEWALK UPGRADE	242
FIGURE 51: BULWER CBD SIDEWALK UPGRADE	243
FIGURE 52: ST CATHERINE HOSPITAL SIDEWALK UPGRADE	244
FIGURE 53: EQUIPMENT REQUIREMENTS TO DEAL WITH SNOW	247
FIGURE 54: FIRE BEATERS	253
FIGURE 55: DNDZ MUNICIPAL DEVELOPMENT AREAS (A)	266
FIGURE 56: HUMAN SETTLEMENTS PRIORITY AREAS	267
FIGURE 57: DNDZ MUNICIPAL DEVELOPMENT AREAS (B)	268
FIGURE 58: HOUSEHOLD INCOME, DETERMINING HOUSEHOLD NEED	270
FIGURE 59: LOW COST, SOCIAL HOUSING & OPEN HOUSING MARKET	271
FIGURE 60: PROJECTED DEMAND FOR LOW COST HOUSING MARKET	271
FIGURE 61: PROJECTED DEMAND FOR SOCIAL HOUSING MARKET	272
FIGURE 62: PLANNED HOUSING AS PER 2017 IDP	274
FIGURE 63: PLANNED HOUSING IN RELATION TO DEVELOPMENT AREAS PER RESTRICTIONS PREVIOUSLY IDENTIFIED	275
FIGURE 64: PERILS OF SPRAWL	291

FIGURE 65: DENSITY INDUCED COST EFFICIENCY	291
FIGURE 66: HGDM - LED: DRIVERS OF GROWTH	297
FIGURE 67: SHAYA MOYA TRAIN EXPRESS	302
FIGURE 68: UKHAHLAMBA DRAKENSBURG MOUNTAINS	313
FIGURE 69: RAIL BIKES - TOURISM PRODUCT	315
FIGURE 70: EXAMPLE OF AVI TOURISM	315
FIGURE 71: HISTORIC MISSIONS	316
FIGURE 72: CERTIFIED SKILLS IN DR NKOSAZANA DLAMINI ZUMA	322
FIGURE 73: HIGHEST LEVEL OF EDUCATION IN DR NKOSAZANA DLAMINI ZUMA	323

LIST OF TABLES

TABLE 1: COMMENTS FROM COGTA & DRDLR	6
TABLE 2: COMMENT FROM EDTEA	6
TABLE 3: COMMENTS FROM STATS SA	7
TABLE 4: MDB CHANGES	10
TABLE 5: LEGISLATIVE MANDATES	19
TABLE 6: INTERPRETATION OF SCORES FOR DETERMINING PRESENT ECOLOGICAL STATUS (KLEYNHANS 1999)	72
TABLE 7: ECOLOGICAL IMPORTANCE AND SENSITIVITY CATEGORIES.	72
TABLE 8: TERRESTRIAL BIODIVERSITY	78
TABLE 9: VULNERABILITY INDICATORS FOR HGDM	84
TABLE 10: PROTECTED AREAS AND OTHER CONSERVATION AREAS WITHIN DR. NDZ LM	86
TABLE 11: RATE OF BABIES BORN	139
TABLE 12: KZN MORTALITY TRENDS	139
TABLE 13: DR NKOSAZANA DLAMINI ZUMA MORTALITY TRENDS	139
TABLE 14: CENSUS 2001 RURAL POPULATION	146
TABLE 15: CENSUS 2011 URBAN AND RURAL POPULATION	146
TABLE 16: UBUHLEBEZWE AND DR NKOSAZANA DLAMINI ZUMA CROSS-BORDER PROJECTS	214
TABLE 17: IMPENDLE AND DR NKOSAZANA DLAMINI ZUMA CROSS BORDER PROJECTS	215
TABLE 18: MSUNDUZI AND DR NKOSAZANA DLAMINI ZUMA CROSS BORDER PROJECTS	219
TABLE 19: RICHMOND AND DR NKOSAZANA DLAMINI ZUMA CROSS BORDER PROJECTS	220
TABLE 20: UMZIMKHULU AND DR NKOSAZANA DLAMINI ZUMA CROSS BORDER PROJECTS	220
TABLE 21: MANAGING DEVELOPMENT GROWTH AND BALANCE WITH ENVIRONMENTAL PROTECTION	216

TABLE 22: EMPLOYMENT AND ACCESS TO ECONOMIC OPPORTUNITIES	218
TABLE 23: COHESION AND LIVELY ENVIRONMENT	220
TABLE 24: NODAL CLASSIFICATION	221
TABLE 25: CORRIDOR CLASSIFICATION	227
TABLE 26: CLIMATE CHANGE - AGRICULTURE RESPONSIVE PROJECTS	253
TABLE 27: CLIMATE CHANGE - BIODIVERSITY RESPONSIVE PROJECTS	254
TABLE 28: CLIMATE CHANGE - HUMAN HEALTH RESPONSIVE PROJECTS	254
TABLE 29: CLIMATE CHANGE DISASTER MANAGEMENT, INFRASTRUCTURE & HUMAN SETTLEMENTS PROJECTS	254
TABLE 30: CLIMATE CHANGE WATER PROJECTS	255
TABLE 31: EXISTING HOUSING PROJECTS	273
TABLE 32: PLANNED (RURAL) HOUSING PROJECTS	273
TABLE 33: RECOMMENDED PRACTICES FOR MAINTAINING HERITAGE ASSETS	279
TABLE 34: RECOMMENDED PRACTICES FOR PRESERVING NATURAL RESOURCES	280
TABLE 35: CULTURAL CONSIDERATIONS	292
TABLE 36: PROJECTED DEMAND FOR JOBS 2001-2041	293
TABLE 37: PROJECTED NUMBER OF JOBS TO BE CREATED IN THE NEXT 20 YEARS	295
TABLE 38: LED PROJECT MATRIX & LOCATION	300
TABLE 39: TOURISM SPECIFIC INFRASTRUCTURE POTENTIAL PROJECTS	303
TABLE 40: TOURISM SUPPORTING INFRASTRUCTURE POTENTIAL PROJECTS	304
TABLE 41: RAIL INFRASTRUCTURE POTENTIAL PROJECTS	304
TABLE 42: ROAD AND WATER INFRASTRUCTURE POTENTIAL PROJECTS	305
TABLE 43: RECOMMENDED AGRICULTURAL PRACTICES	330

LIST OF MAPS MAP 1: REGIONAL CONTEXT 12 MAP 2: LOCALITY _____ 13 MAP 3: TRADITIONAL AUTHORITIES 14 MAP 4: KZN SDF 62 _____ MAP 5: URBAN ACCESSIBILITY WEIGHTING 63 MAP 6: ENVIRONMENTAL SENSITIVITY 64 MAP 7: PRIORITY INTERVENTION AREAS 65 MAP 8: ECONOMIC POTENTIAL 66

MAP 9: SOCIAL NEEDS	67
MAP 10: DNDZ WITHIN THE REGIONAL CONTEXT	69
MAP 11: HYDROLOGICAL FEATURES	
	73
MAP 13: WATER QUALITY ES SCORE	75
MAP 14: WATER QUALITY EI SCORE	76
MAP 15: ENVIRONMENTAL SENSITIVE AREAS	79
MAP 16: BIODIVERSITY CONSERVATION	80
MAP 17: GEOLOGY	81
MAP 18: TOPOGRAPHY	88
MAP 19: CLIMATE POTENTIAL	89
MAP 20: VEGETATION TYPES	91
MAP 21: HAZARD ANALYSIS: DROUGHT	120
MAP 22: HAZARD ANALYSIS: FIERCE WINDS	121
MAP 23: HAZARD ANALYSIS: FLOODS	122
MAP 24: HAZARD ANALYSIS: HAILSTORM	
MAP 25: HAZARD ANALYSIS: HEAVY RAIN	124
MAP 26: HAZARD ANALYSIS: LIGHTNING	125
MAP 27: HAZARD ANALYSIS: SNOW	126
MAP 28: HAZARD ANALYSIS: STORMS	127
MAP 29: HAZARD ANALYSIS: STRUCTURAL FIRES	128
MAP 30: HAZARD ANALYSIS: VELD FIRES	129
MAP 31: HAZARD ANALYSIS: ACCIDENTS	130
MAP 32: DISASTER PRONE AREAS	131
MAP 33: POPULATION DISTRIBUTION	144
MAP 34: FIVE YEAR POPULATION ESTIMATE	145
MAP 35: PRESSURE POINT 1: BULWER TOWN	
MAP 36: PRESSURE POINT 2: UNDERBERG TOWN	
MAP 37: PRESSURE POINT 3: CREIGHTON	160
MAP 38: PRESSURE POINT 4: HIMEVILLE	161
MAP 39: PRESSURE POINT 5: DONNYBROOK	162
MAP 40: PRESSURE POINT 6: PHOLELA	100
MAP 41: PRESSURE POINT 7: CENTECOW	164
MAP 42: PRESSURE POINT 8: DAZINI	165

MAP 43: PRESSURE POINT 9: MEMELA	166
MAP 44: PRESSURE POINT 10: MASOMENI	167
MAP 45: PRESSURE POINT 11: MQATSHENI	
MAP 46: SETTLEMENT DENSITY	171
MAP 47: AGRICULTURAL CATEGORIES	172
MAP 48: BROAD LAND USES	173
MAP 49: OWNERSHIP	174
MAP 50: LAND REFORM: SETTLED CLAIMS	175
MAP 51: LAND REFORM: STATUS OF CLAIMS	176
MAP 52: ROAD NETWORK	178
MAP 53: HERITAGE LANDMARKS	183
MAP 54: HGDM AGRI HUBS	187
MAP 55: AGRICULTURAL LAND CATEGORIES	188
MAP 56' ACT 70 OF 70	189
MAP 57: HOUSEHOLDS WITH NO ACCESS TO INCOME	192
MAP 58: TARGETED AREAS FOR POVERTY ALLEVIATION	193
MAP 59: HOUSEHOLDS WITH NO ACCESS TO PIPED WATER	196
MAP 60: HOUSEHOLDS WITH NO SANITATION	
MAP 61: BULK ELECTRICAL INFRASTRUCTURE	199
MAP 62: HOUSEHOLDS WITH NO ELECTRICITY	200
MAP 63: WASTE DISPOSAL SITES	
MAP 64: HEALTH FACILITOIES	206
MAP 65: EDUCATION FACILITIES	207
MAP 66: SAFETY & SECURITY	208
MAP 67: HGDM SDF	212
MAP 68: GKLM SDF	216
MAP 69: UBUHLEBEZWE SDF	217
MAP 70: IMPENDLE SDF	218
MAP 71: MSUNDUZI SDF	221
MAP 72: VULINDLELA LAP	223
MAP 73: RICHMOND SDF	224
MAP 74: UMZIMKHULU SDF	225
MAP 75: CROSS BOARDER PLANNING	227
MAP 76: MUNICIPAL VISION	207

MAP 77: FIVE YEAR CONCEPTUAL PLAN	209
MAP 78: NODES	222
MAP 79: CORRIDORS	231
MAP 80: ACTIVITY SPINE	232
MAP 81: GQUMENI	233

1. INTRODUCTION

1.1 BACKGROUND

Dr Nkosazana Dlamini Zuma Local Municipality (DNDZ LM) is reviewing its Spatial Development Framework (SDF) for the current Financial Year 2020/21. This is the last review within the fourth generation of SDFs. This review is informed mainly by two reasons. Firstly, the review of the DNDZ SDF is a legal requirement in terms of the following legislation:

- The Constitution of the Republic of South Africa, (Act No. 108 of 1996) confers to municipalities major developmental responsibilities intended to improve quality of life people residing and/or working within a municipality's area of jurisdiction. An SDF therefore, forms part of the systems and procedures at the disposal of the municipality to perform on its developmental mandate and facilitate removal of spatial remnants of the apartheid past. The main purpose of the SDF is to guide the form and location of future spatial development within Dr Nkosazana Dlamini Zuma. It is a legislative requirement and has a legal status.
- Section 26 (e) of the Local Government: Municipal Systems Act, No. 32 of 2000 (MSA) stipulates that all municipalities are required to compile Spatial Development Frameworks as a core component of their Integrated Development Plans (IDPs). The MSA also stipulates that central to an SDF is a Strategic Environmental Assessment of the SDF proposals which is undertaken in order to ensure that an SDF is based on sound empirical analysis and is economically, socially, ecologically and

institutionally sustainable. It is within this context that the Dr Nkosazana Dlamini Zuma LM is reviewing its SDF as part of the IDP review process.

Section 20 (1) the Spatial Planning and Land Use Management Act, 2013 (SPLUMA) stipulates that the Municipal Council of the municipality must by notice in the Provincial Gazette adopt a municipal spatial development framework of the municipality. Section 20 (2) reinforces the provisions of the MSA in that the municipal spatial development framework must be prepared as part of the integrated development plan. Most importantly, the SDF is intended to facilitate the development of a spatial structure that promotes integrated development and enables an efficient delivery of services. It will give direction to future planning and development within the NDZ.

Secondly, the DNDZ LM is intending to prepare a credible SDF in accordance with the Guidelines for the development of Municipal Spatial Development Frameworks. The National Department of Rural Development and Land Reform (DRDLR) published a manual on the preparation of SDFs titled "SDF Guidelines: Guidelines for the Development of Provincial, Regional and Municipal Spatial Development Frameworks and Precinct Plans" (2017) to guide the development of SPLUMA compliant Spatial Development Frameworks. The Department of Cooperative Governance and Traditional Affairs (COGTA) and the municipality also consider it appropriate to consider these guidelines in reviewing the SDF in line with its new role as expected and elaborated in the SPLUMA.

Therefore, the review will take into account policy shifts at national, provincial and regional level. The SDF would need to also examine the extent of demographic, social, economic and spatial changes during that time.

Moreover, a number of sector plans have been developed/reviewed which impact on the municipal space such as the; Housing Sector Plan, Three Year Capital Investment plan, Local Development Strategy and Tourism Plan and this necessitates a constant revisit of the SDF to accommodate any changing circumstances in the development of the area. In summary, the SDF has the following benefits:

- facilitates decision making with regard to the location of service delivery projects and guides public and private sector investment;
- it strengthens democracy and spatial transformation and facilitates effective use of scarce land resources;
- It promotes intergovernmental coordination on spatial issues and serves as a framework for the development of detailed

1.2 AIMS & OBJECTIVES

The SDF should be developed to give effect to Section 21 of SPLUMA and the vision, objectives and strategies of the adopted Municipal IDP and must therefore attend to the following:

- An agreed upon long term spatial development vision, which indicates a desired spatial growth and development pattern for the next 10 to 20 years.
- Give effect to the development principles and applicable norms and standards as set out in chapter 2 of SPLUMA.
- Include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality
- Identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public policy and private investment will be prioritized.
- Include population growth estimates for the next five years.
- Include estimates of the demand for housing units across different socio-economic categories and the planned location and density of future housing developments.
- Include estimates of economic activity and employment trends and locations in the municipal area for the next five years.
- Identify, quantify and provide location requirements of engineering infrastructure and services provision for existing and future development needs for the next five years.
- Identify the designated areas where national or provincial inclusionary housing policy may be applicable.

- Include a strategic assessment of the environmental pressures and opportunities within the municipal area including the spatial location of environmental sensitivities, high potential agricultural land.
- Identify the designation of areas in the municipality where the incremental upgrading approaches to the development and regulation will be applicable.
- Identify the designation of areas in which more detailed local plans must be developed, and shortened land use development procedures may be applicable and land use schemes may be so amended
- Provide the spatial expression of the coordination, alignment and integration of sectoral policies of all municipal departments.
- Determine a capital expenditure framework for the municipality's development programme, depicted spatially.
- Determine the purpose, desired impact and structure of the land use management scheme to apply in that municipal area.
- Include an implementation plan comprising of sectoral requirements including budgets and resources implementation; necessary amendments to a land use scheme; specification of institutional arrangements necessary for implementation; specification of institutional arrangements necessary for implementation; specification of implementation targets including dates and monitoring indicators; specification where necessary of any arrangements for partnerships in the implementation process.

Notwithstanding the requirements of SPLUMA, it is also necessary to address the following as required by the Municipal Systems Act:

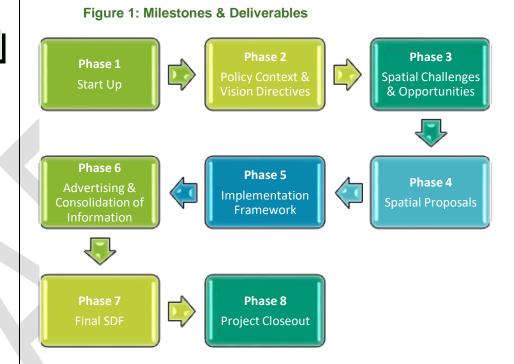
to address spatial reconstruction;

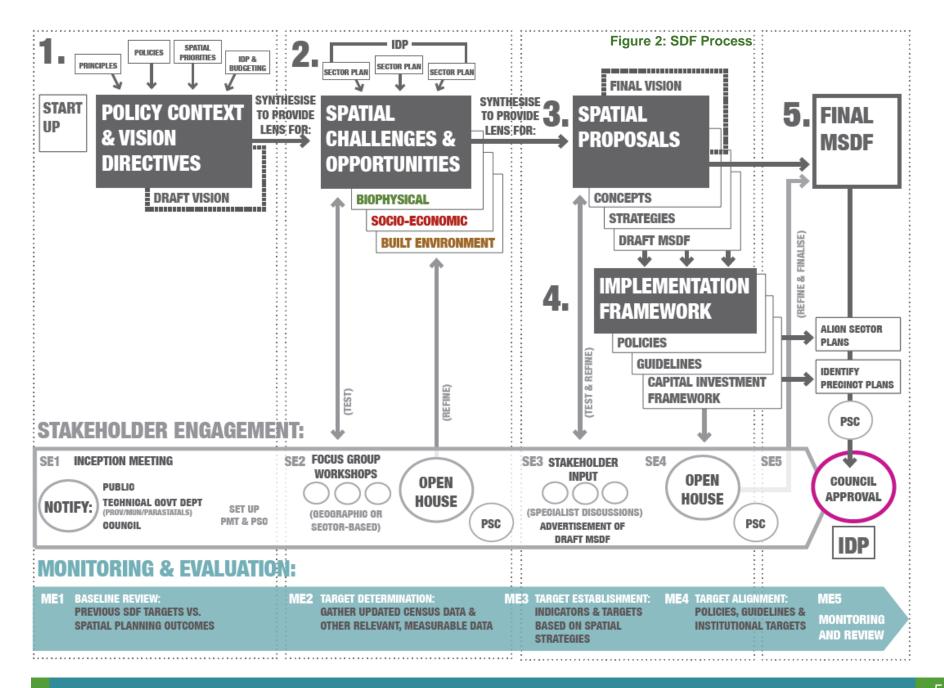
- to align with the spatial development frameworks reflected in the integrated development plans of neighboring Municipalities;
- to indicate desired or undesired utilization of space in a particular area;
- to delineate an urban edge; and
- Must identify areas where strategic intervention is required and must identify areas of priority spending.
- Must set out a capital investment framework for the municipality's development programmes.

1.3 APPROACH

The approach to be utilized in this process was taken from the DRDLR Guidelines. To ensure a credible SDF, the following diagram illustrates the process that will used in the SDF review:

- Phase 1: Start up,
- Phase 2: Policy Context & Vision Directives,
- Phase 3: Spatial Challenges & Opportunities,
- Phase 4: Spatial Proposals,
- Phase 5: Implementation Framework,
- Phase 6: Advertising & Consolidation of Information,
- Phase 7: Final SDF
- Phase 8: Project Closeout.





1.4 ADDRESSING MEC COMMENTS

In terms of the MSA, municipalities are required to submit their adopted IDPs (together with sector plans such as the SDF, LED etc.) for commenting to the Department of Cooperative Governance Traditional Affairs (CoGTA). Harry Gwala District Municipality submitted their documents for the IDP/SDF assessment last year in June 2019. The MEC for CoGTA provided a letter detailing all the issues that needed attention in the IDP and SDF. The review process is aimed at revising and updating the current framework taking into consideration new trends, information and policies. Below are key comments from CoGTA and other relevant and divergent departments which needed to be addressed:

1.4.1	KZN	Department	of	Cooperative	Governance	and
	Trad	itional		Affairs		&
	Dep	artment of A	gric	ulture, Land	Reform and I	Rural
	Deve	lopment				

Table 1: Comments from COGTA & DRDLR

Comments	Action
The SDF & IDP contains a	
	and tables because some of the
demographic data covering the	information is difficult to map.
District. SDF covers ward based	
population analysis – as well as	
population projects, however	
the information needs to be	
mapped.	

In terms of economic activity & employment trends, the SDF provides an understanding of the existing situation, however does not provide estimations for the future.	The Economic drivers map that shows economic activity and employment trends has been included.
The SDF provides analysis of the existing engineering infrastructure and service provisions however it lacks to provide estimations for the next five years.	This will be addressed in the next phase with the assistance of HGDM, DoHS and Eskom.
The SDF provides an analysis of the current level of development, further identifying areas for service delivery, aligned to proposed projects.	Noted
The SDF & IDP have a long-term vision aligned to goals & objectives.	Noted

1.4.2 KZN Department of Economic Development, Tourism and Environmental Affairs

Table 2: Comment from EDTEA

Comments	Action
No information provided under	Map showing location of Transfer
waste management, no maps	Station and Buy Back Centre and
and no summary in respect of	information from IWMP has been
backlogs, priority areas, etc.	included.

No information on the state of waste disposal, no mention of by-laws and no Integrated Waste Management Plan (IWMP). (Information was there in 2019/20). It is recommended that the IWMP be finalized.					
Municipality is commended on having a buy-back centre as response to waste management.	Noted		Demographic characteristics are included although some key information is not included. Especially for the Census 2011 in the IDP.	Key information showing population estimate, economic indicators and causes of death.	
The Municipality is commended for developing and finalizing its Environmental Management Plan (EMP). There needs to implementation of the identified interventions.	Noted		The SDF makes use of Census 2011 for some of the indicators.	Noted	
The identified environmental interventions (as per the EMP) need to be incorporated into the IDP implementation action plan	This will be addressed in the next phase		Many indicators in the SDF are not sourced and in some cases, it does not discuss the level at which the indicator is reported.	Information is now referenced and sourced especially that from STATS SA	
with budget allocation.			A number of demographic characteristics such as mortality, fertility, amongst others are not included. Migration information is captured in the SDF but not in the IDP	Noted. To consult with IDP officer and align with the IDP	
			The population distribution within the municipality is presented through graphs. There is a lack of mapping to indicate the population distribution within the IDP	Population distribution map per ward has been included.	

2. OVERVIEW OF THE MUNICIPALITY

2.1 REGIONAL CONTEXT

Dr Nkosazana Dlamini Zuma Local Municipality was established by the amalgamation of Ingwe Local Municipality and Kwa Sani Local Municipality on 3 August 2016. The municipality has its administrative seat in Creighton. It is 112 km south-west of Howick and 176 km north-east of Kokstad. Dr Nkosazana Dlamini Zuma is a category B municipality which falls within Harry Gwala District Municipality. It is located on the southern part of Harry Gwala District Municipality and is approximately 80 kilometres South-Western part of Pietermaritzburg, the capital city of the Province. It is bordered by Impendle Municipality to the north, Richmond Municipality to the north-east, Ubuhlebezwe Municipality to the south-east, Greater Kokstad Municipality to the south and Kingdom of Lesotho to the west. It is approximately 3200 km2 in extent with an estimated population of 118 480 as per 2016 Community Survey.

Other key defining features of Dr Nkosazana Dlamini Zuma Municipality includes the following:

- It is a rural municipality with five (5) rural towns which include Underberg, Himeville, Creighton, Bulwer and Donnybrook.
- It is home to the Southern Berg (uKhahlamba Drakensberg World Heritage Site) which is an area of outstanding natural beauty.

- The geographical size following the 2016 amalgamation made it the largest municipality within Harry Gwala District Family.
- It is one of the important agricultural hubs (Dairy livestock industry), semi-intensive beef, potato production and a strong commercial forestry sector within Harry Gwala District.
- It is also characterised with numerous opportunities for tourism which includes Rail and Avi-Tourism.

2.2 ADMINISTRATIVE ENTITIES

2.2.1 Current Ward Boundaries

Dr Nkosazana Dlamini Zuma Municipality is predominantly rural in nature and character. It is the largest local municipality within the district, constituting 35 % of the area. There are 15 wards with 29 Councillors, 15 Ward Councillors and 14 PR Councillors. Dr Nkosazana Dlamini-Zuma Local Municipality fulfils the role of being the administrative and commercial center for the district.

2.2.2 Proposed Ward Delimitation

Ward delimitation is the responsibility of the Municipal Demarcation Board (MDB) which is identified by the Local Government: Municipal Structures Act, 1998 as an independent authority which performs its functions impartially, and without fear, favour or prejudice. The aim of ward delimitation is to ensure that all wards in the municipality have approximately the same number of voters. The process of ward delimitation occurs just before local government elections and involves rigorous consultation between the role players. The intention of the consultative process is to allow municipalities to show the people in their areas what the MDB is proposing with respect to wards in their Municipalities.

Education and Awareness campaigns were conducted by the MDB before commencing with the actual ward delimitation process. During February and March 2019, ward delimitation education and awareness sessions were held which mainly targeted Ward Committees, Community Development Workers and Members of the Public.

The Formulae and the number of councillors and wards is determined by the Minister of Cooperative Governance and Traditional Affairs (COGTA), the MDB has no mandate to deal with the formulae or the number of councillors. The formulae were published on 5th July 2019 in Government Gazette number 42568 and Notice number 967.

First Set of Draft Ward Maps – After the number of councillors are published the MDB determined the number of wards per municipality

by dividing the published number of councillors by two. The MBD calculated and determined the **Norm** (which is the average number of registered voters per ward) and the 15% variances. MDB then prepared the first set of draft ward maps which served as a starting point for discussion on possible configuration of municipal wards during the technical consultations. Dr Nkosazana Dlamini Zuma Municipality had their technical consultation with MDB on the 8th-9th October 2019.

Dr Nkosazana Dlamini Zuma Municipality had its public consultation meeting on the 19th February 2020 at Bulwer Hall, at the public consultation process members of the public and stakeholders were afforded the opportunity to make inputs or submit proposals. The closing date for submission of inputs and proposals was 30th April 2020. Due to the National Lockdown Regulations, the MDB revised their ward delimitation programme. The programme divided municipalities in the country into two groups i.e. Batch 1 and Batch 2 depending on the stage at which the municipality is in with the ward delimitation process. Dr Nkosazana Dlamini Zuma municipalities the MDB could not visit before the declaration of the state of national disaster and lockdown. Stakeholders and members of the public for Batch 1 municipalities were given until the 31st of May 2020 to submit written proposals.

After the closing date for submissions, the MDB analysed all submissions received. On 22 July 2020, the Board considered all submissions, delimited wards and resolved to publish all wards affecting Batch 1 municipalities for objections in the relevant provincial gazettes. In terms of Schedule 1 of the Local Government:

Municipal Structures Act (Act 117 of 1998), members of the public are allowed 14 days from the date of publication of the relevant provincial gazette to submit written objections to the MDB. The MDB issued several media alerts (MDB website, social media, etc.) in the last few weeks to advise on the publications. Provincial gazettes were published on different dates as reflected in the table below:

Province	Publication Date	Gazette No	Notice No	Closing Date
Eastern Cape	03 August 2020	4426	103	16 August 2020
Kwazulu Natal	06 August 2020	2201	73	19 August 2020
Mpumalanga	07 August 2020	3179	77	20 August 2020
Gauteng	12 August 2020	138	310	25 August 2020

Figure 3: List of Provincial Gazette dates for written objections

In the MDB proposal, it was discovered that Ward 6 and Ward 8 exceeded the norm and in order to rectify this problem, the MDB proposed to make the following changes to the affected wards:

- Ward 6: MDB moved Qulashe Combined Primary School VD which has a total number of 778 registered voters to Ward 3.
- Ward 8: MDB proposed to move a portion of Gxalingenwa Primary School VD which has a total number of 20 registered voters to ward 5.

The following table represents the proposals which were made to MDB:

Table 4: MDB changes

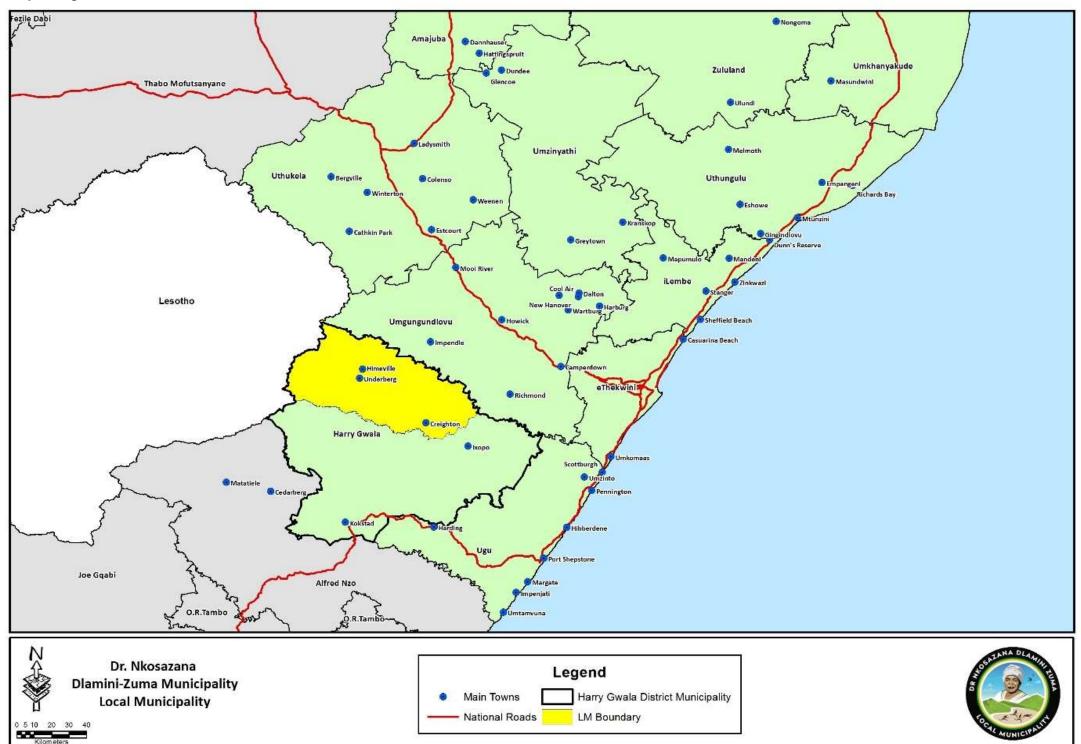
Proposal	Reason
Ward 6 Centocow High School VD with a total of 706 registered voters to move to ward 5	 Previously the Centocow High School VD was part of Ward 5, Qulashe VD is far from central point of ward 3 as proposed by MDB, therefore Qulashe VD will remain under Ward 6.
Ward 12 Mnywaneni Primary School VD to move to Ward 15	 Ward 15 councillor is currently servicing Mnywaneni Primary School VD as a result of distance.
Ward 9 Engudwini Primary School VD a portion to move to Ward 12.	• Engudwini Primary School VD is closer to ward 12 and can be easily serviced and accessed by ward 12 councillor
Ward 8 to move a portion of Gxalingenwa Primary School VD (20 voters) to be moved to Ward 5	• The municipality support the proposal by MBD to move a portion of Gxalingenwa Primary School VD from ward 8 to ward 5.

2.2.3 Traditional Boundaries

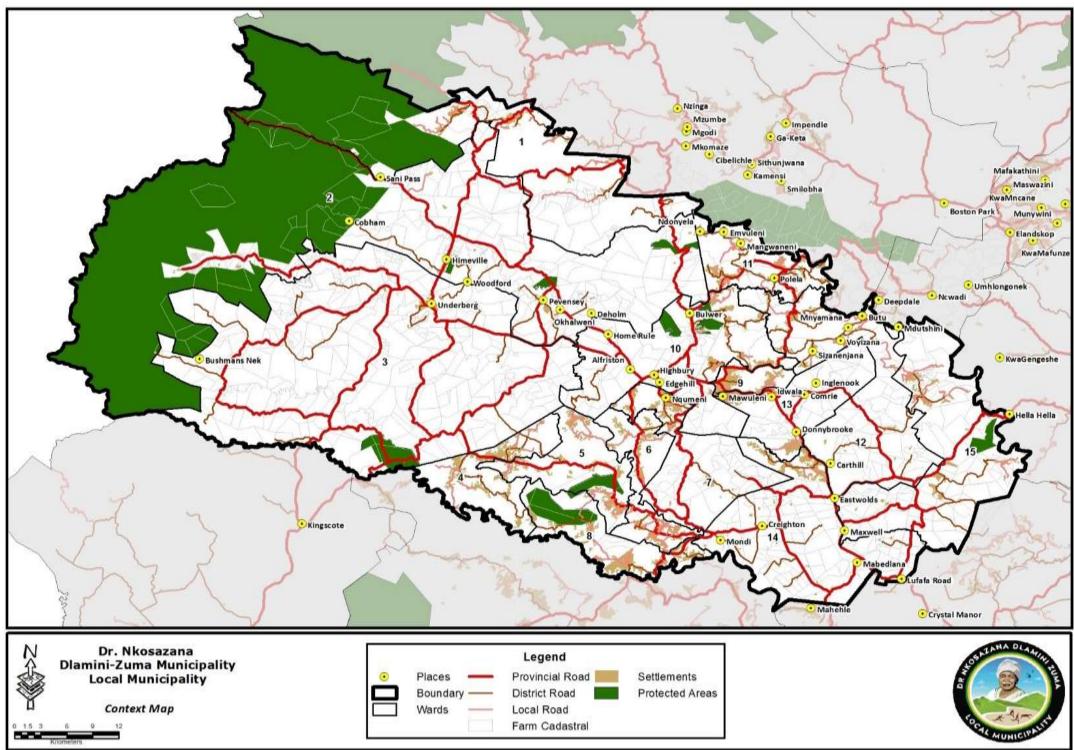
DNDZ LM is predominantly rural in nature and character. The municipal area consists of 14 Traditional Council areas, which dominate the area, namely; Batlokoa, Isiminza, Nxamalala, Madzikane-Bhaca T.A, Isibonela Esihle T.A, Amakuze T.A, Sizanani T.A, UMacala-Gwala T.A, Zashuke T.A, Qadi T.A, Bidla T.A, Vukani T.A, Amangwane T.A, and Vezakuhle T.A. There are also a number of rural settlements within the above traditional areas where the majority of the population is resident. In addition to this the areas of Thunzi, Ngqiya, Ridge and Stepmore will be reincorporated from Impendle as a result of amalgamation.

Commercial agriculture dominates the land use due to the medium to high agricultural potential of a large part of the municipal area. Forestry plantations occur throughout the area and sugarcane is grown in the eastern half of the municipal area. Smaller areas of land which are irrigated for commercial purposes are dispersed throughout the area. The municipality is known for the World Heritage Site of uKhahlamba, which brings local and foreign tourists to the mountain area. The relatively un-spoilt natural environment has high eco-tourism and adventure tourism potential. Greater diversity of tourism in the district could be achieved through a wide range of facilities and attractions including historical, cultural events and ecotourism adventures.

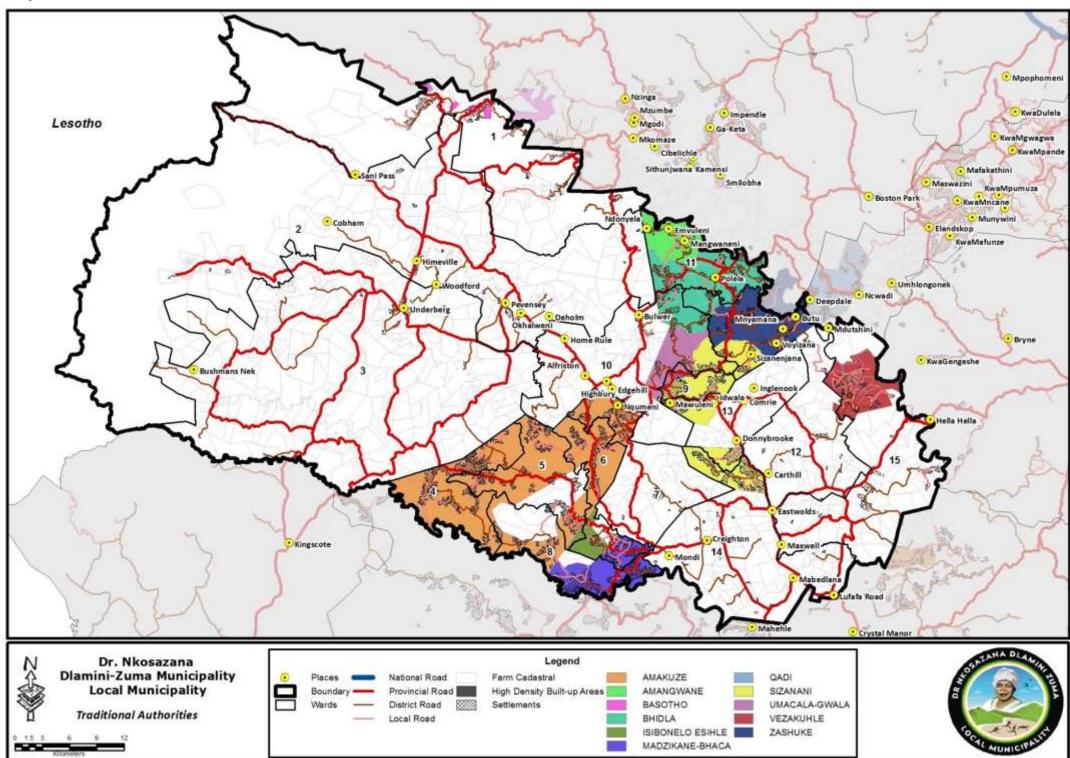
Map 1: Regional Context







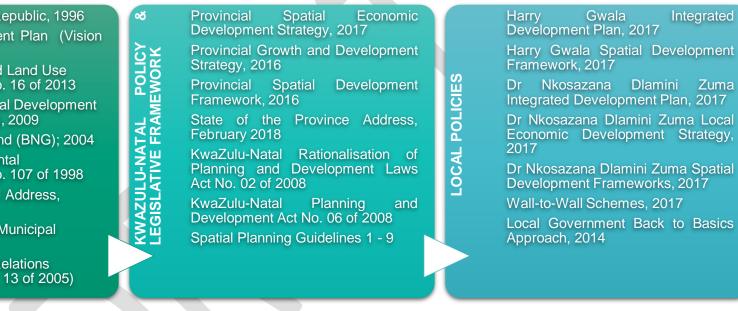
```
Map 3: Traditional Authorities
```



3. LEGISLATIVE & POLICY FRAMEWORK

Figure 4: National Legislative Policy Framework

อ้	Constitution of the Republic, 1996	(
FRAMEWORK	National Development Plan (Vision 2030), 2012	
	Spatial Planning and Land Use Management Act No. 16 of 2013	
	Comprehensive Rural Development Programme (CRDP), 2009	
ЗЩ	Breaking New Ground (BNG); 2004	
	National Environmental Management Act No. 107 of 1998	
GISLA	State of the National Address, February 2018	
LEG	Local Government: Municipal Systems Act, 2000	
	Intergovernmental Relations Framework Act (No. 13 of 2005)	1



3.1 Global Context

The concept of a developmental state which applies to both the country and the province is rooted from the Sustainable Development Goals (SDGs) adopted by United Nations and African Union Agenda 2063 which was adopted by the African Union in 2013 with a vision of "An integrated, prosperous and peaceful Africa driven by its own

citizens and representing a dynamic force in the global arena." It is an approach to how the continent should learn from the lesson of the past, build on progress and strategically exploit all opportunities in the short, medium and long term to ensure positive socio-economic transformation. These are built on the following 10 priority actions:

- Eradicate poverty in a generation by 2025;
- Skills Revolution and in science, technology and innovation;
- Economic Transformation and industrialization through beneficiation of natural resources;
- Connectivity through World Class Infrastructure;
- Free Trade Area;
- Young people as drivers of the African Renaissance;
- Silence the guns;
- Gender Parity;
- African Passport; and
- Strengthen Africa's voice in global negotiations.

Since the whole notion of an evolving and progressive nation and province is not limited to national policy, but inclusive of global programmes above-mentioned (SDGs and AU Agenda), the spatial policy for Dr Nkosazana Dlamini Zuma Municipality should also be in alignment inclusive of the New Africa Urban Agenda. This plan has objectives guided by Africa's Union Agenda and aims to raise the profile of urbanization as a force for the structural transformation of Africa. The program aspires that, by 2063, Africa shall be a prosperous continent with the means and resources to drive its own development, and where African people have a high standard of living and quality of life, sound health and well-being; Well educated citizens and skills revolution underpinned by science, technology and innovation for a knowledge society; Cities and other settlements are hubs of cultural and economic activities, with modernized infrastructure, and people have access to all the basic necessities of life including shelter, water, sanitation, energy, public transport and ICT; Economies are structurally transformed to create shared growth, decent jobs and economic opportunities for all.

The South African national and provincial government's strategies and interventions should be viewed in the context of, and measured against, these international development goals which apply to all countries across the globe. The provincial government has developed its own Growth and Development Strategy, the PGDS, which is closely aligned to both the Sustainable Development Goals. The Sustainable Development Goals serve as a successor to the MDGs. They include 17 goals and 169 targets that capture the global aspirations for sustainable development. The SDF for DNDZ needs to recommend goals set by IDP and consider goals of the district IDP moreover. A comprehensive list of the 17 goals of the SDG is represented below:

- End poverty in all its forms everywhere;
- End hunger achieve food security and adequate nutrition for all, and promote sustainable agriculture;
- Attain healthy life for all at all ages;
- Provide equitable and inclusive quality education and life-long learning opportunities for all;
- Attain gender equality, empower women and girls everywhere;
- Secure water and sanitation for all for a sustainable world;
- Ensure access to affordable, sustainable, and reliable modern energy services for all.
- Promote strong, inclusive and sustainable economic growth and decent work for all;
- Promote sustainable industrialization;
- Reduce inequality within and among countries;
- Build inclusive, safe and sustainable cities and human settlements;
- Promote sustainable consumption and production patterns;
- Promote actions at all levels to address climate change;

- Attain conservation and sustainable use of marine resources, oceans and seas;
- Protect and restore terrestrial ecosystems and halt all biodiversity loss
- Achieve peaceful and inclusive societies, rule of law, effective and capable institutions; and
- Strengthen and enhance the means of implementation and global partnership for sustainable development.

The goals are interconnected, often the key to success on one will involve tackling issues more commonly associated with another. The SDGs work in the spirit of partnership and pragmatism to make the right choices now, to improve life, in a sustainable way, for future generations. They provide clear guidelines and targets for all countries to adopt in accordance with their own priorities and the environmental challenges of the world at large. The SDGs are an inclusive agenda. They tackle the root causes of poverty and unite us together to make a positive change for both people and planet. In South Africa, one of the indicators of progress towards the achievement of the MDGs is the effective and equitable delivery of public services.

Figure 5: Hierarchy of Plans



3.2 NATIONAL LEGISLATIVE CONTEXT

Development within South Africa is guided by a multitude of legislations. Since the introduction of the democratic dispensation in South Africa, the notion of spatial planning, given effect in the form of spatial development plans and spatial targeting, has gained momentum. This is the case in all spheres of government. This followed the realization by national government that the rural areas need attention in terms of development and proper management. Due to a failure by apartheid government to provide a relatively habitable environment in rural areas. In fact, much attention was paid on insensitive controls that were blended with the promotion of racial discriminatory laws that oppressed the majority of the rural population through Betterment Planning and Group Areas Act No 41 of 1950.

At a national level, this focus first emerged within the context of the Reconstruction and Development Programme (RDP) and was given statutory emphasis through the Development Facilitation Act (DFA). Spatial targeting was first built into the Integrated Sustainable Development Strategy (ISRDP) which identified 13 nodal areas. The National Spatial Development Plan (NSDP) was introduced in the early 2000s and has had a profound impact in terms of spatial planning at a national level. It has since been replaced by the National Development Plan 'Vision 2030' (NDP).

The NDP is now widely acclaimed as a blueprint of the country in terms of development. On 6 May 2011, the Department of Rural Development and Land Reform published the Draft Spatial Planning and Land Use Management Bill for public comment. This was passed into law and ascended as legislation in August 2013 (SPLUMA). It

replaced the Development Facilitation Act No 67 of 1995, Removal of Restrictions Act No 84 of 1967, the Physical Planning Act No 88 of 1967 and other laws. SPLUMA provides, inter alia, for a uniform, effective, efficient and integrated regulatory framework for spatial planning, land use and land use management in a manner that promotes the principles of co-operative government and public interest.

It provides for and determines development principles, compulsory norms and standards for land use management, promotes sustainable and efficient use of land. SPLUMA's overarching goal is to fulfil the constitutional mandate by spatially addressing the inequalities manifested in unsustainable settlement pattern which was inherited by the democratic government. SPLUMA also recommends the preparation of norms and standards which provide in-depth knowledge of land use, allocation and practices within the country. This will promote consistency and uniformity in processes and decision making within rural areas. The rest of the policy and legislative framework in KwaZulu-Natal is mentioned below. The local government strategies such as the Spatial Development Framework are developed within the broader framework of these policy intents.

In addition, the SDF is also affected by existing district and local strategic planning documents, such as the Integrated Development Plan, that direct development of the district and local municipalities. This section will provide an overview of the relevant legislation, policies and planning frameworks for global, national, provincial, district, and local government that impact on and direct spatial

development in DNDZ LM. The aim is here to achieve a concise but clear understanding of the intention and implications of these documents in the context of the SDF.

Table 5: Legislative Mandates

ACT	RELEVANT SECTIONS	IMPLICATIONS TO THE DR NDZ SDF
The Constitution of the Republic Act (108 of 1996)	 The Constitution of the Republic of South Africa (Act 108 of 1996) in its desire for local government was conceived as "the local sphere of government with the constitutional mandate to carry out a number of developmental duties". Chapter 7 of the Constitution states that it is the object of local government to "encourage the involvement of communities and community organizations in the matter of local government". Local government must also promote the Bill of Rights, which reflects the nation's values about human dignity, equality and freedom, and uphold the principles enshrined in the Constitution. Section 24 of the Constitution which states the following: <i>"Everyone has the right—</i> to an environment that is not harmful to their health or wellbeing; and to have the environment protected, for the benefit of present and future 	The Constitution is the overarching legislative document in South Africa. It is supreme and supersedes all other laws, meaning citizens of South Africa may contest any law that contravenes the Constitution. Therefore, the SDF of DNDZ ought to contribute towards the realization of the objectives of the Constitution through the provision of guidelines regarding the types of developments and improvements to be made in prioritized areas. These may range from the provision of adequate services, the promotion of social and economic development as well as the preservation and development of sustainable and defensible environments.

generations, through reasonable legislative and other measures that— o prevents pollution and ecological degradation; o promote conservation; and o secure ecologically sustainable	
development and use of natural resources while promoting justifiable economic and social development."	
Furthermore, section 26 of the Constitution states that:	
 everyone has the right to have access to adequate housing; and the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right". 	
In addition, section 153 of the Constitution mandates the developmental duties of municipalities to their planning and development budgets. It mandates the following:	
"A municipality must—	
structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community; and	

	Jarticipate in national and provincial	
	development programmes".	
	The powers and functions for municipalities are outlined in Part A and B of Schedule 4 of the Constitution . They include:	
	 Electricity delivery Supply of water for household use Sewage and sanitation Storm water systems Refuse removal Fire-fighting services Municipal health services Decisions around land use Local roads Local public transport Street trading Abattoirs and fresh food markets Parks and recreational areas Libraries and other community facilities Local tourism 	
The Municipal Systems Act (No. 32 of 2000)	 The Municipal Systems Act (No. 32 of 2000) and associated regulations provide the impetus for integrated development planning in South Africa. Chapter 5 provides for the preparation of IDPs: Section 24 (1) requires that municipalities should align their planning with national and provincial planning as well as those affected municipalities; Section 26 (e) lists the SDF as a core component of an IDP and requires that the 	 The DNDZ SDF should: Identify national and provincial; legislation Identify matters that require alignment between local and district planning Specify principles to be applied; and Determine procedures for coordination and amendment of the plan.

SDF provide guidelines for a municipal land	
use management system.	
Section 27 requires a district municipality to	
adopt a framework for integrated	
development planning that is binding to the	
local and district municipality.	
In the reviewal of the DNDZ SDF, this process	
will be guided by this legislation which specifies	
the following requirements for SDF's:	
Set out objectives that reflect desired-	
spatial form of the municipality;	
Contain strategies, policies and plans which	
must-	
 Indicate desired patterns of land use 	
within the municipality;	
 Address the spatial reconstruction of the 	
location and nature of development	
within the municipality; and	
• Provide strategic guidance in respect of	
the location and nature of development	
within the municipality;	
Set out basic guidelines for land use	
management system in the municipality;	
Contain a strategic assessment of the	
environmental impact of the SDF;	
Identify programs and projects for the	
development of land within the municipality;	
Be aligned with the SDFs reflected in the	
integrated development plans of	
 neighbouring municipalities; and	

	 Provide a visual representation of the desired spatial form of the municipality, which representation; Must indicate where public and private 	
	 Index indexes where public and private land development and infrastructure investment should take place; Must indicate desired or undesired utilisation of space in a particular area; Delineate the urban edge; Must identify areas where strategic intervention is required; and Must indicate areas where priority spending is required. 	
Spatial Planning and Land Use Management Act 16 of 2013	This statute is a framework for spatial planning and land use management in the Republic of South Africa which intends to specify the relationship between the spatial planning and the land use management system and other kinds of planning; to provide for the inclusive, developmental, equitable and efficient spatial planning at the different spheres of government; to provide a framework for the monitoring, coordination and review of the spatial planning and land use management system; to provide a framework for policies, principles, norms and standards for spatial development planning and land use management; to address past spatial and regulatory imbalances; to promote greater consistency and uniformity in the application procedures and decision-making by authorities responsible for land use decisions and development applications; to provide for the	SPLUMA instructs national and provincial government to prepare Spatial Development Frameworks. Municipalities are therefore obligated by this act to ensure that the preparation of the IDPs incorporates Spatial Development Frameworks to outline the current status of each municipality as well as the provision of strategic spatial proposals based on the spatial principles.

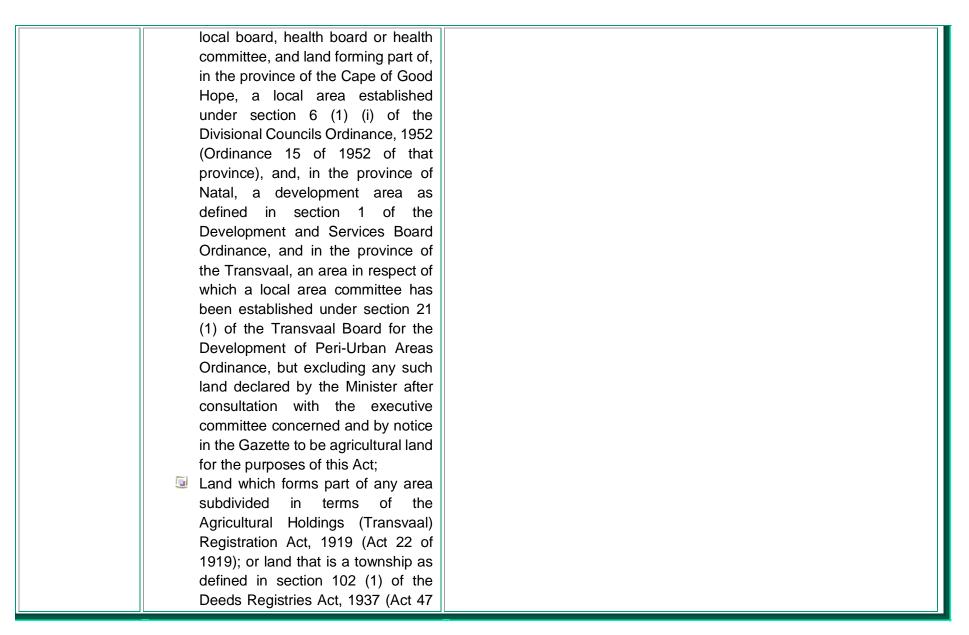
establishment, functions and operations of Municipal Planning Tribunals; to provide for the facilitation and enforcement of land use and development measures; and to provide for matters connected therewith. The role of local government in spatial planning has been re-energized through the introduction of the Spatial Planning and Land Use Management Act No. 16 of 2013 (commonly known as SPLUMA). The intention of this national legislation is to introduce the norms and standards for spatial planning and to specify the relationship between spatial planning and land use management. This is intended to create uniformity and consistency on the manner in which both spatial planning and land use management is practiced within the whole country. Chapter 4 of SPLUMA stipulate the need to prepare Spatial Development Frameworks (SDFs) by all municipalities including the Districts. Part E deals with Municipal Spatial Development Frameworks. Chapter 2 of the SPLUMA contains the development principles which need to be translated in local plans such as schemes. The following development principles are outlined in the SPLUMA: Principle of Spatial justice Principle of Sustainability Principle of Efficiency Principle of Resilience

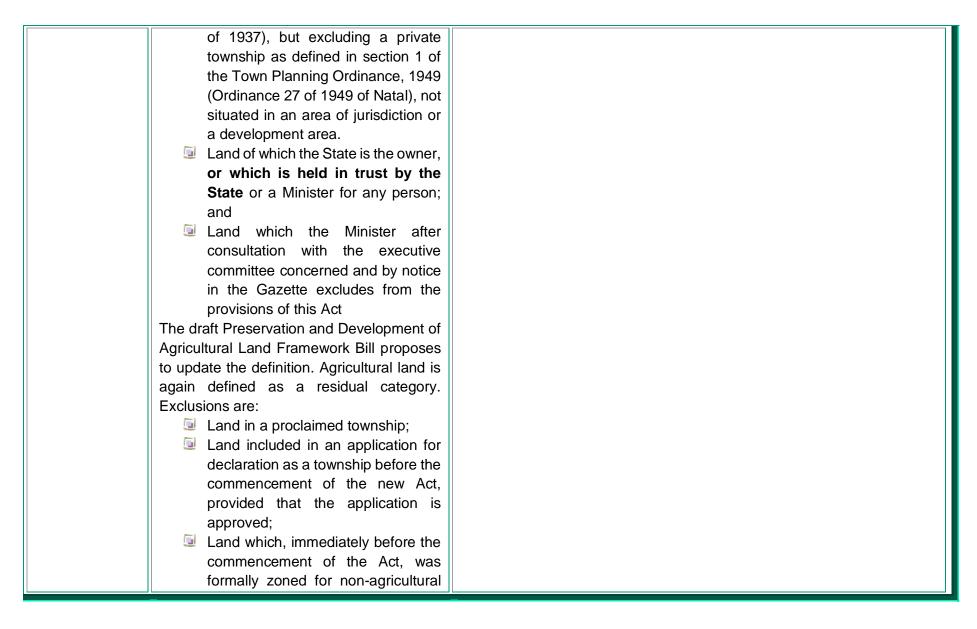
Principle of Good administration	
According to Caption 21 of the Act the enotion	
According to Section 21 of the Act, the spatial development framework must:	
give effect to the development principles	
and applicable norms and standards set out	
in Chapter 2;	
include a written and spatial representation	
of a five-year spatial development plan for the spatial form of the municipality;	
include a longer-term spatial development	
vision statement for the municipal area	
which indicates a desired spatial growth and	
development pattern for the next 10 to 20	
years;	
🧕 identify current and future significant	
structuring and restructuring elements of the	
spatial form of the municipality, including	
development corridors, activity spines and	
economic nodes where public and private investment will be prioritized and facilitated;	
include population growth estimates for the	
next five years;	
include estimates of the demand for housing	
units across different socioeconomic	
categories and the planned location and	
density of future housing developments;	
include estimates of economic activity and	
employment trends and locations in the	
municipal area for the next five years;	
identify, quantify and provide location requirements of engineering infrastructure	
	—

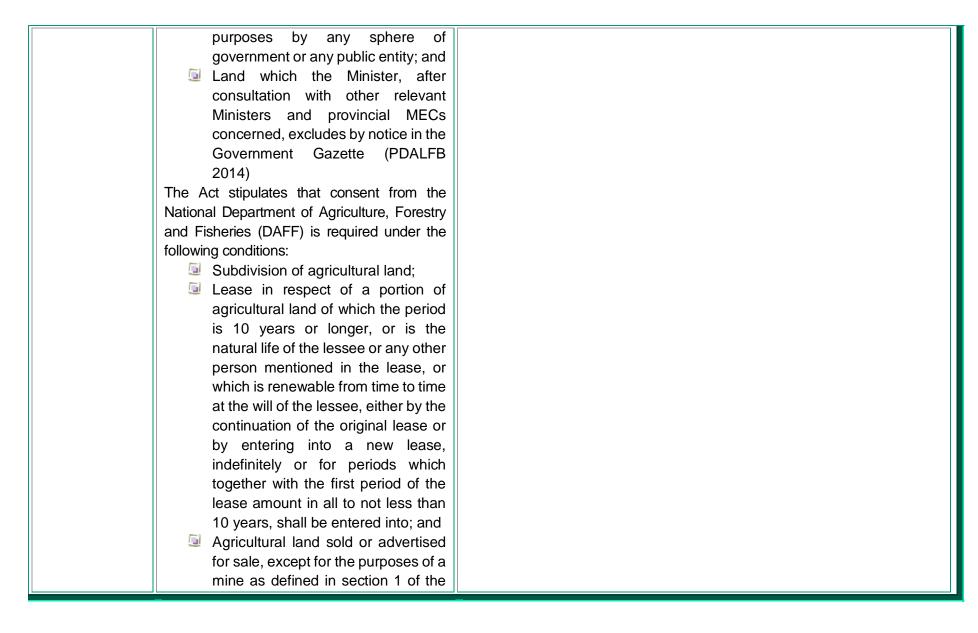
	and services provision for existing and	
	future development needs for the next five	
	years;	
<u></u>	identify the designated areas where a	
	national or provincial inclusionary housing	
	policy may be applicable;	
<u></u>	include a strategic assessment of the	
	environmental pressures and opportunities	
	within the municipal area, including the	
	spatial location of environmental	
	sensitivities, high potential agricultural land	
	and coastal access strips, where applicable;	
្រ	identify the designation of areas in the	
	municipality where incremental upgrading	
	approaches to development and regulation	
	will be applicable;	
5	identify the designation of areas in which—	
	\circ more detailed local plans must be	
	developed; and	
	\circ shortened land use development	
	procedures may be applicable and	
	land use schemes may be so	
	amended;	
<u></u>	provide the spatial expression of the	
	coordination, alignment and integration of	
	sectoral policies of all municipal	
	departments;	
1	determine a capital expenditure framework	
	for the municipality's development	
	programmes, depicted spatially;	
1	determine the purpose, desired impact and	
	structure of the land use management	
	scheme to apply in that municipal area; and	

	 include an implementation plan comprising of— sectoral requirements, including budgets and resources for implementation; necessary amendments to a land use scheme; (iii) specification of institutional arrangements necessary for implementation; specification of implementation targets, including dates and monitoring indicators; and specification, where necessary, of any arrangements for partnerships in the implementation process. 	
National Environmental Management Act (107 of 1998)	The National Environmental Management Act (Act No 107 of 1998) establishes a framework for Environmental Management in South Africa. It provides for Environment Impact Assessment Regulation (and other tools for Integrated Environmental Management) and directives to remedy the effects of environmental damage and control of emergency incidents. The objective of the statute is to provide co- operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state, and to	DNDZ Municipality is characterized by a number of intrinsic environmental qualities which needs to be enhanced and maintained as such it is important to comply with all environmental laws such as the National Environmental Management Act No. 107 of 1998 (NEMA). This act obligates municipalities to create rural and urban spaces which enhance economic opportunities and environments, while preserving the environment for future generation. As such, the SDF ought to take cognisance to the NEMA regulation when developing spatial proposals for all municipal areas.

	 provide for matters connected therewith. The preamble of the act specifies that "sustainable development requires the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations". Chapter 1 of NEMA gives effect to environmental principles that must be implemented for environmental planning. NEMA also informs other pieces of legislation such as: Integrated Coastal Management Act NEM: Biodiversity Act NEM: Protected Areas Act NEM: Waste Management Act NEM: Air Quality Management Act 	
Agricultural Act 70 of 1970	Act 70 of 1970, also referred to as SALA, came into effect on 2 January 1970 and the Act serves the purpose of prohibiting the subdivision of agricultural land to protect land from non-agricultural uses to ensure this land is reserved primarily for agricultural production. Agricultural land in the Act is defined as any land, apart from: I Land located in the jurisdiction of a municipal council, city council, village council, village management board, village management council,	The SDF must identify prime agricultural land and the DNDZ Municipality must guard against non-agricultural uses on such land and prohibit its subdivision.







	Mines and Works Act, 1956 (Act 27 of 1956).	
The Housing Act 107 of 1997	The Housing Act 107 of 1997 (as amended by the Housing Amendment Act 4 of 2001) recognises housing as:	The DNDZ SDF will seek to ensure an orderly development of human settlements where residents have access to services, social and economic amenities.
	 an adequate shelter which fulfils a basic human need; both a product and a process; a product of human endeavour and enterprise; 	
	 a vital part of integrated developmental planning; a key sector of the national economy; vital to the socio-economic well-being of the nation; 	
	According to the Act, every municipality must, as part of the municipality's process of integrated development planning, ensure the following: inhabitants of its area of jurisdiction have access to adequate housing on a	
	progressive basis; conditions not conducive to the health and safety of the inhabitants of its area of jurisdiction are prevented or removed;	
	services in respect of water, sanitation, electricity, roads, stormwater drainage and transport are provided in a manner which is economically efficient;	
	set housing delivery goals in respect of its area of jurisdiction;	

	 identify and designate land for housing development; create and maintain a public environment conducive to housing development which is financially and socially viable; promote the resolution of conflicts arising in the housing development process; initiate plan, co-ordinate, facilitate, promote and enable appropriate housing development in its area of jurisdiction; provide bulk engineering services, and revenue generating services in so far as such services are not provided by specialist utility suppliers; and plan and manage land use and development. 	
Intergovernment al Relations Framework Act (No. 13 of 2005)	 The Intergovernmental Relations Framework Act was established in relation to the constitutional mandate in section 41(2) of the South African Constitution. The IGR was established to provide a legal framework to guide relations between the different spheres of government. The main focus areas of the act are: To provide principles for Intergovernmental relations in the country; To regulate intergovernmental forums; 	In terms of intergovernmental relations, where corridors are proposed by the SDF across municipal boundaries, the development of such corridors should be jointly planned by the affected municipalities to ensure integration, successful implementation and to reduce the potential for conflict. The intergovernmental forums created through the Intergovernmental Relations Act can be used to achieve this.

	 To provide guidelines for internal intergovernmental procedures; and To provide a framework to assist in the settlement of disputes between the different spheres of government. 	
Ingonyama Trust Amendment Act 3 of 1994(as amended by Act 9 of 1997)	Ingonyama Trust which is a Body Corporate established in terms of (Sec 2 of the KZN ITB Act KZN of 94) is the registered owner of various pieces of land in KwaZulu Natal which have always historically being part of the land in the Zulu Kingdom dating back to various Zulu Kings.	The municipality should liaise with the Ingonyama Trust board to use land within its jurisdiction in a sustainable manner and for the betterment of its community. The use of indigenous knowledge, processes and procedures will also ensure representativeness of the SDF.
	Section 2 (2) of the Ingonyama Trust Act establishes the framework for the administration of the land for the benefit of communities.	
	Section 2 (5) of the Ingonyama Trust Act establishes the framework in which land rights are to be granted and at the same time protecting trust land.	
	The Trust is currently responsible for 2.8 million hectares in the KZN province. King Zwelithini (Ingonyama), is responsible for administering and managing land that falls within the jurisdiction of tribal authorities for the benefit, material welfare, and social well-being of the members of the tribes and communities as set out in the Ingonyama Trust Amendment Act 3 of 1994(as amended by Act 9 of 1997).	

		1
National Heritage Resources Act, 1999 (Act No 25 of 1999)	 In terms of Section 3 of the National Heritage Resources Act, 1999 (Act No 25 of 1999), heritage resources are: places, buildings, structures and equipment of cultural significance; places to which oral traditions are attached or which are associated with living heritage; historical settlements and townscapes; landscapes and natural features of cultural significance; geological sites of scientific or cultural importance; archaeological and paleontological sites; graves and burial grounds, including— ancestral graves; royal graves and graves of traditional leaders; graves of victims of conflict; graves of individuals designated by the Minister by notice in the Gazette; historical graves and cemeteries; and other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983); 	The DNDZ SDF will consider existing heritage resources including graves, archaeological and palaeontological sites that are protected in terms of sections 33, 35, and 36 of the KwaZulu-Natal Heritage Act (KZNHA) (No. 4 of 2008).

🧕 sites of significance relating to the	
history of slavery in South Africa;	
movable objects, including:	
\circ objects recovered from the soil or	
waters of South Africa, including	
archaeological and palaeontological	
objects and material, meteorites and	
rare geological specimens;	
\circ objects to which oral traditions are	
attached or which are associated with	
living heritage;	
 ethnographic art and objects; 	
 military objects; 	
 objects of decorative or fine art; 	
 objects of scientific or technological 	
interest; and	
\circ books, records, documents,	
photographic positives and negatives,	
graphic, film or video material or sound	
recordings, excluding those that are	
public records as defined in section	
1(xiv) of the National Archives of South	
Africa Act, 1996 (Act No. 43 of 1996).	

3.3 NATIONAL & PROVINCIAL POLICY CONTEXT

3.3.1 NATIONAL DEVELOPMENT PLAN, VISION 2030

The National Development Plan (NDP) is the national principal plan for South Africa aims to eliminate poverty and reduce inequality by 2030. It aims to achieve this by growing an inclusive economy, building capabilities, enhancing the capacity of the state, and promoting leadership and partnerships throughout society. The NDP 2030 presents a long-term vision for South Africa and addressed the Governments programme to "attack" poverty and deprivation with the aim of nation building. The plan contains strategies on a range of key issues including employment, infrastructure, foreign trade, education, health, housing, social protection and safety. The NDP proposes creating 11 million jobs by 2030, which should reduce the unemployment rate to 14% by 2020 and to 6% by 2030. Total employment should rise from 13 million to 24 million by 2030. The proportion of adults working would then increase from 41% to 61%. The plan to achieve these targets includes:

- A focus on increasing exports (focusing on those areas where SA already has the endowments and comparative advantage – mining, construction, manufacturing, agriculture, agroprocessing, tourism and business services);
- building the linkages between export earnings and job creation, which often occur in domestically focused small and medium sized firms, most often in the services sector;
- increasing the size and effectiveness of the innovation system;
- supporting small business;

- reducing the regulatory burden in sectors where the private sector is the main investor;
- improving water, transport and energy infrastructure;
- improving the quality of education and the skills base;
- providing greater policy and regulatory certainty to investors;
- improving the functioning of the labour market;
- reforming the public health system;
- providing better safety and security for all citizens;
- more reliable and affordable public transport;
- better housing development (including a better urban planning approval process);
- increased rural development; and,
- An effective welfare services.

The National Development Plan highlights a number of focus areas which are relevant to DNDZ SDF. These are as follows:

- The economy and employment;
- Economic infrastructure;
- An inclusive rural economy;
- Positioning South Africa in the world;
- Human settlements;

- Improving education, innovation and training;
- Promoting health;
- Social protection;
- Building safer communities;
- Building a capable state;
- Promoting accountability and fighting corruption; and
- Transforming society and uniting the country.

These principles form the core of human development (by implication, increasing the human development index of the country). All these principles also form the main priorities of spatial development. According to the chapter 5 of the NDP, the focus is mainly on environmental sustainability and resilience through an equitable transition to a low carbon economy. This has implications on manner in which spatial planning and development is approached in South Africa. Chapter 6 sets forth targets and goals towards establishing more inclusive economy through integrating the rural areas into the development intentions of the municipality. In the main, the focus is on increasing investment new agricultural technologies, research and development in the agricultural sphere. Chapter 8 of the NDP focuses on the country's spatial planning system, requires that: all municipal and provincial Spatial Development Frameworks (SDFs) are translated into 'spatial contracts that are binding across national, provincial and local governments'; the current planning system should 'actively support the development of plans that cross municipal and even provincial boundaries', especially to deal with biodiversity protection, climate-change adaptation, tourism and transportation; and every municipality should have an 'explicit spatial restructuring strategy' which must include the identification of 'priority precincts for spatial restructuring'.



3.3.2 STATE OF THE NATION ADDRESS (SONA) 2020

The State of the Nation (SONA) is an annual report on the state of the country's affairs, progress on government's priorities outline and an of government's agenda for the coming year. The SONA 2020 was a buildup of the previous 2 years with the underlying theme of growing South Africa by building a social compact with communities. The summary of this year's SONA is categorized in



Figure 7: SONA 2020

terms of the following key points which are summarized below:

- Land expropriation: Government has released 44 000 hectares of state land for the settlement of land restitution claims, and will this year release round 700 000 hectares of state land for agricultural production. Priority will be afforded to youth, women, people with disabilities and those who have been farming on communal land and are ready to expand their operations for training and allocation of land. A new beneficiary selection policy includes compulsory training for potential beneficiaries before land can be allocated to them.
- Transformation to support black industrialists; to build a new generation of black and women producers that are able to build

enterprises of significant scale and capability. Use competition policy to open markets to new black entrants and Invest in the development of township and rural enterprises;

- Procurement Small business, Cooperatives, township enterprises to honour 30% of procurement allocation to these enterprises. Invest in SME incubation and Welcome SME Fund initiative by corporate sector;
- Fourth industrial revolution the Presidential Commission on the 4IR has made far-reaching recommendations that impact on nearly every aspect of the economy and in many areas of our lives. The Commission's report provides us with the tools to ensure that we extract the greatest benefit of these revolutionary technological changes. An important condition for the success of our digital economy is the availability of high demand spectrum to expand broadband access and reliability. The regulator, ICASA, has undertaken to conclude the licensing of high demand spectrum for industry via auction before the end of 2020. Because of additional requirements, the licensing of the wireless open access network – or WOAN – is likely to be completed during the course of next year.
- Health and NHI in preparation for NHI, more than 44 million people have been registered at over 3,000 clinics in the electronic Health Patient Registration System, and are now implementing this system in hospitals. The Presidential Working Group on Disability was established to advise the Office of the Presidency on measures to advance the empowerment of persons with disabilities as government plans, budgets and implements programmes.
- Education following the recognition by the Department of Basic Education in 2018 of South African Sign Language as a home language and the recommendation by the Parliamentary

Constitutional Review Committee that it be the 12th official language, the matter is being finalized;

- Master plans a Sugar Master Plan was developed with farmers and industrial users to save jobs in the sugar industry with the new steel Master Plan expected to be finalized during the course of the year. The Clothing and Textiles Master Plan, which was signed last year, aims to create 121,000 new jobs in the retailclothing textile and footwear sector over the decade. It involves commitments by retailers to buy goods locally, by manufacturers to invest and support transformation, and by labour to develop bargaining structures that promote agile manufacturing. The Poultry Master Plan was developed to support chicken farmers and processors and save 54,000 jobs while creating new jobs. The industry is now focused on growth, greater production and more investment.
- Social Grants urgently take decisive steps to comply with all directions of the Constitutional Court; and take action to ensure no person in government is undermining implementation deadlines set by the court;
- State owned enterprises review the funding models of SOEs and other measures, change the way that boards are appointed; and remove board members from any role in procurement;
- A coherent plan for Eskom: to increase generation capacity outside of Eskom by:
 - Enabling the development of additional grid capacity from renewable energy, natural gas, hydro power, battery storage and coal;
 - Initiate the procurement of emergency power from projects that can deliver electricity into the grid within 3 to 12 months from approval;

- Register small scale distributed generation for own use of under 1MW, for which no license is required
- Ensure all applications by commercial and industrial users to produce electricity for own use above 1MW are processed within 120 days;
- Open bid window 5 of the renewable energy IPP and with producers to accelerate the completion of window 4 projects;
- Negotiate supplementary power purchase agreements to acquire additional capacity from existing wind and solar plants;
- Put in place measures to enable municipalities in good financial standing to procure their own power from IPPs
- Corruption/ state capture the commission of inquiry into state capture to commence its work shortly. The Commission should not displace the regular work of the country's law enforcement agencies in investigating and prosecuting any and all acts of corruption. Urge professional bodies and regulatory authorities to take action against members who are found to have acted improperly and unethically. Urgently attend to the leadership issues at the National Prosecuting Authority to ensure that this critical institution is stabilized and able to perform its mandate unhindered. Appoint a Commission of Inquiry into Tax Administration and Governance of SARS; and visit every national department to engage with senior leadership to ensure that the work of government is effectively aligned.
- Strengthening the capacity of local government The District Development Model (DDM) will be expanded to 23 new districts, drawing on lessons from the three pilot districts – OR Tambo District Municipality, Ethekwini Metropolitan Municipality and Waterberg District Municipality.

- Transparency, accountability and strengthening capacity of the state - to strengthen the capacity of the state and increase accountability, the President committed to signing performance agreements with all Ministers before the end of February 2020. These agreements – which are based on the targets contained in the Medium-Term Strategic Framework – will be made public so that the people of South Africa can hold those who they elected into office to account. These performance agreements can be seen as the cornerstone of a new culture of transparency and accountability, where those who are given the responsibility to serve – whether as elected office bearers or public servants – do what is expected of them.
- Improved service delivery the Project Management Office, the Infrastructure and Investment Unit and the Policy and Research Services were established to address obstacles to reform and improve government delivery. These units are working closely with the Presidential Infrastructure Coordinating Commission, InvestSA and the Ease of Doing Business Task Team to remove impediments to investment and growth and ensure that government demonstrates visible progress quickly. With an efficient and capable machinery now in place at the centre of government, the focus will be on the most urgent reforms and interventions where necessary to ensure implementation.
- Infrastructure boost: R700 billion will be spent on student accommodation, social housing, independent water production, rail freight branch lines, embedded electricity generation, municipal bulk infrastructure, and broadband roll-out over the next 10 years. Youth Unemployment approximately two-thirds of the 1.2 million young people who enter the labour market each year, remain outside of employment, education or training before

SONA 2020. There are six priority actions over the next five years to reduce youth unemployment:

- First, creating pathways for young people into the economy, building cutting-edge solutions to reach young people where they are online, on the phone and in person. This will allow them to receive active support, information and work readiness training to increase their employability and match themselves to opportunities. Five prototype sites in five provinces were launched with the aim of growing the national network reaching three million young people through multiple channels. This will allow them to receive active support, information and work readiness training to increase their employability and match themselves to opportunities.
- Second, fundamentally changes in how young people are prepared for the future of work, providing shorter, more flexible courses in specific skills that employers in fastgrowing sectors need.
- Third, developing new and innovative ways to support youth entrepreneurship and self-employment.
- Fourth, scaling up the Youth Employment Service and working with TVET colleges and the private sector to ensure that more learners receive practical experience in the workplace to complete their training.
- Fifth, establishing the first cohort of a Presidential Youth Service programme that will unlock the agency of young people and provide opportunities for them to earn an income while contributing to nation building.
- Finally, the youth employment initiative will be funded by setting aside 1% of the budget to deal with the high levels of youth unemployment.

- Investing in rail: The Central Line in the Western Cape and the Mabopane Line in Pretoria will have R1.6 billion spent on them. New stations, better trains and upgraded rail-tracks have all been earmarked.
- Cutting business red tape applications for water licenses for businesses will be reduced to a 90-day window before being processed – some can take up to five years as it stands. The Bizportal will now process applications to start companies "within a day", rather than the current 30-day limit.
- Stronger tourism security to support the growth of the tourism industry, SAPS will increase visibility at identified tourist attraction sites. Tourism Safety Monitors will establish a reserve police capacity to focus on the policing of popular visitor areas.

3.3.3 HUMAN SETTLEMENT MASTER PLAN 2017

South Africa's Human Settlements Master Spatial Plan is a plan for coordinating tangible public and private investment that are sustained over time, and carefully adapted to the needs and opportunities of specific places. The purpose of the plan is to identify areas for investments for human settlements development by multiple public and non-public role players. The NHSMSP aims to achieve two specific and interrelated goals:

- To identify areas for human settlements investments for multiple public and non-public role-players;
- To direct the necessary and available State resources to existing human settlements and to plan for the provision of new human settlements.

The objectives to realize these goals are to:

- Align mandates of all spheres and sectors which have a strong spatial dimension for human settlements development;
- Promote maximum intergovernmental and multi-sectoral collaboration; and
- Assemble the capacity and development arrangements to ensure planning, project, preparation and project management.

The intended outcomes therefore are:

- Harmonization of government mandates and roles to improve coordination;
- Integration of plans and adjustments to priorities;
- Alignment of resources and opportunities along the delivery value chain;
- Accountability, mechanisms, and good governance; and
- A driven government workforce.

Ultimately the impact must be transformation of undesirable settlement patterns emanating from past practices and creation of new human settlements (spatial transformation). The interventions outlined on the MSP are focused around the role of the State but accommodates and reflects other key role players. This plan is underpinned by twin levers of spatial targeting and intergovernmental coordination and contracting. The MSP further indicated that the HGDM should embark upon feasibilities for social housing projects in larger towns.

3.3.4 INTEGRATED URBAN DEVELOPMENT FRAMEWORK 2016

The Integrated Urban Development Framework (IUDF) is a response to our urbanization trends and the directive by the National Development Plan (NDP) to develop an urban development policy that will cater for the increasing numbers by ensuring proper planning and necessary infrastructure to support this growth. In other words, it is government's policy position to guide the future growth and management of urban areas. The vision of the IUDF is liveable safe resources sufficient cities and towns that are socially integrated, economy inclusive, and globally competitive where residents actively participate in urban life.

The framework has four strategic goals; (1) Spatial integration, (2) inclusion and access, (3) growth and (4) governance. These strategic goals are further interconnected with nine policy livers for strategic priorities and they include; Integrated urban planning and management, Integrated transport and mobility, integrated sustainable human settlements, integrated urban infrastructure, Efficient land governance and management, Inclusive economic development, Empowered active communities, Effective urban governance, and Sustainable finances.

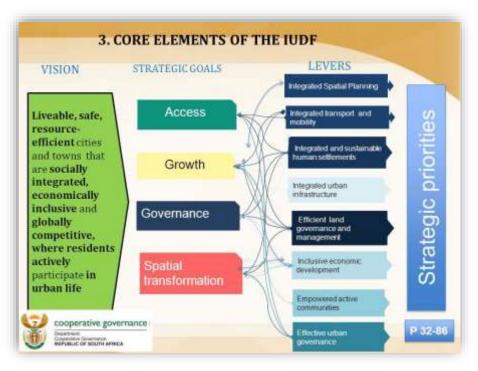


Figure 8: Core elements of IUDF

The IUDF responds to the post-2015 Sustainable Development Goals (SDGs), in particular to Goal 11: Making cities and human settlements inclusive, safe, resilient and sustainable. It also builds on various chapters of the National Development Plan (NDP) and extends Chapter 8 'Transforming human settlements and the national space economy' and its vision for urban South Africa; "By 2030 South Africa should observe meaningful and measurable progress in reviving rural areas and in creating more functionally integrated, balanced and vibrant urban settlements". For this to happen the country must:

Clarify and relentlessly pursue a national vision for spatial development;

Sharpen the instruments for achieving this vision; and

Build the required capabilities in the state and among citizens.

The IUDF's overall outcome – spatial transformation – marks a New Deal for South African cities and towns, by steering urban growth towards a sustainable growth model of compact, connected and coordinated cities and towns.

3.3.5 COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME, 2009

This is a national strategy focusing on dealing effectively with rural poverty through the optimal use and management of natural resources. The programme focuses on a three-pronged strategy covering the following:

- Agrarian transformation.
- Rural development emphasizing:
 - o Improved economic infrastructure; and
 - o Improved social infrastructure.

Land reform:

- Increase the pace of land redistribution;
- Increase the pace of land tenure reform; and

Resolving outstanding land restitution claims.

3.3.6 BREAKING NEW GROUND POLICY 2004

The Breaking New Ground Policy 2004 was adopted by government as a framework policy which focuses on a holistic approach to developing human settlements, including the provision of social and economic infrastructure. The BNG Policy prescribes that housing delivery should comply with the following objectives:

- Safe and secure environments;
- Adequate access to economic opportunities;
- A mix of safe and secure housing and tenure types;
- Reliable and affordable basic services, educational, entertainment, health, welfare and police services within a Multipurpose cluster concept;
- Compact, mixed land use, diverse, pedestrian friendly, and promotes good quality of life;
- Low-income housing in close proximity to areas of opportunity;
- Integrated, functional, and environmentally sustainable human settlements, towns and cities;
- Social (Medium-Density) Housing; and
- Alternative technology and design.
- 3.3.7 AGRICULTURE, LAND REFORM & RURAL DEVELOPMENT: DIRECTIONS RELATING TO SPATIAL PLANNING, LAND USE MANAGEMENT AND LAND DEVELOPMENT PROCESSES

The Minister of Agriculture, Land Reform, Rural Development, A.T. Didiza, issued directions on 07 August 2020, in terms of Regulations

issued by the Minster of CoGTA in terms of Section 27(2) of the Disaster Management Act, 2002 (Act No. 57 of 2002) and published on 29 April 2020 in Government Notice R. 480 of Government Gazette No. 43258

The Purpose of these directions is:

- To mitigate the threat posed by the COVID-19 -19 pandemic and to alleviate, contain and minimize the effects of the national state of disaster;
- To ensure fair processes, especially relating to spatial planning, land use management and land development processes, public participation processes, appeal processes, reporting requirements and the rendering of municipal planning services during the lockdown period; and
- To extend the timeframes and deadlines imposed on municipalities and provinces by the Act so as to alleviate, contain and minimize the effects of the national state of disaster.

Subject to these Directions, municipalities and land use regulators are exempted from any provision of the Act which requires any action to be taken between the date of the publication of this Notice and the date that the national state of disaster lapses or is terminated in terms of section 27 (5) of the Disaster Management Act.

Directions apply to -

All provincial and municipal authorities and appeal authorities who are responsible for or involved in the processes, mandated in terms of the Act; and All applicants, objectors, interested and affected persons, appellants, professionals, Practitioners, companies, interested and affected parties or commenting authorities involved in spatial planning, land use management and land development processes, or who are responsible to submit reports or holders of approvals related to a land development application

Where any provincial or municipal authority including appeal, authorities affected by these Directions has publicly indicated that a different arrangement applies, such an arrangement will prevail over any arrangement indicated in these directions.

3.3.8 PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY (PGDS) 2035

The Revised 2016 KwaZulu-Natal Provincial Growth and Development Strategy (KZN PGDS) bolsters the Province's commitment to achieving the vision of KwaZulu-Natal (KZN) as a "Prosperous Province with a healthy, secure and skilled population, living in dignity and harmony, acting as a gateway to Africa and the world". The plan recognizes that environmental vulnerability, social need and economic development are not evenly distributed and spatial disparities will always exist due to the spatial distribution of natural resources, historical imperatives and cultural factors. The PGDS provides a long-term vision for KZN, presenting the situational overview along with the strategic analysis of the province. This strategy focuses on sustainable growth and development through

addressing social, economic, environmental, infrastructural, governance and spatial issues.

The strategy is built on seven strategic goals (inclusive economic growth, human resource development, community human and development, environmental sustainability. infrastructure development, governance and policy and spatial equity) along with thirty-one objectives, of which new amendments of strategies have occurred such as to enhance spatial economic development, waste management capacity and expand the application of green technologies to achieving this. The vision is aimed to be achieved by the year 2035. PGDS also underscores the general spatial intentions of the strategy and serves as provincial guiding principles which should, ideally, be pursued within all levels of spatial planning at district and local level in alignment with the provincial spatial development strategy.

KZN PGDS STRATEGIC FRAMEWORK STRATEGIC STRATEGIC GOALS OBJECTIVES everap and products the agricultural paraettal of GN Vision 0 Enhance sectoral development through trade, investment & INCLUSIVE Address retenzion Enhance spatial econantic development **ECONOMIC GROWTH** Improve the efficiency, Internation and variety of Government. and jub constient programment 2035 Prometing SMME, Entreprenented and Youth Development 2 6. Enhance the Knowledge Eccentry **HUMAN RESOURCE** 7. Early Oxidhood Development, Primary and Secondary KwaZulu-Natal Education DEVELOPMENT 8. Skills alignment to Economic Growth 5. Youth Silks Development & Life-Long Learning will be a 3 tale providy & improve scalal o HUMAN & prosperous COMMUNITY DEVELOPMENT Province with a charges and sextal capital healthy, secure eath, pender and deathiny advectory and the 0 STRATEGIC and skilled 17. Development of sequents and accepts 15. Develop rout and roll networks INFRASTRUCTURE TA Develop KI eductoria population, 23. Ensure availability and participable management of water and soritation for all living in dignity 31. Genure access to affordable, redukes, suttainable and readers **ENVIRONMENTAL** 6 energy for all 23. Enteron 1251 words management capacity and harmony, SUSTAINABILITY 23. Enhance resilience of ecosystem services acting as a 24. Expend application of green technologies 6 25. Adapt and respond to Circate Charge **GOVERNANCE AND** gateway to POLICY Africa and the **Endicating Trand & corregation** terrette participation, factilitation & accreatiable World 0 SPATIAL EQUITY 1. Exhance the residence of new and existing chies, to social and economic opportunities Ensure integrated land management use across the Province, ensuring equitable access to goods and services, attracting social and financial investment

Figure 9: KZN PGDS Strategic Framework

3.3.9 PROVINCIAL GROWTH AND DEVELOPMENT PLAN (PGDP) 2018

The Provincial Growth and Development Plan (PGDP) is the implementation framework for the PDGS and therefore has the same strategic goals. The plan develops a theory of change for the implementation of the PGDS outlining broad actions to be undertaken and performance indicators. The PGDP framework has Action Working groups (AWGs) which are platforms for stakeholders to participate in the ongoing refinement and implementation of the PGDP. The first generation of the PGDP was first adopted in August 2012, later updated in 2015 and recently been revised 2018.

The main purpose of this PGDP is to translate the PGDS into an implementation plan which will provide a sound platform for departmental, sectoral and stakeholder annual performance planning and therefore to guide resource allocation. In this transition from strategy to plan, the focus is on driving implementation in a coordinated and integrated manner, where progress can be measured against predetermined targets and where roles and responsibilities have been confirmed within established lines of accountability.

This encompasses the monitoring, evaluation, reporting and review of components and brings together all the relevant key indicators, targets and interventions required to achieve the strategic objectives. The PGDP is a strategic management tool for the Province to ensure that it is a concerted and measured effort to achieve the 2035 Vision, which the province of KwaZulu-Natal is planned to maximize its position as a gateway to South and Southern Africa, as well as its human and natural resources so creating a safe, healthy and sustainable living environment. The main purpose of this PGDP is to translate the PGDS into an implementation plan which will provide a sound platform for departmental, sectoral and stakeholder annual performance planning and therefore to guide resource allocation.

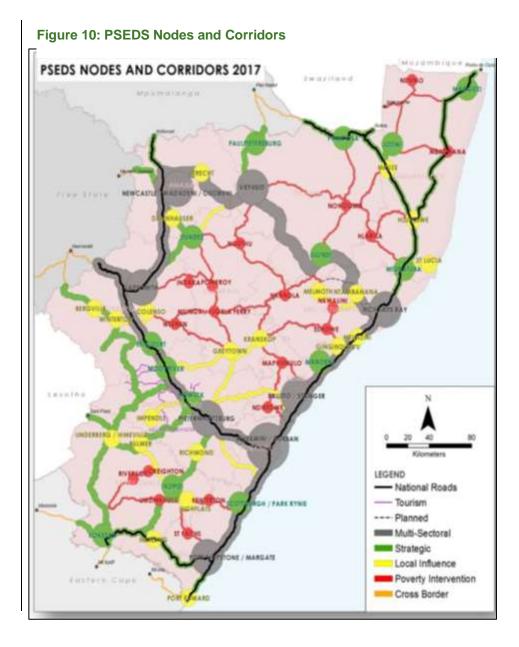
In this transition from strategy to plan, the focus is on driving implementation in a coordinated and integrated manner, where progress can be measured against predetermined targets and where roles and responsibilities have been confirmed within established lines of accountability. The PGDP clearly indicates:

- The desired 2035 outcomes in the 7 goals and 31 objectives, with a focus on 2020;
- A set of indicators that will be applied to measure the progress being made to achieve the desired outcomes;
- The targets and the KZN growth path for 2020, 2025, 2030 and 2035 in respect of each of the indicators;
- The strategic interventions required to achieve the set targets;
- The catalytic projects in support of the PGDP Goals;
- The institutional framework for the implementation of the PGDP;
- The monitoring, evaluation, reporting and review framework of the plan; and
- Technical indicator descriptors.

3.3.10 PROVINCIAL SPATIAL ECONOMIC DEVELOPMENT STRATEGY (PSEDS) 2017

PSEDS sets where government directs its investment and development initiatives, capitalize on complementarities, facilitate consistent, focused decision making, bring about strategic co-

ordination, interaction and alignment. The strategy recognizes the agriculture, tourism, manufacturing and service sectors as the four key drivers of the KZN economy. The focus areas of the strategy are then mapped out showing the areas of highest existing and future development potential for each of the four-key economic drivers of the economy.



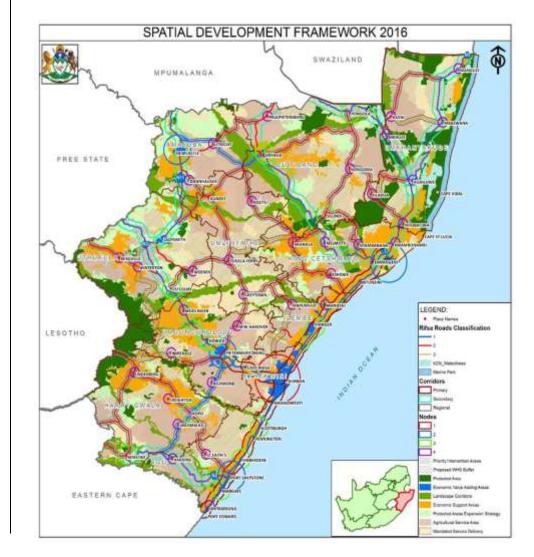
3.3.11 KZN SPATIAL DEVELOPMENT FRAMEWORK (SDF) 2016

The KZN Spatial Development Framework is a plan brought about the KZN Planning Commission on the spatial analysis and desired outcome of the spatial mechanisms of the province. To achieve the goals and objectives of the PGDS, the provincial SDF has been developed to spatially express the PGDS and provide spatial context to the proposed strategic interventions. It further provides principles to guide the province in dealing with socio-economic issues manifested spatially; provide mapping guidance for future spatial development and prioritizes investment and development initiative. Overall, this strategy guides municipal IDP's, SDF's and other municipal framework plans. The envisaged spatial vision for KwaZulu-Natal is summarized as follows, "Optimal and responsible utilization of human and environmental resources, building on addressing need and maximizing opportunities toward greater spatial equity and sustainability in development". According to the KwaZulu-Natal Provincial SDF there are several key potential interventions for Harry Gwala District Municipality. These are:

- High value agriculture for export;
- Umzimkhulu Dam;
- Eco, battlefields and cultural heritage tourism routes;
- Ukhahlamba Maluti TFCA;
- Agro processing incorporating bio fuels;
- Small town regeneration;
- Rural service centres;
- ECD centre development;
- Centres for the disabled;
- Centres for senior citizens;
- Substance abuse rehabilitation centres; and

School greening.

Figure 11: KZN SDF



3.3.12 KZN HUMAN SETTLEMENTS MASTER SPATIAL PLAN 2016

KwaZulu-Natal (KZN) master spatial plan (MSP) for human settlements development process was finalized in March 2016. The process, led by the HDA, involved a thorough various consultations with sector officials and practitioners to create a coherent and inclusive MSP approach, tailored for the province. The plan is set to become the underpinning design for all human settlements in the region. In finalizing the process, two open sessions were held with sector role players. The first open-house session held on 23 February 2016 and the second one was held on 18 March 2016. Both sessions enjoyed the support and participation of more than 100 delegates from eThekwini Municipality, the Department of Transport, KZN Wildlife, the Department of Co-operative Governance and Traditional Affairs, the University of KwaZulu-Natal, Eskom, Mike Khan Consultancy, KwaZulu-Natal Department of Agriculture and Rural Development, Tongaat Hallett Developments, Umgeni Water, Mabune Consulting, KwaZulu-Natal Department of Human Settlements, and other local planners and entities. The highlights of the MSP have noted the institutional and structural deficiencies in the current form in which human settlement projects are planned and implemented in the Province. The MSP has identified Key Focus Areas for prioritized investment based on housing needs and demands; also, the population and infrastructure capacity of those areas. These areas were identified using the Sensitivity Analysis criteria through geospatial information analysis. The MSP further proposes a model for land identification and prioritization. It has provided a horizon for land needs in each of the identified Focus Areas to the year 2030.

3.4 DISTRICT POLICY CONTEXT

3.4.1 HARRY GWALA DISTRICT RURAL DEVELOPMENT PLAN 2017

Department of Rural Development and Land Reform commissioned the development of Rural Development Plans to assist in identifying the development potential of the rural areas within Harry Gwala. The overall objectives of the study is to: (1) Undertake international and national policy literature review that governs rural development and land reform; (2) Understand the status quo of developmental issues facing the rural areas and assess the performance of past programmes, projects and approaches; (3) Clearly define "rural" and the rural boundaries within the Harry Gwala District Municipality taking into account the relationship between rural and urban areas; (4) Develop a Rural Development Plan informed by policies, principles, issues, vision, spatial objectives and outcomes of spatial synthesis that is implementation orientated focusing on specific interventions and projects; and (5) Prepare a detailed implementation plan with priority programmes and projects in a phased manner with the relevant monitoring and evaluation tools to measure progress of implementation. The implementation plan proposes implementation at different periods namely:

- Short term 1 to 3 years;
- Medium term- 3 to 5 years; and
- Long term- longer than 5 years.
- 3.4.2 HARRY GWALA DISTRICT MUNICIPALITY 2017-2022 INTEGRATED DEVELOPMENT PLAN

Integrated Development Planning is a process through which a Municipality, its constituencies, various service providers, interested and affected parties come together to identify development needs, outline clear objectives and strategies which serve to guide the allocation and management of resources within the Municipal's jurisdictional area. The long vision of Harry Gwala District Municipality is "By 2030 Harry Gwala District Municipality will be providing clean, drinkable uninterrupted drinking and business water; be a vibrant agriculture and Tourism sectors that create employment; and be an improved socio-economic wellbeing of HGDM communities". The plan is prepared in fulfilment of the Municipality's legal obligation in terms of Section 34 of the Local Government: Municipal Systems Act, 2000 (MSA Act 32 of 2000). From this planning process emanates the Municipal Integrated Development Plan (IDP), with the main objective being improved coordination and integration of planning, budgeting and development within a Municipal area. As a five (5) Year budgeting, decision-making, strategic planning and development tool, the IDP is used by the Municipality to fulfil its role of 'developmental local governance.'

3.4.3 HARRY GWALA DISTRICT SPATIAL DEVELOPMENT FRAMEWORK (2017/22)

Harry Gwala District municipality has recently reviewed their Spatial Development Framework (SDF) for the year 2017/18. This is conceptualized as a core sector plan of the Integrated Development Plan. The Spatial Development Framework is a process through which a municipality prepares a strategic spatial development plan for a medium to long term period to facilitate effective implementation of the IDP. The district's SDF purposes is to spatially guide the form and location of future developments within the district to help manage and efficiently use the districts scarce land resources, speed up service delivery and attract funding amongst other things. The district SDF thus provides a tool to guide spatial planning and development that promotes coordination and alignment amongst the local municipalities of the district.

3.4.4 HARRY GWALA CLIMATE CHANGE VULNERABILITY ASSESSMENT AND RESPONSE PLAN 2018

Harry Gwala District Municipality recognizes climate change as a threat to the environment, its residents, and to future development. Therefore, measures should be implemented to reduce or eliminate carbon emissions or enhance greenhouse gas sinks (mitigation) (Böckmann, M 2015). However, due to lag times in the climate and biophysical systems, the positive impacts of past and current mitigation will only be noticeable in the next 25 years (Jiri, O 2016). In the meanwhile, adaptation is regarded as inevitable and a necessary response to the changes that are projected to take place in the District. Harry Gwala District Municipality has therefore prioritized the development of a Climate Change Vulnerability Assessment and Climate Change Response Plan.

The Climate Change Vulnerability Assessment and Response Plan was developed through the Local Government Climate Change Support (LGCCS) program. The LGCCS is led by the Department of Environmental Affairs and is part of the International Climate Initiative (IKI) and is supported by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). Through this program key climate change vulnerability indicators for the Harry Gwala District Municipality were identified. These indicators demonstrate areas that maybe at high risk of climate change impacts. The plan proposes different sector response plans within the agricultural, water, human health, disaster management, infrastructure and human settlements.

3.4.5 HARRY GWALA SMALL ENTERPRISE DEVELOPMENT STRATEGY AND IMPLEMENTATION PLAN 2016

The importance of the small enterprises (SMMEs and Cooperatives) economy for economic development and job creation has been clearly acknowledged in several development strategies and plans at national and provincial level. Despite the significance of the small enterprise economy, there have been few detailed research studies on its structure, dynamics and opportunities. In addition, available national data is unhelpful and even contradictory in terms of estimates of the size of the SMME sector. As a result of the poor database and of the limited nature of recent detailed research on the small enterprises economy, strategic planning initiatives are difficult to undertake. It is against this background that the purpose of the Enterprise Development Strategy is therefore:

To gather and provide relevant information and data in order to understand the existing profile, dynamics and challenges that the small enterprise economy in contributing towards the wider development objectives of the district and the local municipalities differentiated at a sector level per municipality; and,

To formulate an Enterprises Development Strategy and Implementation Plan.

The objectives, Inter alia, of the enterprise development strategy include the following;

- Gather, analyze and Review all small enterprise programmes, strategies and projects already identified or being implemented by Harry Gwala District Municipality, five local municipalities, any organ state, Private sector, NGOs and other service providers within Harry Gwala District Municipality as categorized in terms of project name, nature of initiative, location, project sponsor and current status and recommendations for the future;
- Gather, analyses and Review all role-players and key stakeholders in economic development (in general) and SMME/Cooperative sector (in particular) including their current and potential roles and responsibilities;
- Gather, analyze and Review all current and potential small enterprises financial sources and non-financial support services within Harry Gwala District Municipality (both public and private);
- Provide the District with a set of recommendations/options in respect to the effective implementation and measurement of the SMME strategy incorporating the national drive of developing and implementing the SEDA programme;
- Device a funding model for the small enterprises that will be utilized by Harry Gwala Development Agency to support SMMEs/Cooperatives; and
- Develop a database of SMMEs/Cooperatives per sector, location.

3.4.6 REVIEW OF LED STRATEGY: HARRY GWALA DISTRICT LED STRATEGY AND IMPLEMENTATION PLAN 2015

The purpose of this strategy and implementation plan is facilitate the review and formulation of a LED strategy for the Harry Gwala District Municipality in the short and medium term which inter alia;

- Addresses the district's competitive advantages;
- Articulates with both local economic realities and provincial and national enabling frameworks, particularly with respect to the availability of national and provincial funding sources that can be leveraged;
- Identifies catalytic economic initiatives where there are committed partners and capacity to kick start economic activity;
- Credibly guides public, private and civil society investment and activity in the district;
- Puts in place an institutional framework for implementation, monitoring and evaluation; and
- Based on participatory planning processes to ensure that economic actors take responsibility for driving processes; if there are no local champions, there will be no progress on implementation.

Specific objectives include:

Formulation of a District LED Development Strategy and Implementation plan that is aligned to National and provincial frameworks (NDP, PGDS) and local municipal IDPs and LED Strategies;

- An Implementation plan with clear sectors and commodities of intervention;
- Report on consultation with all relevant stakeholders: District Municipality, local municipalities, government departments, funding agencies, service providers, organized business structures;
- A set of interventions with key performance indicators, outputs and activities together with a monitoring and evaluation framework; and
- An Implementation Framework.

3.4.7 TOURISM SECTOR STRATEGY FOR THE HARRY GWALA DISTRICT MUNICIPALITY 2016

The overall objective of the Tourism Sector Strategy for Harry Gwala is to assist the Harry Gwala Development Agency to ensure that tourism is developed in a coordinated and sustainable manner. This will also assist in ensuring that coordination amongst the three spheres of government is achieved, through alignment and integration of strategies and activities achieved from the existence of a plan, providing guidance in the implementation of tourism. The objectives of the Tourism Sector Strategy are enlisted as follows:

- Develop an initial concept and vision for the Tourism Strategy in Harry Gwala;
- Workshop the vision and concept;
- Confirm alignment to the relevant tourism bodies, policies and frameworks;

- Develop a product and market-development strategy to guide investment into the tourism-product base;
- Develop a tourism-infrastructure investment framework with spatially referenced projects sufficiently detailed to allow for costing, feasibility and viability analysis;
- Develop a framework for an efficient institutional system for tourism development and marketing;
- Identification of programmes aimed at capacity building, training and awareness creation;
- Develop programmes for the establishment of facilitating support systems for tourism ventures;
- Develop marketing guidelines to sufficiently enable targeted marketing and development of marketing programmes and campaigns;
- Develop an action programme to address the management of the tourism impact on heritage, culture, people and resources; and
- Develop a high-level spatial-development framework to guide investment decisions of both public and private sector.

3.4.8 HARRY GWALA DISTRICT INVESTMENT PROMOTION AND FACILITATION STRATEGY 2016

Figure 12: HGDM IP&FS - Marketing themes

INVESTMENT TARGET PRIORITIES



OPPORTUNITY DEVELOPMENT

Investment Packaging Lead Generation Incentives/Industry Support Measures Entrepreneurship

PROMOTIONS PLANNING & SYSTEMS

Marketing & Communication Information Management Investment Promotion Guidelines

The Department of Economic Development, Tourism and Environmental Affairs (EDTEA) reviewed the investment environment of the Harry Gwala District ("the District") to identify gaps and opportunities in the investment promotion and facilitation programmes. The objective was to develop an Investment Promotion and Facilitation Strategy (IP&FS) that would improve the investment profile of the District and attract more fixed investment. The development of the IP&FS was undertaken through a series of assessment and consultative processes. A number of consultative forums were held with key stakeholders of the District, who also gave input into the IP&FS. The IP&FS profiles the investment environment

of the Harry Gwala District, describes the key attractive features and suggests a key value proposition for direct investors. The IP&FS proposes the Vision and Mission for the District's investment promotion programme and sets out a number of interventions that the investment programme should encompass under the following headings; "Getting Ready for Business", "Investment Promotion", "Investment Facilitation", and "Partnerships".

The vision for the District's IP&F Strategy is: "One of the most attractive investment destinations in KZN by offering a competitive business climate and a world-class investment facilitation service". This goal directs the District, the HGDA and indeed all the District's local municipalities (LM's), to continuously strive to improve the local investment environment, to offer competitive public services/ utilities and to offer an investment facilitation service that rivals the world's best investment promotion agencies. The Mission for the Harry Gwala District IP&F Strategy may be summarized as follows: To continuously position the Harry Gwala District as one of the preferred investment destinations in KZN by promoting the District's attractive economic opportunities and providing a professional investment facilitation service.

3.4.9 HARRY GWALA DISTRICT GROWTH AND DEVELOPMENT PLAN 2014

The Harry Gwala District Growth and Development Plan 2014, in its current form is an extension of the KZN PGDP. The HGDGDP 2014 envisages that "By 2030, Growth and Development in Harry Gwala District will have significantly improved the quality of life in the area."

To achieve this, the HGD GDP has identified four key sectors that can drive growth in the district and develop the economy. These include:

- Agriculture and agro industries;
- Tourism;
- Public Sector Services; and
- Strategic Infrastructure delivery.

In order to ensure extensive growth of the economy, within each sector four key objectives should be implemented. These are listed below;

- Skills development;
- SMME development;
- Spatial Restructuring; and,
- Research and Innovation.

3.4.10 HARRY GWALA DISTRICT MUNICIPALITY DISASTER MANAGEMENT, FIRE & RESCUE SECTOR PLAN 2016/17

The Disaster Management Act (Act 57 of 2002), clearly outlines initiatives that must be undertaken to make sure that organizations of states comply with the act and the policy framework on disaster risk management accordingly. The area of jurisdiction of Harry Gwala District Municipality is prone to different types of disaster risks both natural and human induced. It is of essence therefore to understand that, natural disasters cannot be prevented but the least that, the municipality can do is develop strategies to mitigate the effectives of such natural disasters. On the other hand, human induced disasters can be prevented by making sure that, continuous sharing of information with the community takes place at all times. The Harry Gwala District Municipality shall endeavor to ensure compliance with the above statutory documents for the purposes of creating a safe environment for its residence as enshrined in the constitution of South Africa.

In the next five years, 2017-2022, the Harry Gwala District Municipality, will strive to create an environment that will promote continuous and integrated multi-sectoral, multi-disciplinary processes of planning and implementation of measures aimed at:

- Preventing or reducing the risk of disasters within the district;
- Mitigating the severity or consequences of disasters;
- Ensuring emergency preparedness at all times;
- Ensuring a rapid and effective response to disasters; and
- Ensuring post-disaster recovery and rehabilitation.

3.4.11 HARRY GWALA DISTRICT MUNICIPALITY BIODIVERSITY SECTOR PLAN 2014

Biodiversity Sector Plan (BSP) has been developed for the Harry Gwala District Municipality as a precursor to a bioregional plan. The purpose of a bioregional plan is to provide a map of biodiversity priorities (identified as Critical Biodiversity Areas 1 and Ecological Support Areas 2) with accompanying land use planning and decision-making guidelines, to inform land use planning, environmental assessment and authorizations as well as natural resource management by a range of sectors whose policies and decision impact on biodiversity.

In the province of KZN, a conscious decision was taken that a Biodiversity Sector Plan (BSP) must be developed as a precursor to

a Bioregional Plan (BRP). The reason behind this was the identified need for KZN to clearly set out the baseline for the conservation priorities in each of the Districts, before interacting with the various other sector plans, IDPs and SDFs as required by S48 of National Environmental Management Biodiversity Act, 2004 and the Bioregional Guidelines (DEAT, 2009). As such, the BSP for the Harry Gwala District Municipality complies with SANBI's Bioregional Planning terminology and requirements as well as the guidelines for the development of Bioregional Plans (DEAT, 2009). As an intermediate product the BSP does not however reflect the interaction with other sector planning tools and the gazetting of the document. The Harry Gwala Biodiversity Sector Plan comprises of three main products:

- A report which includes: Descriptions and maps detailing the biophysical characteristics of the District; Descriptions of methodology employed, and protocols followed in the development and identification of the Critical Biodiversity Areas and Ecological Support Areas; and recommended land use guidelines for biodiversity feature areas.
- A digital map of the Harry Gwala District summarizing the biodiversity priorities, linkages and management guidelines of the Biodiversity Sector Plan.

A supporting GIS layer containing biodiversity features.

The Harry Gwala Biodiversity Sector Plan should be used by all sectors that are involved in land use planning and decision making and multi sectoral spatial planning. Users should include reactive decision-making such as Environmental Impact Assessment and land Use applications; Proactive users such as spatial planners, IDPs, SDFs and zoning schemes; and Proactive conservation such as stewardship and protected area expansion, as well as alien clearing, monitoring and research programmes.

3.4.12 DISASTER MANAGEMENT FRAMEWORK 2013

Harry Gwala District Municipality is primarily responsible for the implementation of the Disaster Management Act, 2002 (Act 57 of 2002) within its area of jurisdiction. The Disaster Management Act requires, among others, that the Harry Gwala District Municipality prepare a Disaster Management Framework (section 28 and 42 of the Act). It is therefore a legislative requirement that the Harry Gwala District Municipality develop a Disaster Management Framework. The DMF is a policy document which should:

- Guide and facilitate DM development as envisaged in the Act;
- Engender prevention and mitigation of disaster occurrences as core principles;
- Facilitate the involvement of government, non-government bodies, and other role-players;
- Specify roles and responsibilities of all role players;
- Take into account research and indigenous knowledge;
- Provide a framework for funding of disaster management efforts;
- Provide KPI's for effective monitoring of disaster management effort; and
- Facilitate co-operation; -
 - Between all DM role-players in the District;
 - With DM entities in neighboring Districts and the Province; and
 - With National disaster management structures.

In simple terms, how DM will be approached at HGDM.

3.5 LOCAL POLICY CONTEXT

3.5.1 DR NKOSAZANA DLAMINI ZUMA INTEGRATED DEVELOPMENT PLAN (IDP) 2017 - 2022

An IDP is a process through which the municipality prepares a strategic development plan which extends over a five-year period. Dr Nkosazana Dlamini Zuma recently developed an IDP for 2017 - 2022 which will be used by the municipality to plan future developments within the local area. The Long-term development Vision for DNDZ LM is to be well governed quality service provider with a strong focus on Socio-Economic Development while protecting the environment. In South Africa, Integrated Development Planning lays the foundation for efficient development and service delivery at local levels of government. The Integrated Development Plan (IDP) functions as a tool to execute co-operative and integrated development projects in the South African spatial economy. In the IDP process, public participative planning is crucial and is informed by community-based structures that help ensure continuous and inclusive development within municipalities. Accordingly, National, Provincial and Local policies, as well as planning directives and legislation guide the development of the IDP.

As per the Municipal Systems Act (Act No. 32 of 2000), Dr Nkosazana Dlamini Zuma Local Municipality (DNDZ LM) is required to undertake an IDP process and formulate an IDP for its jurisdiction. All government institutions are legally obliged to take cognizance of the IDP its Spatial Development Framework (SDF), Service Delivery Budget Implementation Plan (SDBIP) and Capital Investment Framework.

3.5.2 DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK (SDF) 2017 – 2022

Upon the merger of Kwa Sani and Ingwe LMs, a new municipality referred to as DNDZ was developed by the year 2016, therefore a new SDF was created. The Spatial Development Framework is a process through which municipalities prepare a strategic spatial development plan for a 20-25 period in order to assist in the execution of the Integrated Development Plan (IDP). The SDF plan also acts as a principal spatial planning instrument which guides and informs all planning, land management, development and spatial decision-making within the municipality.

It is important to note that the DNDZ SDF is a component of the DNDZ Integrated Development Plan (IDP) which aims to create a spatial interpretation of the strategies and projects already contained within the IDP. It should not be seen as a separate planning process, but only aims to assist in the prioritization of resources towards implementing the IDP. The main purpose of the SDF is to guide the form and location of future spatial development within a Municipal area in order to address the imbalances of the past. As the SDF is a legislative requirement it has legal status and it supersedes all other spatial plans that guide development at local government level.

3.5.3 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY LOCAL ECONOMIC DEVELOPMENT STRATEGIC PLAN 2017

Local economic development (LED) is a process encompassing the mobilization of resources for competitive advantage by locally owned or managed courses of action, identified through participation and social dialogue, in a strategically defined territory. Local economic development based on sound economic and business principles can contribute to economic growth, job creation and poverty alleviation. The ultimate purpose of this strategic plan is to guide economic growth and maximize the competitive advantage of the Dr Nkosazana Dlamini Zuma Municipality. This plan is also expected to stimulate further debate and discussion on productive Local Economic Development not just within the local municipality, but also within the District Municipality.

The Municipality will pro-actively endeavour to transform the ownership of the local economy to more closely reflect historically disadvantaged people by implementing 'radical economic transformation" as envisaged by the Constitution of the Republic of South Africa. More precisely, the strategic plan presents:

- An economic analysis of the main sectors in the Dr Nkosazana Dlamini Zuma Municipality, which enables identification of appropriate market interventions;
- A practical LED Strategic Framework aimed at guiding the promotion and support of sustainable economic development within Dr Nkosazana Dlamini Zuma Local Municipality; and
- A database of projects within the municipality including those being implemented, economic opportunities and future potential projects.

3.5.4 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY HUMAN SETTLEMENT PLAN 2018

In terms of Section 9 (1) of the National Housing Act, Act No. 107 of 1997, every municipality must, as part of its Integrated Development Planning process, take necessary and reasonable steps to ensure that the inhabitants of the municipality have access to adequate housing. Section 9 further requires that each municipality set delivery goals, undertakes proper planning of human settlements including the provision of services. The erstwhile Ingwe and Kwa Sani municipalities adopted their respective housing plans in 2013. This Housing Sector Plan, in respect of the newly created Dr Nkosazana Dlamini Zuma Local Municipality. It is a requirement that the plan should set strategies and timeframes for the development of housing in the area and should also be linked to the IDP as well as the Provincial Housing Plan in order to ensure the alignment of programmes and objectives at all spheres of governance.

The proposed housing vision is, "*To house every resident of DNDZ in an adequate, sustainable and affordable way, with the necessary services, in progressive communities and an enabling environment to create the best possible standard of living for our people*". The Human Settlements Plan (herein after referred to as 'HSP') has a number of objectives:

- To ensure that the limited resources available are used most effectively;
- To gain consensus on the prioritization of housing projects;

- To ensure more integrated development through coordinating development activities of role players including the municipality and the Department of Housing;
- To improve linkages between the spatial development framework and the implementation of projects on the ground; and
- To provide a focus for housing within the IDP.

3.6 IMPLICATIONS FOR DR NKOSAZANA DLAMINI ZUMA SDF

The following implications can be drawn:

- The SDGs are part of an international effort to address some of the most pertinent global issues. Some of the intentions of the MDGs are reinforced into the SDGs, which should be translated in the SDF. The Spatial Development Framework for DNDZ needs to consider the seventeen SDGs and AU goals, ensuring that all planning and developments proposed within the municipality is aligned with aforementioned goals.
- The SDF of DNDZ ought to contribute towards the realization of the objectives of the Constitution through the provision of guidelines regarding the types of developments and improvements to be made in prioritized areas. These may range from the provision of adequate services, the promotion of social and economic development as well as the preservation and development of sustainable and defensible environments.
- Dr Nkosazana Dlamini Zuma does not appear prominently on the NDP; however, there are notable projects that link to the area which are identified by NDP. The objectives of the SDF are out to uphold the standards and elements outlined in the NDP to ensure realization of spatial objectives set, based on the challenges and opportunities identified within the SDF areas.

- Dr Nkosazana Dlamini Zuma Municipality is characterized by a number of intrinsic environmental qualities which needs to be enhanced and maintained as such it is important to comply with all environmental laws such as the National Environmental Management Act No. 107 of 1998 (NEMA). This act obligates municipalities to create rural and urban spaces which enhance economic opportunities and environments, while preserving the environment for future generation. As such, the SDF ought to take cognizance to the NEMA regulation when developing spatial proposals for all municipal areas.
- In terms of intergovernmental relations, where corridors are proposed by the SDF across municipal boundaries, the development of such corridors should be jointly planned by the affected municipalities to ensure integration, successful implementation and to reduce the potential for conflict. The intergovernmental forums created through the Intergovernmental Relations Act can be used to achieve this.
- The SDF needs to ensure the creation of rural-urban linkages within the municipality in order to bridge the development and economic gap between poorer rural areas within the municipality and the urban areas.
- The SDF ought to be aligned with the BNG policy in order to identify potential sites for the development of affordable housing within a reasonable distance to social and economic opportunities.
- SPLUMA instructs national and provincial government to prepare Spatial Development Frameworks. Municipalities are therefore obligated by this act to ensure that the preparation of the IDPs incorporates Spatial Development Frameworks to outline the current status of each municipality as well as the provision of strategic spatial proposals based on the spatial principles.

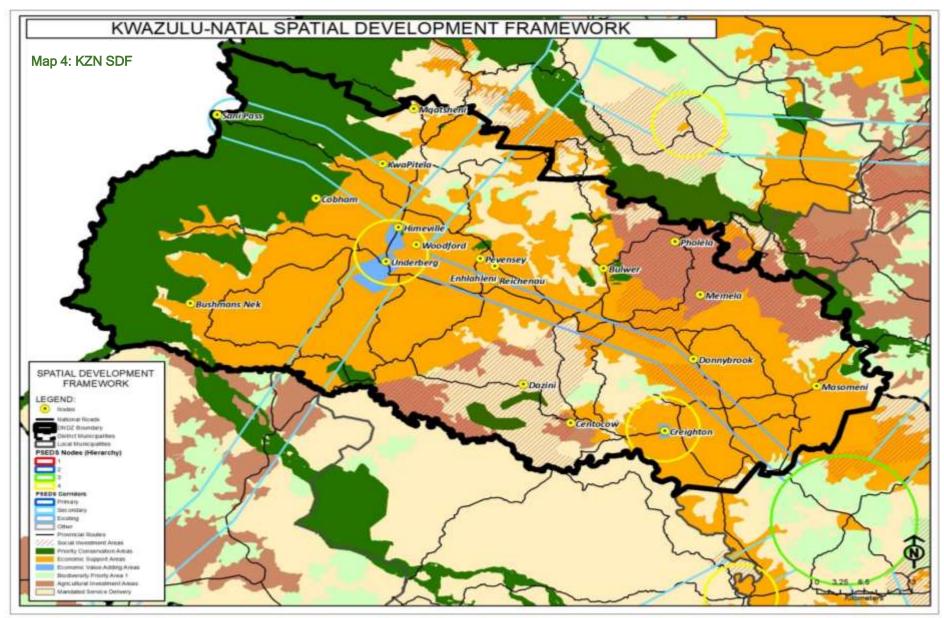
- The SDF is bound by the governmental imperatives to create an inclusive economy, thereby identifying areas which have potential growth and development to enhance fundamental transformation within the identified municipal areas.
- The PSEDS have identified quite a number of several projects within the jurisdiction of Dr Nkosazana Dlamini Zuma, this includes Tourism Development of the Sani Pass Border Development initiative. Exploiting agricultural potential within DNDZ includes initiatives such as Clover Powder Milk Factory, Essential Oils Project, Sunflower Project, and Maize Massification project. Development of Agro-processing within the district includes Animal Feeds Plant and Saw Mills Revival Programme, however in DNDZ the initiative of Bio-fuel Hub is cited. Stimulating other manufacturing industries in the district includes Clothing and Textiles Revival. Infrastructural Development includes Bulwer Dam. Other development initiatives include Integrated Rural Economic Development Centres within Bulwer and Underberg.
- The PSDF provides guidance to municipal Spatial Development Frameworks. The DNDZ municipal SDF needs to be aligned to the PSDF.
- Creighton and Underberg are identified as Quaternary Nodes by the KwaZulu-Natal PGDS. These nodes are mainly centres, which should provide service to the local economy and community needs.
- Western part of the Dr Nkosazana Dlamini Zuma Municipality (UKhahlamba Drakensberg Park, Bushman's Nek and Sani Pass) could make a significant contribution toward the ecotourism industry.
- Influenced by the Economic activities land use patterns and the Tertiary Sector nodal areas, a number of corridors were identified

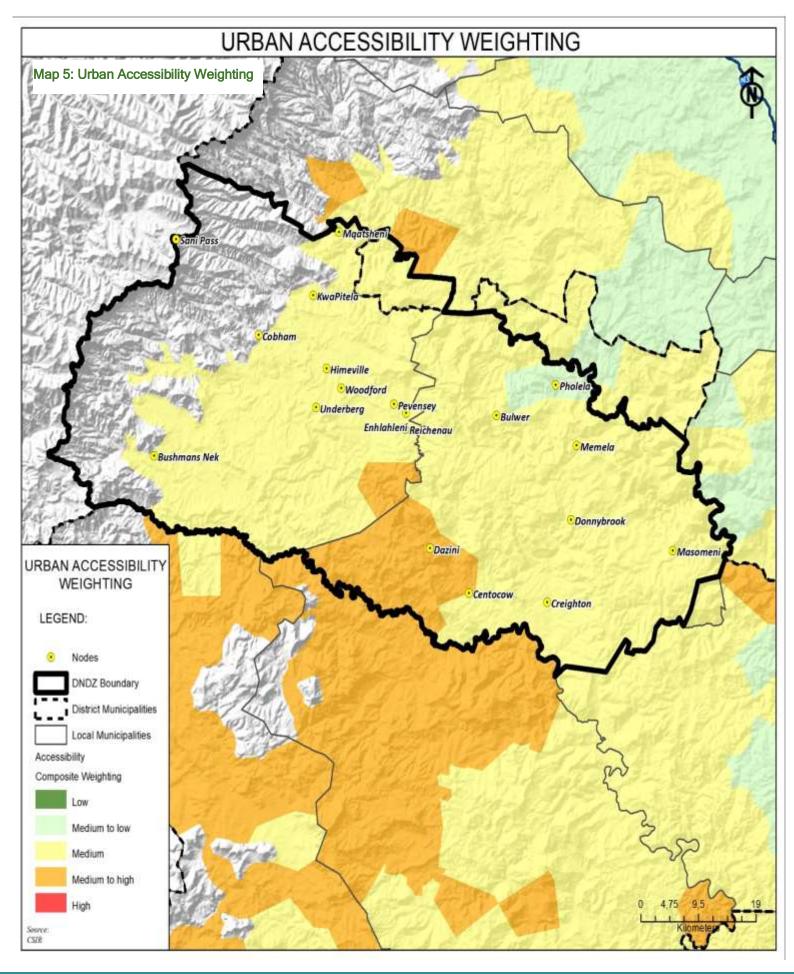
and proposed that can make significant improvement to accessibility of certain areas which in turn will lure potential investments to these areas. A tourism corridor, traversing the municipality in a south easterly direction has been identified.

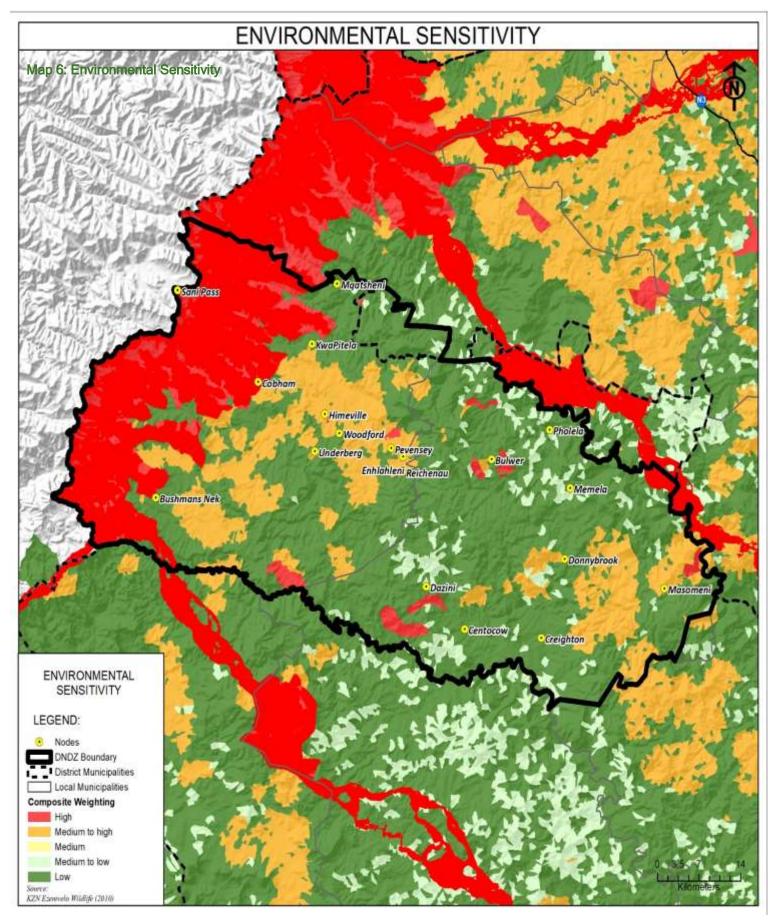
- The uKhahlamba World Heritage Park to the west has been earmarked as a Priority Conservation Area.
- The largest portion of the municipality has been identified as Economic Support Areas which means that at least two Economic Sectors can be supported in these areas and will most probably consist of Agriculture and Tourism activities.
- Forestry is also one of the larger economic activities within the municipality. Interesting to note is that no Poverty areas or Social Investment areas have been identified in the Municipality.
- Himeville and Underberg are identified as the Value Adding Areas. Social Investment Areas are identified within the rural areas around Gqumeni and Donnybrook.
- The SDF for DNDZ must adopt and spatially reflect the projects which the DRDLR Rural Development Plan has indicted.
- The HGDM IDP reflects DNDZ as the second local municipality with the highest population, with situational analysis of infrastructural and settlement backlogs. The SDF ought to be aligned to the vision of the municipality in order to ensure that the development of spatial objectives and proposals are correlated to the challenges and opportunities identified within the IDP.
- Underberg is identified as a primary node by HGDM; and Creighton and Donnybrook as secondary nodes, these areas already comprise of good levels of economic development. Bulwer be developed as an administrative centre.
- Dr Nkosazana Dlamini Zuma Local Municipality SDF must adopt the responses allured on the climate change response plan.

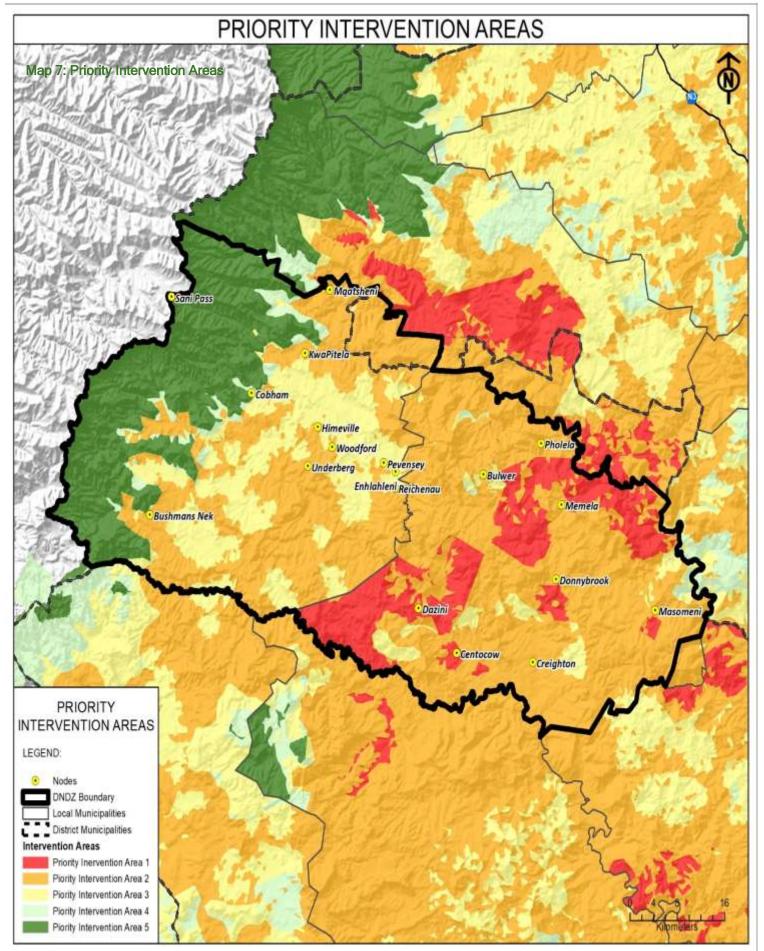
- The Harry Gwala Enterprise Development Strategy enlists a number of SMME and Cooperatives projects which the NDZ SDF will need to consider for the 'robust economy and sustainable job creation' chapter of the strategy as proposals.
- The relevant catalytic LED Initiatives proposed by the HGDM LED strategy may be adopted for the promotional strategy of economic development.
- Potential projects that the Harry Gwala has identified ought to be incorporated on relevant potential areas and spatially integrated on the NDZ SDF.
- The Growth and Development Plan provides insight on the path the district is taking regarding economic growth. This will then influence the NDZ SDF development strategies and proposals.
- The Investment Promotion & Facilitation Strategy has identified marketing themes such as the natural resources, investment nodes, catalytic projects, and lifestyle factors the district possess.
- The 2017 LED Strategy for NDZ focuses mainly on the main economic sectors, and the corresponding opportunities available within these sectors as well as the five main towns in the Municipality, namely; Underberg, Himeville, Creighton, Bulwer and Donnybrook.

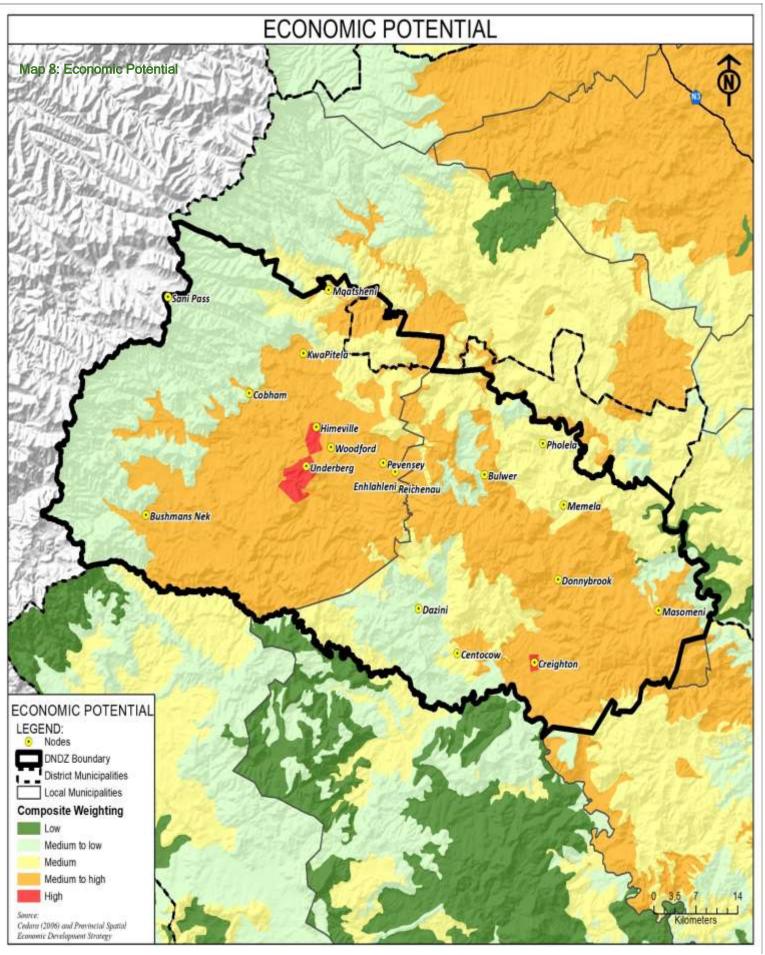
3.7 COORDINATION, ALIGNMENT AND INTEGRATION OF SECTORAL POLICIES

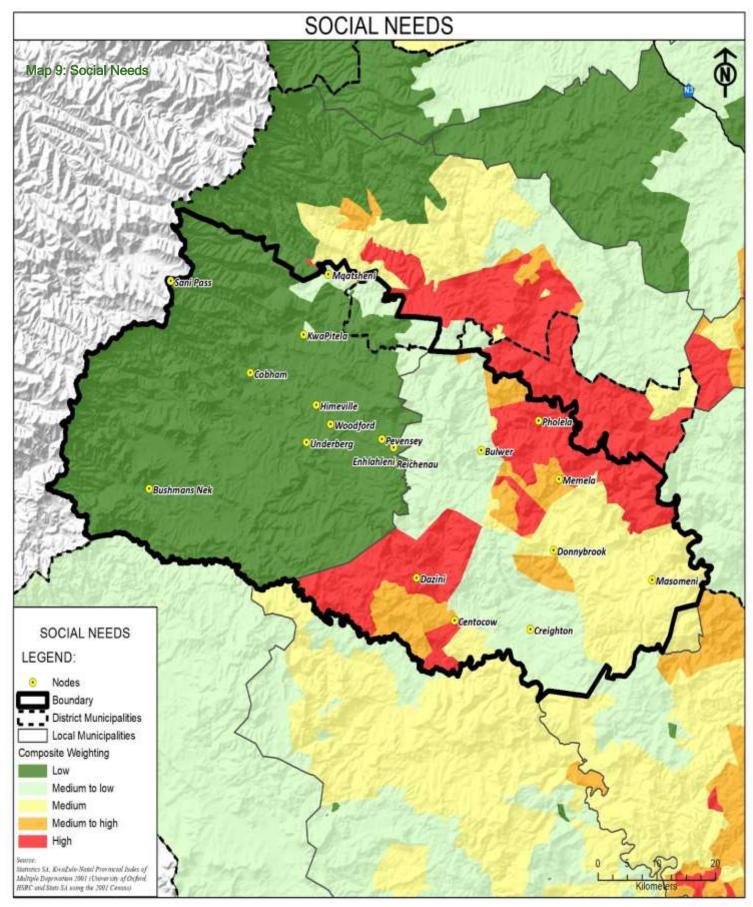












4. DR NKOSAZANA DLAMINI ZUMA WITHIN THE REGIONAL CONTEXT

Dr Nkosazana Dlamini Zuma Municipality is an administrative area in the Harry Gwala District, which borders on the Eastern Cape and Lesotho. It is situated within boundaries of KwaZulu-Natal in South Africa. The municipality aims to provide access to equitable, quality basic services on its developments. Map: 13 indicate that DNDZ is less than 80km from the capital city of KZN, with protected areas such as internationally recognized asset such as 'uKhahlamba Drakensberg' mountains. Regionally, the study municipality is;

4.1 HOME OF THE WORLD HERITAGE SITE

DNDZ prides itself as being the home to a very rare natural asset which is the uKhahlamba World Heritage Park. This is a world asset and the Municipality is relatively well positioned for the exploitation of nature-based tourism. The natural resource of the municipality comprises of scenic mountains, rare species, such as blue crane, rivers, wetlands and the UKhahlamba Drakensberg World Heritage Site. The conservation efforts and practices and limited industrial areas within most parts of the municipality protects the area from a number of undesirable pollutants and un-present odors.

4.2 GATEWAY TO THE KINGDOM OF LESOTHO

The municipality shares borders with the Kingdom of Lesotho. A very small country that has commonwealth agreements with South Africa

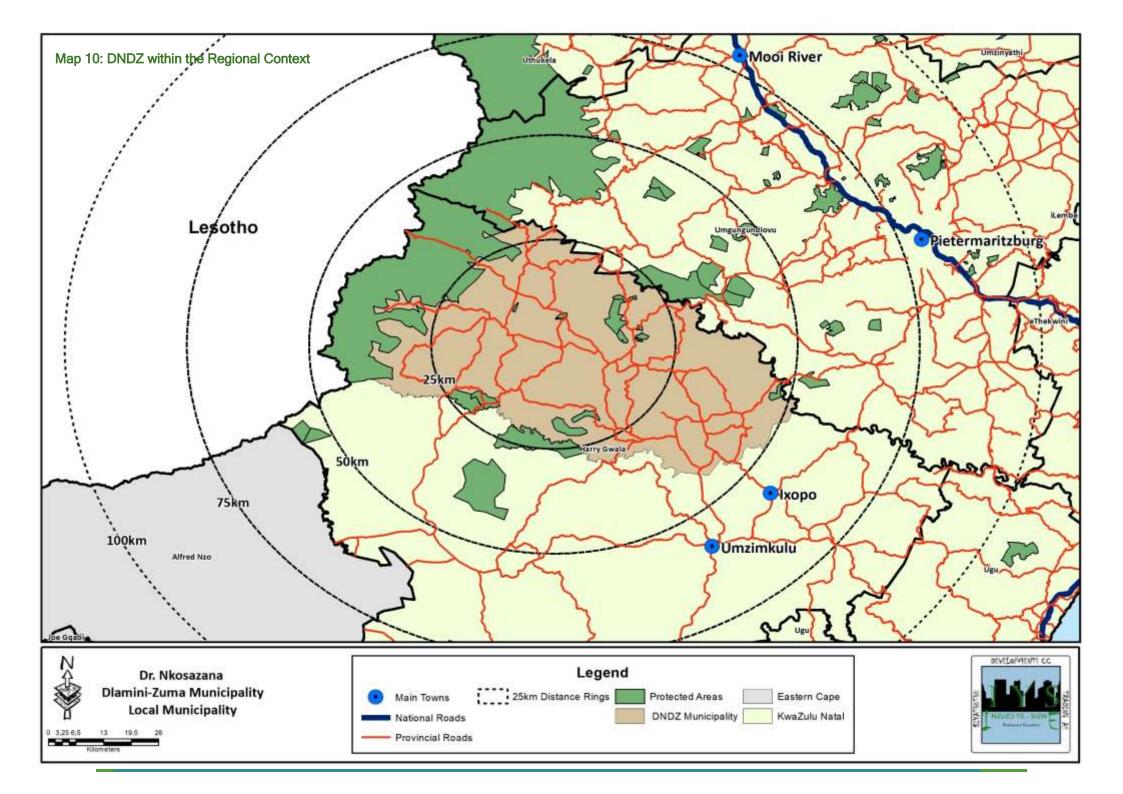
and accessible through Sani Pass from Dr Nkosazana Dlamini Zuma Municipality. Several trading opportunities are worth exploring particularly with the upgrade of Sani Pass Road from gravel into tar. There are numerous economic benefits which should be examined including agriculture food export.

4.3 PRODUCTIVE FARMING AREA

There are number of productive commercial farms with a diversity of product offering including dairy products and crop production. The municipality is very important towards the country's food production and supply. The existing agricultural land may face threat in the near future from excessive tourism diversification given the competing demands which includes the existence of UKhahlamba Drakensberg.

4.4 REMOTE RURAL SETTLEMENTS

A number of rural settlements are found within the area. These purely depend on a very small economy which is visibly unable to sustain these and as a result Ixopo and Pietermaritzburg are still excessively used as the regional and sub-regional economic hubs of the area. In fact, the existing small towns also depend on these two towns for wholesale and trade opportunities (i.e., the buying and selling dynamics).



5. SPATIAL ANALYSIS

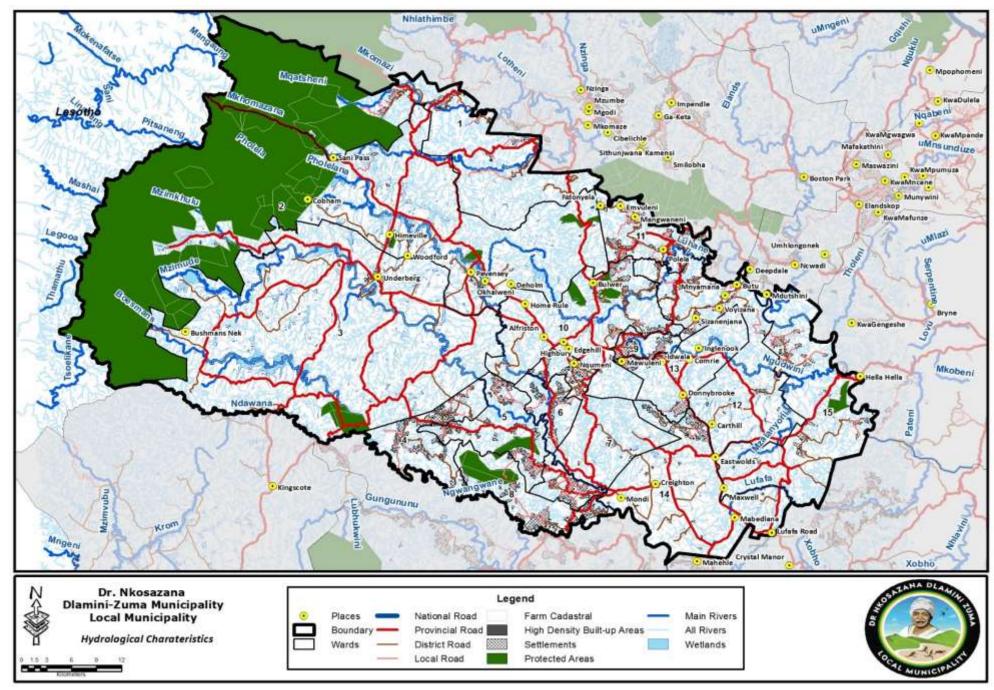
5.1 ENVIRONMENTAL ANALYSIS

5.1.1 RIVERS, HYDROLOGICAL WATER FEATURES AND ECOSYSTEM

The Municipality is richly sanctified with numerous naturally occurring water bodies which range from riverine systems, wetlands and wet marshes. Two of the largest river systems in KwaZulu-Natal flow through Dr Nkosazana Dlamini Zuma LM. These include the Umkhomazi River and UMzimkhulu River. The rivers have numerous smaller river streams and tributaries. Along with the catchment areas, they are responsible for a large portion of the municipality's water supply. They bare large quantities of water flowing through the municipality. Accordingly, these extensive river systems have been identified crucial to local water supply. Freshwater Ecosystem Priority Areas (FEPA) are also identified within NDZ. FEPA Rivers, in order words, are strategic maps of which rivers, wetlands and estuaries should remain healthy. These include Mzimkhulu, Mkhomazi, Boesmans and Pholela Rivers as indicated on the Hydrological Characteristics map (b) below and buffered 100m. Flagship rivers have also been identified, these are rivers that have been identified as (i) been representative of Free-Flowing Rivers and (ii) having high importance based on ecosystem processes and biodiversity values.

There are several wetland systems occur within the Municipality, these systems are impacted upon by the human activities such as agriculture and housing development. These wetlands appear to be functional and requires clearance of alien species to further improve their functionality. Harry Gwala District has two registered Ramsar sites, the most pristine of those sites is found within NDZ and it is uKhahlamba Drakensberg Park which was registered on 21 January 1997 under the name Natal Drakensberg Park. The protection of these areas is to follow, in order to protect it from encroaching developments; particularly human settlements and agricultural land uses, which may destroy the wetlands or adversely affect the supply of water to the wetlands. There are a number of wetlands, seven of which have been registered as Sites of Conservation Significance by Ezemvelo KwaZulu-Natal Wildlife. The hydromorphic areas associated with rivers and wetlands need to be protected, managed and used sparingly. These are environmentally sensitive areas; they are sensitive to erosion and provide links between areas, thereby providing natural pathways for the movement of plants and animals. The banks of these rivers contain high value biodiversity such as natural vegetation and ecosystems. The Municipality is also characterized by several wetlands areas which are connected to the major catchment areas.

Map 11: Hydrological Features



The water quality of the municipal area is measured in terms of the Present Ecological Status (PES) Score; the Ecological Importance and Sensitivity (EIS) Score and the ES Score. The following tables provide the interpretation of these scores.

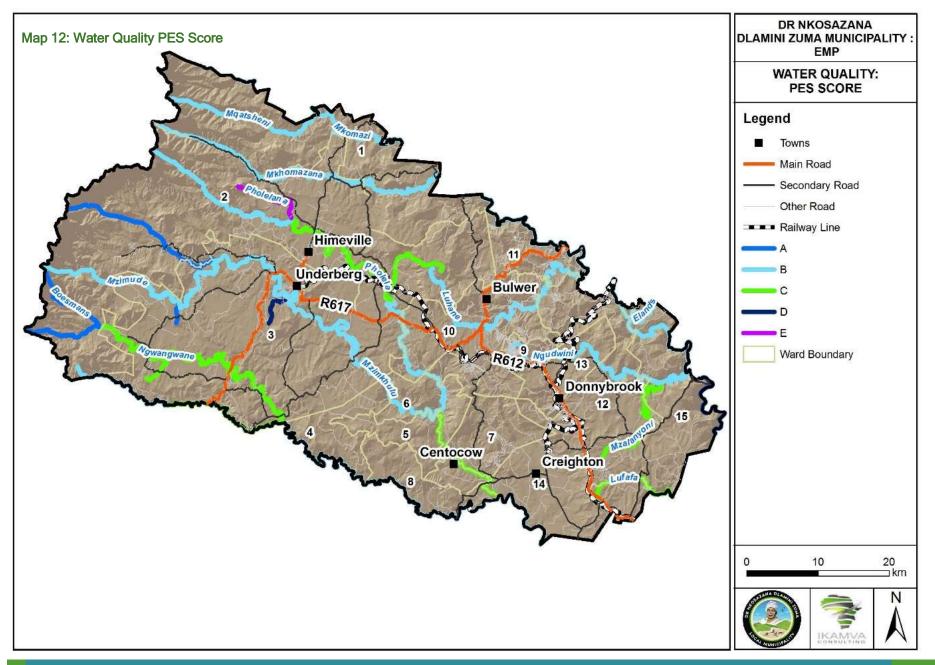
Table 6: Interpretation of scores for determining present ecological status (Kleynhans 1999)

Interpretation of Mean* of Scores for all Attributes: Rating of PES
Category

WITHIN GENERALLY ACCEPTABLE RANGE				
Α	A >4 Unmodified, or approximates natural condition.			
в	>3 and ≤4	Largely natural with few modifications, but with some loss of natural habitats.		
С	>2 and ≤3	Moderately modified, but with some loss of natural habitats.		
D	=2	Largely modified. A large loss of natural habitats and basic ecosystem functions has occurred.		
	OUTSIDE GENERAL ACCEPTABLE RANGE			
Е	>0 and <2	Seriously modified. The losses of natural habitats and basic ecosystem functions are extensive.		
F	0	Critically modified. Modifications have reached a critical level and the system has been modified completely with an almost complete loss of natural habitat.		

Table 7: Ecological importance and sensitivity categories.

EIS Categories	General Description
Very high	Quaternaries/delineations that are considered to be unique on a national or even international level based on unique biodiversity (habitat diversity, species diversity, unique species, rare and endangered species). These rivers (in terms of biota and habitat) are usually very sensitive to flow modifications and have no or only a small capacity for use.
High	Quaternaries/delineations that are considered to be unique on a national scale due to biodiversity (habitat diversity, species diversity, unique species, rare and endangered species). These rivers (in terms of biota and habitat) may be sensitive to flow modifications but in some cases, may have a substantial capacity for use.
Moderate	Quaternaries/delineations that are considered to be unique on a provincial or local scale due to biodiversity (habitat diversity, species diversity, unique species, rare and endangered species). These rivers (in terms of biota and habitat) are usually not very sensitive to flow modifications and often have a substantial capacity for use.
Low/marginal	Quaternaries/delineations that are not unique at any scale. These rivers (in terms of biota and habitat) are generally not very sensitive to flow modifications and usually have a substantial capacity for use.



PES category A is found in the western region, in ward 2, at the source of Boesmans and Mzimkhulu rivers. These rivers are unmodified and approximate natural conditions. The majority of the rivers fall into category B, which are largely natural with few modifications, but with some loss of natural habitats. These include the Mzimkhulu, Mkhomazana and Mkhomazi rivers. The Pholela river is a category B but deteriorates to category C at the confluence with the Pholela river, in ward 2, as this river is a category E, which is seriously modified. The losses of natural habitats and basic ecosystem functions are extensive. There is one category D river that joins the Mzimkhulu river southwest of Underberg, in ward 3.

The rivers through the Bulwer region maintain their category B status.

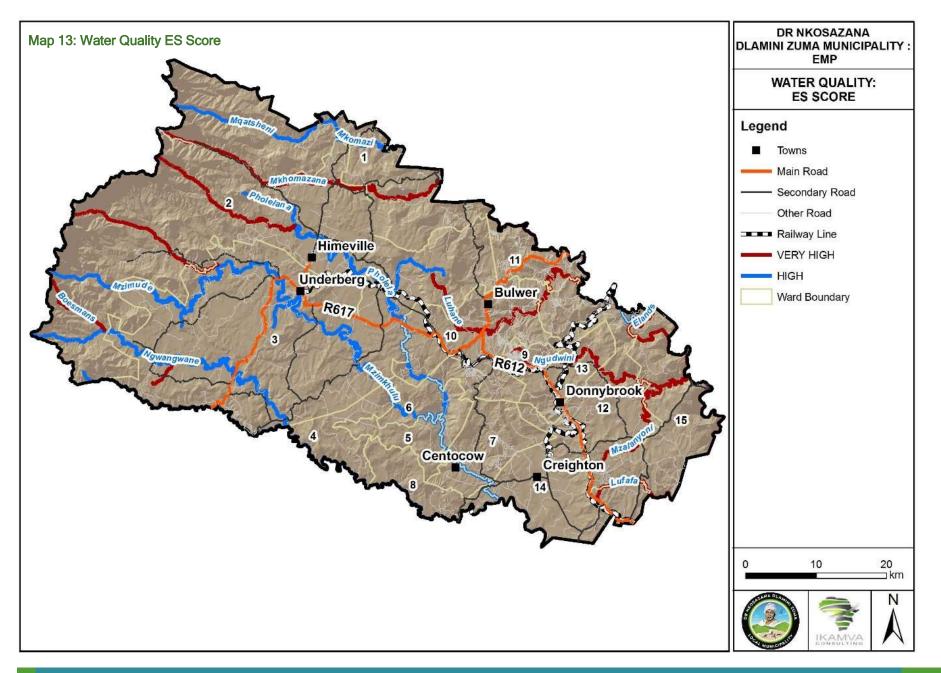
There are two category C rivers south of Donnybrook, namely the Mzalanyoni and Lufafa rivers, in wards 12, 14 and 15. The Mzimkhulu river is a category C river passing through Centocow, in ward 6 and 8. The vast majority of the quaternary/ delineations within the municipal area is classed as High. These quaternaries/delineations are considered to be unique on a national scale due to biodiversity (habitat diversity, species diversity, unique species, rare and endangered species). These rivers (in terms of biota and habitat) may be sensitive to flow modifications but in some cases, may have a substantial capacity for use.

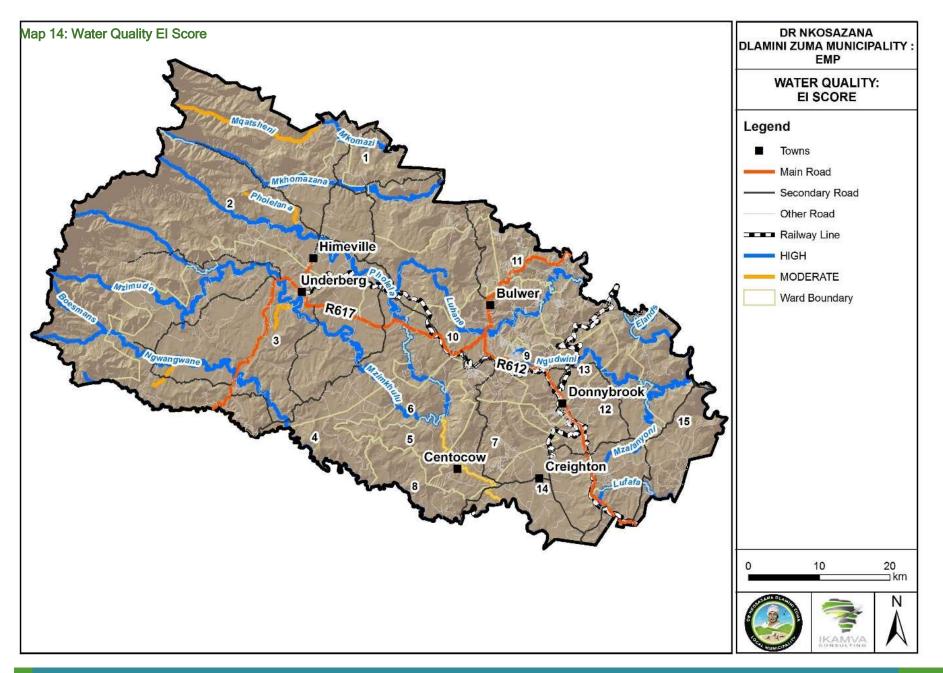
There are a few quaternaries/delineations within the municipal area that are classed as moderate. These are considered to be unique on a provincial or local scale due to biodiversity (habitat diversity, species diversity, unique species, rare and endangered species). These rivers (in terms of biota and habitat) are usually not very sensitive to flow modifications and often have a substantial capacity for use. These rivers include Mqatsheni in ward 1, Pholela in ward 2, Ndawana in ward 3, and Mzimkhulu as it passes Centocow, in ward 6.

In Bulwer it was found that members of the public wash their cars directly in a tributary of the Mkobeni river as well as in a wetland at the southern entrance to the town on the R617. They cited the expense of commercial car washes as the reason why they undertook this practice.



Figure 13: Cars washed directly in water resources (wetland and stream) in Bulwer





5.1.2 GEOLOGY

The geological nature of an area influences the topography, and alignment of river channels. It also has an influence on the type of soil formations prevalent. Dr Nkosazana Dlamini Zuma municipal area is underlined by rock derived from dolerite and mudstones. The eastern lower lying areas of Dr Nkosazana Dlamini Zuma LM are dominated by shale's and arsenate. The soils are generally considered to have low fertility. The second very important common characteristic evident in most of the soils within the municipal area is that they are highly erodible. Majority of the municipal area (northwestern portion of the municipality moving towards the central portion) is characterized by mudstone and dispersed with dolerite. The southern and south-eastern portion of the municipality is dominated by shale, dispersed with Ecca Group Arenite.

5.1.3 BIODIVERSITY CONSERVATION

The effective conservation of the world's biodiversity results in the long-term survival and well-being of the people. Pressures on biodiversity show no sign of decreasing, yet resources for conservation action are limited. Municipality needs to be strategic and focus efforts where they will have the greatest impact. Mindset is employed as a data analysis function that identifies a "minimum set" of planning units that will assist in meeting conservation targets. Although no detailed sampling of the fauna of the entire municipal area has been completed, available data indicates that in terms of game animals, species diversity is quite low due to the dominance of Sourveld type grasslands (Dr Nkosazana Dlamini Zuma IDP 2002). However, there are a few common, rare and endangered species

present. In terms of high biodiversity value, there are several areas in the municipality identified in terms of priority 1. This is due to the following animals, which are Red Data species found in the Dr Nkosazana Dlamini Zuma LM. They have high biodiversity value; as such, they need protection from exploitation and habitat loss:

- Oribi: vulnerable but bordering on endangered;
- Blue swallow: critically endangered;
- Cape parrot: critically endangered;
- Wattle crane: critically endangered;
- Blue crane: endangered;
- Crowned crane: endangered;
- Cape vulture: endangered; and
- Tree hyrax: endangered.

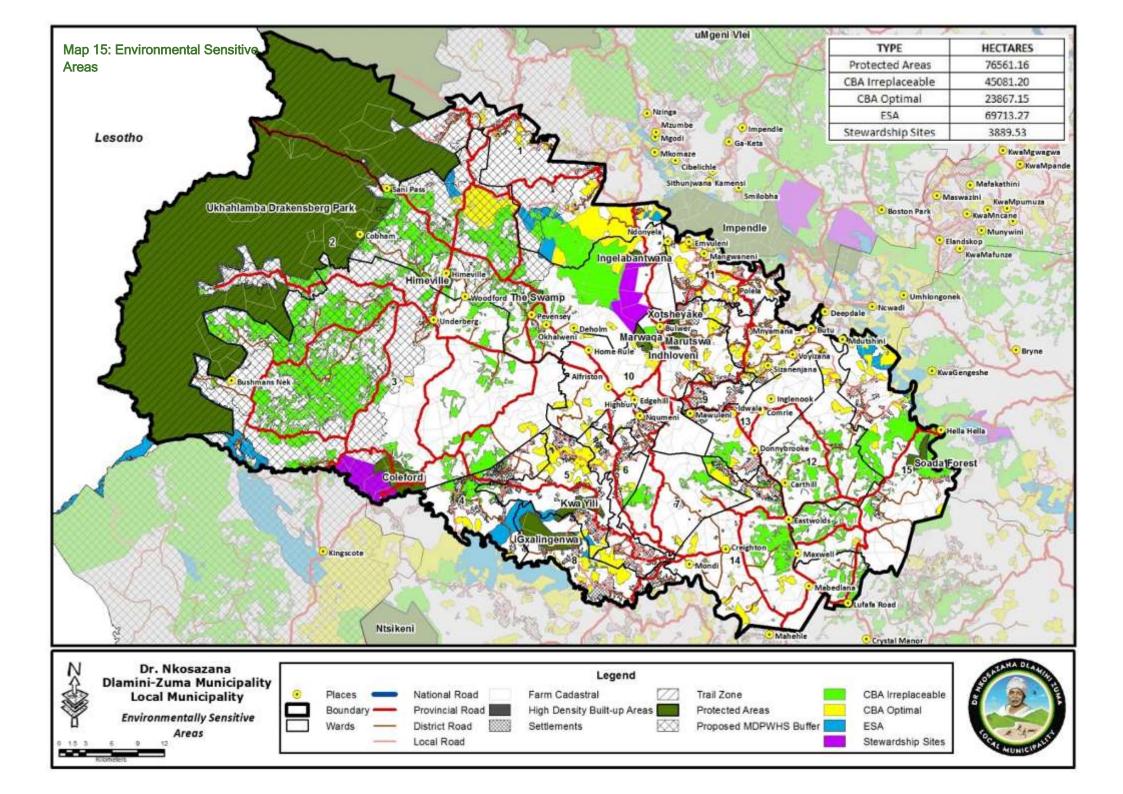
The Harry Gwala DM has developed a District Biodiversity Sector Plan. It takes extensive cognizance of the KZN Provincial Biodiversity Plan developed by KZN Wildlife. The District Biodiversity Plan identifies the environmentally sensitive areas, conservation and protected areas as well as the Critical Biodiversity Areas (CBAs). The CBAs are considered as areas critical to meeting biodiversity targets and thresholds. They are crucial to maintain viable population of species as well as the functionality of ecosystems (Escott, et al. 2013). There are CBAs within Dr Nkosazana Dlamini Zuma LM. There are CBA Irreplaceable areas are defined as areas considered critical for meeting biodiversity targets and thresholds. These areas are required to ensure the persistence of viable populations of species and the functionality of ecosystems. These represent the only known localities for which the conservation targets for one or more of the biodiversity features can be achieved. Such areas are found mostly in Ingelabantu, Creighton, Eastworlds, Hella hella as well as Sani Pass, and their dominance covers approximately

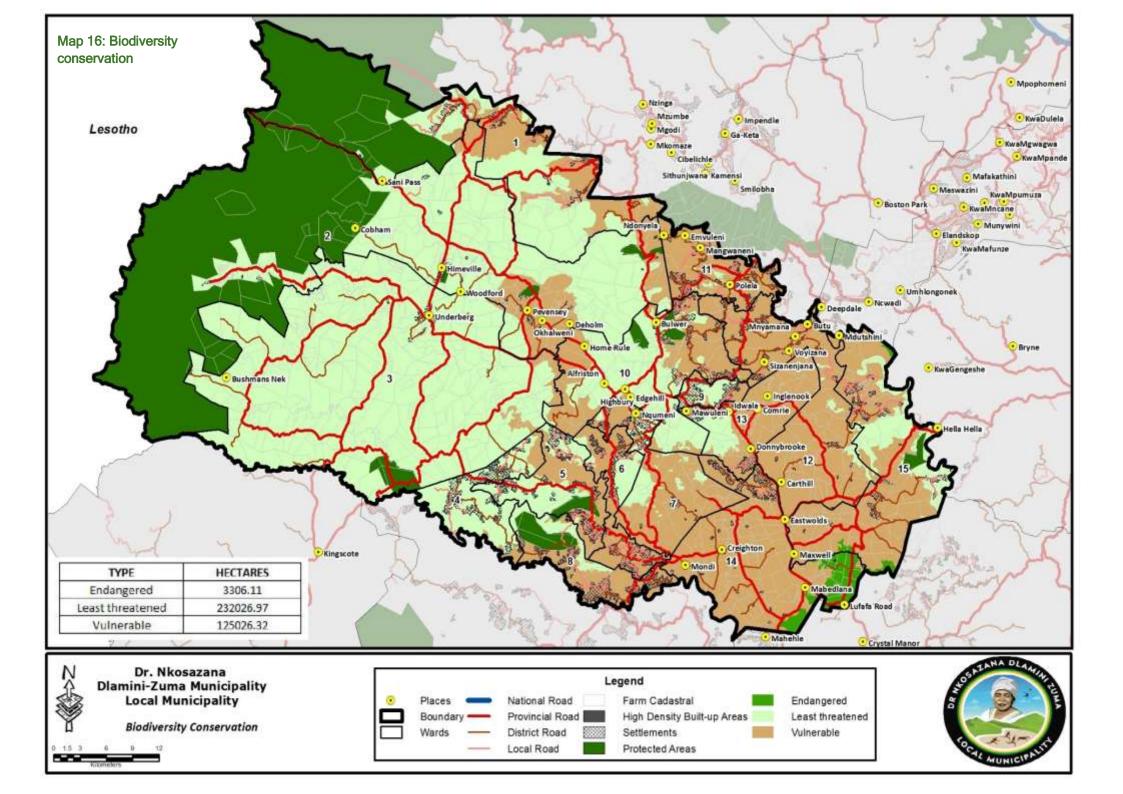
45081.20 hectares within the municipality. There are also CBA Optimal Areas that represent an optimised solution to meet the required biodiversity conservation targets while avoiding areas where the risk of biodiversity loss is high, such as cultivation and residential areas. These areas within Dr Nkosazana Dlamini-Zuma municipality are found mostly in areas such as Ndonyela, Mdutshini and near kwaYili with a total coverage of approximately 23867.15 hectares.

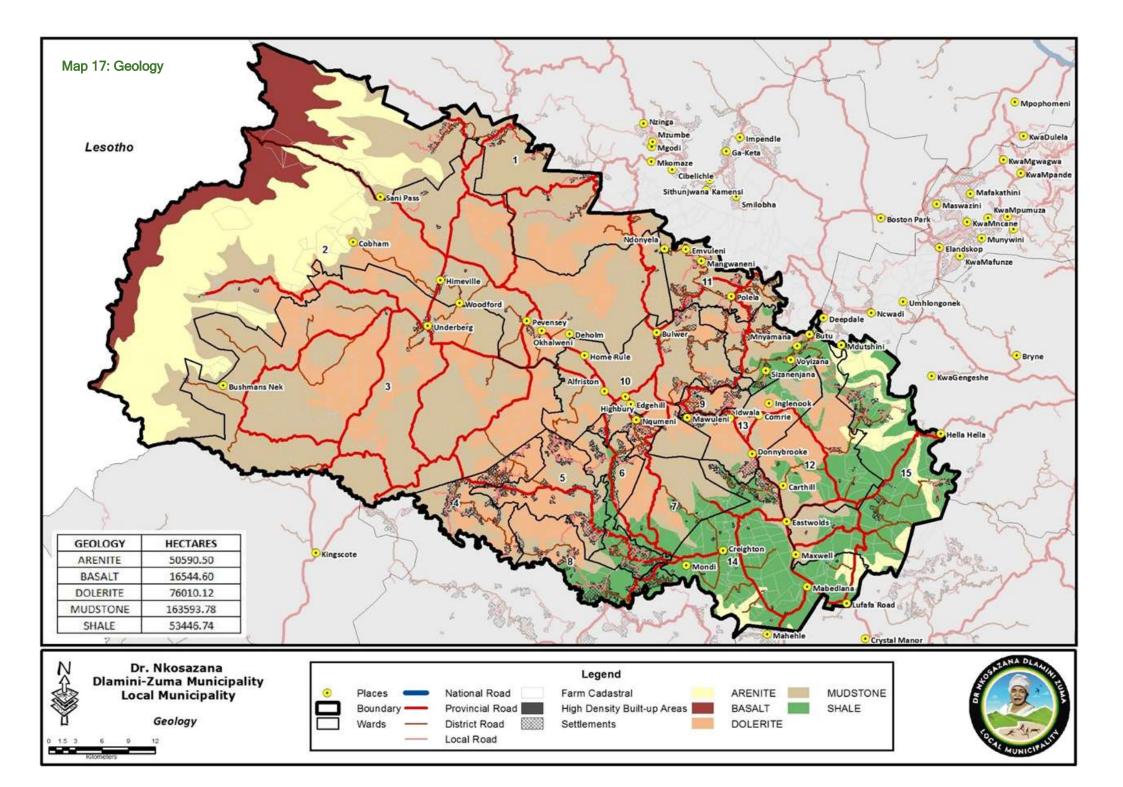
The CBA Optimal uses the least amount of land, loss of these areas would result in a configuration that is more land hungry. Thus, the municipality should try and avoid modification in these places where this biodiversity is situated. Overly, the biodiversity within the case study area is threatened and vulnerable. Only 3306ha is endangered, as represented in the table below.

Table 8: Terrestrial Biodiversity

MAP CATEGORY	GUIDING DESCRIPTION OF CATEGORIES	LAND-USE MANAGEMENT OBJECTIVE
Critical Biodiversity Areas (CBAs)	Natural or near-natural landscapes that are considered critical for meeting biodiversity targets and thresholds, and which safeguard areas required to ensure the persistence of viable populations of species, and the functionality of ecosystems and Ecological Infrastructure (EI)	Maintain in a natural state with limited to no biodiversity loss
Critical Biodiversity Areas: Irreplaceable	Areas which are required to meet biodiversity conservation targets, and where there are no alternative sites available. (Category driven by species and feature presence)	Maintain in a natural state with limited to no biodiversity loss
Critical Biodiversity Areas: Optimal	Areas that represent an optimised solution to meet the required biodiversity conservation targets while avoiding areas where the risk of biodiversity loss is high (Category driven primarily by process)	Maintain in a natural state with limited to no biodiversity loss
Terrestrial Ecological Support Areas (ESAs)	Functional but not necessarily entirely natural terrestrial that are largely required to ensure the persistence and maintenance of biodiversity patterns and ecological processes within the Critical Biodiversity Areas. The area also contributes significantly to the maintenance of Ecological Infrastructure (EI)	Maintain ecosystem functionality and connectivity allowing for some loss of biodiversity







5.1.4 SLOPE ANALYSIS

The altitude ranges from 2083 metres above sea level in the north east (aMahwaqa Peak) to a low of approximately 450 metres at the bottom of the Umkhomazi River valley in the south. Dr Nkosazana Dlamini Zuma LM comprises of gently undulating to steeply undulating land. Much of the gently sloped land is restricted to small "plateaus", which are primarily found in the western highland's areas of Dr Nkosazana Dlamini Zuma LM.

5.1.5 CLIMATE CHANGE

Climate change is a natural phenomenon that takes place over geological time. However, over the past few decades the rate of climate change has been more rapid and the magnitude of global warming has increased dramatically (Warburton, M.L and Schulze, R 2006; Warburton, M.L 2012). This change has been attributed to increased anthropogenic greenhouse gas emissions (Koske, J and Ochieng, M.A 2013).

The Department of Environmental Affairs has proposed the draft Climate Change Bill. The purpose of the Bill is to build an effective climate change response and ensure the long-term, just transition to a climate resilient and lower carbon economy and society. This will be done within the context of sustainable development for South Africa, and will provide for all matters related to climate change.

The Bill acknowledges that anthropogenic climate change represents an urgent threat to human societies and the environment, and requires an effective, progressive and well-coordinated response. Its further highlights that, amongst others, anticipated domestic climate change impacts have the potential to undermine the country's development goals, and that responses to climate change raise unique challenges, thus requiring a legislative framework for the implementation of the country's national climate change response.

The National Climate Change Bills addresses issues related institutional and coordination arrangement across the three spheres of government namely national, provincial and local. It further highlights the need the spheres of government and entities, sectors as well business to respond to challenges of climate change. The bill further addresses the matters relating to, the national adaptation to impacts of climate change, greenhouse gas emissions and removals, and policy alignment and institutional arrangements.

The objects of the proposed Act are to:

- Provide for the coordinated and integrated response to climate change and its impacts by all spheres of government in accordance with the principles of cooperative governance;
- Provide for the effective management of inevitable climate change impacts through enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to building social, economic, and environmental resilience and an adequate national adaptation response in the context of the global climate change response; and to

Make a fair contribution to the global effort to stabilize greenhouse gas concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe and in a manner that enables economic, employment, social and environmental development to proceed in a sustainable manner.

The Climate Change Vulnerability Assessment and Response Plan was developed through the Local Government Climate Change Support (LGCCS) program. The LGCCS is led by the Department of Environmental Affairs and is part of the International Climate Initiative (IKI) and is supported by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). According to the Harry Gwala Climate Change Response Plan (2018) the observed impacts of climate change include unpredictable weather patterns, and more frequent extreme weather events. The District municipality has recommended a number of strategies in the document that will deal with the negative impacts of climate change, and how it will affect Disaster Management, Infrastructure and Human Settlements in several ways within the municipality.

The White Paper on the National Climate Change Response (DEA, 2011b) details the following findings regarding the impacts of climate change on biodiversity and ecosystem services in South Africa:

Biodiversity: impacts of climate change

Up to 30% of endemic species may be at an increasingly high risk of extinction by the latter half of this century if climate change is unmitigated.

Marine ecosystems and species are at risk from changes in water temperature, ocean acidification and changes in ocean current.

Changes in rainfall patterns and temperatures and rising atmospheric carbon dioxide levels could shift the distribution of terrestrial biomes with many implications for species diversity, ecosystem processes such as wildfires, and critical ecosystem services such as water yield and grazing biomass.

Increasing frequency of extreme rainfall events will influence runoff quality and quantity in complex ways, significantly affecting the marine and estuarine environment. Reduced water flow will increase the salinity of estuaries, affecting the breeding grounds and nursery areas of many marine species. Coastal estuaries will also be vulnerable to long-term sea-level rise.

Rising atmospheric carbon dioxide has poorly known direct effects on ecosystems. It may be increasing the cover of shrubs and trees in Grassland and Savannah Biomes, with mixed effects on biodiversity and possible positive implications for carbon sequestration.

Additional stresses to biodiversity resulting from climate change include wildfire frequency (which appears to already show climate change-related` increases in the Fynbos Biome), and the prevalence of invasive alien species. These stresses combined with reduced and fragmented habitats will further increase the vulnerability of biodiversity to climate change.

Water resources: impacts of climate change

Based on current projections South Africa will exceed the limits of economically viable land-based water resources by 2050. The adequate supply of water for many areas can be sustained only if immediate actions are taken to stave off imminent shortages. The water sector must balance the allocation of limited water resources amongst major users (agriculture, domestic urban use and industry), whilst addressing the need to ensure fair access to water for all South Africa's people as well as a sufficient ecological allocation to maintain the integrity of ecosystems and thereby the services they provide.

Rainfall is expected to become more variable, with an increase of extreme events such as flooding and droughts resulting in a much more variable runoff regime.

Increased rainfall intensity will exacerbate scouring in rivers and sedimentation in dams, potentially impacting on water supply and treatment infrastructure.

Higher temperatures, combined with higher carbon dioxide levels, will contribute to increased growth of algae as well as faster evaporation rates negatively impacting water resources.

Downscaled climate modelling suggests that the western and interior parts of the country are likely to become drier, and the eastern parts of the country wetter. Through the Climate Change Response Plan program key climate change vulnerability indicators for the Harry Gwala District Municipality were identified. These indicators demonstrate areas that maybe at high risk of climate change impacts. A summary of the key vulnerability indicators is provided in the table below.

Table 9: Vulnerability indicators for HGDM

No	Sector	Indicator Title	Exposure Answer	Sensitivity Answer	Adaptive Capacity Answer
		Change in other crop production areas (e.g., vegetables, nuts, etc.)	Yes	High	Low
1	Agriculture	Increased risks to livestock	Yes	High	Low
		Loss of High Priority Biomes	Yes	High	Low
2	Biodiversity and Environment	Loss of Priority Wetlands and River ecosystems	Yes	High	Low

No	Sector	Indicator Title	Exposure Answer	Sensitivity Answer	Adaptive Capacity Answer
3	Human Health	Increased malnutrition and hunger as a result of food insecurity	Yes	High	Low
	Human Settlements,	Increased migration to urban and peri-urban areas	Yes	High	Low
4	Infrastructure and Disaster Management	Increased risk of wildfires	Yes	High	Low
		Less water available for irrigation and drinking	Yes	High	Low
5	Water	Increased impacts of flooding from litter blocking storm water and sewer systems	Yes	High	Low

Source: Harry Gwala CC Response Plan (2018)

Two bio-climatic regions exist within Dr Nkosazana Dlamini Zuma. These are the highland and the moist upland bio-climatic regions. The area can be categorized into two temperature zones: The western (higher) portions of Dr Nkosazana Dlamini Zuma LM have good climate and are typically cooler. Winter temperatures in the cooler western regions often drop below 0°C.

The eastern (lower) portions can be described to have high climate. Warmer eastern regions temperatures seldom drop below 5° C.

Summer temperatures range from the low thirties in the west to high thirties in the east. The mean annual rainfall in the area is between 700 and 1200mm per annum with the eastern areas generally being drier than those in the west are.

The Increase in the severity of storm events and increase in flooding will damage infrastructure. The impacts of storm events will particularly affect communities located in informal settlements, on flood plains and where there are poor drainage infrastructural systems. In addition, communities in rural areas that depend on subsistence farming may be unable to grow crops that they have grown in the past due to the changing climate and this will have a significant impact on food availability, food accessibility and food systems stability so according to the Harry Gwala CCRP the Department of Water Affairs and the Municipality must first conduct awareness campaigns that promote water saving. They must also investigate the possibility of assisting small scale and subsistence farmers in rural areas by providing infrastructure such as boreholes, water harvesting initiatives, JoJo tanks, water trucks/tankers in order to contribute towards sustainable subsistence farming and food production by 2025 and to approach the flooding issue the Department of Environmental Affairs must assist the municipalities with developing an Integrated Waste Management Plan that will deal with the increased impacts of floods due to litter blocking the sewer system within urbanized communities. Another negative impact that is associated with climate change are wild fires and to deal with this the district CCRP suggested that the municipalities must prioritize public awareness on fire preventions by investing in the procurement of equipment to be distributed through traditional leaders before each winter season because wildfires affect mostly the rural areas governed by traditional leaders.

5.1.6 CONSERVATION AND PROTECTED AREAS

Dr Nkosazana Dlamini Zuma municipal area has both international and national environmental responsibilities. The international responsibilities relate primarily to the protection of biodiversity in accordance to the International Convention on Biological Diversity, to which South Africa is a signatory. In specific relevance to Dr Nkosazana Dlamini Zuma LM, both the protection and relevant preservation of wetland habitats, Mist belt grasslands and Mist belt forests are currently under threat in the municipal area.

One example of a Mist belt forest within the boundaries of Dr Nkosazana Dlamini Zuma that is considered to be of national importance is that of the iGxalingenwa forest. This forest is considered to be of national importance based on the high number of Cape parrots utilizing the area as a food source and for roosting sites. The presence of the tree hyrax in this forest also contributes towards its biodiversity importance. There are a number of sites within Dr Nkosazana Dlamini Zuma LM, which have been identified as being of specific conservation importance. These include:

- A World Heritage Site;
- Nine provincial nature reserves
- One private game reserve

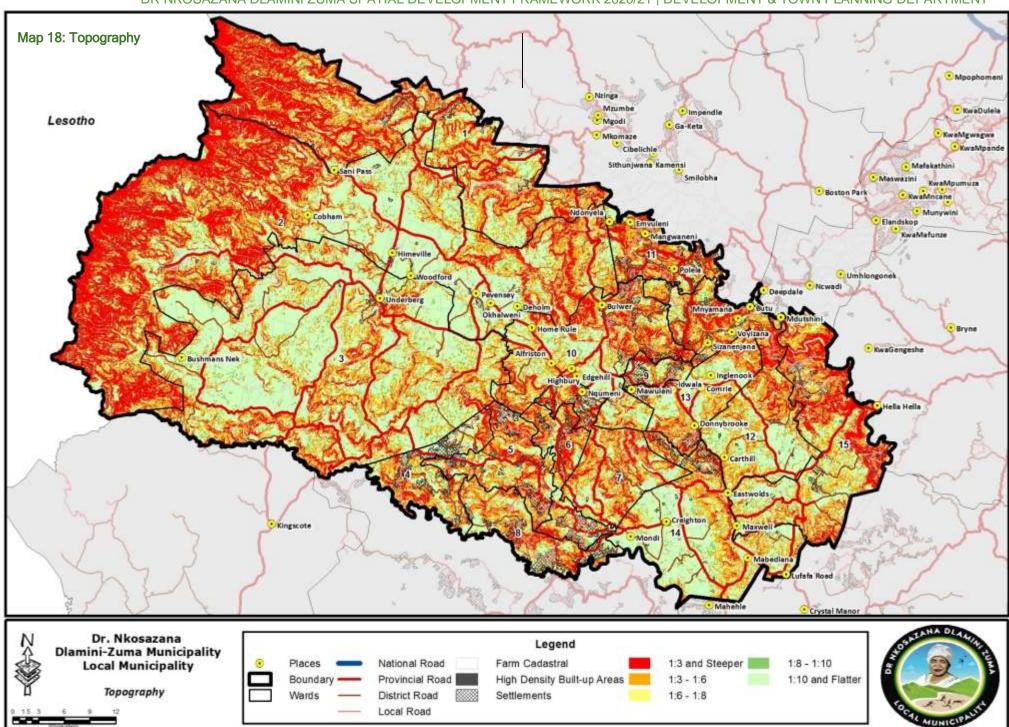
- Three stewardship focus areas
- Nineteen sites of conservation significance
- One biosphere reserve.

Furthermore, there are eight formally protected areas within Dr Nkosazana Dlamini Zuma LM of these, seven are State forest areas and the eighth is the Impendle Natural Reserve. Hence, protecting the natural resource base of the area, would not only ensure shortterm survival for many of the residents in the rural area, it would also contribute towards creating employment or other income generating opportunities. Therefore, Dr Nkosazana Dlamini Zuma LM is in an excellent position to meet the national conservation targets entirely of two prominent grassland and forest types and contribute significantly to the conservation target of another grassland type. This could be done through the conservation of the remaining nontransformed areas of these grasslands and forests within its municipal area of jurisdiction.

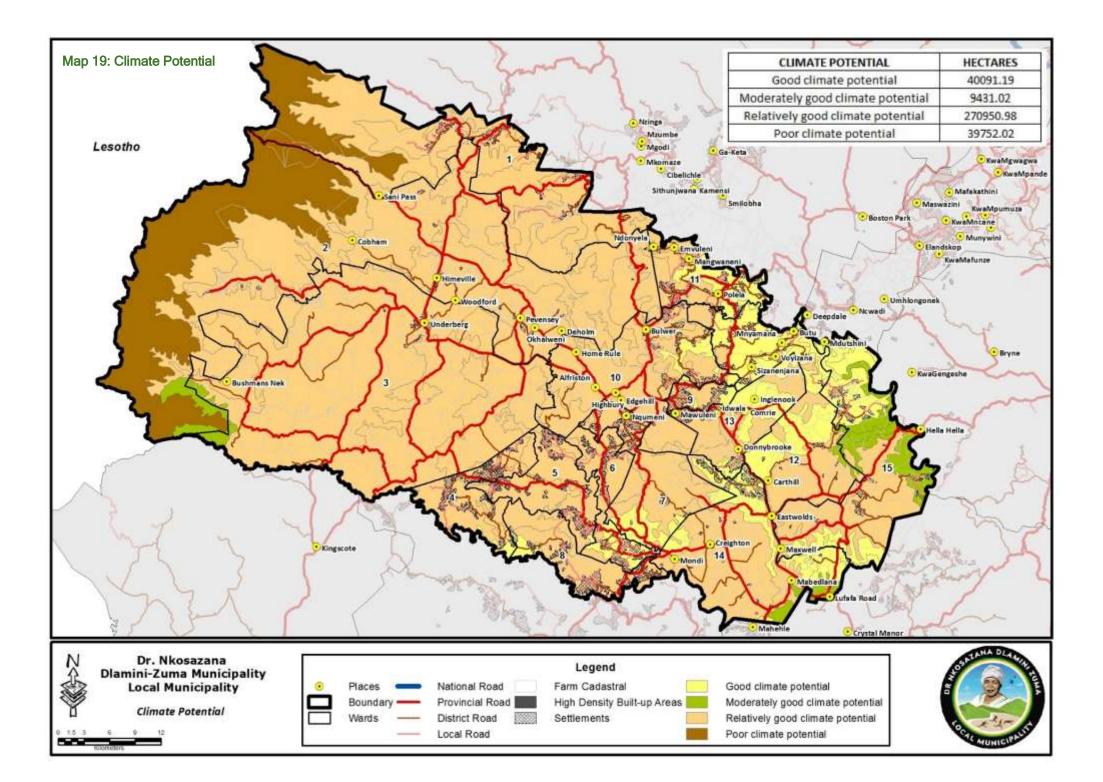
Table 10: Protected areas and other ca	onservation areas within Dr. NDZ LM
--	-------------------------------------

World Heritage Site	UKhahlamba Drakensberg Park World Heritage Site
Provincial Nature Reserve	Coleford Nature Reserve
	Highover Nature Reserve
	Ingelabantwana Nature Reserve
	Kwa Yili Nature Reserve
	Marutswa Nature Reserve

	Marwaqa Nature Reserve
	Soada Forest Nature Reserve
	The Swamp Nature Reserve
	Xotsheyake Nature Reserve
Private Nature Reserve / Game Ranch	Penwan Country Lodge
Stewardship Focus Areas	Clairmont Mountain
	Excelsior
	Himeville Commons



DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT



5.1.7 VEGETATION

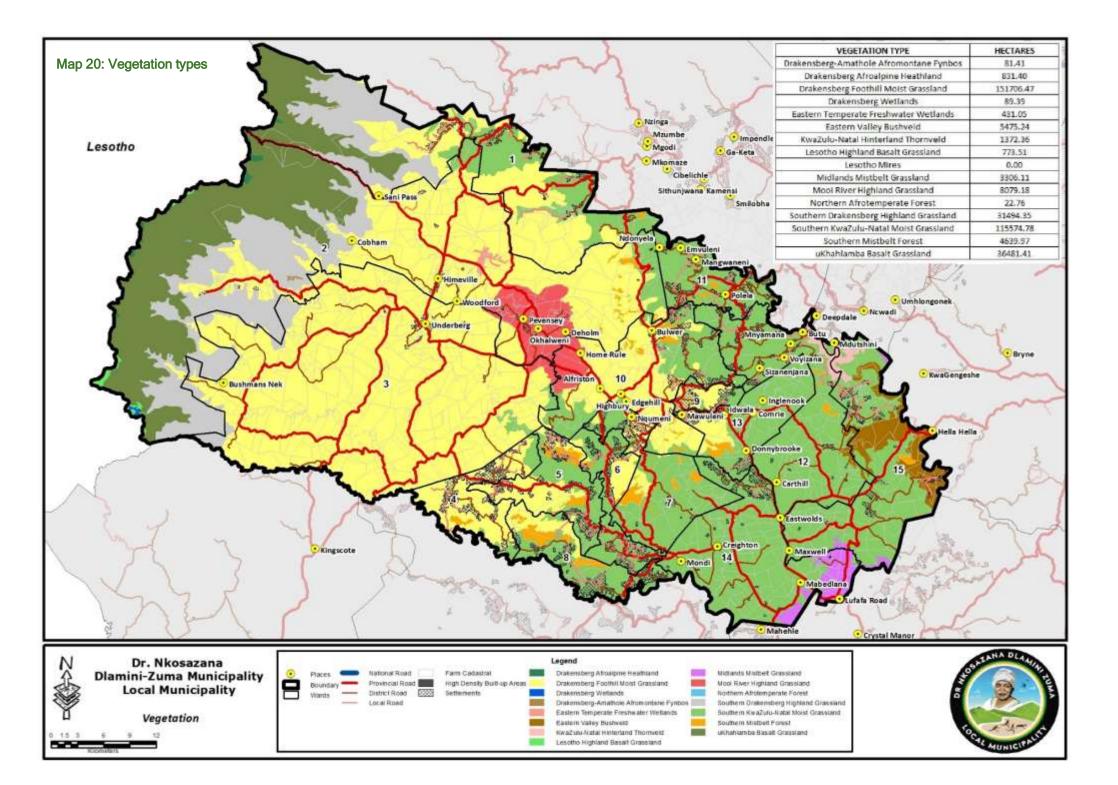
Vegetation is composed of different plant communities and in biodiversity spatial planning is used as a surrogate for the protection of different habitats types and species compositions. Understanding which vegetation types are threatened and in need of protection is vital for biodiversity protection. The types which are found within Dr Nkosazana Dlamini-Zuma LM include; Drakensberg-Amathole afromontane fynbos, Drakensberg Afroalpine heathland, Drakensberg foothill moist grassland, Drakensberg wetlands, Eastern temperate freshwater wetlands, Eastern valley bushvelds, Kwazulu-Natal hinterland thornveld, Lesotho highland basalt grassland, Lesotho mires, Midlands moist belt grassland, Mooi river highland grassland, Northern afro temperate forest, Southern Drakensberg highland grassland, Southern Kwazulu-Natal moist grassland. Southern moist belt forest as well as uKhahlamba Basalt Grassland.

The most common is the Drakensberg foothill moist grassland as it covers approximately 151706.47 ha, and the least common being the Northern afro temperate forest with a coverage of only 22.76 ha. Conservation is observed on the north eastern, towards the Lesotho boarder where there is uKhahlamba Basalt Grassland and Southern Drakensberg Highland Grassland vegetation.

5.1.8 ENVIRONMENTAL INTERVENTIONS

Currently, there is no Environmental Management Framework for the Dr Nkosazana Dlamini Zuma local Municipality region. The lack of this document makes it difficult to correlate accurate spatial data with spatial planning. It is recommended that an Environmental Management Framework be developed specifically for the Dr Nkosazana Dlamini Zuma local Municipality region. This document will provide a more accurate environmental analysis of the region and the environmental threats that may arise within the municipality. This will make it easy for the municipality to develop strategies that will counter the environmental issues.

Furthermore, an Integrated Environmental Plan should also be implemented within the municipality, mitigation and adaptation strategies must be acknowledged, and the municipality must also conduct awareness campaigns that promote ways to deal with environmental issues like wildfires, people must be taught ways to prevent fire.



5.2 DISASTER MANAGEMENT SITUATIONAL ANALYSIS

5.2.1 BACKGROUND

The management of disasters is a shared responsibility between Dr Nkosazana Dlamini Zuma Municipality and Harry Gwala District Municipality. The area of jurisdiction of Dr. Nkosazana Dlamini Zuma municipality is prone to diverse types of disaster hazards ranging from natural and human induced. Whilst natural hazards cannot be prevented but is of paramount importance to note that, initiatives and/ or measures are put in place to mitigate the effects of such natural phenomenon.

Human induced disaster hazards are by all possible means preventable and hence the municipality is very vigilant to such phenomenon and has further put in place drastic measures and / or programs in place to effectively prevent such human induced hazards from happening and where, such hazards do occur, effective response systems get activated and deal with such.

One of the most fundamental issues in disaster management is that of ensuring disaster management centers act as repository and conduits to information and building capacity at a community level with the effort of building disaster resilient communities. The area of jurisdiction of the municipality has sixteen (16) traditional councils, which therefore places indigenous knowledge information at the center stage of disaster management in terms of incorporation whenever a risk assessment is done in terms of key performance area 2 of the disaster management framework. The traditional leaders are also represented in the Disaster Management Advisory forum. Dr. Nkosazana Dlamini Zuma municipality shall endeavor to ensure compliance with all disaster management statutory prescripts including the constitution of the republic, which is an overarching legislative document in the country, with the purpose of ensuring a safe environment and building resilient communities whilst reducing disaster vulnerabilities.

The municipality is currently striving to promote a continuous and integrated multi-sectoral, multi-disciplinary process of planning and implementation of measures aimed at:

- Preventing or reducing the risk of disasters
- Mitigating the severity or consequences of disasters
- Emergency preparedness
- A rapid and effective response to disasters and
- Post –disaster recovery and rehabilitation

As indicative above, the following projects are testimonies that, Dr. Nkosazana Dlamini Zuma municipality is hard at work with special emphasis in prioritizing disaster management issues:

- Establishment of fire station that will also be utilized to dispatch disaster management activities
- Disaster Management Policy Framework was developed and approved by Council on the 17 December 2020.
- Disaster Management plan has been developed
- Disaster Management Advisory Forum established
- Disaster Risk Assessment has been done
- Disaster Risk Reduction projects incorporated in the IDP
- Disaster Response and Recovery

- Information Management and Communication
- Education, Training, Public Awareness and Research
- Funding Arrangements for Disaster Risk Management drastically improved

5.2.2 KEY PERFORMANCE AREA 1: INTEGRATED INSTITUTIONAL CAPACITY

The Dr. Nkosazana Dlamini Zuma municipality's Disaster Management Policy Framework was approved by Council on the 17th December 2020 in terms of section 42 of the Disaster Management Act, (Act 57 of 2002), in line with the National Disaster Management Framework of 2005. The Disaster Management Framework is essential to ensure an integrated and uniform approach to disaster management in the municipality's area of jurisdiction by-

a) The municipality and statutory functionaries of the municipality.

b) All municipal entities operating in jurisdiction

c) All non-governmental institutions involved in disaster management in the area

d) The private sector

The Disaster Management Framework also put more and more emphasis in ensuring that all role players in the disaster management arena (including Government, None Government Organizations, Traditional Authorities and the Private Sector) work together in a coherent and coordinated fashion prevent and or mitigate the occurrence and/ or effects of disasters incidents or disasters.

5.2.2.1. KEY PERFORMANCE INDICATOR

The Disaster Management Policy Framework was approved by Council on the 17th December 2020.

5.2.2.2. DISASTER MANAGEMENT ADVISORY FORUM

The advisory forum sits four times on annual basis, which translate to one (1) meeting in three (3) months. The effectiveness and sustainability sitting of meetings on quarterly basis has seen the implementation of disaster management issues evolve from being reactive to be more proactive with more emphasis on prevention and mitigation of hazards.

The representation of the disaster management advisory forum for Dr. Nkosazana Dlamini Zuma municipality is as follows:

NO	STAKEHOLDERS
1.	Dr. Nkosazana Dlamini Zuma Municipality
2.	Harry Gwala District Municipality's Disaster Management Centre

3.	Provincial Disaster Management Centre
4.	Department of Health Communicable Diseases
5.	Department of Health Emergency Management Services
6.	Social Development
7.	South African Social Security Agency
8.	South African Police Services Bulwer
9.	Midlands EMS
10.	Road Traffic Inspectorate (RTI)
11.	UMkomaas Fire Protection Association
12.	Southern Berg Fire Protection Association
13.	Creighton Engen Depot
14.	Rural Metro Fire Services
15.	Magma Security
16.	Berg Security
17.	Working on Fire
18.	South African Police Creighton
19.	South African Police Himeville
20.	South African Police Donnybrook
21.	Ward Committee members



Disaster Management Advisory Forum Meeting held on the 18 March 2021



Disaster Management Advisory and Community Safety Forum Meeting on the 18 March 2021



Disaster Management Advisory and Communication and `information System

5.2.3 SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION VISION 2030

The Sendai Framework for Disaster Risk Reduction promotes a more people centered preventative and mitigation approach to disaster risk reduction. It put emphases on governments to engage with relevant stakeholders, including women, children, youth, people with disabilities, poor people, migrants and older people.

The above people are the most affected whenever disaster incidents and/ or disasters are realized on their basis of their vulnerabilities.

In a view to implement the vision of the Sendai Framework, the municipality has realized the need to incorporate representatives of the above stakeholders in its Disaster Management Advisory Forum, with a view to ensure that, their needs are taken into consideration whenever disaster management policies and plans are put in place.

This will be a very useful platform for such representatives on the basis that, they have their own forums wherein they can thereafter report to such forums on any information coming from the Disaster management Advisory Forum and their input as well.

5.2.2.3. KEY PERFORMANCE INDICATOR

Disaster Management Advisory Forum sustainable and taking relevant decisions to promote disaster risk reduction within the area of the municipality.

- Disaster Management Advisory Forum to ensure representation from the following categories of stakeholders:
 - Representative from the Women Forum
 - Representative from the Youth Forum
 - Representative from the people with disabilities
 - Representative from migrants' structures
 - Representative from old citizens
- Disaster Management Forum to ensure alignment with the above structures to ensure that, disaster management issues are dealt with in an integrated manner.

NO	STAKEHOLDER	RESPONSIBILITIES
1.	Line Function Departments in the municipality	To provide expertise and technical information pertaining to their line function departments
		To act as leading agencies in dealing with certain hazards that require technical skills
2.	Traditional Leaders	To ensure that, traditional values and indigenous information is also forms part of disaster management planning in the municipal area
3.	South African Weather Services	To provide advices on weather patterns and cascade early

			warning systems as part of ensuring state of preparedness
4.	SASSA		To make provision of the diverse types of grants to needy communities
		E)	To also provide relief such as food vouchers and/or groceries
5.	Home Affairs		To ensure that, communities receive their identity documents
		ē)	To control illegal emigration of people to and from the South African Borders
6.	South African Liquor Authority	D)	Responsible of regulating liquor licenses in the area
			Attend to all liquor related complaints and ensure that, they are resolved timeously
7.	Provincial Disaster Management Centre		To provide oversight on disaster risk management issues implementation at a local level
			Assist with training and capacity building
		D)	Provide enormous disaster related support
8.	None Government Organizations	I)	To provide support (disaster relief) whenever a need arises
9.	NDZ municipal Disaster Management		Point of coordination for Disaster Management
	Centre	2	Ensure development of Disaster Management plans and monitoring the implementation thereof

			Conduct risk assessment for the area of jurisdiction of the municipality in consultation with all relevant role players
			Promote prevention, mitigation and response initiatives by municipal organs of state, non- governmental organizations and communities in jurisdiction.
			Measure performance and evaluate progress of initiatives
			Facilitate the activation of Joint Operation Centre whenever a need arises
			Make referrals to other sector departments
			Plan and execute awareness campaigns
10.	Community Based Organizations		To provide both physical and emotional support during tough times to victims
		ē	
11.	Eskom		To provide technical information and skills on electricity
		D)	To conduct awareness campaigns
12.	South African Police	ē	To ensure safety and security
13.	Fire Services	٦	To ensure fire safety communities
14.	Department of Health	٦	To deal with diseases and provide technical information

		on how to prevent and mitigate the effects of diseases
15.	Department of Transport	To make provision of measures to prevent motor vehicle accidents
16.	District Disaster Management Centre	Provide support to the municipality on disaster management issues
17.	Magma Security	Ensure safety and security
18	KSA	Ensure safety and security
19	Berg Security	Ensure safety and security

5.2.4 2.3.1 ESTABLISHMENT OF THE DR. NKOSAZANA DLAMINI ZUMA MUNICIPALITY'S EMERGENCY CENTRE

The Disaster Management amended Act 2015, (Act 16 of 2015), section 16 subsection 4, read in conjunction with the Disaster Management Act of 2002, (Act 57 of 2002) indicate that, a local municipality **MAY** establish a disaster management center in consultation with the relevant district municipality in accordance with the terms set out in a service level agreement between the two parties, in alignment with the national norms and standards.

Dr. Nkosazana Dlamini Zuma municipality in a process of establishing an integrated emergency Centre that will house all the emergency services within the municipality which are as follows:

- Disaster Management
- Fire Services
- Traffic

The municipality has furthermore sent application letter to Cooperative Governance and Traditional Affairs, for funding to augment its internal funding to construct such a Centre, in January 2021

DESIGNS FOR THE DR. NKOSAZANA DLAMINI ZUMA MUNICIPALITY'S EMERGENCY CENTRE

The designs for the emergency center have been done. A company called FMA Consulting Engineers was appointed by the municipality to undertake a process of developing the designs which they have successfully done. Furthermore, an Environmental Impact Assessment authorization has been granted accordingly.

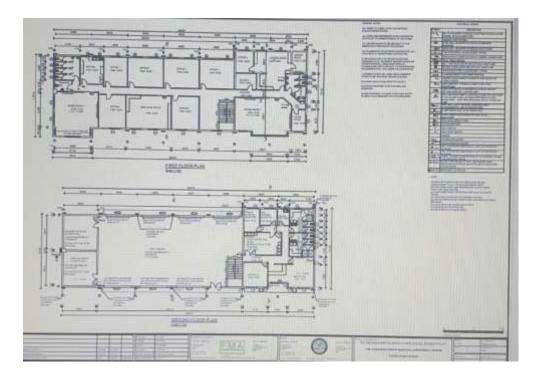
	Registered Function Control Streets (Human Streets Control Streets Control Streets Control Streets Control Streets Control Streets Control Streets (Human Streets Control Stre	 Should you have any quenes regarding this matter, please to not besitate to contact the assessing office Mr. Thobani Khathi at the Henry Gwela District office. Yours faithfully Manual.
	Directorate: Environmental Services, Harry Guala District	0
P. In 30 AT FI	Nkosatana Dlamini Zuma Local Municipality 01/07/2020 O Box 132 01/07/2020 p0 76 tention :: Mr. N.C. Veal 100 Inp :: 039.833.1038 1038 x.no :: 029.833.1179 1040 nail :: Locdh rulu@gma&com 100	for Acting Head of Department: Mr S. Minlue Signed by Mr. Thabare Gambu Designation: District Manager: Environmental Services - Harry Gwala District KwaZuku-Natal Department of Economic Development Tourism and Edvironmental Affairs
D	# 57	
AN YE	EDC43/QR/0066/2020 A RESPONSE TO AN ENQUIRY REGARDING THE PROPOSED DEVELOPMENT DISASTER MANAGEMENT CENTER ON LOT 181 IN BULWER IN THE DR NKOSAZANA DLAMINI IMA LOCAL MUNICIPALITY WITHIN HARRY GWALA DISTRICT, DC 43. Nur correspondence submitted by hand to the Department of Economic Development. Tourism and recommendal Affairs (hereafter referred to as "the Department") has reference. Based on the Information provided, it is understood by the Department that the following is proposed.	
•	1.1 The development entails the construction of a 590 m ² dectre 1.2 The extent of the site is 0.9 Ha 1.3 The building will consist of 10 traffic department offices, 1.4 Consists of 2 boardmonts, 2 storage facilities, 2 ablation facilities, 1.5 Change rooms, gymnasium, 2 kitchens, skeping quarters, server from and control from, 1.6 The geo-reference for the location is 29"47'55 77 'S and 29"46'18.35'E	•
2	The Department has been requested by Ms. Londeka Zulu of Dr Nkosazana Diamen. Zume Local Municipality to provide commonts with respect to the environmental requirements that must be met for the above mentioned project.	
3	From the information provided by Ms. Londeka Zulu of Dr Nkosazana Diamini Zuma Local Municipality the proposed does not trigger any listed activity and therefore the proposed will not require an Environmental Authorisation.	

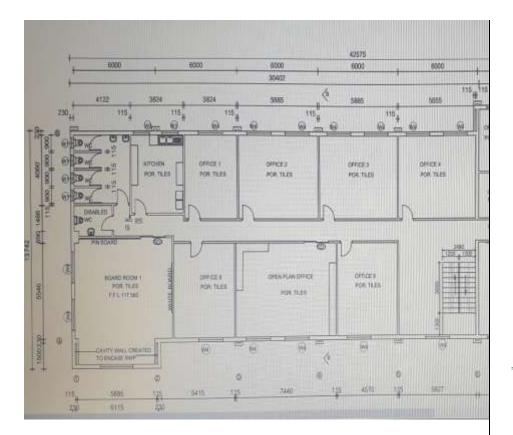
5.2.5 FUNDING AND AVAILABLE BUDGET

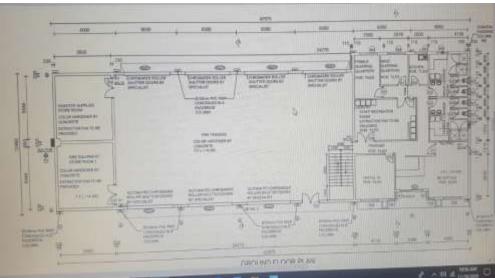
It is the vision of the municipality to have a fully fletched emergency center before or on the fiscal year 2022/2023 and as a result it has started to channel more financial resources towards realizing this goal. The financial muscle for the municipality is very limited and hence an application for funding to realize this goal, has been made to the department of Corporative Governance and Traditional Affairs.

An application of R 10, 000 000. 00 (Ten Million Rands Only) to boost the municipal financial muscle to realize such a facility has been made to COGTA as indicated above.

In the financial year 2020/2021, the municipality budgeted an amount of R 6, 500 000. 00 (Six million five hundred thousand Rands), for the emergency Centre.







5.2.6 EMPLOYMENT OF FIRE SERVICES OFFICIALS

In 2019, the municipality employed a Chief Fire Officer and two fire fighters, furthermore the municipality has appointed three (3) fire fighters during the fiscal year 2020/2021, and on the 31st August 2020 the municipality started providing the fire- fighting services internally. Currently there are six (6) fire fighters including the Chief Fire Officer.

5.2.7 EQUIPMENT FOR FIRE SERVICES

The municipality procured equipment for the fire services to ensure that, such service is provided accordingly to the community in a suffice manner.





5.2.8 INTER-DEPARTMENTAL DISASTER MANAGEMENT COMMITTEE

Dr. Nkosazana Dlamini Zuma Municipality formed an interdepartmental disaster management committee that deals with

disaster management issues within the municipality and comprise of the following members:

NO	NAME OF OFFICIAL	DESIGNATION	DEPARTMENT REPRESENTATION	
1.	Mr. M. Mzimela	Chief Financial Officer	Finance	
2.	Miss Z. Mlata	Head of Department Community Services	Community and Social Services Department	
3.	Mr. S.V. Mngadi	Senior Manager PWBS (Public Works and Basic Services)	PWBS Department	
4.	Mr. M.W. Dlamini	Manager Community Safety	Community Services Department	

5.2.9 STORAGE FACILITIES

Storage facilities are also available wherein all disaster management relief is stored, although it is not conducive as compared to a proper fire station or disaster management center wherein a one stop shop is envisaged.

5.2.10 LOCATION OF DISASTER MANAGEMENT

In terms of location, the disaster management unit is located within the Community Services Department under the Community Safety section with the organogram as follows:

HEAD OF DEPARTMENT CSS MANAGER COMMUNITY SAFETY **1 X DISASTER MANAGEMENT 1 X CHIEF FIRE OFFICER 1 X DISASTER** MANAGEMENT CLERK **5 X FIRE FIGHTERS**

5.2.12 WARD BASED VOLUNTEERS

Dr. Nkosazana Dlamini Zuma municipality is fully aware of the Disaster Management Volunteer regulations and it endeavors to strive to comply with it in terms of ensuring that, a unit of volunteers is readily available whenever needed.

As part of streamlining disaster management at ward level, the municipality is working very close with all ward committee members to also participate as volunteers at a ward level, by doing so, they will be able to benefit from disaster management capacity building, and thus to implement their knowledge in their wards to help their community.

Over and above that, the municipality will also embark on recruiting qualified people who are interested in voluntarily investing their skills to disaster management as part of members of the volunteer unit.

A data base will then be created for monitoring purposes. In the future the municipality will further ensure that, protective clothing is procured for such volunteers to wear whenever they perform disaster management duties.

5.2.13 PREVENTION AND MITIGATION

In line with section 47 of the Disaster Management 2002, (Act 57 of 2002), the municipality has put measures in place to the extent of its capacity to always provide guidance to other organs of state particularly the sector departments, private sector, non-governmental organizations, communities and individuals in municipal area to assess and prevent or reduce the risk of disasters.

- The risk assessment was done and is enshrined in the disaster management plan
- Currently the municipality is increasing the capacity for communities and households to minimise risks and the impact of disaster through awareness campaigns, education and training. Communities will be also provided with fire beaters and knapsack tanks to ensure that, as first responders, they have some mechanism to deal with the fires before the fire services can arrive.
- Contingency plans are also developed on seasonal basis, as part of ensuring that, a state of preparedness to deal with disaster incidents and/ or disasters is in place.

5.2.14 ENFORCEMENT OF LEGISLATION

The disaster management section, working together with the fire services conduct fire safety inspections in all the business premises within the area of jurisdiction of the municipality.

Joint inspections are also conducted where-in several line function departments come together and target specific areas that, have been identified to be not complying with the legislation. In such joint inspections, confiscation of illegal items is done, raids of specific premises. It is one of the ways or measures that, ensures risk reduction within the private sector.

5.2.15 DISASTER MANAGEMENT INTERDEPARTMENTAL COMMITTEE

As part of introducing the disaster management concept and ensuring disaster management compliance and understanding within the municipality, a disaster management interdepartmental committee was established in the fiscal year 2018-2019.

This assist in terms of ensuring that, every department within the municipality understands its roles and responsibilities that, they must undertake in disaster management. Such committee represented by middle management and some senior managers.

5.2.16 EY PERFOMANCE INDICATORS

- New proposed fire station constructed.
- Storeroom to store disaster management equipment and relief in place.
- Human resources capacity in place.
- Unit of volunteers in place.
- Prevention and mitigation measures in place.
- Risk reduction initiatives, projects and programmes are being implemented.
- Disaster Management Interdepartmental Committee in place.

5.2.17 DISASTER RISK MANAGEMENT PLAN

The Dr. Nkosazana Dlamini Zuma Municipality's Disaster Risk Management Plan, developed and approved by Council on the 29 May 2018. Contained in the disaster risk management plan is the disaster risk assessment which outlines the hazard that are imminent within the area of jurisdiction of the municipality.

There are also disaster risk reduction projects and or programs identified to prevent and or mitigate the disaster risks eminent in different areas of the municipalities. Attached therein is also the budget to implement such projects and programs.

5.2.18 KEY PERFORMANCE INDICATOR

A Disaster Management Plan was developed by the municipality and was approved on the 29 May 2018 and contained therein is the disaster risk assessment and disaster risk reduction projects and programs.

5.2.19 MUNICIPAL SAFETY PLAN

Dr. Nkosazana Dlamini Zuma municipality is working very closely with other government departments, the private sector and other stakeholders to combat crime, ensure safety on the roads and ensuring safety at communities at large.

The following structures are in place to deal with issues of crime and safety:

- Local crime Policing Forums
- Rural Safety Meetings
- Station Crime Combating Forum (SCCF)
- Regional/ Cluster Rural Safety Forum

Disaster Management Advisory Forum

5.2.20 ROAD CAMERAS

As part of combating crime, the private sector (Community Watch) has come on board and erected cameras on all the roads that lead to the town of Underberg and Himeville. Such cameras can detect everything that happens on such roads and through communication, it therefore becomes easier to respond to incidents of crimes and any other assistance that may be needed by commuters.



Camera on intersection of R 617 to Bulwer and Road to Kilmon/ Coleford



Camera at Sani Pass Intersection



Camera in town Underberg

5.2.21 ANIMAL POUNDS

The municipality has got two animal pounds situated in its area of jurisdiction, namely

- Himevile Pound
- Creighton Pound

Both pounds are operational and assist a lot to keep stray animals from the road where they can cause motor vehicle accidents and thus

causing the mortality rate of MVAs to be high. The municipality is working very hard to keep animals away from the roads within its area of jurisdiction through different programmes that are in place such as:

- Integrated Community Safety Awareness Campaigns (ICSAC)
- Developed impounding policy
- Procured a truck that is utilized to impound stray animals from the road and was delivered in June 2018

5.2.22 CRIME PREVENTION AND COMBAT

South African Police services as a leading agent, plays a very critical role in ensuring that crime prevention does take place and criminals found to be breaking the law are dealt with accordingly, assisted by all the other security companies within the area.

Himeville and Underberg are known as being tourist's destinations and hence the issue of security to tourist is of high priority to the municipality. The presence of tourists boosts the local spin off, of the business sector.

It is therefore for this reason that, has seen the area installing the road cameras as part of a synergy amongst the stakeholders to deal with crime.

Crime statistics is shared amongst the security clusters to use the information to develop strategies to combat future crime elements.

Joint raids are conducted on regular basis wherein to deal with issues of illegal migrants, none compliance, identifying fugitives, identifying drugs dealings and other things. Such operation is done swiftly and bears wonderful fruits cause all agencies are in one place to deal with any eventualities that may arise.

5.2.23 MULTI STAKEHOLDER ROAD BLOCKS

As part of combating crime, the Municipal Traffic Police, South African Police Services, RTI, Hlokomela and other agencies conduct road blocks wherein road unworthy vehicles are removed on the roads. Road blocks also assist in many ways in terms of identifying criminals that are a danger to society, including people that transport drugs, counterfeit goods e.t.c.

The municipality has even gone an extra mile to put such road blocks in its Service delivery Budgetary Implementation Plan as way to monitor and evaluate its implementation.

There are local road blocks conducted and over above that, there are also multisectoral integrated road blocks that are held on regular basis in different strategic areas.

Such operations are very fruitful on the basis that, the occurrence of big accidents is declining as compared to the past.



Multi-stakeholder Road Block held in R 612



Multistakeholder Roadblock in R 612 CLEARING OF BUSHES AND CONDUCTING FIRE BREAKS

The municipality has got wonderful bylaws that, encourage residents of Dr. Nkosazana Dlamini Zuma that own vacant properties to clear their properties and make sure that are clean all the time, failing which the municipality clears such properties and bill the owners.

Furthermore, the municipality works very closely with Working on Fire and Fire Protection Associations to do fire breaks and remove alien plants.



Fire break to prevent fires from accessing farms and open spaces

5.2.24 LIGHTNING AND INSTALLATION OF LIGHTNING CONDUCTORS

The area of jurisdiction of the municipality is highly vulnerable to lightning and hence its occurrence in certain instances mostly claim people's lives and cause injuries as well. It is therefore imperative for the municipality to mitigate the effects of lightning.

The municipality in the financial year 2020/2021, installed thirty-six (36) lightning conductors in all the areas that are mostly affected by lightning. It is believed that, such lighting conductors can reduce/ mitigate the impact of lightning whenever it occurs.



Fire break done near residential areas



Installation of lightning conductor

5.2.25 EMERGENCY EVACUATION PLAN

As part of ensuring a state of preparedness and swiftly emergency evacuation during emergency, the municipality has developed an emergency evacuation plan that provides guidelines on the procedures that must followed when evacuating.

Such emergency plan will be utilized on all municipal building and shall be workshopped to all government institutions and business sectors to encourage them to also develop their own emergency evacuation plans.

Once, institutions have developed their own emergency evacuation plans, then emergency drills have to be undertaken to test whether such plans are practical and easily implementable. Whilst the municipality will be conducting its own drills, shall also coordinate government institutions and private sectors to also follow suit whilst supported by the municipality for guidance.

The Emergency Evacuation Plan is attached as an annexure.

5.2.26 KEY PERFORMANCE INDICATOR

- Safer Communities
- Reduced Crime
- Reduced Motor Vehicle Accidents
- Reduced Structural and veld Fires
- Reduced Road Unworthy Vehicles
- Reduced bushes both in residential places and in town

5.2.27 KEY PERFORMANCE AREA 2

5.2.28 DISASTER RISK ASSESSMENT

The disaster risk assessment for Dr. Nkosazana Dlamini Zuma was conducted from the 20th, 22nd and 23rd of March 2018 wherein all ward committee members and councilors were invited to participate. It was a very fruitful exercise.

The risk profile for the municipality is therefore as follows:

LEC	GEND	
	Extremely High Hazard	
	High Hazard	
	Moderate Hazard	
	Low hazard	

WARD NO	PRIORITY HAZARDS	LEGEND INDEX	LEGEND DESCRIPTION	NUMBER OF HALLS	NUMBER OF SCHOOLS
	Storms		Extremely High		
	Heavy Rain		Moderate		
	Lightning		High		
	Floods		High		
	Fierce Wind		High		
	Snow		High		
	Crime		Moderate		
1	Structural Fires		High	7	13
	Veld Fires		Extremely High		
	Drought		Low		
	Hail Storm		Moderate		

	Road Accidents		Moderate		
	Storms		Extremely High		
	Heavy Rain		Moderate		
	Snow		Extremely High		
	Structural Fires		Moderate	_	
2	Lightning		Moderate	4	8
	Veld Fires		Moderate	_	
	Fierce winds		High	_	
	Crime		Moderate		
	Drought		Low	_	
	Road Accidents		High	_	
	Floods		High		
	Hail storm		Moderate		
		_		P	P
	Storms		Extremely High	-	
	Fierce Winds		High	-	
	Crime		Moderate	-	
	Road Accidents		High		
3	Structural Fires		High	0	3
	Snow		Extremely High		
	Floods		High		
	Heavy Rain		Moderate		
	Hail Storm		Moderate	4	
	Veld Fires		Moderate	4	
	Lightning		Moderate		

Drought Low

WARD NO	PRIORITY HAZARDS	LEGEND INDEX	LEGEND DESCRIPTION	NUMBER OF HALLS	NUMBER OF SCHOOLS
	Storms		High		
	Floods		Moderate		
	Heavy Rain		Moderate		
	Hail Storm		Moderate		
4	Road Accidents		Low		
	Structural Fires		Moderate		
	Snow		Extremely High	4	8
	Veld Fires		Moderate		
	Lightning		High		
	Fierce Winds		High		
	Drought		Moderate		
	Storms		High		
	Floods		Moderate		
	Fierce Winds		High		
	Hail Storm		High		
	Road Accidents		Low		
	Structural Fires		Moderate		
5	Snow		Moderate	4	5
	Veld Fires		High		
	Lightning		High		

	Heavy Rain	High		
	Drought	Moderate		
	Storms	High	6	
	Floods	Moderate		
	Fierce wind	High		
	Hail Storms	High		
	Road Accidents	Low		
6	Structural Fires	Moderate		9
	Snow	Moderate		
	Veld Fires	High		
	Lightning	High		
	Heavy Rain	High		
	Drought	Moderate		

WARD NO	PRIORITY HAZARD	LEGEND INDEX	LEGEND DESCRIPTION	NUMBER OF HALLS	NUMBER OF SCHOOLS
	Storms		High		
	Floods		Moderate		
	Fierce Wind		High		
	Hail Storms		High		
7	Road Accidents		Low	3	7
	Structural Fires		Moderate		
	Snow		Moderate		
	Veld Fires		High		

	Lightning	High		
	Heavy rain	High		
	Drought	Low		
	Storms	High		
	Floods	Low		
	Fierce Wind	High		
	Hail Storm	Low		
	Road Accidents	Low		
	Structural Fires	Moderate		
8	Snow	Moderate		
	Veld Fires	Extremely High	4	8
	Lightning	High		
	Heavy Rain	Moderate		
	Drought	High		
	Storms	High		
	Floods	Moderate		
	Fierce Wind	High		
	Hail Storm	High		
	Road Accidents	High		
9	Structural Fires	Moderate	2	2
	Snow	Moderate		
	Veld Fires	Moderate		
	Lightning	High		
	Heavy Rain	High		

Drought Moderate

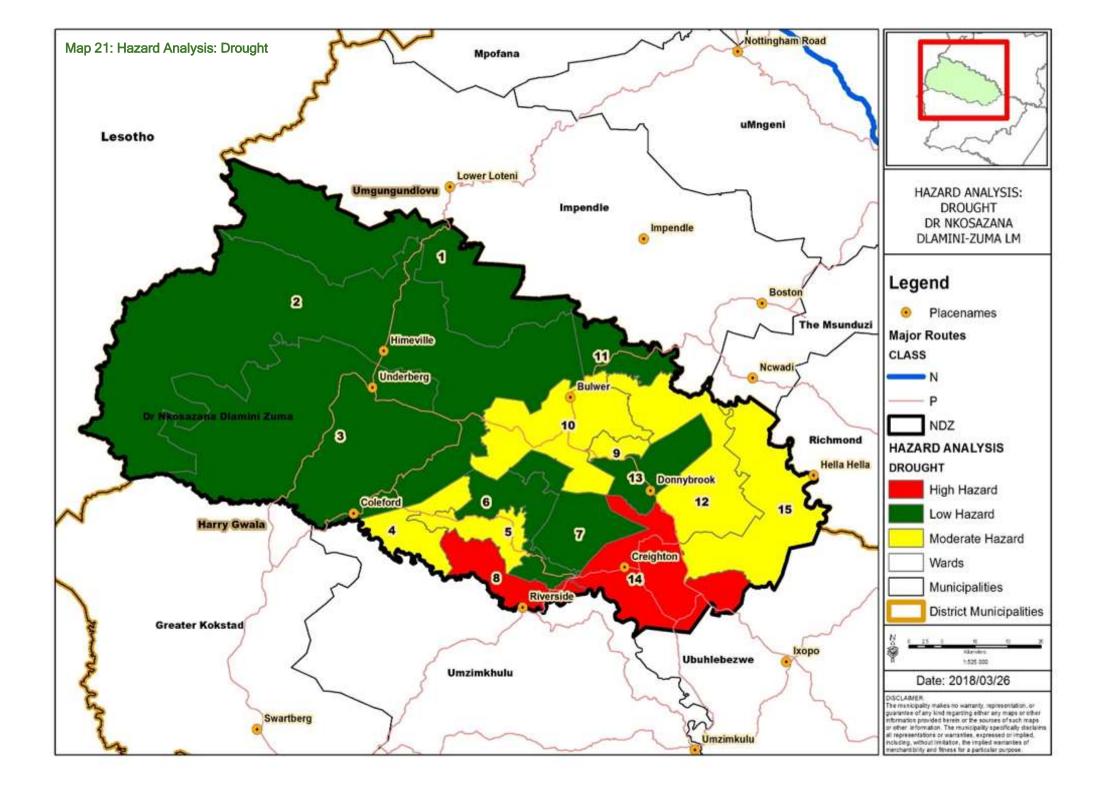
WARD NO	PRIORITY HAZARD	LEGEND INDEX	LEGEND DESCRIPTION	NUMBER OF HALLS	NUMBER OF SCHOOLS
	Storms		High		
	Floods		High		
	Fierce Wind		High		
	Hail Storm		Moderate		
	Road Accidents		Extremely High		
	Structural Fires		High		
10	Snow		Moderate	4	10
	Veld Fires		High		
	Lightning		Moderate		
	Heavy Rain		High		
	Drought		Moderate		
	Storms		Moderate		
	Floods		Moderate		
	Fierce Wind		Moderate		
	Hail Storm		High		
	Road Accidents		High		
	Structural Fires		Moderate		
11	Snow		High	6	11
	Veld Fires		Moderate		
	Lightning		Moderate		

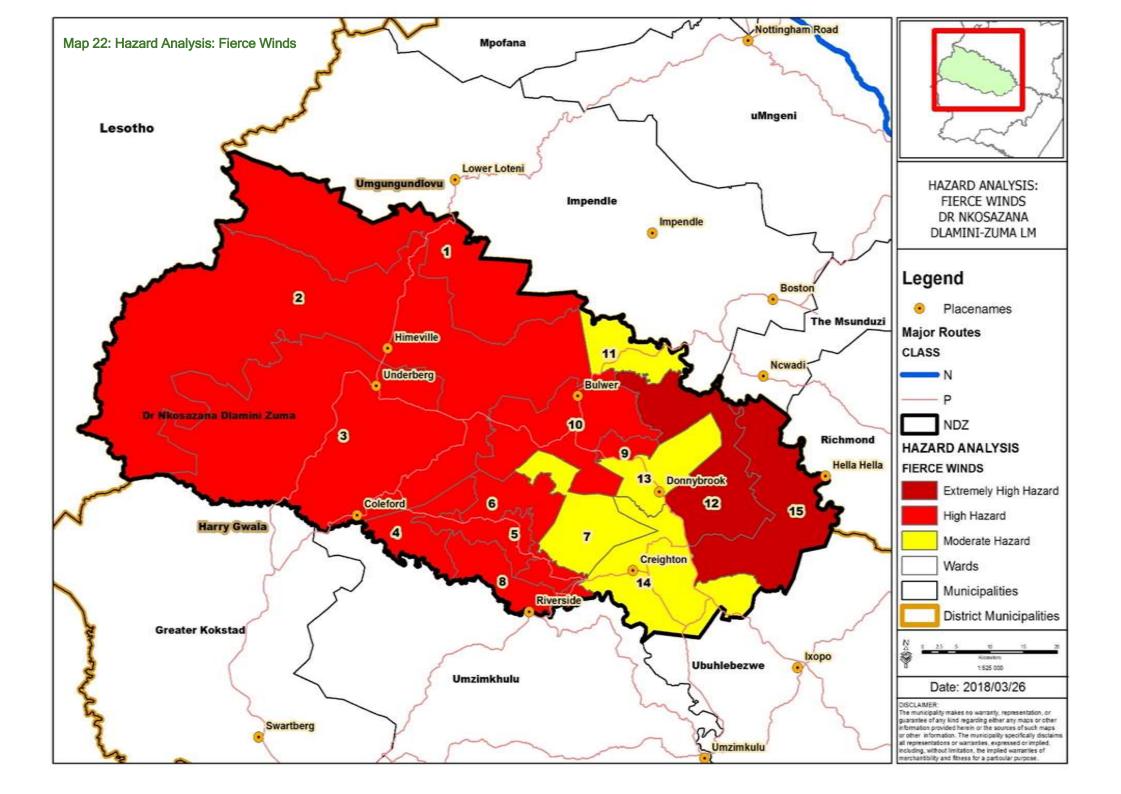
	Heavy Rain	High		
	Drought	Low		
			_	
	Storms	High		
	Floods	Moderate		l
	Fierce Wind	Extremely High		
	Hail Storm	High		
	Road Accidents	Moderate		
	Structural Fires	Moderate		
12	Snow	Low	5	10
	Veld Fires	Extremely High		
	Lightning	High		
	Heavy Rain	Moderate		
	Drought	Moderate		

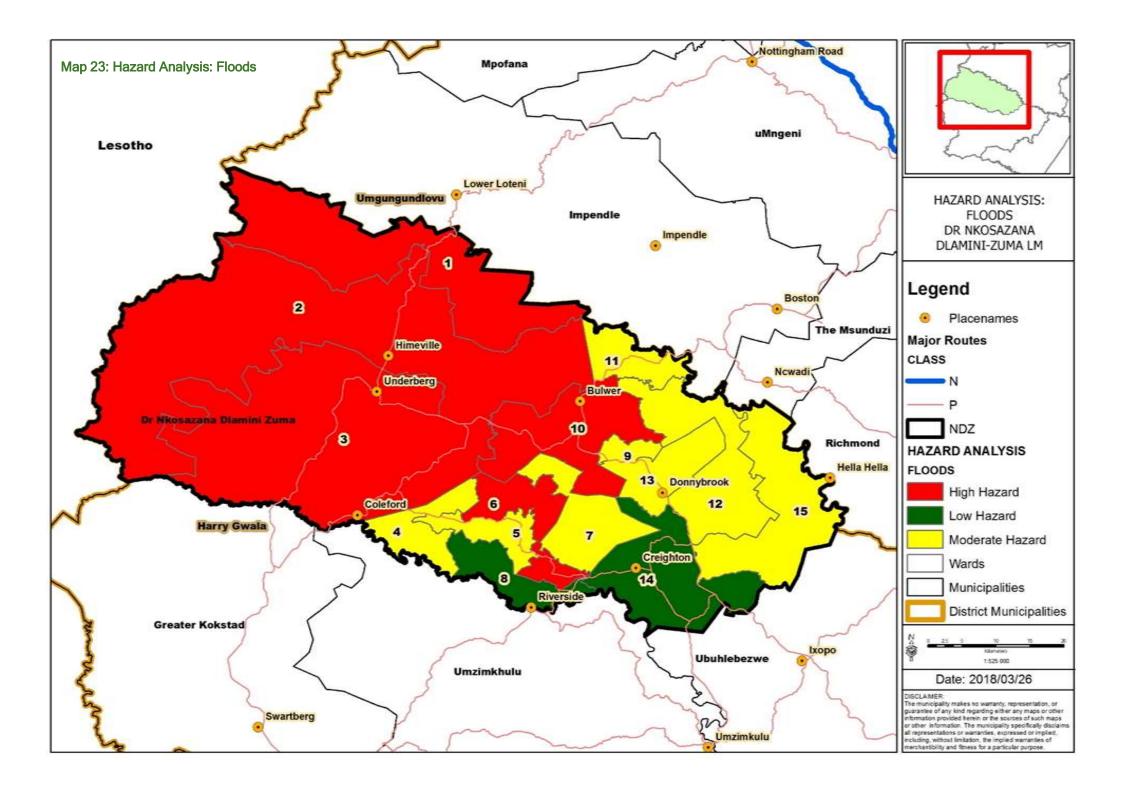
WARD NO	PRIORITY HAZARD	LEGEND INDEX	LEGEND DESRIPTION	NUMBER OF HALLS	NUMBER OF SCHOOLS
	Storms		High		
	Floods		Moderate		
	Fierce Wind		Moderate		
	Road		Moderate		
	Accidents				

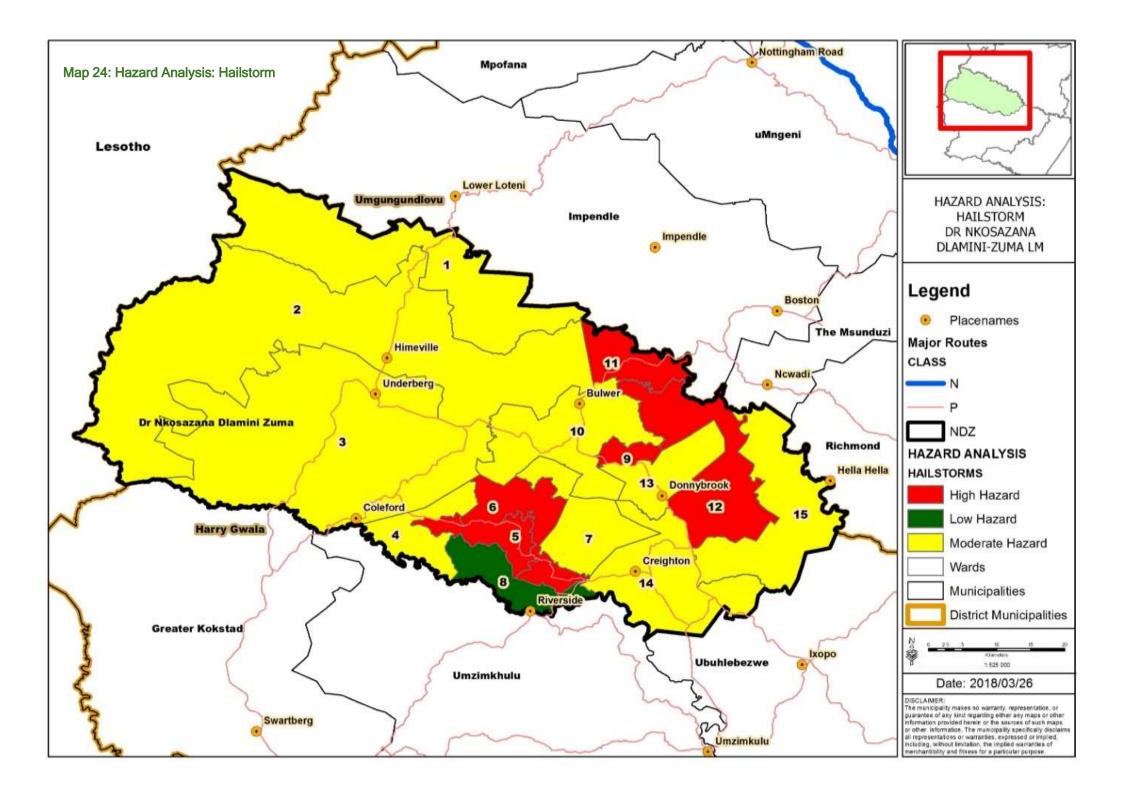
	Structural Fires	Ν	Moderate		
13	Snow	Ν	Moderate	3	6
	Veld Fires	E	Extremely High	Ū	Ũ
	Lightning	ŀ	ligh		
	Heavy Rain	ŀ	ligh		
	Drought	L	_OW		
	Hail Storm	N	Moderate		
	Storms	Ν	Moderate		
	Floods	L	_OW		
	Fierce Wind	N	Moderate		
	Road Accidents	L	LOW		
14	Structural Fires	N	Moderate	4	8
	Snow	Ν	Moderate		
	Hail Storm	Ν	Moderate		
	Veld Fires	ŀ	ligh		
	Lightning	N	Moderate		
	Heavy Rain	N	Moderate		
	Drought	H	ligh		
	Fuel Explosion	H	High		

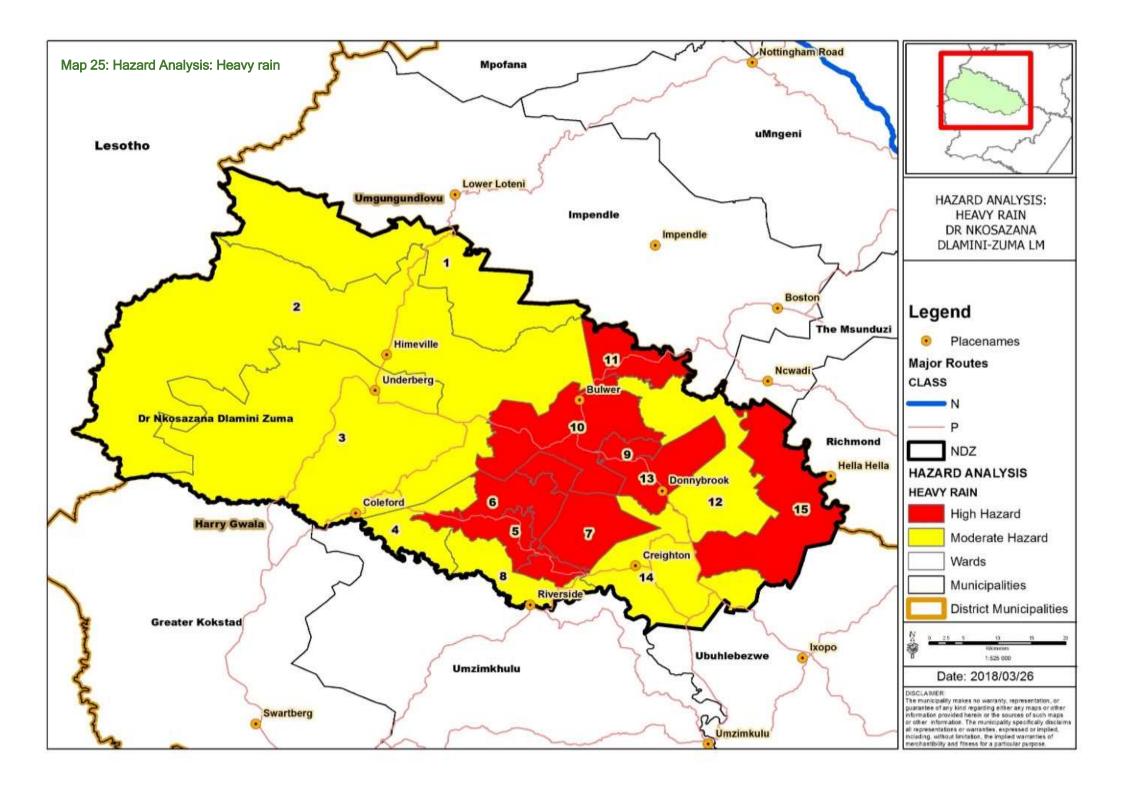
	Storms	High		
	Floods	Moderate		
	Fierce Wind	Extremely High		
	Road Accidents	Low		
15	Structural Fires	High	4	10
	Snow	Low		
	Veld Fires	Extremely High		
	Lightning	High		
	Heavy Rain	High		
	Drought	Moderate		
	Hail Storm	Moderate		

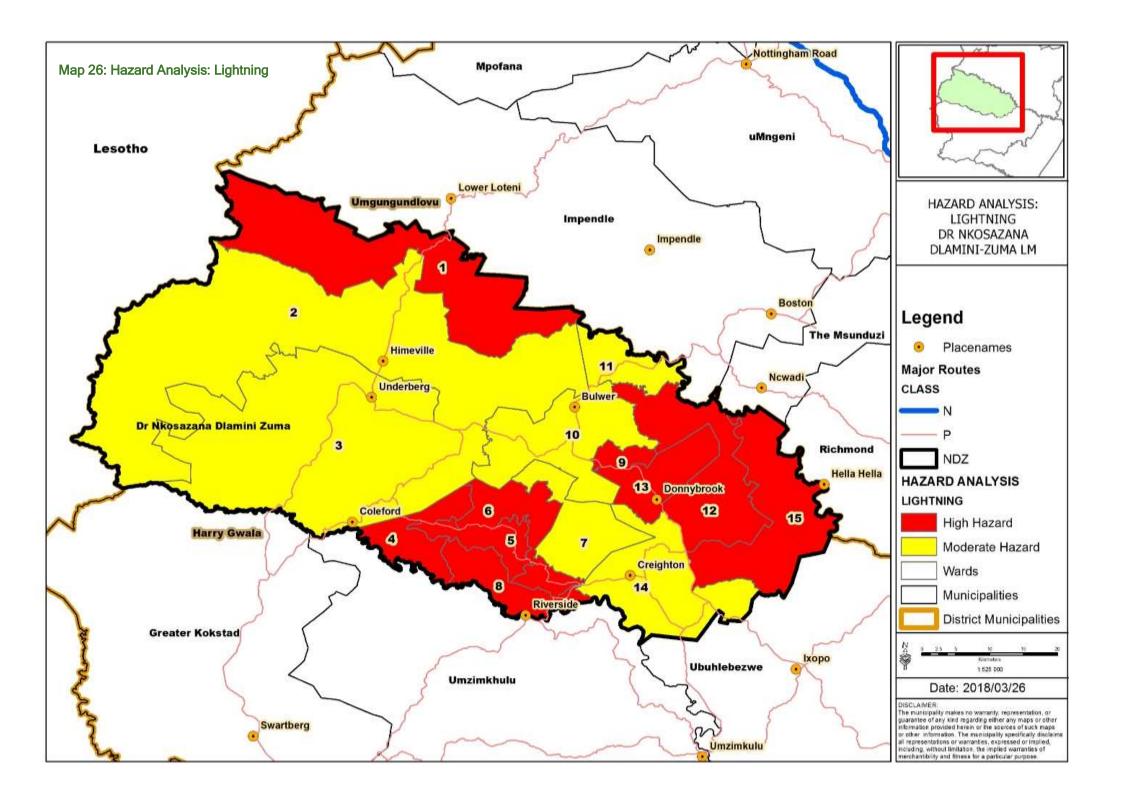


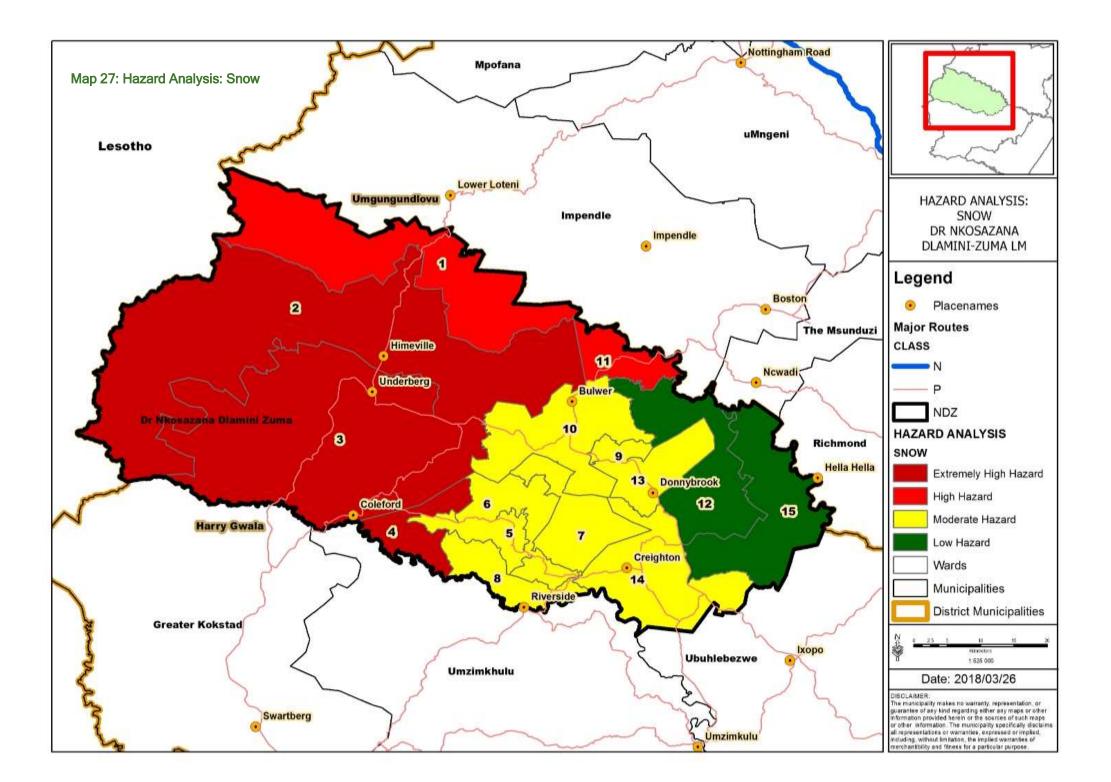


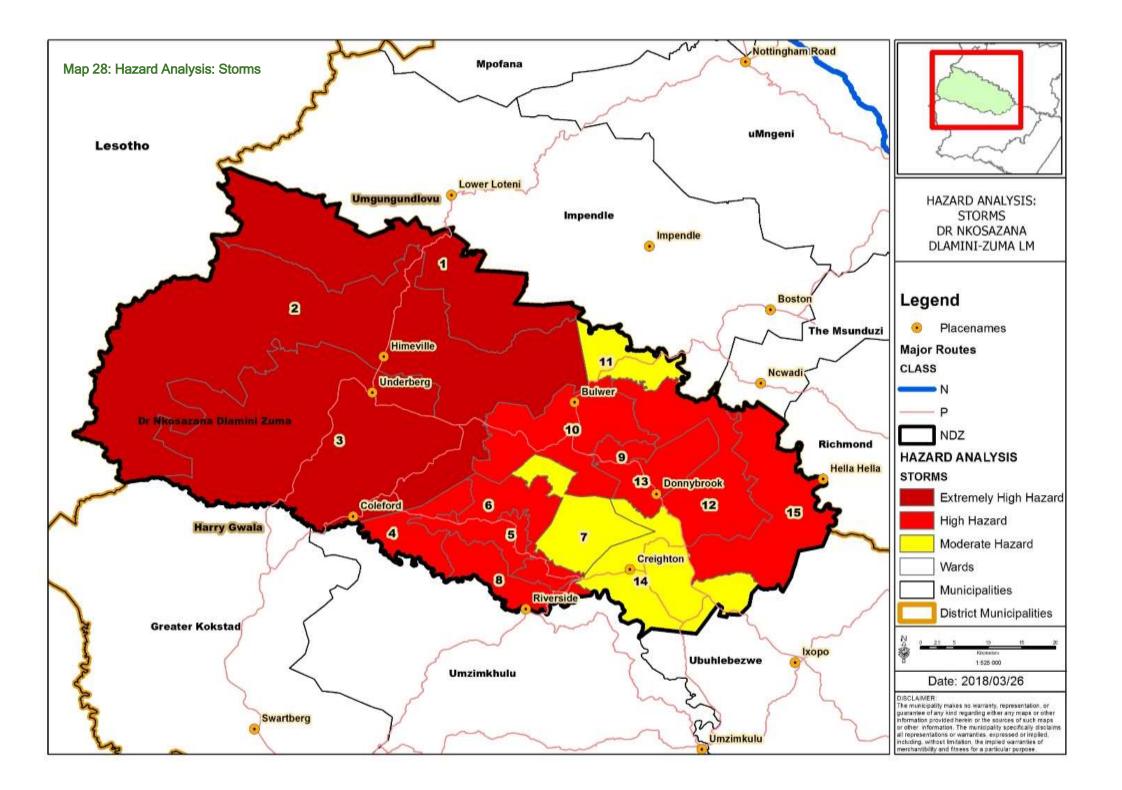


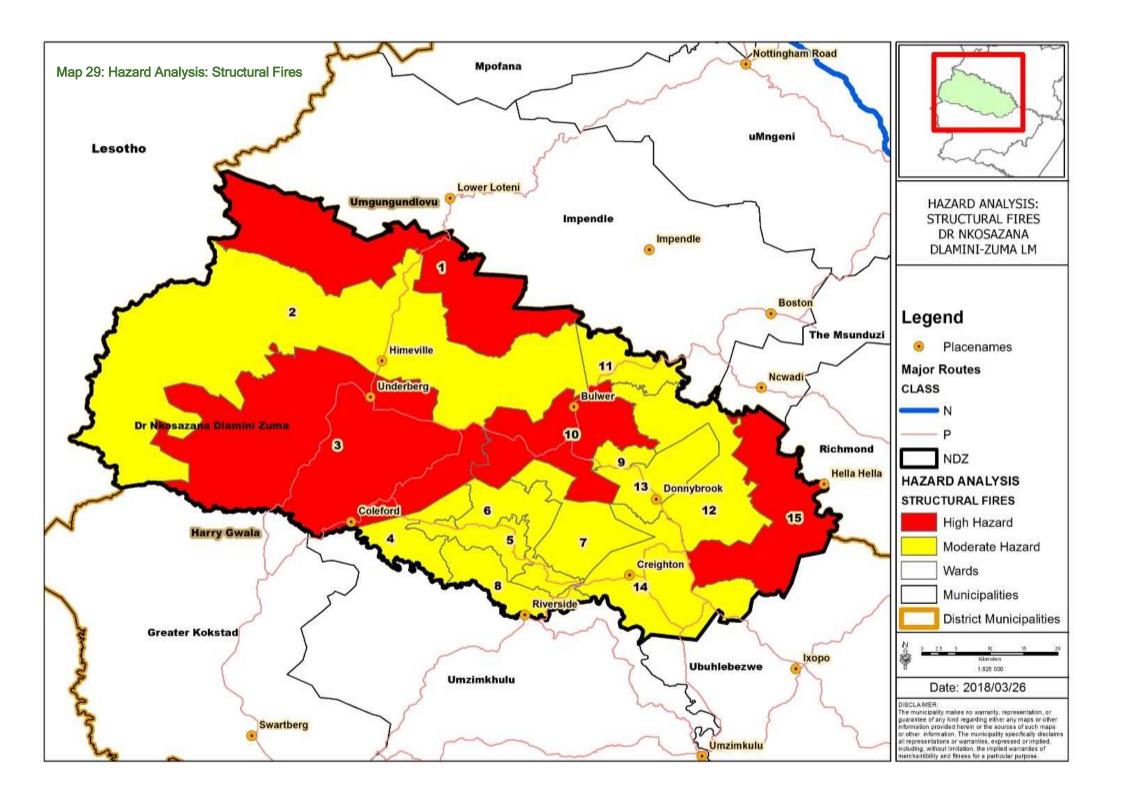


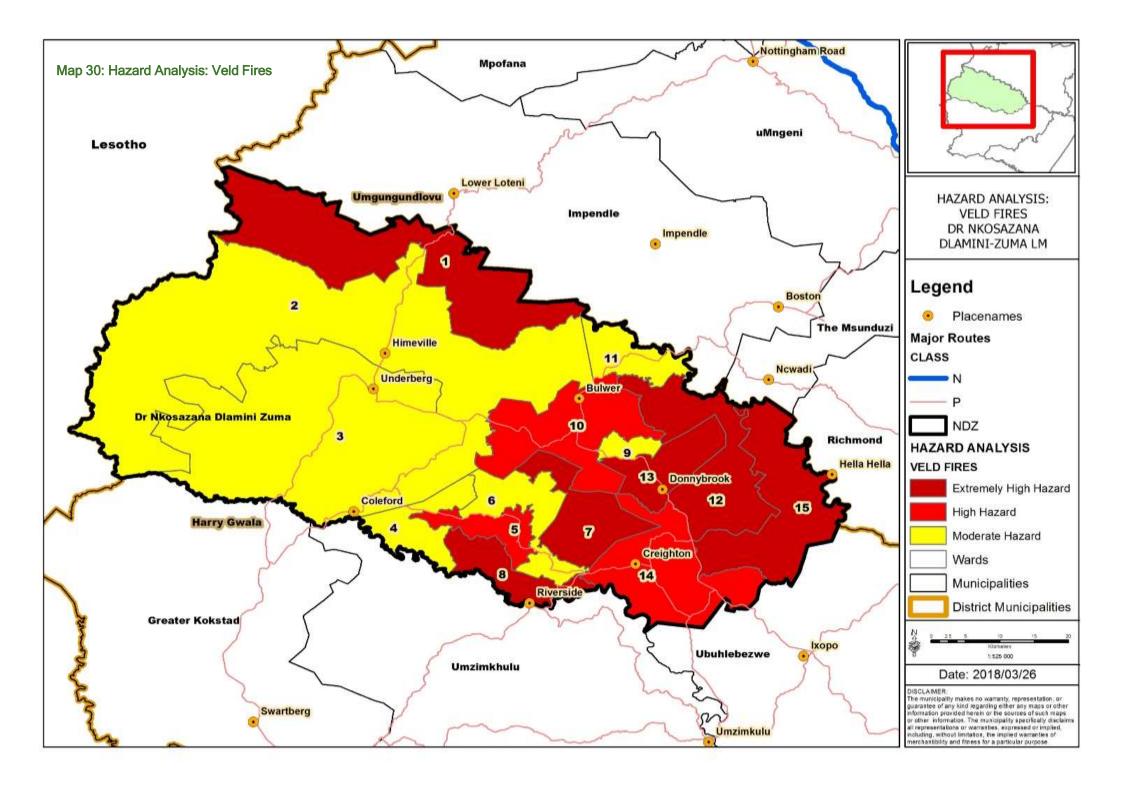


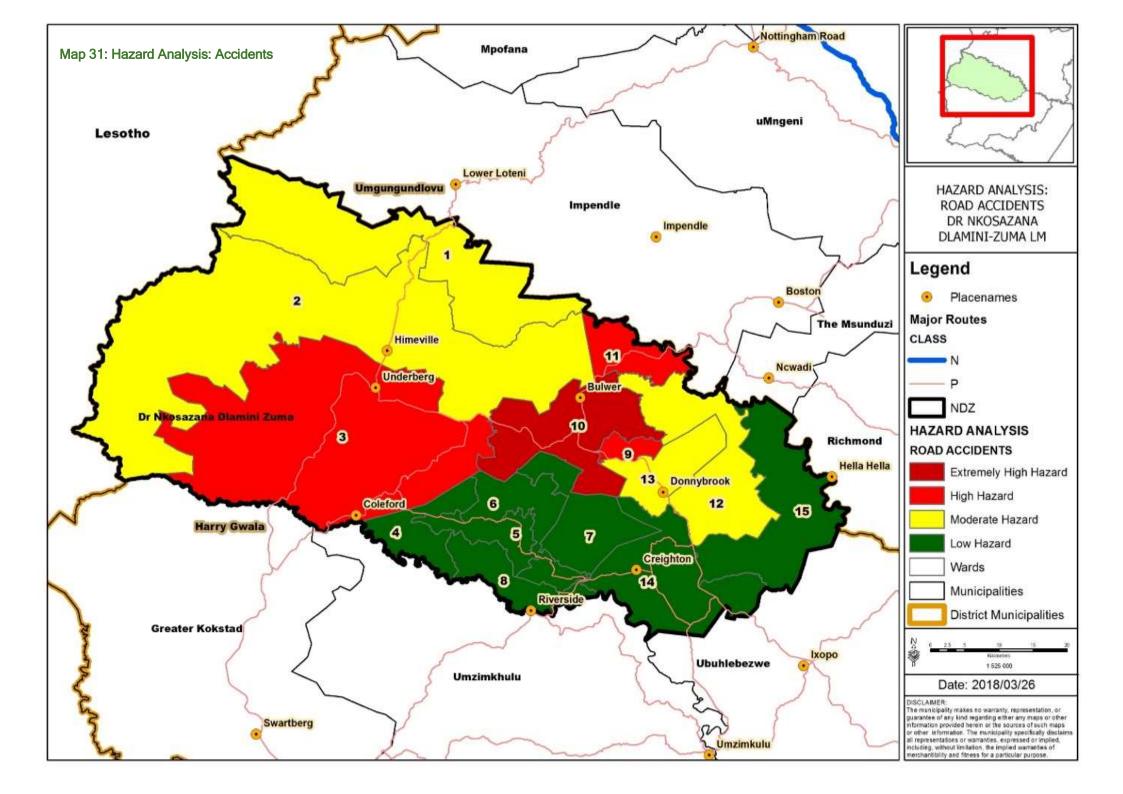


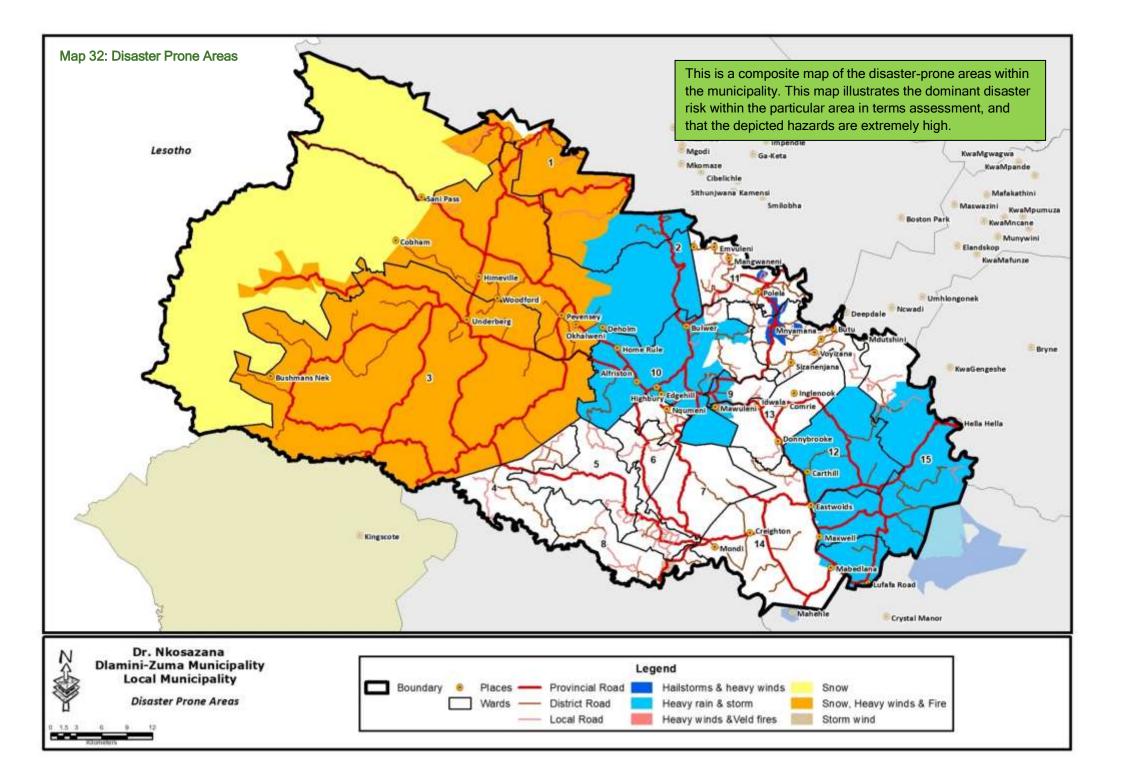












5.2.29 DISASTER MANAGEMENT PLACES OF SAFETY (SOCIAL FACILITIES, HALLS AND SCHOOLS)

During the risk assessment the municipality also identified the number of halls and schools available in each ward that can be utilized as places of safety should a need arise wherein major disaster incidents and/ or disasters warrant that; residents or victims of such disasters can be evacuated to ensure their safety. Such halls and schools can be utilized to accommodate residents for a duration that will be determined by the disaster management officials, acting in conjunction with the Joint Operations Centre and management.

5.2.30 DISASTER INCIDENT MAPPING

The municipality will be soon, be starting with the mapping of disaster incidents, as part of ensuring that, every incident that occur GPS coordinates are taken to indicate a historical occurrence of such an event.

Such incident mapping will be very useful in the future on the basis that, risk assessment will be informed by historical recorded and reliable data, which shall pin point exactly where the incidents occurred specifically.

A GPS unit was procured for the sole purpose to map incidents mapping, one should also acknowledge the Geographical Information Systems (GIS) unit, at COGTA for assisting with training on such incident mapping. In the financial year 2019/2020, more GPS gadgets were procured to ensure that each official/ group of officials conducting disaster assessment do have one.

The Disaster Management and Fire Fighters personnel will be trained on how to utilize the GPS unit and all of them are expected to utilize it. This makes it easier whenever an incident has occurred on the basis that such data is collected on site, immediately, and such is thereafter captured into the system in terms of filling the beneficiary list which is later submitted to the district municipality and thereafter to the provincial disaster management center (COGTA).

5.2.31 KEY PERFORMANCE INDICATORS

- Disaster Risk Profile in place
- Disaster Risk profile spatial Mapping
- Disaster Management Places of Safety Identified
- Disaster Incident Mapping to be done as soon as a Geographical Information System Officer is employed

5.2.32 KEY PERFORMANCE AREA 3 -4.1 DISASTER RISK REDUCTION

Dr. Nkosazana Dlamini Zuma Municipality takes the issue of disaster risk reduction very seriously, and this is evident in terms of the development that takes place in the municipality. In ward 6 the municipality has erected a pedestrian bridge to prevent the community from being washed away by floods in summer in case they are realized.

Such bridge also assists scholars when they go to school to easily cross the river without wetting themselves in the river.



Pedestrian Bridge in Dr. Nkosazana Dlamini Zuma Municipality



Pedestrian bridge ward 1 Emhlangeni EMHLANGENI KwaZinkwana



Ward 1 Pedestrian Bridge Emhlangeni- KwaZinkwana

5.2.33 MAJOR HAZARD INSTALLATION



Creighton Engen Depot



Creighton Engen Depot

In Creighton, there is an Engen depot which is classified as a Major Hazard Installation, in line with the major hazard installations regulations. The risk assessment for the facility was conducted in 2017 and hence it is valid for a period of five (5) years from the 06 October 2017.

The depot consists of the following tanks utilized to store fuel:

Tank Farm A

- Tank 1 82 m cube horizontal diesel tank
- Tank 2 82 m cube horizontal diesel tank
- Tank 3 82 m cube horizontal paraffin tank
- Tank 5 203 m cube vertical diesel tank

Tank 6 – 82 m cube vertical diesel tank

Tank Farm B

- Tank 1116 82 m cube horizontal 95 ULP tank
- Tank 899 82 m cube horizontal 95 ULP tank
- Tank 869 82 m cube horizontal diesel tank
- Tank 868 82 m cube horizontal diesel tank
- Tank 867 82 m cube horizontal diesel tank

CATAGORIZATION OF MATERIALS ON SITE AS PER SANS 10228:2003 CLASSES OF DANGEROUS SUBSTANCES

CLASS	DESCRIPTION				
1	Explosives (Not included in MHI Regulations)				
2	Gases (Flammable or Toxic Gases only)				
3	Flammable Liquids				
4	Flammable solids				
5	Oxidizing substances and Peroxides				
6	Toxic and Infectious substances				
7	Radioactive material (Not included in MHI Regulations)				
8	Corrosives				
9	Combustible Materials				

As part of compliance with the major hazard installation regulations, Creighton Engen Depot submitted to the municipality a risk assessment document outlining the risks involved on the site. Furthermore, the document contains risk prevention and mitigation strategies and outlines the procedure to be followed when during an emergency.

DISASTER RISK REDUCTION PROJECTS

NO	NAME OF HAZARD	DISASTER RISK REDUCTION PROJECTS	STAKEHOLDER	
		Enforcement of legislation to ensure building of houses in accordance to building standards	NDZ Municipality	
	1 FLOODS	Construction of dams	HGDM Municipality	
1		FLOODS Ongoing awareness campaigns conducted		
		Always improving early warning systems and cascading thereof	Weather Services and municipalities	
		Construction of high standard bridges with long life spans	NDZ and Public Works, Dept of Transport	
		Procurement of a club cab to be fitted with skid unit	NDZ	
		Continuous burning of fire breaks	NDZ	
2	FIRE	Procure and recruit state of the art fire equipment and personnel respectively to enhance fire fighting	NDZ	

		Conduct fire safety inspections	NDZ
		Identify site to construct fire station	NDZ
		Construction of fire station	NDZ
		Promote partnership with forestry companies such as mondi and sappi	NDZ
		Procurement and Installation of lightning conductors	NDZ
3	3 LIGHTNING	Continuous awareness campaigns	NDZ, District
		Distribution of early warning systems	Weather services and NDZ, COGTA and District
4	STORMS	Distribution of early warning systems	Weather services and NDZ, COGTA and District
		Ongoing awareness campaigns	NDZ
5	SNOW	Early warning	Weather services and NDZ, COGTA and District
		Putting snow protocol contingency plans into place	NDZ

		Grading of snow from the roads and surrounding areas	Department of transport	
		Improve road maintenance and upgrading	NDZ and dept of transport	
6	Motor Vehicle Accidents	Improve law enforcement and visibility of traffic police on the roads	NDZ, RTI and SAPS	
		Continuous awareness campaigns	NDZ, RTI	
7	Drought	Conduct ongoing awareness campaigns	NDZ	
,	Drought	Promote water harvesting and assist with water tanks where possible	NDZ, district and Human Settlement	
8	Fierce Winds	Promote planting of trees as wind breakers	NDZ	
		Awareness Campaigns	NDZ	
		Promote building of houses in accordance with building standards	NDZ	
9	Hail Storms	Awareness Campaigns conducted continuously	NDZ	

4.2 COMMUNITY SAFETY FIVE YEAR PLAN

The municipality has an obligation in terms of the Municipal Systems act to project a five-year plan that provides a guideline of development within the five-year period. Community Safety comprise of the following units:

- Disaster Management
- Traffic
- **G** Fire Services
- 🧕 Libraries
- Animal Pound

5.2.34 DISASTER SWOT ANALYSIS

STRENGTHS	WEAKNESSES
Active participation of ward committee members on disaster management	Lack of a proper Fire Station/ disaster management centre
Provision of budget by municipality to undertake disaster management projects Disaster Management is also utilizing fire fighters to perform some of the functions Disaster Management Volunteers availability at ward level Disaster Management Forum is very effective Disaster Management and Sector plan completed and approved	Insufficient funds to build the Fire Station/ disaster management centre Rural areas are very sparsely
OPPORTUNITIES	THREATS
Improved working relationships with other relevant disaster management stakeholders	Unavailability of fire hydrants in most rural areas
Participation of private sector, NGOs and on issues of disaster management	Occurrence of natural disasters
Participation of the private sector on issues of disaster management	Houses not built-in accordance with national building standards and regulations (rural and informal settlements)

5.3 DEMOGRAPHIC INDICATORS

5.3.1 POPULATION ESTIMATES

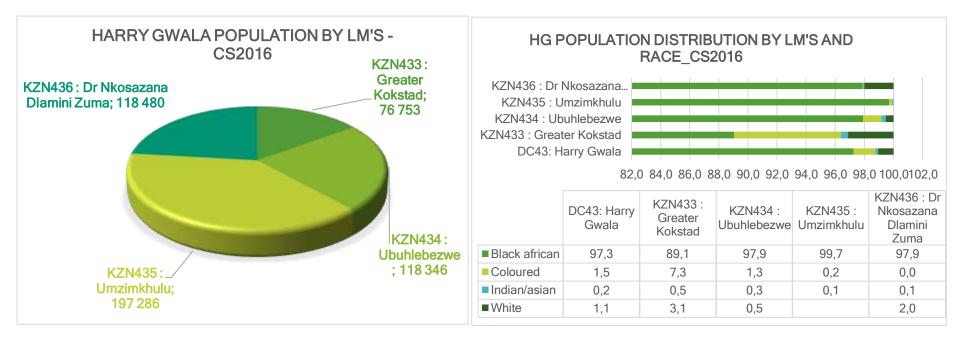


Figure 14: Overall Population

Figure 15: Population by Race

DNDZ LM is the second most populated municipality in the Harry Gwala District Municipality (HGDM). The total population of Dr Nkosazana Dlamini Zuma municipality was recorded at 120 456 in 2011 compared to 118 480 in 2016 this shows a decline of 1 976 in the total population of the municipality. This decline can be attributed by a number of factors such as migration by residents moving from the municipality to other neighboring areas in search of better job opportunities. The population is unevenly spread amongst fifteen (15) wards. The population by group figure depicts that DNDZ is predominantly Black African (97,9%) followed by White (2,0%) and Indian/Asian (0,1%).

Source: Census Community Survey 2016, Statistics South Africa

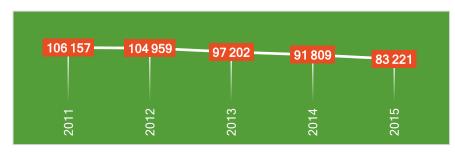
To undertake a forecast of inhabitants for DNDZ the fertility rate also needs to be considered. Fertility rate is the average number of children that would be born to a woman over her lifetime, and for Dr Nkosazana Dlamini Zuma municipality the rate for past enumerations is as follows;

Table 11: Rate of babies born

Year	2011	2016
Fertility Rate	5.85	11.60

The whole notion behind fertility is based on the quality of being productive in the sense of being able to conceive children. With regards to DNDZ, since the rate has increased between 2011 and 2016, this means that likelihood of population to increase has elevated. In KwaZulu-Natal, the mortality rate indicates a decreasing trend annually. The trends between 2011 and 2016 were as follows (see *Table: 5*),

Figure 16: Trend analysis of mortality in KZN



Source: Mortality and Causes of death, Statistics South Africa

Table 12: KZN mortality trends

KwaZulu-Natal

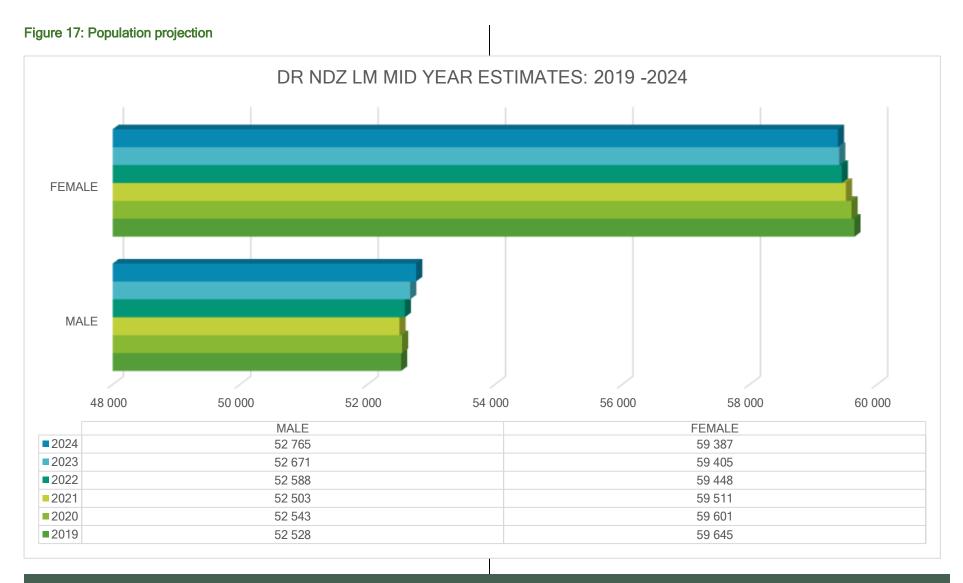
	2011	2016
Deaths	387 702	91 596
population	10 365 005	10 940 668
% of deaths	3.7	0.8
% Growth/Decli	ne in percentage of	
deaths		-2.9
Change in number of deaths		296 106

The mortality trend for DNDZ is as follows (see Table: 11). It indicates that the state of being subject to death within DNDZ increased.

Table 13: Dr Nkosazana Dlamini Zuma mortality trends

Dr Nkosazana Dlamini Zuma Municipality			
	2011	2016	
Deaths	1 581	5 707	
population	113 446	118 480	
% deaths	1.39	4.82	
% Growth/decline in percentage of deaths 3.43			
Change in number of deaths		4 126	

The mortality rate has also influenced on the population growth for Dr Nkosazana Dlamini Zuma. Between the years 2011 to 2016, the percentage change of deaths increased, however it did not intensify greater than of the fertility. With such enumerated premises of assumptions, a clearer picture of the population for the study area is vivid, and a projection can be enticed from analyzing the trend from census of 2001 and to 2011 based on age cohorts, the mortality and fertility rate including migration pattern of the urban and rural areas. The figure below presents the population projection based on the percentage change with references to the population growth trend



According to Census Mid-Year estimates, the population of DNDZ is expected to decline in five-year period between 2019 and 2024. This is an estimated 5,3% negative growth rate. This can be attributed to a decline in the female population whilst the male population will increase year on year.

Area	Growth per 10 Years	2011	2021	2031	2041	2051
Commercial Farms	2%	11652	13 982	16 779	20 135	24 162
Himeville, Cobham & Sani Pass	1%	4613	5 074	5 582	6 140	6 754
Underberg & Bushmen's Nek	1%	6114	6 725	7 398	8 138	8 952
Amakuze TA, Isibonele Esihle TA & Madzikane Bhaca TA	-2%	29404	23 523	18 819	15 055	12 044
Sizanani TA	1%	10769	11 846	13 030	14 334	15 767
Bulwer, Bhidla TA (Portion) & UMacala Gwala	2%	10890	13 068	15 682	18 818	22 582
Zashuke TA & Bhidla TA (Portion)	0%	9658	9 658	9 658	9 658	9 658
Veza Kuhle TA, Qadi TA, Carthill, Eastworld, Maxwell & Mabedlana	1%	9989	10 988	12 087	13 295	14 625
Donnybrook & Comrie	0%	8956	8 956	8 956	8 956	8 956
Creighton, Mondi & Sizanani TA (2)	1%	8039	8 843	9 727	10 700	11 770
TOTAL		110 084	112 664	117 717	125 228	135 268

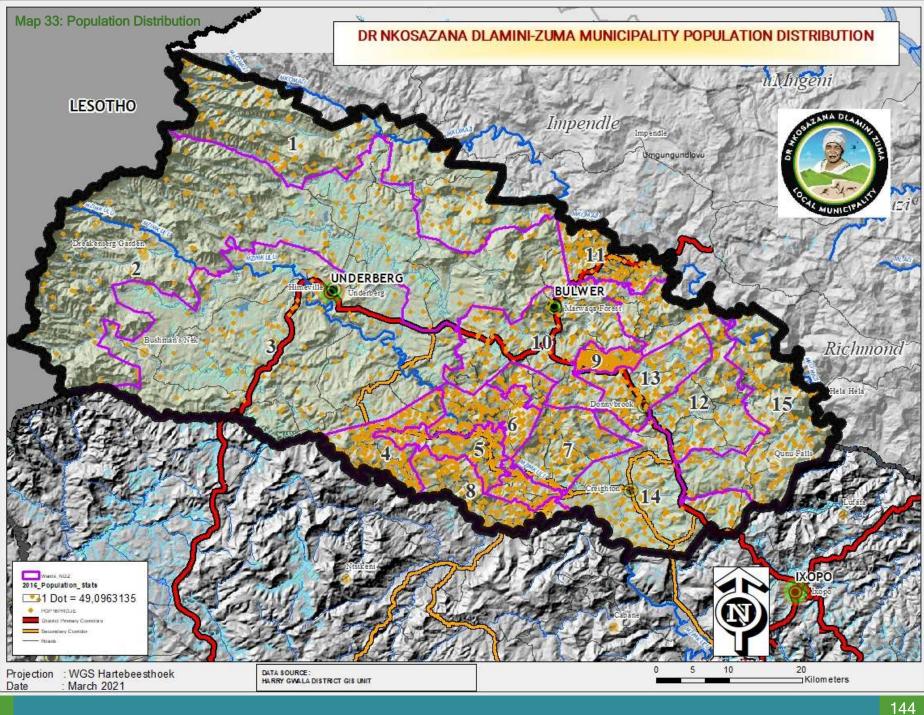
Statistics SA: Census 2011

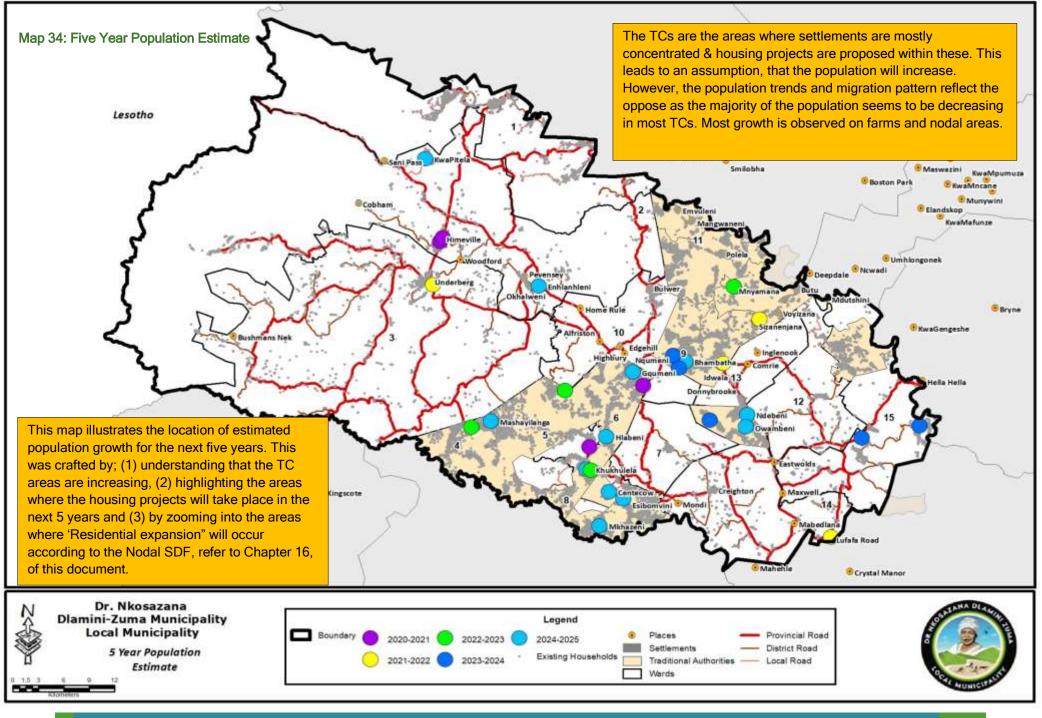
A population forecast per area is based on the premise that some areas are likely to attract population more than the other areas. This is only based on a positive assumption whereby the areas that have historically grew in population size are assumed to be the places that will still grow in the near future. However, such growth is limited to a maximum 2% per 10 years given the fact that the area mostly experiences decline as opposed to a positive growth. The areas with the population which remain stagnant during 2001 – 2011 has been given on 1% growth per 10 years while those that have experienced decline were allocated a 0% percentage growth per 10 years. The last aspect of this projections involves the areas whose population has been given a -2% decline per 10 years. This negative projection has been given to the remotely located rural settlements which are most likely to decline in the near future.

DR NKOSAZANA DLAMINI ZUMA AREA POPULATION FORECAST Veza Kuhle Amakuze TA. Bulwer. TA, Qadi TA, Creighton, Underberg & Bhidla TA Himeville, Isibonele Zashuke TA . Carthill, Donnybrook Commercial Mondi & Cobham & Bushmens Esihle TA & Sizanani TA (Portion) & & Bhidla TA Eastworld, Farms & Comrie Sizanani TA UMacala Sani Pass Nek Madzikane (Portion) Maxwell & (2) Bhaca TA Gwala Mabedlana Growth per 10 Years 2% 1% -2% 1% 2% 0% 1% 1% 1% 0% 2011 10938 3900 5400 28691 10055 10177 8944 9275 8241 7324 2021 13 126 4 2 9 0 5 940 22 953 11 061 12 212 8 944 10 203 8 2 4 1 8 0 5 6 2031 15 751 4719 6 5 3 4 18 362 12 167 14 655 8 944 11 223 8 2 4 1 8 862 2041 18 901 5 191 7 187 14 690 13 383 17 586 8 944 12 345 8 2 4 1 9 7 4 8 22 681 5710 7 906 10 723 2051 11 752 14 722 21 103 8 944 13 580 8 2 4 1

Growth per 10 Years 2011 2021 2031 2041 2041 2051

Figure 18: DNDZ Population Forecast





5.3.2 URBANISATION AND POPULATION OUT-MIGRATION

A rigorous comparison on Census 2001 and 2011 population illustrate an overall population decline of 7.7% (from 122 863 to 113 446). There is no clear evidence of urbanization that could be assumed to be taking place internally due to a limited account of urban population on 2011 census. An external population out-migration is taking place within the area. This could be assumed to the limited opportunities that the area may have presented to the locals. What is interesting to note is the increase on the rural population especially within the farming areas.

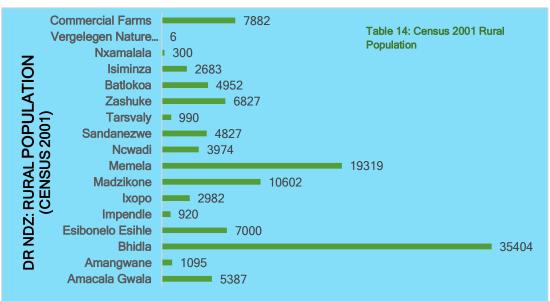
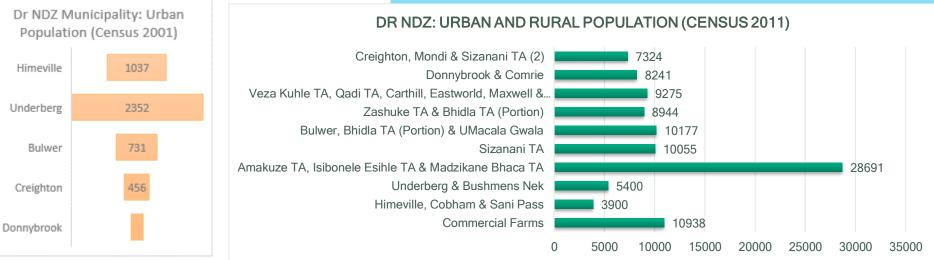
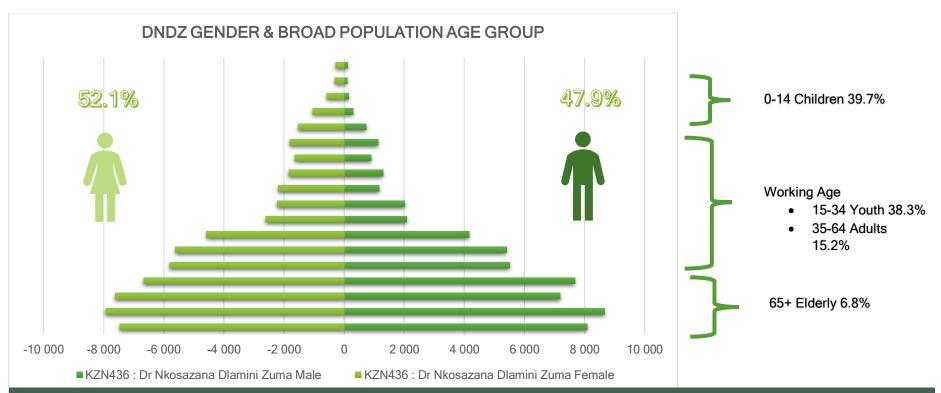


Table 15: Census 2011 Urban andRural Population



5.3.3 GENDER & AGE GROUP

Figure 19: Gender & Broad Population Age Group



The age population unit for DNDZ from 2016 is represented above, Primary premises which influence population change include migration patterns, push and pull factors existing within and closer to the municipality, as well as the fertility and mortality rate within the municipality. The above figure reveals that there are more females than males. The age structure of Dr Nkosazana Dlamini Zuma on the population pyramid reveals a children population profile with 52% of the population under the age of 14 and 44% being of working age between 20 and 64, and with only 4% of the elderly population. Approximately 22.15% of the population is above 35. This clearly places demand on the municipal economy to create more jobs considering that fact that the Dr Nkosazana Dlamini Zuma has low levels of internal urbanization, as it is predominantly rural in nature with a significant percentage of the population residing in rural traditional areas and formal dwellings account for 38,16%. Dr Nkosazana Dlamini Zuma population consists of more females than males the females account for 52, 12% of the population and male population only account for about 47, and 88%. This is related to males who migrate to seek employment opportunities outside the municipal boundaries, which has translated to 59.84% of the households being female-headed.

5.4 HOUSEHOLD TRENDS

5.4.1 HEADED HOUSEHOLDS

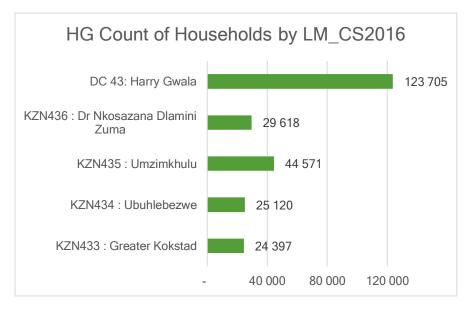


Figure 21: Number of Households

- There are 29 618 households in Dr NDZ LM which is the second largest number within the District.
- Approximately 52,6% of these households are headed by women. This is the third largest within the District.
- It is estimated that 1,77% of the households in the Municipality are child headed households. This is the second largest within the District.

Figure 20: Female headed households

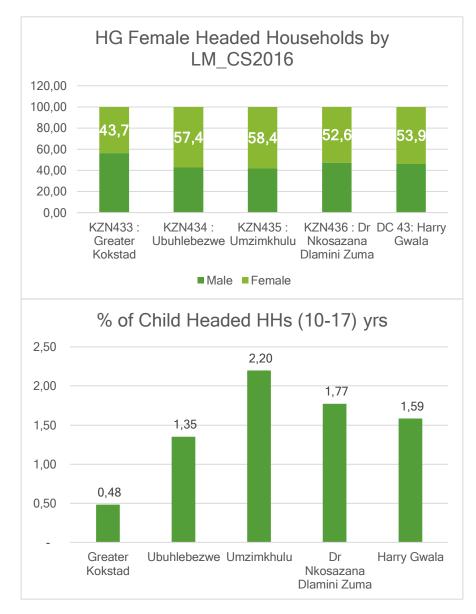


Figure 22: Child headed households

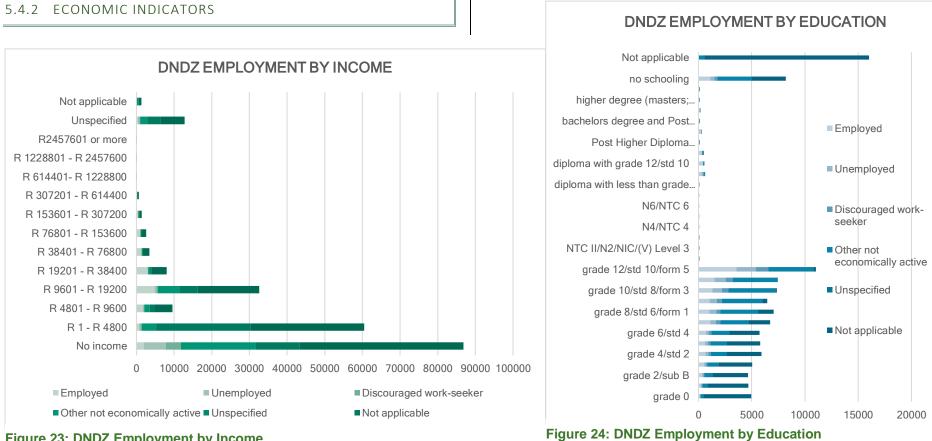


Figure 23: DNDZ Employment by Income

The education level of the majority of people in the working age who are employed in DNDZ have a Senior certificate. There is a glaring skill deficit in terms of tertiary gualification within the municipality. Most of these people are in the low skill market earning R1-R4800 per month.

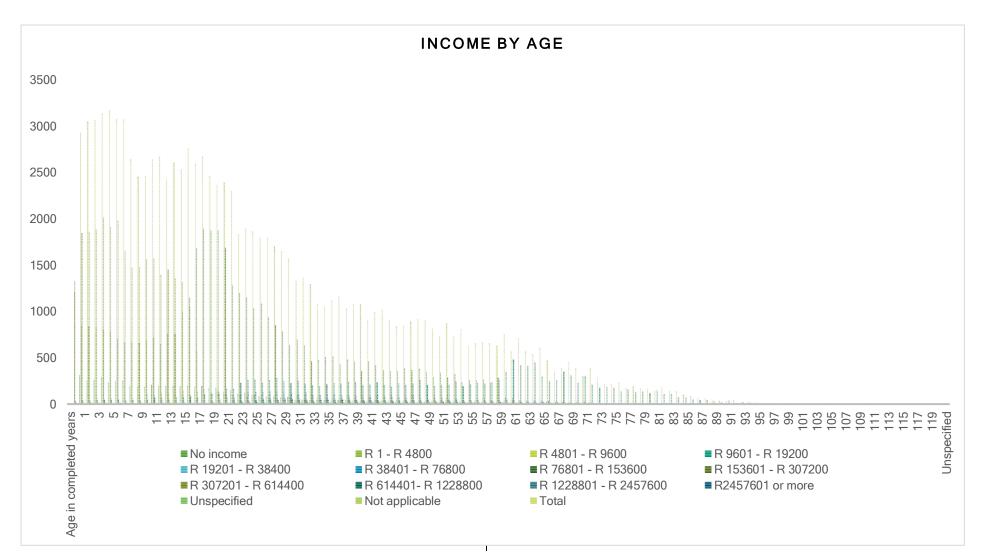


Figure 25: Income Level by Age

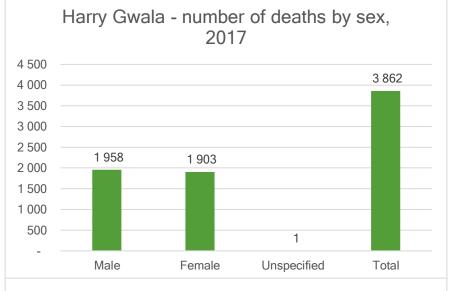
A number of people within the working age have no income. The graph shows that the majority of people who receive an income are those below the age of 18 years. The average income within the municipality is R1-R4800. This is in line with the majority of people within the working being unemployed and relying mainly on government grants to support their dependents.

5.4.3 CAUSES OF DEATH

The indicators for causes of death are calculated at the District level. However, it is possible to make assumptions based on District information. The following graphs show the ten leading natural causes of death, number of deaths by gender and death by disease categories. The following observations are made:

- The leading cause of death within the District is HIV/AIDS followed by Tubercolisis
- Number of deaths by gender show that there within the male population but this is a slight margin
- The most deaths can be attributed to chronic illnesses as opposed to natural or non-natural deaths

Figure 28: Number of deaths by gender



HG % share of causes of death by disease categories,2017

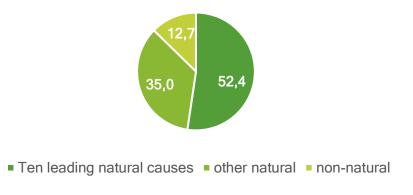


Figure 26: Causes of death by disease categories

HG - Ten Leading Natural Causes of Death in 2017

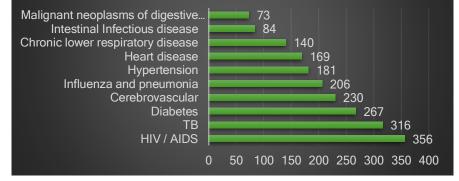


Figure 27: Ten Leading Causes of Death

5.5 BROAD LAND USE PATTERN

5.5.1 RURAL TOWN AND SURROUNDING PERI-URBAN SETTLEMENTS

Dr Nkosazana Dlamini Zuma Municipality boost with five (5) rural town that is found within the municipal area. These are surrounded by the densely populated rural settlements which have grown around it over the years.

5.5.2 RURAL VILLAGES AND SETTLEMENTS

The rural villages and settlements are located on the south-eastern part of the municipal area. These are spread-out unsystematically within administrative boundaries of traditional authorities. These villages and settlements have a number of commercial and social activities within it. The kind of commercial activities are limited to small local convenient shops, taverns as well as scale manufacturing activities (block making) and personnel services such as salons and small-scale agricultural activities (ploughing field and food gardens).

5.5.3 COMMERCIAL AGRICULTURE

Dr Nkosazana Dlamini Zuma Municipality has an abundant amount of agricultural land which is geographically located on the northwestern parts of the municipality in the form of commercial agricultural farms. The agricultural pattern within the area is primarily due to the undulating topography, which prescribes the available land parcels out of the valley lines and along other major structuring elements. The agricultural industry is a prominent feature within the KwaZulu-Natal southern Drakensberg. This predominance is due to the rich natural resources and climatic conditions.

5.5.4 ENVIRONMENTAL AREAS

There are nineteen (19) Sites of Conservation Significance by Ezemvelo KZN Wildlife. There are also a number of environmentally sensitive features which have not been protected such as Wetlands, Mist belt grasslands that are endemic to KwaZulu-Natal, A diverse vegetation type that is categorized into 7 bio-resource groups and LM is rich in natural water resources.

5.5.5 TOURISM AREAS

Dr Nkosazana Dlamini Zuma has few mobility tourism routes which includes Kwa Sani Pass. A number of farms that are located along these routes have diversified from traditional agricultural land uses to Agri-tourism uses over the years. The municipality has a great variety of natural tourism assets and accommodation establishments (such as hotels, bed and breakfasts and guest-houses).

5.6 SETTLEMENT TYPOLOGIES

The concept of human settlements has been typically defined as a settlement, locality or populated place is a community in which people live, however, according to a study done by Dr Godfrey Musvoto, the morphology of a rural settlement is:

"...captured by three aspects, namely, typology, pattern (spatial organization) and the form (shape) of the rural settlement. The typology of a rural settlement appreciates that there is a continuum of rural settlements from a single building or dwelling to a village made up of an agglomeration of dwellings, pattern or spatial organization captures the density of dwellings or building structures in a typology and as such it is either nucleated or dispersed. The form of a rural settlement focuses on the shape that the buildings in a typology are arranged in; it can be linear or curvilinear. (Towards a Framework for Assessing Settlement Patterns and Trends in South Africa to guide Sustainable Settlement Development Planning. A Case Study of KwaZulu-Natal Province: 2011: p36)

The study area is also coupled and characterized with urban areas and farmlands such as Karkloof and others adjacent to Midmar Dam, Mpophomeni and Albert Falls. Areas such as Hilton, Howick and Mpophomeni are characterized as urban area. Dr Godfrey Musvoto further points out that:

"Morphologically, urban settlements are characterized by commercial areas, industrial zones, and densely packed housing (Nagle, 2000). One of the earliest attempts to explain the internal structure of urban areas is the bid rent theory. This argues that the physical structure of cities is determined by competition for the most strategic locations within a city by different land uses in terms of accessibility to public transport (Hagget et al, 1977; Kaplan et al, 2004; De Blij et al, 2007). Therefore, the most profitable land uses will occupy the most privileged locations within a city with the least profitable occupying the least privileged. Land values decrease from the city centre going outwards in similar fashion to the way accessibility decreases. The land at the city centre becomes the preserve of commercial use which is the most profitable; outside the city centre it is industrial, and the remainder of the land is for residential use". (Towards a Framework for Assessing Settlement Patterns and Trends in South Africa to guide Sustainable Settlement Development Planning. A Case Study of KwaZulu-Natal Province: 2011: p36)

Over the years, this concept of human settlements has been broadened to become a framework for an overall national socioeconomic development in the context of formulating housing strategies. It is now contended that human settlements are the spatial dimension as well as the physical expression of economic and social activity. No creative act takes place without being influenced by settlement conditions. In turn, the creation of workable human settlements inevitably becomes an objective of, an indicator of and a prerequisite for social and economic development. Settlements are an objective of development in that places where people can live, learn and work in conditions of safety, comfort and efficiency are a fundamental and elementary need. Settlements are also an indicator, in that they are the most visible expression of a society's ability to satisfy some of the fundamental needs of its members: they can mark accomplishments as well as expose destitution, neglect and inequality. Finally, settlements are a prerequisite for social and economic development, in that no social progress for sustainable

economic growth can occur without efficient settlements systems and settlement networks. (https://www.virtualstatisticalsystem.org – 06/09/2016)

The term "settlement" clearly refers to the physical locale where people stay and perform socio-economic functions (Tringham, 1972; Hagget et al, 1977; Nagle, 2000). Settlements are therefore given meaning by three interrelated concepts namely, (i) functions, (ii) the population sustaining itself from functions and (iii) morphology or the physical manifestation of the population sustaining itself from functions in a particular locale. The historical evolution of settlements within Dr Nkosazana Dlamini Zuma Municipality was largely driven by the chronology of the past administrative structures as well as the three interrelated settlements concepts that have been mentioned. These settlements can be listed as follows:

5.6.1 FORMAL URBAN SETTLEMENTS

Underberg, Bulwer, Creighton, Donnybrooks and Himeville are the urban settlements. In terms of size, character and performance these function as small towns which are associated to service provision for the town itself and the surrounding countryside (Cater, 1990). There is a general lack of new residential/ housing products such as cluster housing within town. Services and activities that are found there do not produce or modify goods; these include education, welfare, legal and administrative functions, and employment (Nagle, 2000).

Thus, it is possible to examine whether each unit consists of one community of several settlements, and the degree of political or social interaction between the settlements through an examination of the social forces involved in the spatial relationships of the different residential units (Tringham, 1972). Settlements, therefore, form a series of complex interrelated places which are key to the economic, social and political organization of regions and nations (Pacione, 2005). The most widely adopted framework for analyzing the functional role and distribution of settlements is the central place theory developed by Walter Christaller in 1933 based on his study of settlements in Germany.

5.6.2 INFORMAL SETTLEMENTS

There are 65 informal dwelling units within Dr Nkosazana Dlamini Zuma Municipality. Most these are found around the urban centres. The processes to upgrade these using housing subsidy instruments from the Department of Human Settlements would need to be considered.

5.6.3 PERI-URBAN SETTLEMENTS

The most notable peri-urban settlements are Ncwadi, Polela, Centacow and Richenau. Ncwadi is accessed via district and local access routes. It has great potential to be a thriving rural service centre for the surrounding community. Majority of the land around Ncwadi is currently subject to land restitution and claims. Pholela also constitutes as another secondary node in the local municipality. Ncwadi has the following services and facilities a clinic, community hall, sporting facility, shops, crèches, pension pay points, Primary and secondary schools. Centacow and Richenau is originally a Catholic mission outstation with various self-contained amenities. It located in a rural section of the municipality. It is accessible through district roads. It accommodates an Informal taxi rank, Informal stalls/ tuck shops and secondary and primary schools.

5.6.4 RURAL SETTLEMENTS

The majority of traditional settlements that are located within Ingonyama Trust land are nucleated and densely populated. These settlements include the following:

Amakuze TA;

Isibonele Esihle TA;

Madzikane Bhaca TA;

Sizanani TA;

Zashuke TA;

Bhidla TA;

Amagwane TA;

Qadi TA; and

Veza Kuhle TA.

Although densely populated some of these settlements are characterized with rural features such that each homestead has more than one dwelling, cattle kraal or chicken coop, home burial and onsite disposal pit. These are the practices that have persisted for a long time within the rural environment but are prohibited within the urban areas.

5.6.5 SMALL HOLDINGS

Small holding can be defined as an area of land that is used for farming but is much smaller than a typical farm. There are several farms that have been subdivided into smaller plots and have transformed into small holdings.

5.6.6 FARMLANDS

Most of the municipal area is occupied by privately owned commercial farms. These farms are primarily used for food production and breeding of livestock. There are also settlement areas for the farming community including a farmer homestead and smaller homesteads for the farm labours. Some of these farms have rural settlements which has been discussed on the previous sub-section.

5.7 SETTLEMENT DENSITY

5.7.1 HIGH DENSITY URBAN SETTLEMENTS

The towns are the urban settlement with the highest density. This is due to the existence of smaller plots. Each household occupy less than 0, 5 ha within this area. These are the areas where densification and land economic is capitalized upon.

5.7.2 DENSELY POPULATED RURAL SETTLEMENTS

The densely populated rural settlements are found throughout the traditional authority areas. Normally the dense settlements that were created in rural areas by the processes of resettlement, displacement, and settlement betterment programmes.

5.7.3 LOW DENSITY RURAL SETTLEMENTS

The low-density settlements are mainly the farming settlements which are spread throughout the northern parts of the municipality.

5.7.4 PRESSURE POINTS

The pressure points refer to the areas that should be afforded a greater level of detail in terms of spatial planning. These areas are facing pressure due to a number of reasons such as:

Population growth which results in increased density;

Demand for services and housing due to influx and inflow of people within the locality;

Land uses conflicts due to the mushrooming of business activities, industrial uses and unauthorized commercial uses that have not been catered for on the initial plans;

Some of these areas have only attracted the poor and as such have developed into poverty pockets;

The environmental qualities may be facing threats due to the pressures that these areas face; and

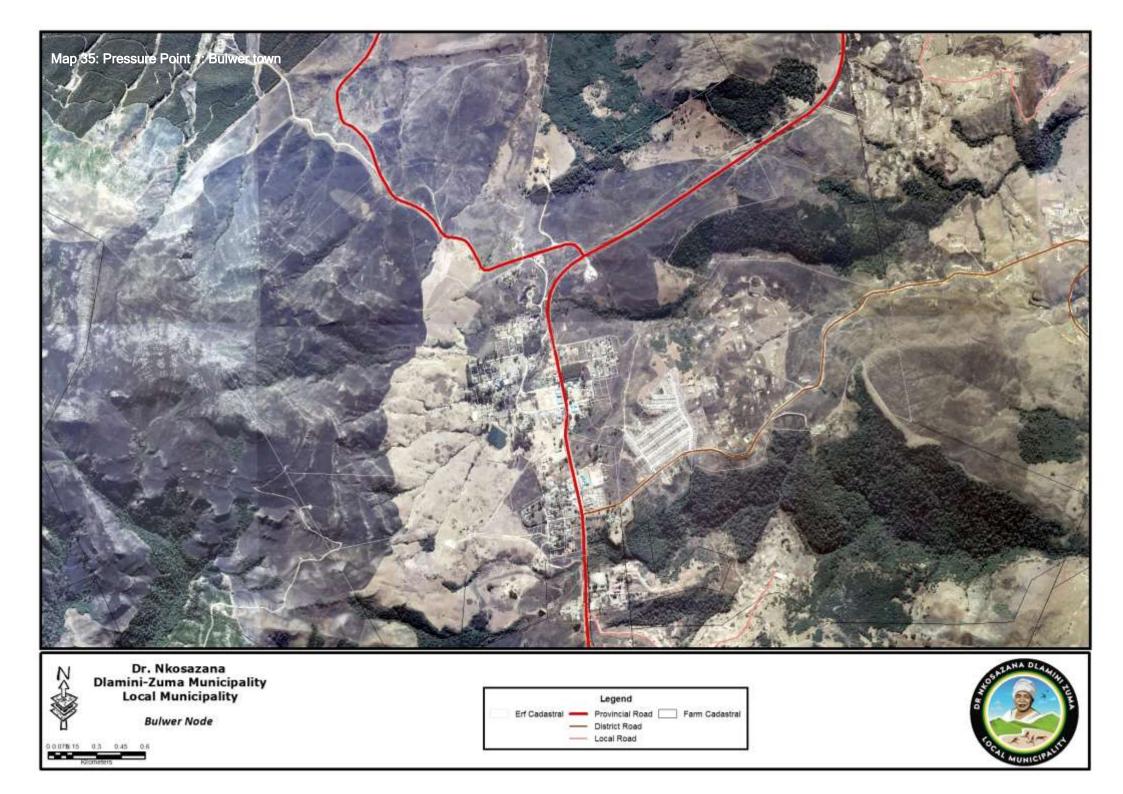
The capacity of infrastructure is often lacking to accommodate increased population pressure.

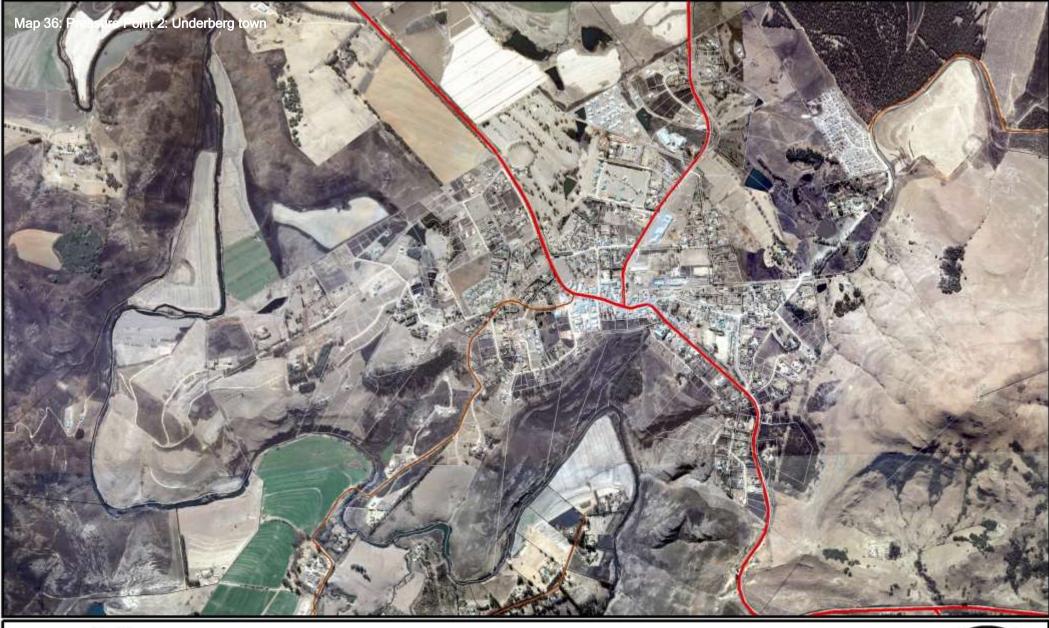
These areas have been identified as:

- Bulwer Town;
- Underberg Town;
- Creighton Town;
- Himeville Town;
- Donnybrook;
- Pholela;
- Centecow;
- 🧕 Dabazi;
- Mamela;
- 🧕 Masomeni; and
- Mqantsheni.

With reference to the list above, these areas mostly include the urban areas of Bulwer, Underberg, Creighton, Himeville and Donnybrook. These areas are the existing towns within the municipal area. The SDF should uncover the performance of these areas in terms of economic activities, capacity of existing infrastructure, quality of the social amenities and facilities and the population that these areas are able to attract. The rural pressure points include the densely populated rural areas such as Pholela, Centecow, Dabazi, Mamela, Masomeni and Mgantsheni. These settlements need a greater level

of attention given the fact that these are growing in terms of population and a need exists to ensure orderly development takes place within these.







N

-

0 0 0749 15 0.5 0.45 0.6

Underberg Node

Legend
Provincial Road Earn Cadastral District Road







Creighton Node



NA

0.4

	Legend
Erf Cadastral	Provincial Road E Farm Cadastra
	District Road







0.4

Ň

0.050.1

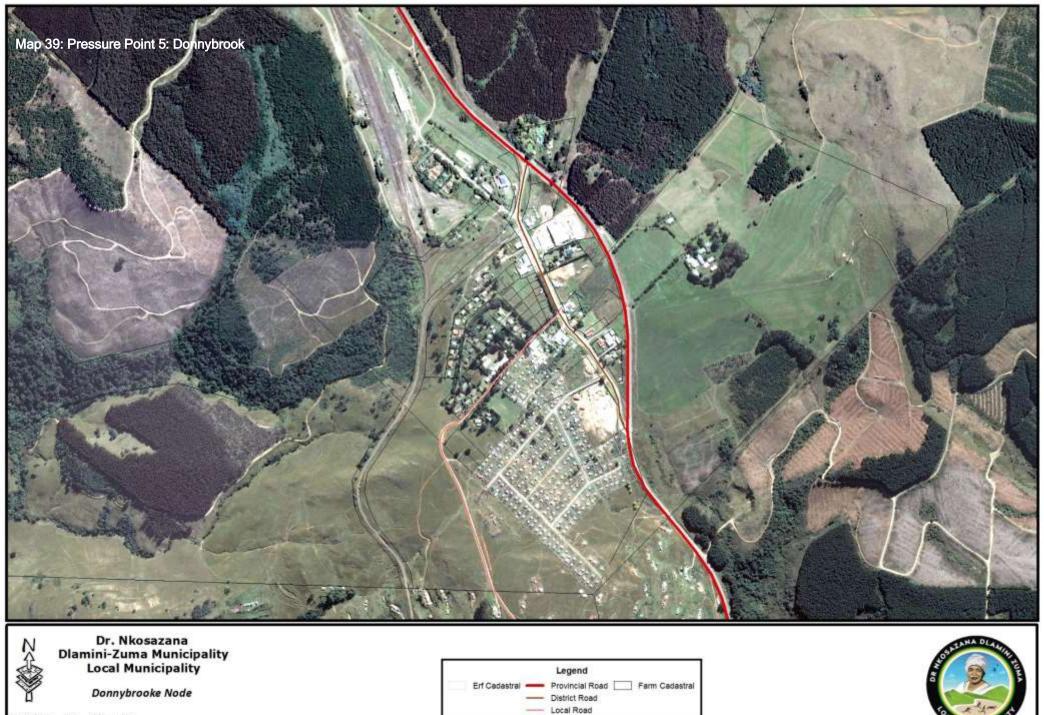
1000



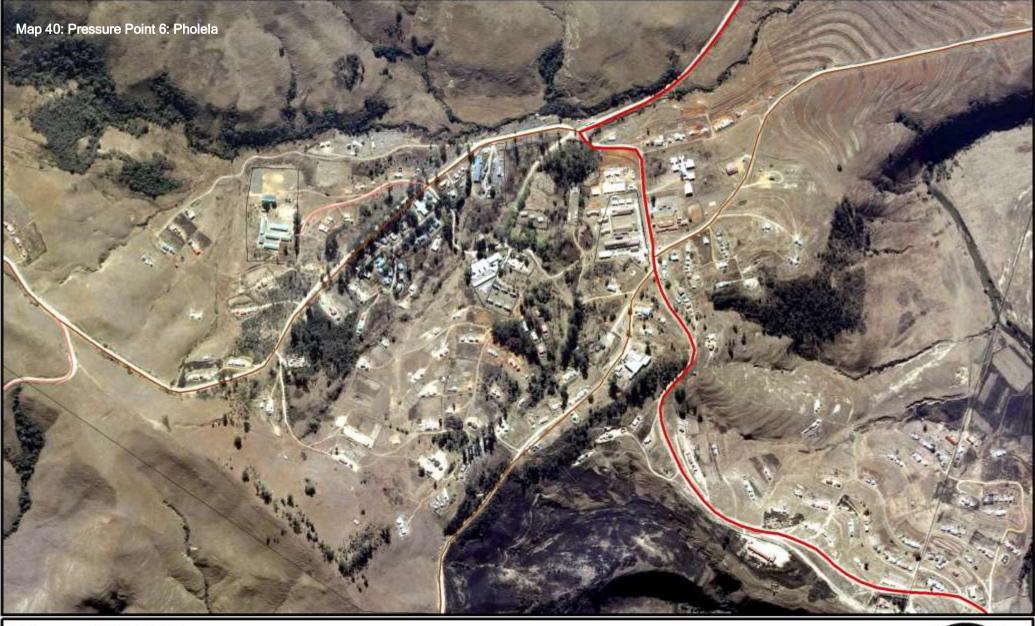








0428-065	0.17	0.255	0.34





0.0.0326.065 0.13 0.195 0.26









0.4









Local	Munici	pality
Do	izini Nod	e

azín	i No	de



Legend				
Erf Cadastral	Provincial Road	Farm Cadastral		









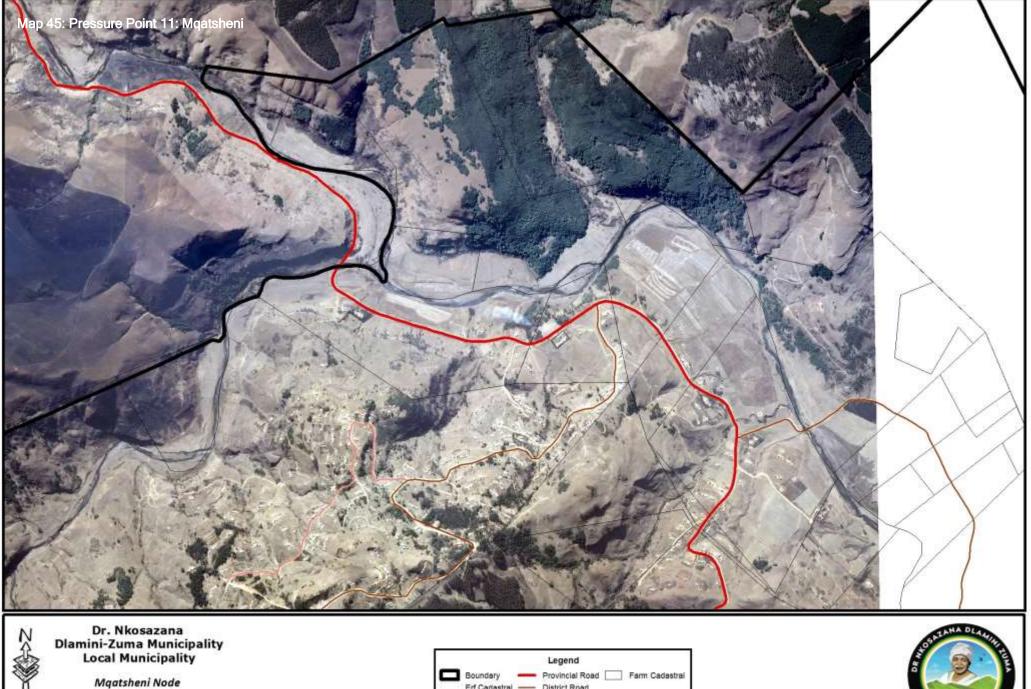
Masomeni Node

0.27 0.36

0.0450.09

0.18





0.0.050 1 0.4 100





5.8 LAND USE MANAGEMENT

The Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) better known as SPLUMA requires all municipalities across the country to develop and adopt a "Wall-to-Wall Schemes" throughout their area of jurisdiction. This must take place within 5 years from the commencement of the Act. In addition, SPLUMA requires that the wall-to-wall scheme be reviewed every after 5 years in order to achieve consistency within the Municipal Spatial Development Framework.

Dr Nkosazana Dlamini Zuma has commenced with a process to develop a wall-to-wall land use management scheme for the area of jurisdiction. It must contribute towards sustainable development and improve governance (as it relates to land use management) within Dr Nkosazana Dlamini Zuma. As such, alignment and integration with the other tools (land audit, valuation roll, etc.) should be maintained. The introduction of the scheme in rural areas should:

Provide for the participation of municipal officials in all land allocation processes as undertaken by traditional councils.

Involve the participation of local communities in Dr Nkosazana Dlamini Zuma, particularly traditional councils and other structure that are responsible for spatial planning and land allocation;

Include the development of maps, systems and procedures for effective decision making to guide traditional councils in the execution of this function. Incorporate the KwaZulu-Natal Rural Land Use Norms and Standards as soon as these are gazetted.

5.9 LAND LEGAL ISSUES

5.9.1 LAND OWNERSHIP

Land ownership within Dr Nkosazana Dlamini Zuma is diverse but the dominant owner is Private Ownership (47%). This is followed by KZN Wildlife (22%), Ingonyama Trust (17%), Government (8%) and the Mondi and Sappi forestry companies (7%).

5.9.2 LAND REFORM

Land claims and land redistribution is a largely contested issue within Dr Nkosazana Dlamini Zuma LM. Most of the contestation stems from the allocation of land and the land ownership pattern. Due to the related debates on this particular issue, it has since become a priority for the local municipality. Based on current available data, there are three Land Claim projects being processed in the Dr Nkosazana Dlamini Zuma LM, these include:

The Mnywaneni project comprising two portions of the property lot 55, Sunrise in extent 298.86 ha. There are some 90 beneficiaries involved. Evaluations have been completed and the Department is in the stage of price negotiations;

The current residents on the property Ingudwini Forest no. 15327 lodged a request with the Department of Land Affairs 5 years back for the land to be purchased and made available to them as a land

DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT

redistribution project or possibly an ESTA project. Apparently, the families have been residents on this land for many years. The land is apparently used for grazing by the adjoining people in the Sandaneza area. The owners of the property are prepared to sell.

Impendle state land provides opportunity for both redistribution as well as small-scale farmer settlement under the LRAD programme. There are three Land Reform projects at present within the Local Municipality being the:

Sunrise Forest;

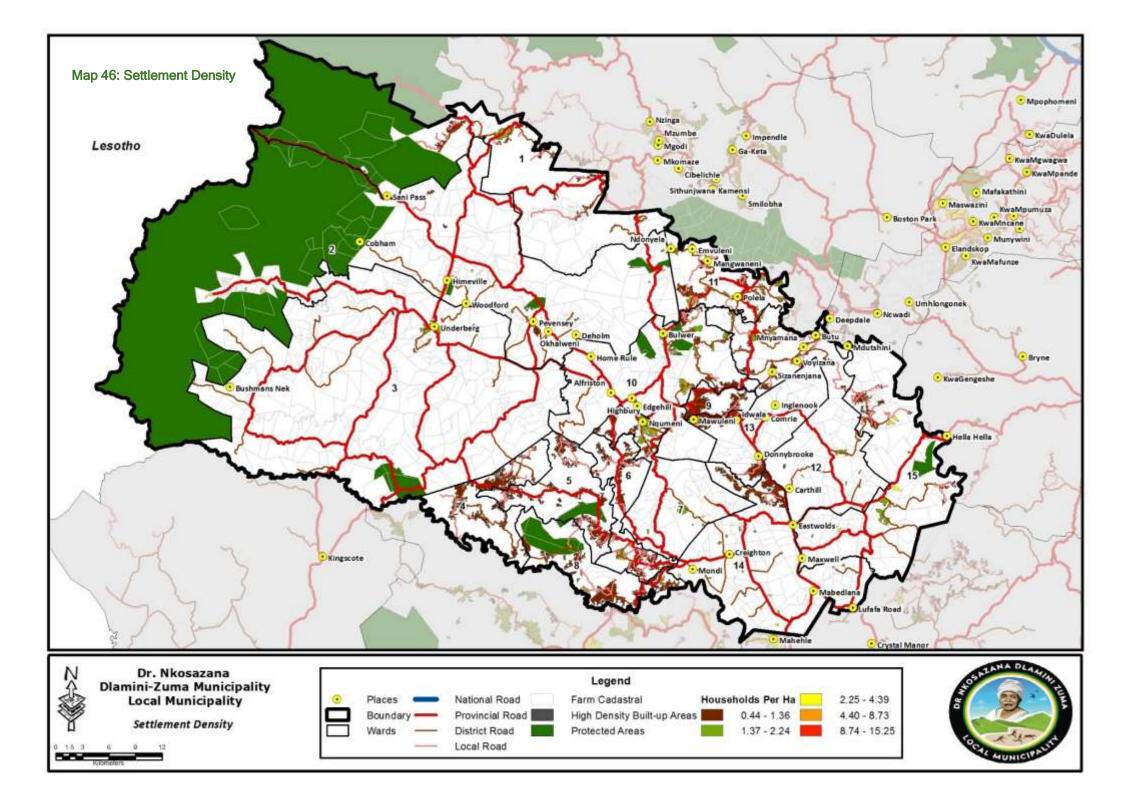
Ingudwini Forests, and

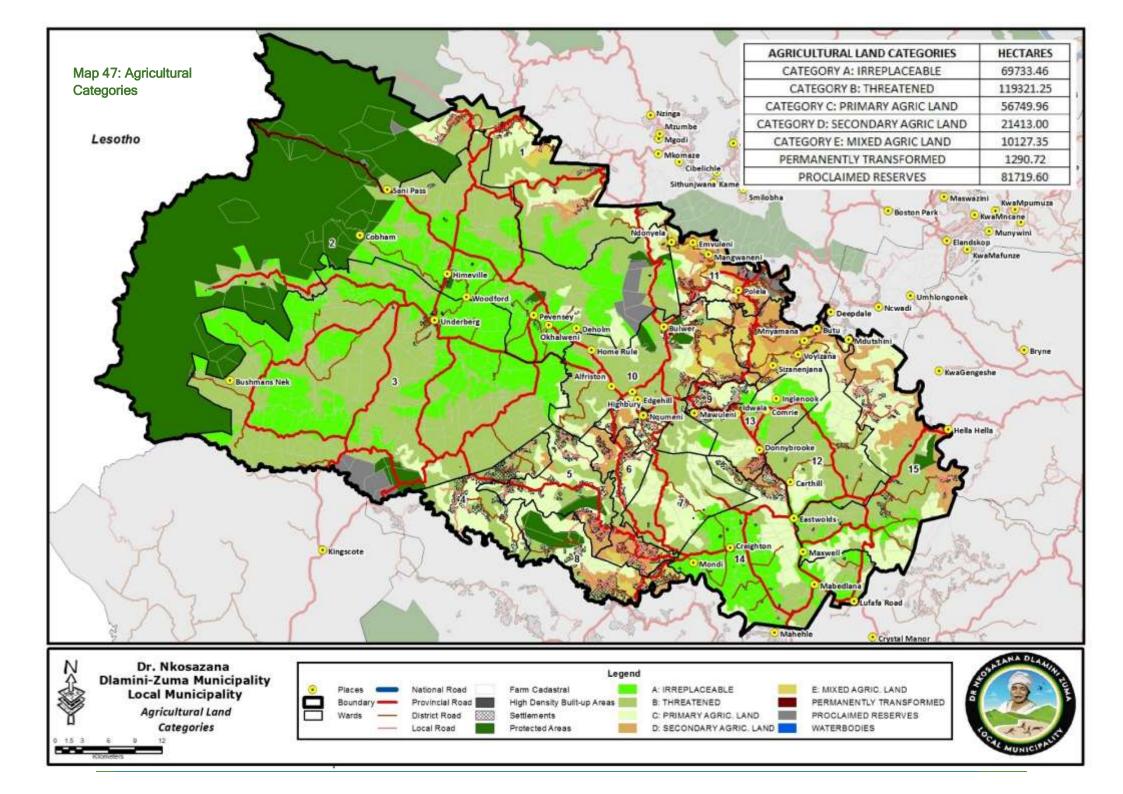
The large block of state land to the north of the Umkhomazi River.

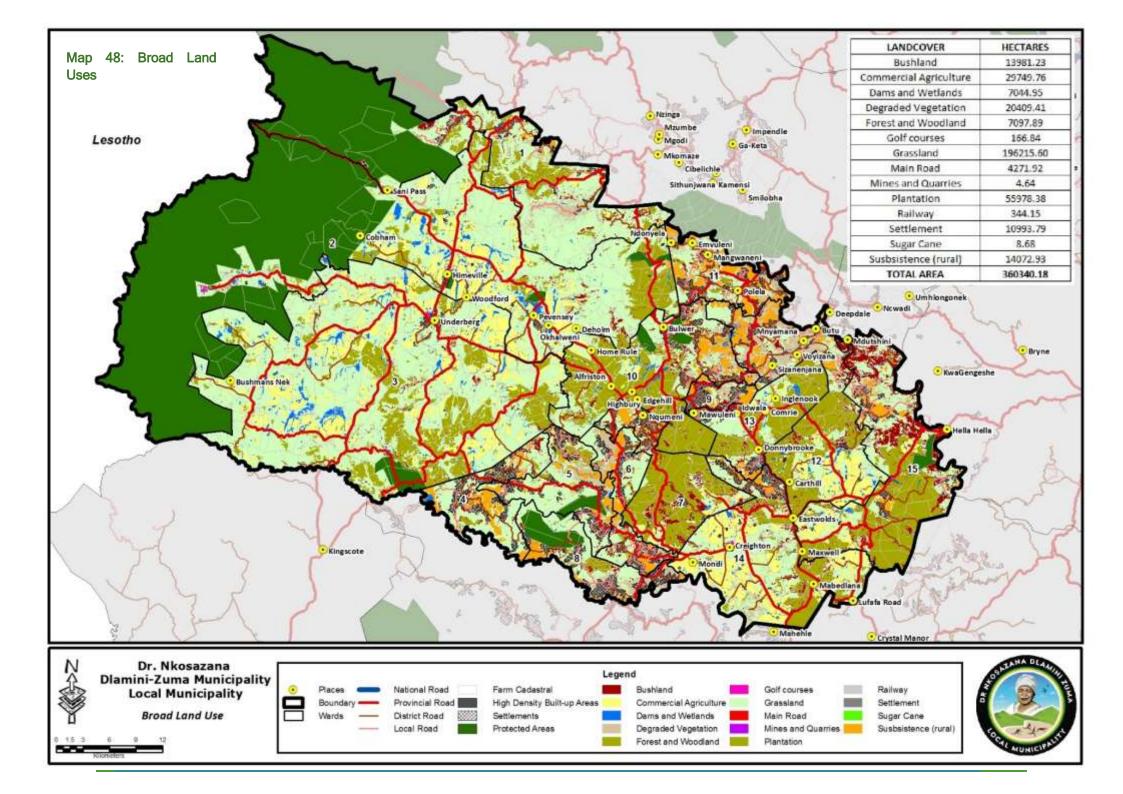
This land is in the process of being allocated to the identified beneficiaries. The new Land Redistribution for Agricultural Development programme (LRAD) was only recently implemented. It will take some time before it has any impact on the local economy. This programme is dependent on persons applying for financial assistance to acquire land for agricultural purposes. The level of support extended to emerging agriculture is low and as a result, the potential that exists in the traditional areas has not been exploited or developed to any degree. Other gazette land claims largely in include:

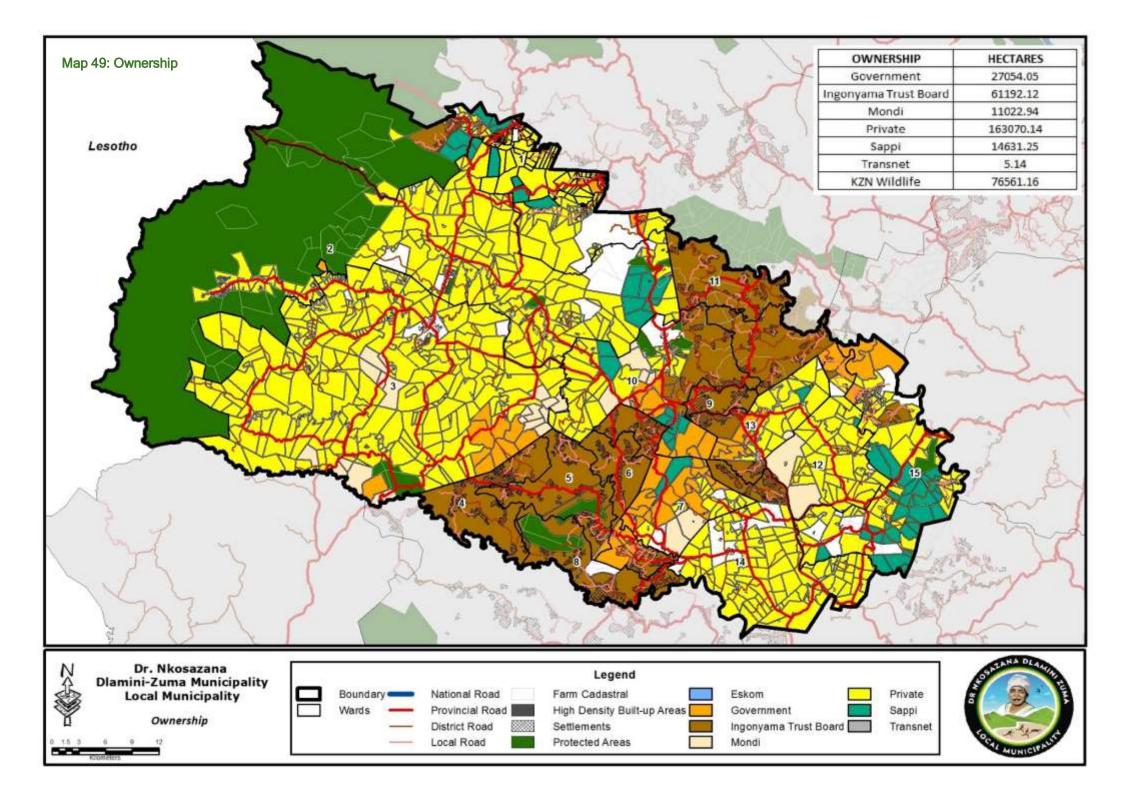
- The farm Sunrise No. 5567;
- The farm Reichnau A No. 5796;
- Remainder of the farm Reichenau B No 5797;
- Portion 1 of the farm Reichenau B No 5797;

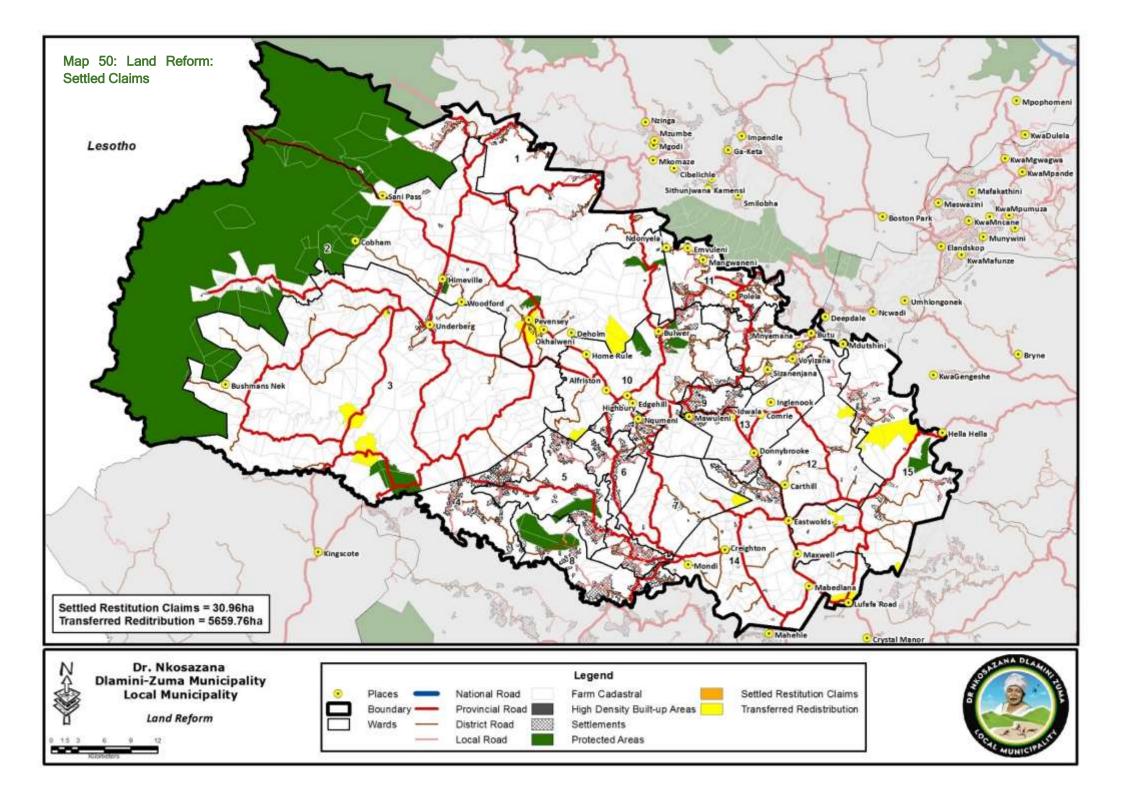
- Portion 2 of the farm Reichenau B No 5797;
- Remainder of the farm Reichenau No. 5798;
- Portion 2 of the farm Reichenau No 5798; and
- Remainder of the farm Reichenau C No 5799.

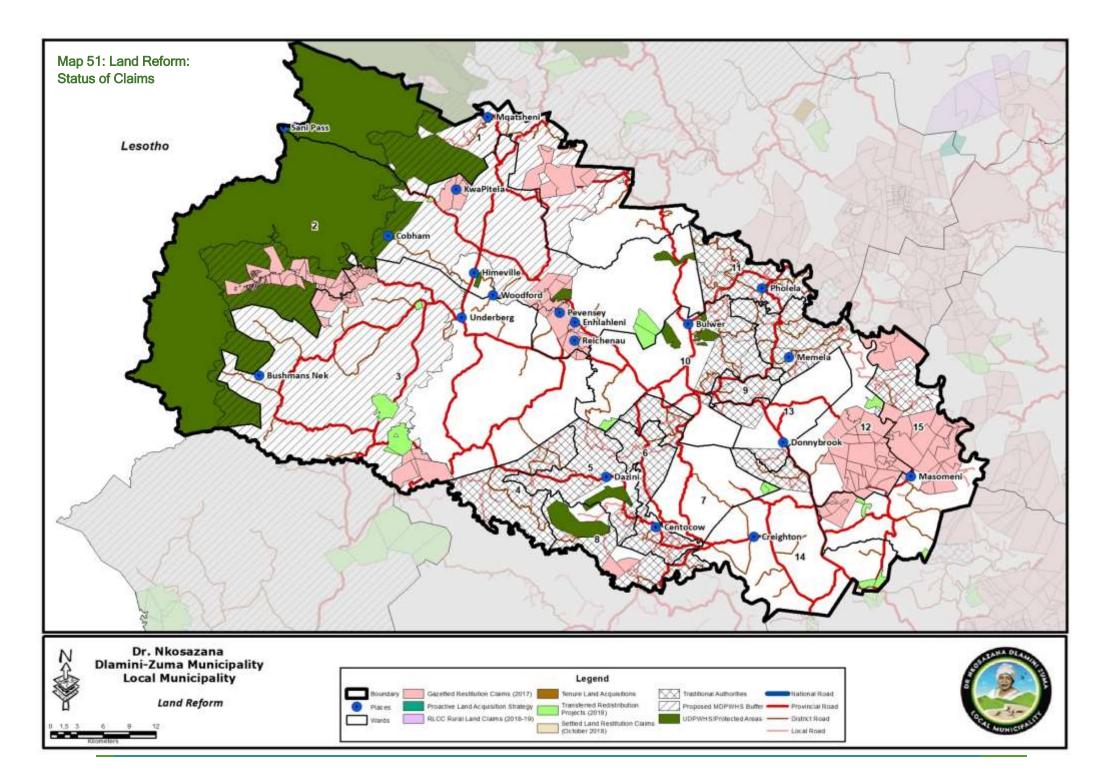












5.10 TRANSPORT NETWORK

A wide-ranging road network exists within DNDZ, providing a large number of households with access to road transport. While the national and provincial roads are in a generally good condition, the quality of district and local roads tends to be poor. This is mainly because these roads are gravel, they require regular maintenance and upgrading. During the rainy season, these roads are particularly bad and hamper access to settlements.

5.10.1 REGIONAL ROAD NETWORK

R617 provincial route which connects the municipality to the Greater Kokstad Municipality and eventually the Eastern Cape Province. This road serves a high number of travelers going to places

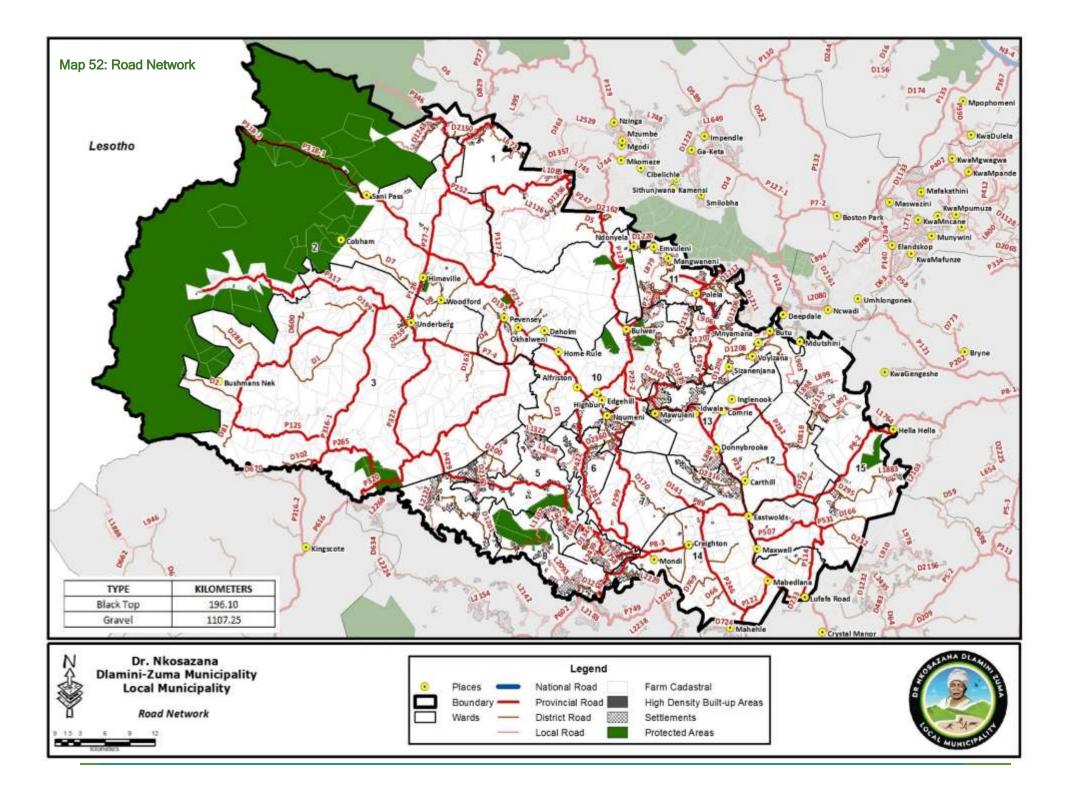


such as Kokstad, Lesotho, Matatiela, and Umtata. Unfortunately, this road is not well maintained and therefore road users prefer to use an alternative route to this R617. The upgrading of the R617 could facilitate the economic growth of the town tremendously. The more through traffic means more opportunity to gain economic income through the sale of goods and rendering of services. R617 joins the N3 via Howick further joining Pietermaritzburg and Durban further south. The route to Lesotho through Himeville is the only one in the province, therefore improvement would lobby more motorists this way. Domestic tourism would also increase significantly if the area becomes more accessible through improved road conditions. This is

the main high-level limited access mobility road and is component part of the Provincial "Corridor" system. Interchanges link this road to the Regional major arterials that give access to both formal urban settlements and most of the rural settlement clusters that occur mostly within Traditional Authority areas.

5.10.2 PRIMARY ROAD NETWORK IN DR NKOSAZANA DLAMINI ZUMA

R612 which is in a good condition. However, there are numerous badly patched potholes after the off-ramp to Creighton. This is due to the fact that this road carries heavy traffic from dairy and timber trucks. This provincial road is predominantly in the east-west direction and provide high levels of accessibility linking into the minor arterials. This network of provincial roads functions as primary transport corridors. The sub-regional road network can be classed into either surfaced (blacktop) or un-surfaced (gravel), which can be further classified into a north-south link or an east-west link. There are also District Roads. The district roads provide major internal linkage, linking schools, clinics etc. A problem that faces the municipality is the alignment of KZNDOT implementation projects with that of the municipality's implementation projects.



DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT

5.11 LANDSCAPE CHARACTER AND BUILT FORM

What is Landscape?

Landscape is more than just 'the view'. It is about the relationship between people, place and nature. It is the ever-changing backdrop to our daily lives. It can mean a small patch of urban wasteland as much as a mountain range, and an urban park as much as a lowland plain.

Landscape results from the way that different components of our environment - both natural and cultural - interact together and are perceived by us. People value landscape for many different reasons. It is therefore important to understand what the landscape is like today, how it came to be like that and how it may change in the future.

Landscape is more than the sum of physical features that make up our environment. How we perceive the landscape can have an important influence on how we use or value its character and resources.



Virtually all landscapes in England have been shaped by human activity throughout history. It is therefore important to understand past patterns, the extent to which they have survived and how different stages in history have contributed to the character of today's landscape.



Land use includes all of the various uses that people make of the landscape, such as settlement, farming and field enclosure, energy production and forestry. The character of the English landscape is particularly influenced by the present-day pattern of these features, as well as their historical legacy.

The variety of plants and animals in the English landscape (known as 'biodiversity') has been shaped over thousands of years by a complex set of social, historical and economic factors, all operating against the physical backdrop of the landscape itself. The types and abundance of wildlife can play a significant role in shaping the character - and in some cases the function - of each particular landscape.

Natural form includes geology, landform, river and drainage systems, soils and vegetation cover. The shape of the land, or landform, is often the main influence on the character of the landscape, especially in upland areas. Rivers and drainage systems also have an important part to play in shaping the landscape, while geology, soils and vegetation cover can determine the 'usefulness' of the land for agriculture, settlement and other functions.



Experience

History

Land Use

Wildlife

Landscape character is defined as a distinct, recognizable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse. Particular combinations of geology, landform, soils, vegetation, land use, field patterns and human settlement create character. The importance of landscape character is illustrated below;

- Psychological importance orientation, a landscape with a distinct character provides people with objects for orientation as they move through the landscape.
- Psychological importance basis for belonging. Landscape also offers objects that people can identify with and gives people a start for making sense of their existence.
- Cultural importance Overtime time, peoples' interaction with place becomes embedded in culture: for example, language. In turn, landscape becomes an expression of history and culture.
- Ecological importance ... considering landscapes as a whole and particularly the connectivity of habitats - an understanding of the landscape provides a solid basis for developing visions for enhancing biodiversity.
- Economic importance products of place. Landscape character may also support regional products – 'products of place' - by linking a product to a place of unique character: for example, regional foods or crafts.
- Economic importance tourism. Landscape character underpins the image upon which rural tourism is based.
- Aesthetic importance "Landscape is the undeniable piece of artistic and cultural property and the foundation of any nation".

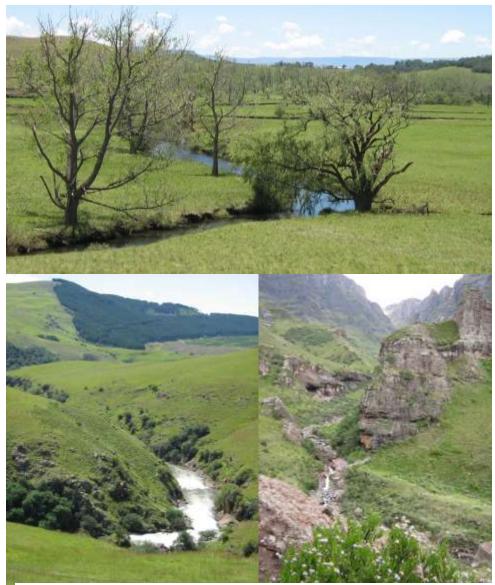


Figure 29: Landscape (a)

DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT

5.11.1 IMPORTANCE OF LANDSCAPE CHARACTER

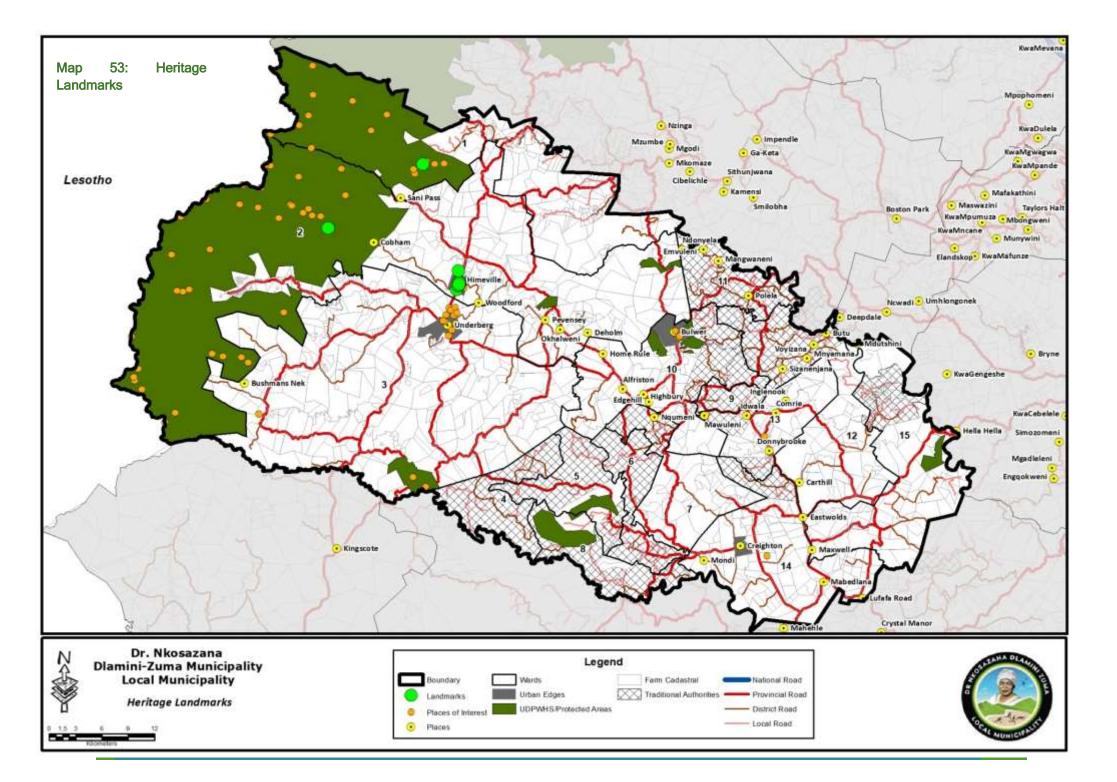


Although Dr Nkosazana Dlamini Zuma Municipal Area does not necessarily boost with ambitious built form or architectural styles due to the rural nature of the municipality, it is sanctified with aesthetic natural endowment. This is due to the existence of the uKhahlamba Drakensberg World Heritage Site within the area. A 200-kilometre-long mountainous wonderland and world heritage site is known to be a place of outstanding beauty which has earned it the status of the world asset.

Preservation of the scenic quality of the area should influence the location and appearance of all roads, buildings and other structures. Maloti UKhahlamba Drakensberg Corridor Framework Plan was developed for the purposes of guiding the landscape integrity of this important asset. This study will assist in terms of guiding the future conservation driven initiatives within the area.



Figure 34: Landscape and built form



6. SPACE ECONOMY

6.1 SIZE AND STRUCTURE OF THE LOCAL ECONOMY

Dr Nkosazana Dlamini Zuma Municipal Area has a Gross Domestic Product (GDP) which is estimated at R 1 451 500 368.00 and it accounts to 21.4% of the GDP for Harry Gwala District Municipality which is estimated at R 6 782 712 000.00. The key economic sectors include the following Agriculture (29%), Farming (30%), Social services (20.4%) and Informal trade (12.8%).

6.2 AGRICULTURE AND FARMING

Dr Nkosazana Dlamini Zuma LM consists of 90 650 hectares of agricultural land, of which 64% is privately owned commercial farming land and 36% is communally owned under the jurisdiction of eleven Traditional Councils. The major economic activities in the region consist of timber-related and dairy farming. A total of 26,000 hectares is currently utilized for crop farming. A further 128 000 hectares is utilized for grazing. Except for rain shadow areas in the Umkhomazi valley, the land is generally of high potential and commercial farming in the area is highly productive. Important commercial farming, the production of seed and the growing of table potatoes.

According to the Dr Nkosazana Dlamini Zuma LED Plan, these sectors, combined with the natural resources available in the area, provide opportunities for economic growth through industrial expansion – especially in the areas of Creighton and Donnybrook.

These areas are facilitated with efficient rail services and through partnerships with the larger timber corporations such as Mondi and Sappi. The forestry industry in Dr Nkosazana Dlamini Zuma is large and highly developed with a total of 38 000 hectares dedicated to timber production. A mixture of eucalyptus and pine trees has been planted for the pulp and saw milling market. The traditional settlement areas have considerable agricultural potential although broken terrain, poor road infrastructure and fragmented land holdings are an inhibiting factor. The main agricultural activity within these areas is the traditional ranching of cattle in mountainous areas. Over-grazing and soil erosion are limiting returns from this type of activity. Smallholder agriculture consists of maize, potato and dry bean farming on arable allotments as well as vegetable production on a small scale, in home gardens and community gardens.

A small independent cheese factory has been established in Creighton, since the deregulation of the industry. Recently, Creighton dairies have established a modern long-life milk processing plant within Creighton. No abattoir or other animal product processing plants exists within the municipality. Considerable potential exists for these and other Agri-processing plants. In support of ensuring maximum yield from the potential in the local diary sector, Dr Nkosazana Dlamini Zuma LM advocates for the tarring of the road connecting Franklin to Creighton. This can potentially reduce the costs of transporting milk, as well as minimize truck maintenance costs.

Ultimately, this project will contribute to minimized costs of milk supply. The forestry sector is one of the largest and most important land uses in the Dr Nkosazana Dlamini Zuma LM area with an estimated land holding of more than 56 000ha, of which over 25 000 hectares are under industrial plantations, conservatively estimated to be sustainably yielding in excess of 450 000 tons of utilizable timber per year. The annual turnover of the plantations and sawmilling sector is estimated to exceed R300 million with participation in the sector being dominated by national and multi-national corporations.

6.3 HARRY GWALA AGRI-PARKS AND HUBS

The Department of Rural Development and Land Reform defined an Agri-park as 'a networked innovation system of agro-production, processing, logistics, marketing, training and extension services, located in a District Municipality. As a network, it enables a market-driven combination and integration of various agricultural activities and rural transformation services. The identified Agri-park site within the district municipality acts as a site where processing and packaging of agricultural goods occur. The proposed Agri park for the district is within the area of Kokstad. Agri-parks are there to also support growing towns and to promote rural urban linkages.

They are also created to strengthen partnership between government and private sector stakeholders to ensure increased access to services (water, energy, transport) and production on the other hand, while developing existing and create new markets to strengthen and expand value-chains. The Department further stated that the Agri-park comprises three distinct but interrelated basic components which are:

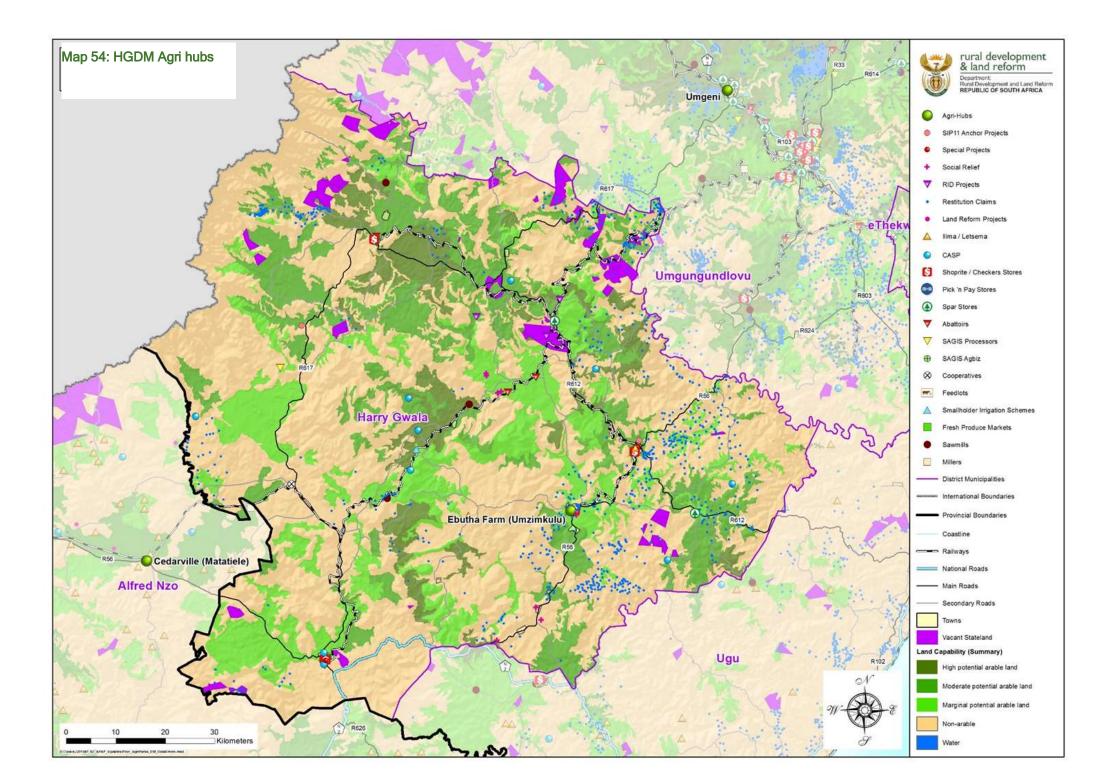
The Farmer Production Support Unit (FPSU) -a rural smallholder farmer outreach and capacity building unit that links with farmers and markets. The FPSU does primary collection, some storage, some processing for the local market, and extension services including mechanization;

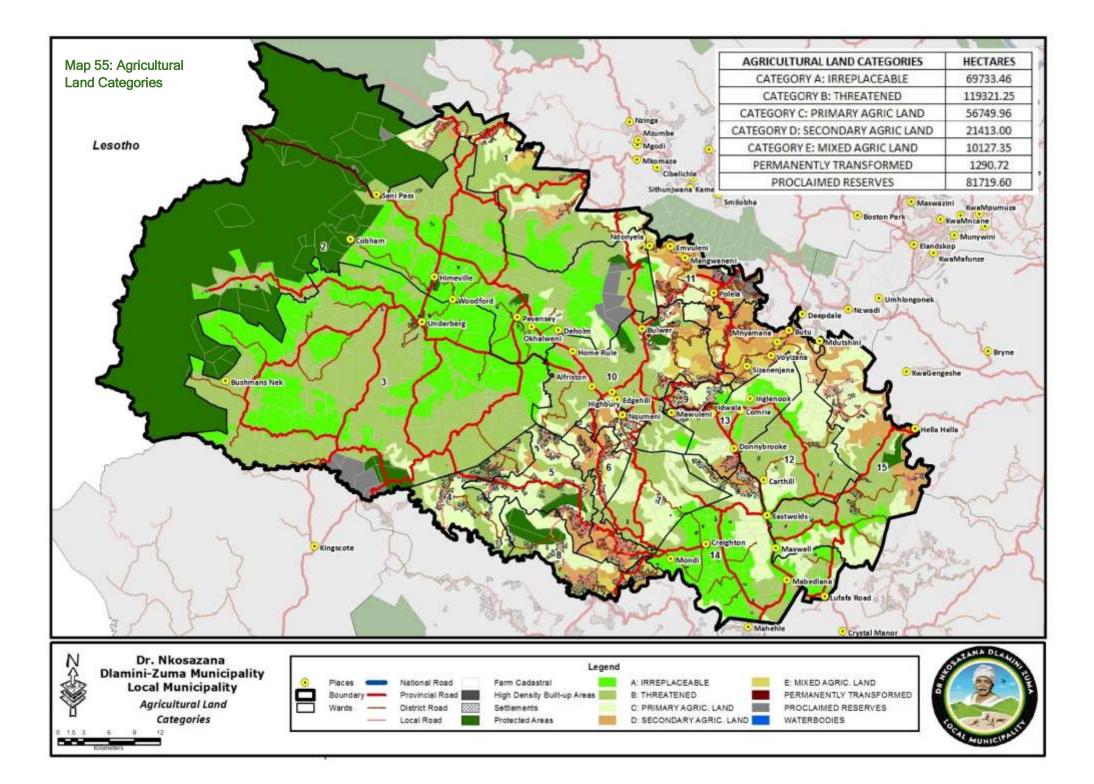
- The Agri-hub (AH) a production, equipment hires, processing, packaging, logistics, innovation and training unit;
- The Rural Urban Market Centre (RUMC). The RUMC has three main purposes;
- Linking and contracting rural, urban and international markets through contracts;
- Acts as a holding-facility, releasing produce to urban markets based on seasonal trends; and
- Provides market intelligence and information feedback, to the AH and FPSU, using latest Information and communication technologies.

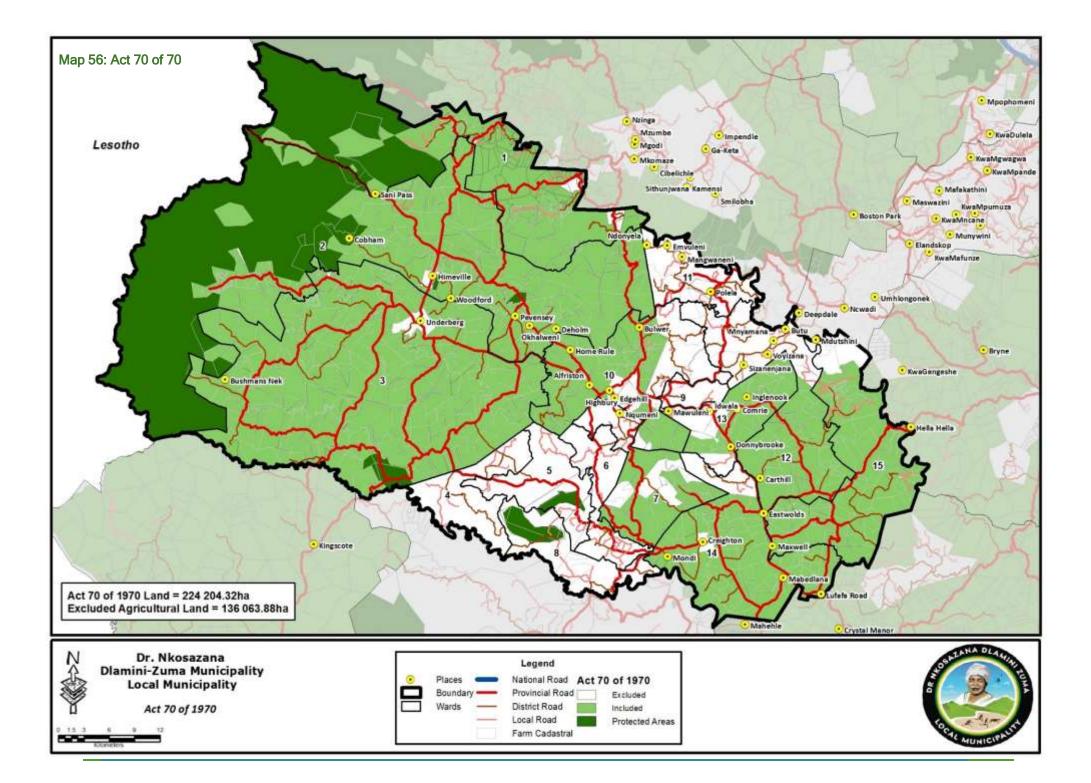
The guiding principles that have been adopted by the Department in terms of identification of Agri-Parks are:

- One Agri-Park per District Municipality;
- Agri-parks must be farmer controlled;
- Agri-parks must be the catalyst around which rural industrialization will takes place;
- Agri-parks must be supported by government (10 years) to ensure economic sustainability;
- Strengthen partnership between government and private sector stakeholders to ensure increased access to services (water, energy, transport) and production on the one hand, while developing existing and create new markets to strengthen and expand value-chains on the other;
- Maximize benefit to existing state land with agricultural potential in the provinces, where possible;
- Maximize access to markets to all farmers, with a bias to emerging farmers and rural communities;

- Maximize the use of high value agricultural land (high production capability);
- Maximize use of existing agro-processing, bulk and logistics infrastructure, including having availability of water, energy and roads; and
- Support growing-towns and revitalization of rural towns, in terms of high economic growth, high population growth over past 10 years and promote rural urban linkages.







6.4 COMMERCIAL AND SOCIAL SERVICES

Commercial and service sector activities are centred in Bulwer, Creighton and Donnybrook. However, these generally do not satisfy the commercial needs of the local population of Dr Nkosazana Dlamini Zuma LM. Subsequently, a substantial amount of trade takes place in the surrounding town of Ixopo as well as the City of Pietermaritzburg. The growth in trading in these villages would appear to be limited, due to the close proximity of the two larger towns and the subsequent preference of residents to trade in the larger towns.

6.5 INFORMAL TRADE

The decline in employment opportunities in the formal economy over the last decade has seen a growth in the informal sector within the municipality. Trading and transport are two sectors that have been targeted by emerging entrepreneurs. Accordingly, the local municipality has developed policies for the informal sector to guide the empowerment of upcoming local entrepreneurs accessing the informal economy for economic opportunities.

6.6 TOURISM SERVICES

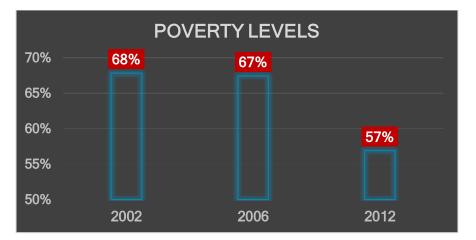
The region is richly endowed with a unique and picturesque scenery, pleasant climatic conditions, interesting cross-cultural diversity, sound infrastructure, safe and hospitable environment etc. These can then be developed into niche brands to create a competitive tourism destination. The three identified comparative advantages include the historic network of Trappist Missions, the diversity of bird life, and the Cape/Natal branch railway line used for commercial purposes. In addition, Dr Nkosazana Dlamini Zuma LM is fast becoming a preferred venue for Mountain Biking and other forms of outdoor adventure sports. The "Freedom Challenge" route also passes directly through the municipality with an overnight stop at the Centocow mission. The "Mr Price" MotorXEnduro is hosted annually in Creighton.

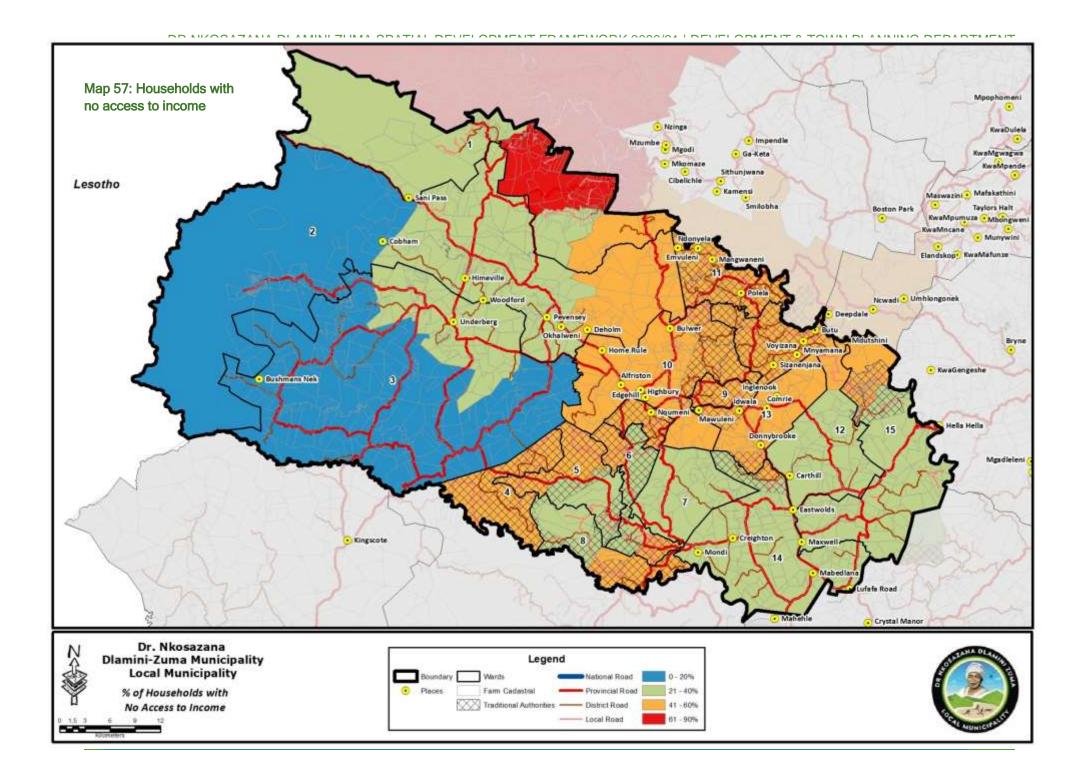
6.7 POVERTY ASSESSMENT

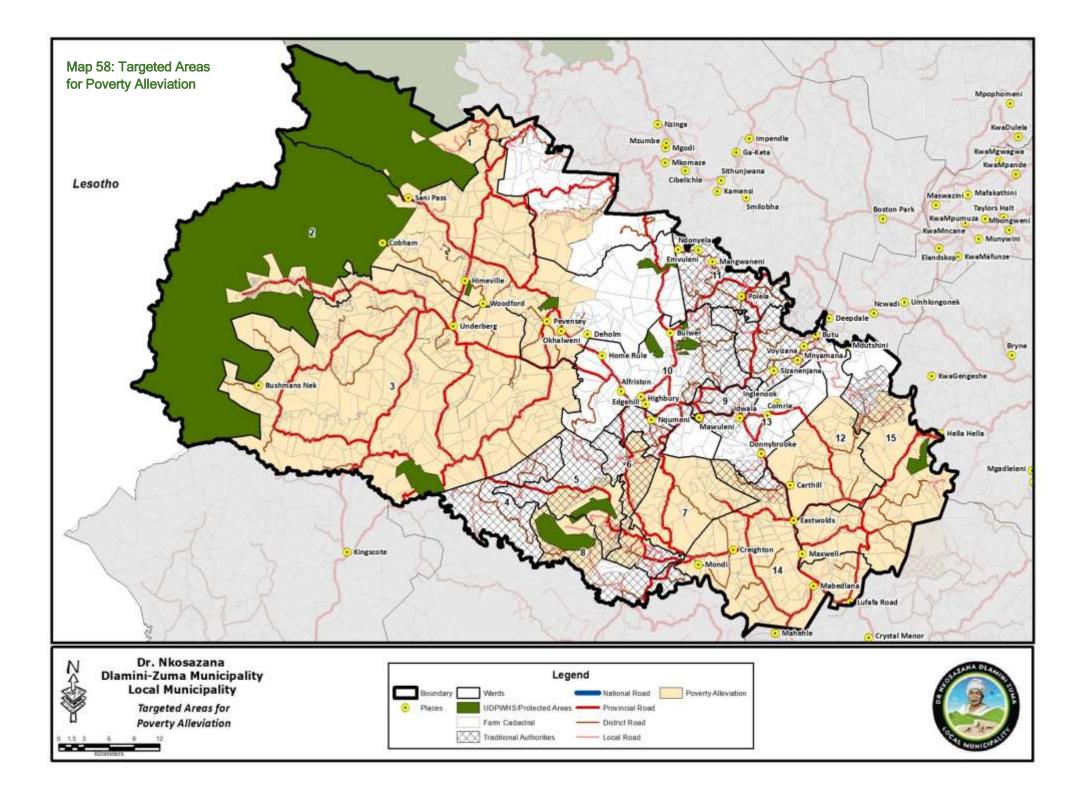
According to World Bank, poverty is defined as the deprivation in wellbeing and further encompasses individuals' low income and the inability to attain the necessary basic needs for survival. According to Global Insight statistics, there were 91 924 (68%) people who were classified as living in poverty during 2002. In 2006, this number dropped to 87 089 (67%) and in 2012 it further dropped to 68 513 (57%) of the population. It can therefore be deduced that although it is still very high, but government had played a crucial role in reducing the impact of poverty in society through social expenditure programmes. The experience of poverty is multidimensional. While the inability to access income remains one of the most obvious expressions of poverty, another definition of poverty typically refers to the absence of capital such as land, access to natural resources, or to the importance of social, intellectual capital and even the climate of democracy as well as security necessary to enhance the capabilities of the poor and excluded.

Further, there is an additional institutional dimension of poverty that recognizes that the poorest in the nation are those who are unable to access state assistance designed to provide a social safety net because of institutional failure. Poverty is located across the full range of settlement types from deep rural areas to inner cities. It is thus the concern of all municipalities. This is due to unemployment which is also attributed by the fact that many people lack the necessary expertise to be employed. Many people on the other hand are employed in the informal sector with very low wages yet they have many members in the family to support. An important indicator of poverty is the number of households with an income below the Minimum Living Level (MML).

Figure 35: Poverty levels







7. INFRASTRUCTURE ASSESSMENT

7.1 BULK WATER

7.1.1 BULK WATER INFRASTRUCTURE

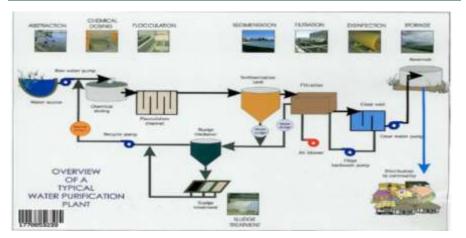


Figure 36: Overview of a Water Purification Plant

Harry Gwala District Municipality is the Water Service Authority responsible for the provision of bulk water and sanitation infrastructure within Dr Nkosazana Dlamini Zuma Local Municipality. A Water Services Development Plan (WSDP) was prepared by this authority during 2005 but it is due for reviewal given the changes that have taken place over the last twelve (12) years. According to the WSDP, the urban centres within Dr Nkosazana Dlamini Zuma Municipality are all served by conventional schemes. There are 13 971 consumer units located in urban areas of Harry Gwala. Bulk water is mainly abstracted from rivers or dams dedicated to each of the towns with springs and boreholes mainly being used as back-up and a total of 65km of bulk pipeline were identified in the District's urban areas. The average total design capacity of the 8 urban Water Purification Plants amounts to 22Ml per day providing water to 35 reservoirs with a total capacity of 34Ml per day. It would appear that there is a small surplus capacity in the existing works in urban areas which could be considered for use in neighboring rural areas.

The actual volume of water treated is 4ml/day less than the design capacity. The majority of the water infrastructure in the urban areas of Harry Gwala is in excess of 30 years of age, with some of it dating back to 1910 notwithstanding this the urban water and sanitation infrastructure appears to be in a reasonable condition for day-to-day operations. However, some capital investment will be required for refurbishment of existing infrastructure to ensure that service levels are not compromised. The rural areas are primarily provided with rudimentary infrastructure which includes boreholes and rural water schemes. The annual, operation and maintenance costs associated with the provision of water and sanitation services (excluding salaries and wages) amounts to an estimated R 12 121 476.00.

7.1.2 AREAS THAT LACK ACCESS TO WATER

Approximately 50.4% of the households do not have access to water at level of the RDP standards within Dr Nkosazana Dlamini Zuma Local Municipality. The 2016/17 IDP noted that residents particularly within rural settlements have access to water supply in the form of springs and rivers / streams. This is a great concern bearing in mind the risks that are associated with dieses that emanate from the consumption of water which does not meet the safe quality standards for human consumption.

An engineering infrastructural project has been secondarily prioritized within DNDZ by DRDP with the main objective of linking rural areas to opportunities through services. This sub-programme is Water and Sanitation, with a strategy of Water backlog reduction in DNDZ area, where it is severe, and the population is 2nd highest in District.

7.2 BULK SEWERAGE

7.2.1 BULK SEWER INFRASTRUCTURE

The provision of sanitation services is also the responsibility of Harry Gwala District Municipality. This includes the delivery of bulk sanitation infrastructure such as the waste water treatment plants. Most of the treatment plant facilities are owned and managed by the Harry Gwala District Municipality other treatment plants are privately owned and managed. There are several pump stations in the reticulated areas whilst waste water treatment plants are generally located in urban towns and these in terms provide these towns with a waterborne sewerage system. The capacity of the existing bulk sanitation infrastructure may need to be confirmed for the purposes of future development. However, there are some parts of the urban areas which are not connected to waterborne sewerage and as such these depend on septic tanks. The rural areas primarily depend on pit latrines and the target is to ensure that all the rural areas have pit latrines that meet the RDP standards.

7.2.2 AREAS THAT LACK ACCESS TO SANITATION

The total number of households without access to sanitation facilities at acceptable levels is estimated 20, 6%. The latter being the minimum RDP standard level of service. Poor sanitation practices impact negatively on the health and wellbeing of the whole community and also on the environment. A water services institution should support the viability and

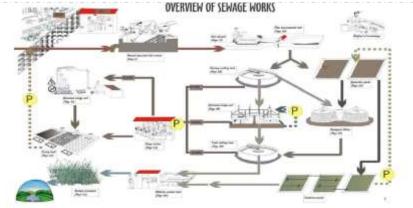
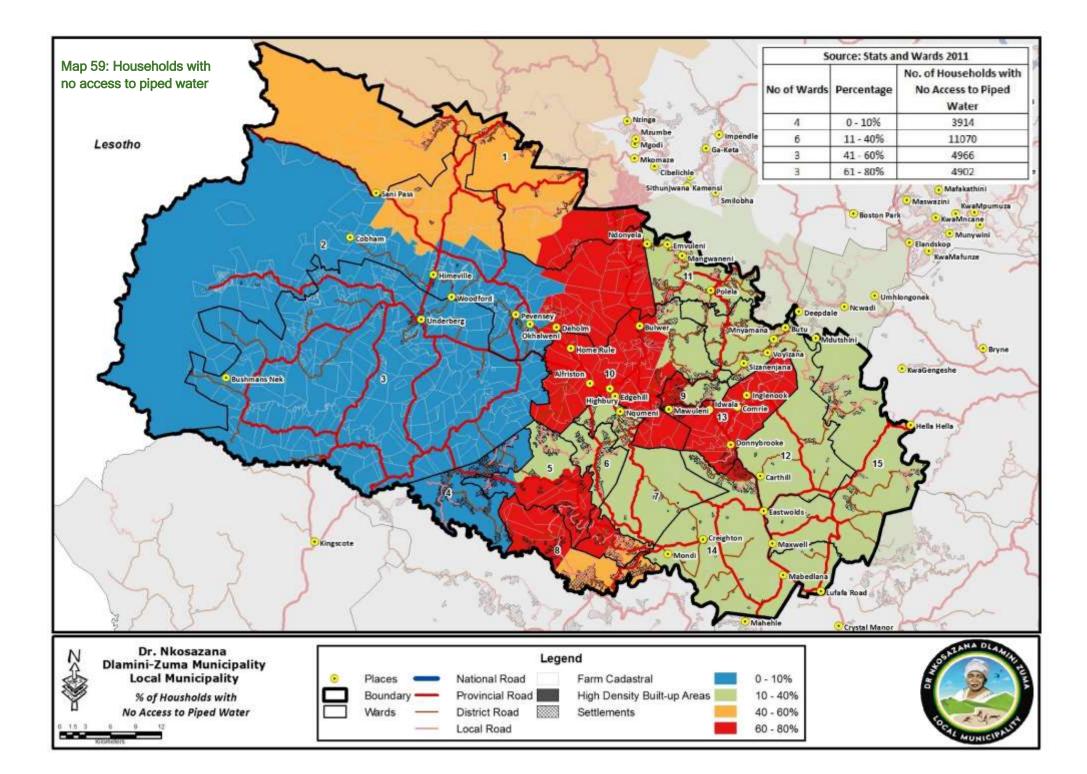
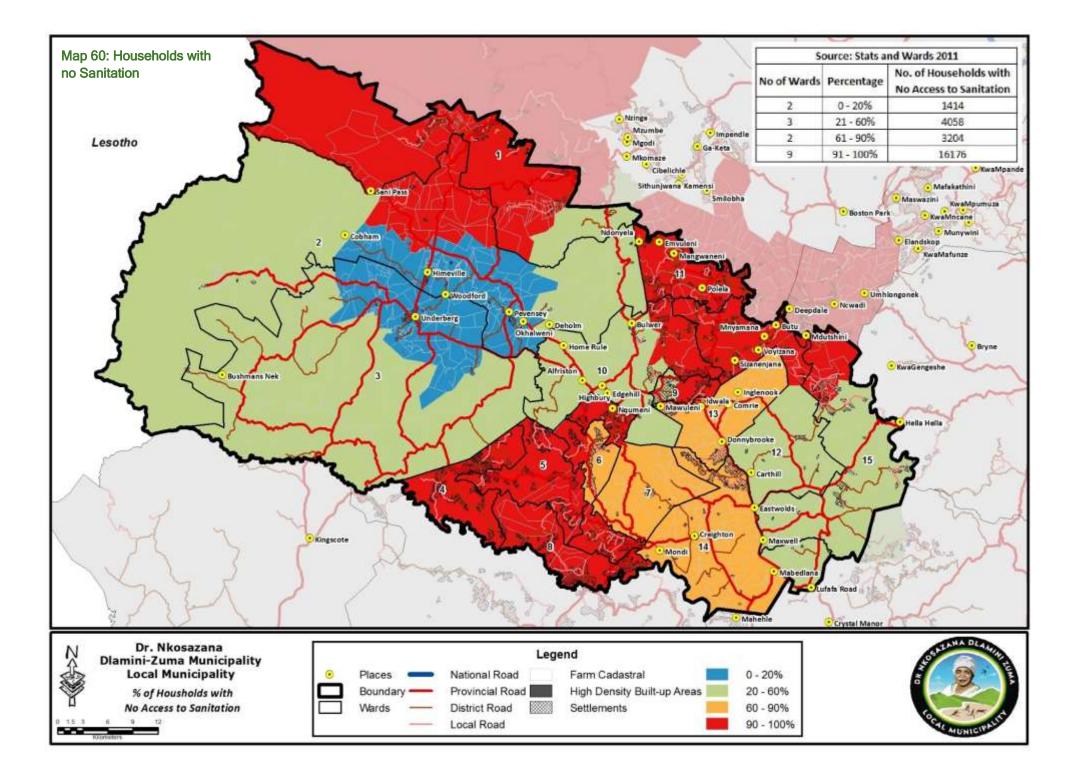


Figure 37: Ideal Waste Water Treatment Work Schematic sustainability of sanitation services to the poor by providing basic sanitation services (for example the removal of sludge from pit latrines) at as low a cost as it can afford to and preferably for free.





7.3 BULK ELECTRICITY

7.3.1 BULK ELECTRICITY INFRASTRUCTURE

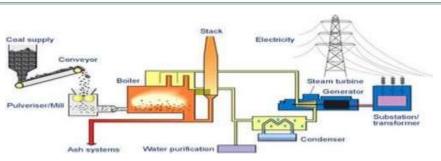


Figure 38: Coal Powered Plant Sketch

Eskom supplies grid electrification. The current reticulation network in Dr Nkosazana Dlamini Zuma Municipal area as indicated in map shows areas already electrified and the location within the district of the bulk electricity infrastructure. It is no surprise that the bulk electricity infrastructure is concentrated in areas that have the highest population densities which is mainly along the urban areas such as Bulwer, Creighton and Underberg. There are also a number of HV and MV cables that originate from these substations which distribute electricity within different parts of the municipal area. This is further supported by the MV stations. There are however some clearly defined areas that will not be receiving a supply of grid electricity but will rather be supplied with a non-grid supply, which is mainly solar based. The implications of this are that care must be taken not to show these areas as having high potential for development but to rather look at alternate land uses which do not require a major supply of electricity.

Apart from the above there is very little direct spatial implications contained in the IEP as the supply of electricity is normally demand

Electricity generation, transmission, and distribution

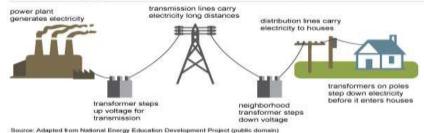
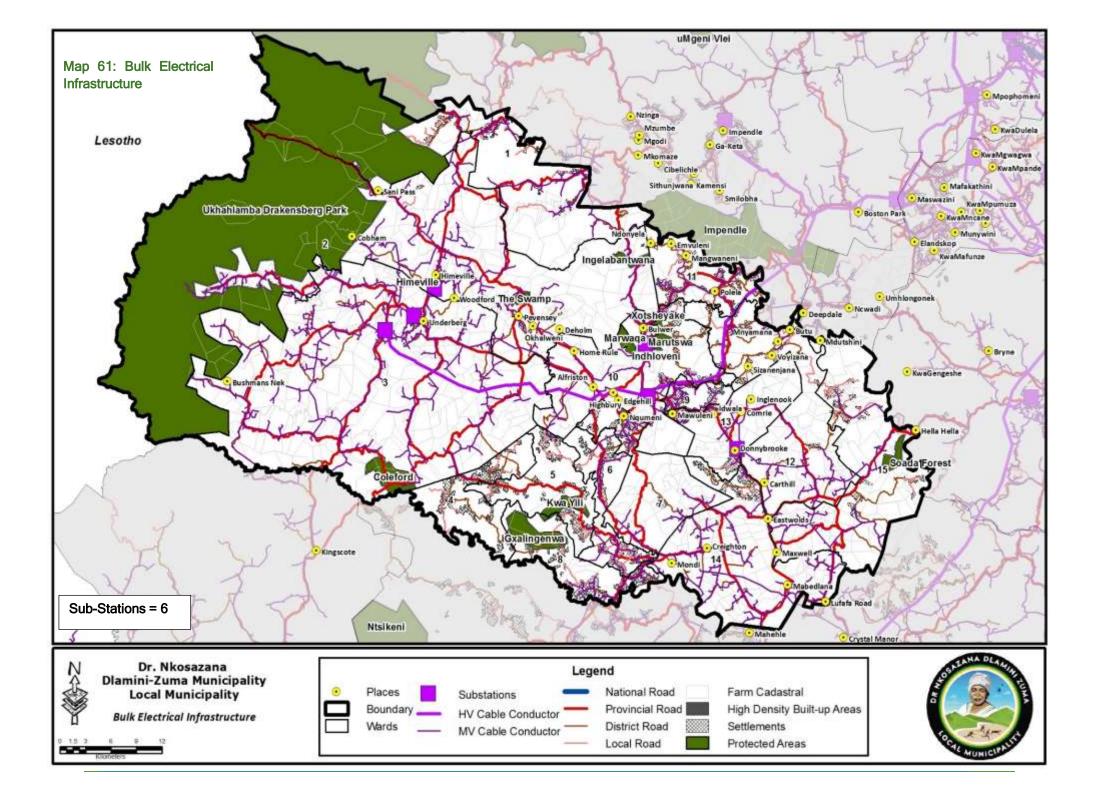


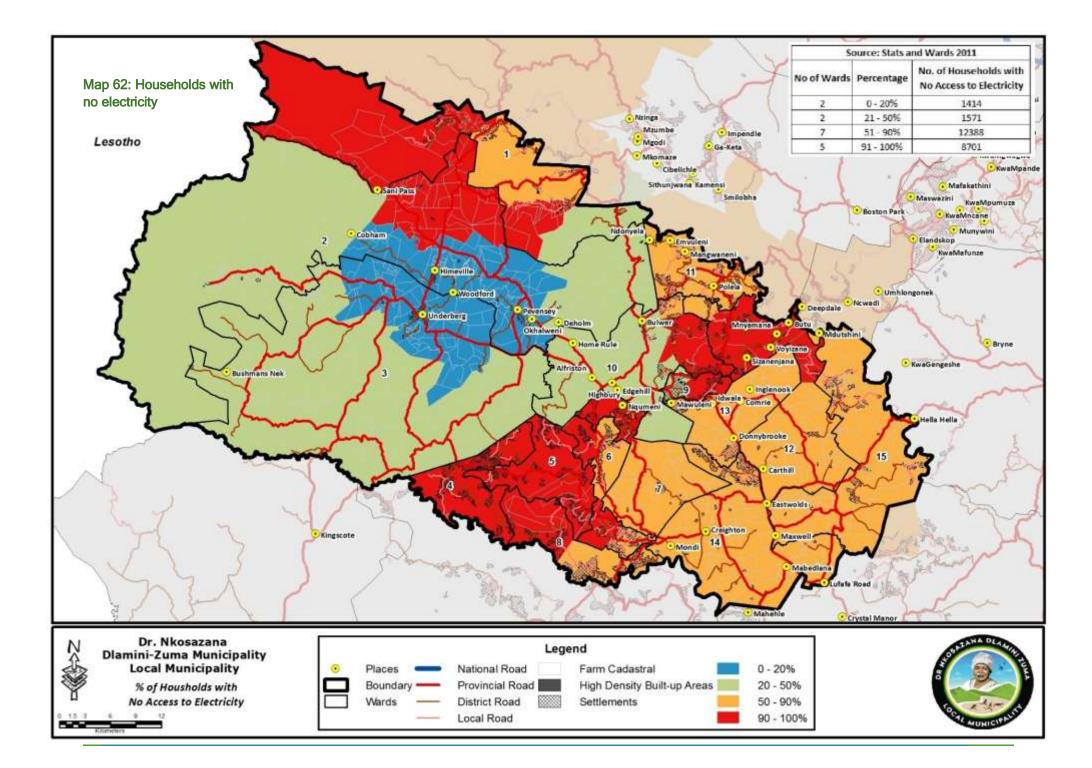
Figure 39: Transportation of Energy to all households

driven. Care must however be taken to ensure that areas proposed for major development are located within supply areas or alternatively those earmarked for future upgrade.

7.3.2 AREAS THAT LACK ACCESS TO ELECTRICITY

86% of these households have access to electricity, leaving only 14% without electricity. Some rural communities still require infrastructure connection and there is an infill backlog. The major challenge regarding electricity backlog is the capacity constraints from Eskom. Major substations are currently being upgraded to increase the supply capacity. New infrastructure development and extension put pressure on the existing infrastructure and supply capacity.





7.4 TELECOMMUNICATION

Telecommunication services within the area are provided by Telkom and all licensed cellular phone companies in the country. Telecommunication infrastructure remains one of the major challenges in all the municipal areas, information on infrastructure is difficult to access from the various service providers due to competition. In formal urban settlements majority of the people have access to Telkom services. In rural areas the majority of people rely on cellular phones (79%). Some key issues faced by the Municipality access to telecommunication service, infrastructure information and a lack of coordinated planning to meet the district's needs.

7.5 REFUSE REMOVAL AND LANDFILL SITE

The rural nature of settlements, topography and road infrastructure in the municipality complicates waste collection services. As such, a formal municipal refuse removal service to every single household is not practical. Majority of the population with access to refuse removal services are those situated within the urban centres i.e. Underberg/Himeville, Creighton, Bulwer and Donnybrook. Residents of rural settlements do not have access to such basic services. However the Municipality as stipulated in the integrated waste management plan plans on rolling out a feasibility study for rolling out waste collection to rural and un-serviced areas.

7.5.1 CONTEXTUAL ANALYSIS

Dr Nkosazana Dlamini Zuma Municipality renders waste collection services to the residences, commercial and low income. Refuse bags are distributed and some are collected from the Municipal offices. Municipal fleet is used for kerbside collection, and waste is disposed at the Municipal dump sites, in areas around Underberg and Himeville waste is disposed at the Himeville transfer station. The collection from the Himeville Transfer Station is outsourced. The Municipality has installed drums which are used for each household where waste is collected, the reason for using drums is to ensure that our areas are kept clean and during unfavorable weather conditions waste is remains clean which is beneficial to waste pickers

7.5.2 INTEGRATED WASTE MANAGEMENT PLAN

An Integrated Waste Management Plan (IWMP) is a statutory requirement of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) which came into effect on 1 July 2009. Its goal is the transformation of the historic methodology of waste management, i.e., collection and disposal, to a sustainable practice focusing on waste avoidance and environmental sustainability. The development of an IWMP is necessary as it is an integral tool to identify current needs related to a municipality's waste management service and acts as a guide towards sustainable waste management in a municipality.

The first generation of IWMP has been developed with primary objective being to ensure that waste management practices within Dr Nkosazana Dlamini Zuma Municipality comply with the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

Implementation of this IWMP will be facilitated through municipal bylaws and in accordance with an implementation schedule.

7.5.3 WASTE COLLECTION SCHEDULE

To ensure that the Municipality render effective and efficient delivery of waste services to the community, the following areas remains a priority for waste collection:

- Bulwer on Monday, Thursday and Friday
- Donnybrook on Tuesday and Friday
- Creighton on Tuesday and Friday
- Hlanganani on Monday and Thursday
- Centocow on Tuesday and Thursday
- Underberg & Himeville Residential on Monday
- Underberg & Himeville Business Tuesday, Thursday and weekends
- Underberg & Himeville Low Income Wednesday

The total number of Households currently with access to refuse removal services **is 4456** including households with free access to basic service.

7.5.4 WASTE DISPOSAL SITES

The Municipality has two (2) waste disposal facilities which are located in Bulwer and Creighton. The two waste disposal facilities

operate more like a pit system. The licensing of these two sites was funded by the then Department of Environment where there were targeting to license all dump sites which were unlicensed. The Municipality is in the process of changing the status quo of the waste disposal facilities, however it will require more fleet to be stationed on site. Daily compaction of waste is impossible without proper fleet, therefore so much space that could be saved in the Municipal dump sites becomes impossible to save.

Waste Management license of the two sites has a period of 10 years, expiring in 2025. Bulwer dump site has reached it capacity and the Municipality is in a process to apply for closure license from the Competent Authority. The Municipality has diverted all the waste which was previously disposed in Bulwer to Creighton dump site.

The distance between Creighton and Bulwer is about 80 kilometers. In order for the Municipality to continue providing reliable waste collection service to Bulwer town and surroundings, there is a great need for more fleet to move the waste to Creighton

The Municipality has a recycling facility in Himeville, which is managed by the Co-operative. The transfer station is registered in terms of norms and standards for waste storage, 2013. The recycling facility has employed five locals which are paid on EPWP stipend. The Recycling facility assist the Municipality in reducing the amount of waste which goes to landfill. Recycling is solution to global challenges of climate change and struggles of accessing land which can be utilised as a landfill.

7.5.5 SOLID WASTE MANAGEMENT CHALLENGES

- Ageing infrastructure
- Shortage of fleet to cover backlogs
- Illegal dumping sites which have been identified within the Municipality and remains a priority in terms of clean-up campaigns in those areas
- Shortage of funds for the implementation of waste management projects

7.5.6 ENVIRONMENTAL AWARENESS

The Municipality in collaboration with relevant stakeholders undertake clean-ups campaigns and awareness programmes to communities. The theme of the clean-up campaigns is "good green deeds" which is an initiative launched by president Cyril Ramaphosa which aims to encourage community members to keep the environment clean and ensure areas we live in are litter free.

In addition to clean-up campaigns, the Municipality celebrates environmental calendar days, such as Arbor month. These programmes are done with communities and schools. Arbor month is celebrated is aimed to encourage communities about the importance of planting trees in dealing with challenges of climate change.

World wetland day is celebrated which aims to encourage communities about the importance of preservation of freshwater systems and their habitats.

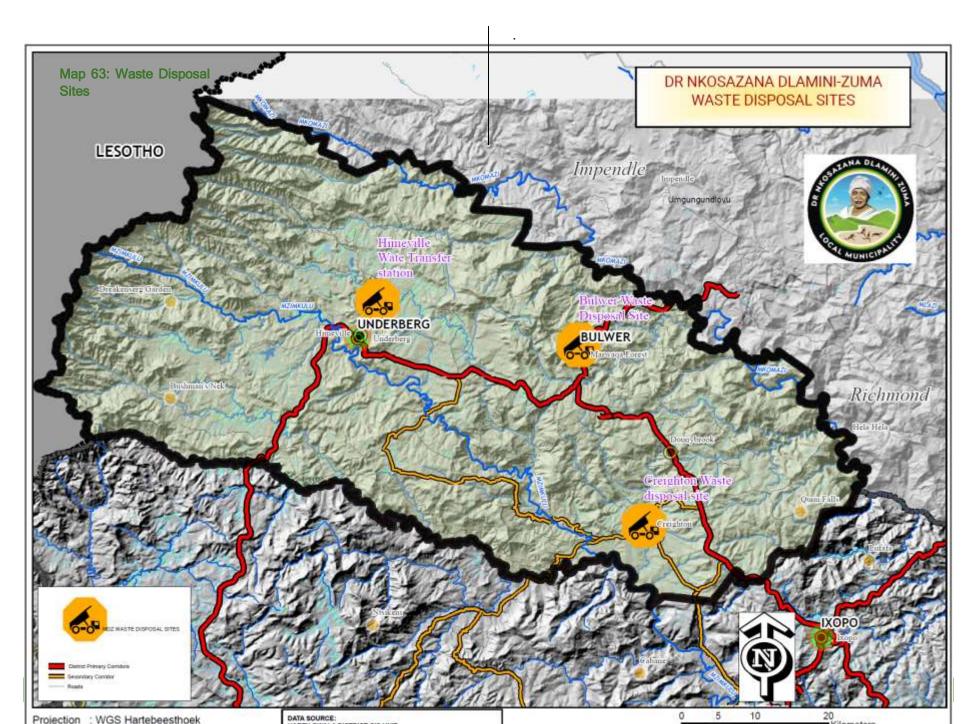
Sanitation week is also celebrated which encourage hygiene and environmental health within the school.

A green schools programme is another programme which is undertaken by the Municipality. The aim of this programme is to encourage environmental management, energy savings, recycling, and greening within schools.

7.5.7 THE MUNICIPALITY HAS BEEN AWARDED R375 000 IN GREENEST MUNICIPALITY COMPETITION

The Municipality has entered a competition of being selected as a greenest Municipality, the competition is aimed at promoting cleanliness or hygiene. Clean towns attract tourists and enhance investment opportunities whilst promoting safe and healthy environment. Among things that were looked at are waste management, energy efficiency, landscaping, tree planting, beautification, and community empowerment.

The Municipality has won in this category, a price of R375 000 which will be used for waste management projects.



8. PUBLIC FACILITIES

8.1 HEALTH

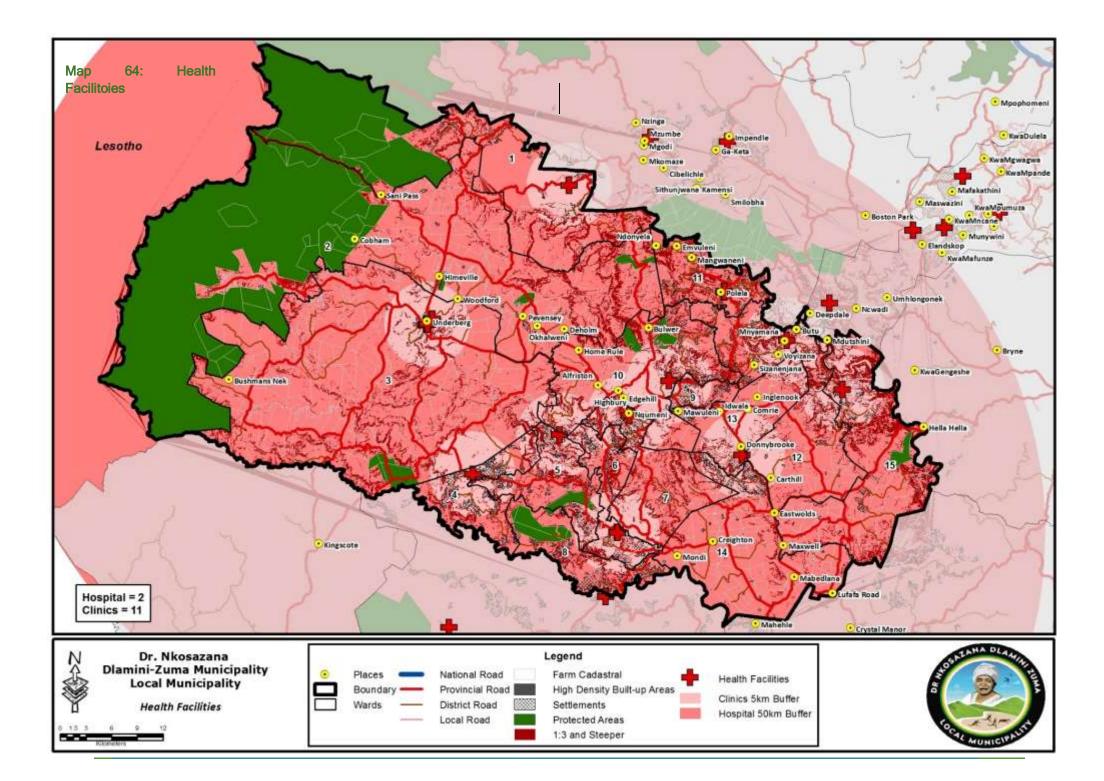
St Apollinaris Hospital is a primary health facility in the municipality. The Hospital has a complement of four (4) permanent medical officers, six (06) community services medical officers and one hundred and forty-six (146) beds. Many of the areas that are serviced by the Hospital lie beyond Dr Nkosazana Dlamini Zuma LM municipal boundaries. This is an indication of the lack of health services in the region. The Pholela Community Health Centre functions as a major clinic, offering 24-hour service. Previously it was reported that it would get full time doctors, a dentist and other services. There are nine clinics within the municipal area located in Kilmon, Qulashe, Mnyamana, Ncwadi, Gwala, Ggumeni, Sandanezwe, Donnybrook and Centocow PHC (at the hospital). Pholela CHC and Centocow PHC run mobile clinics. Centocow mobile (managed from the hospital) currently provides a service to Ngwagwane and has been requested to start mobile points at Gxalingenwa, Tarr's Valley, Makhongwane and Newtonville.

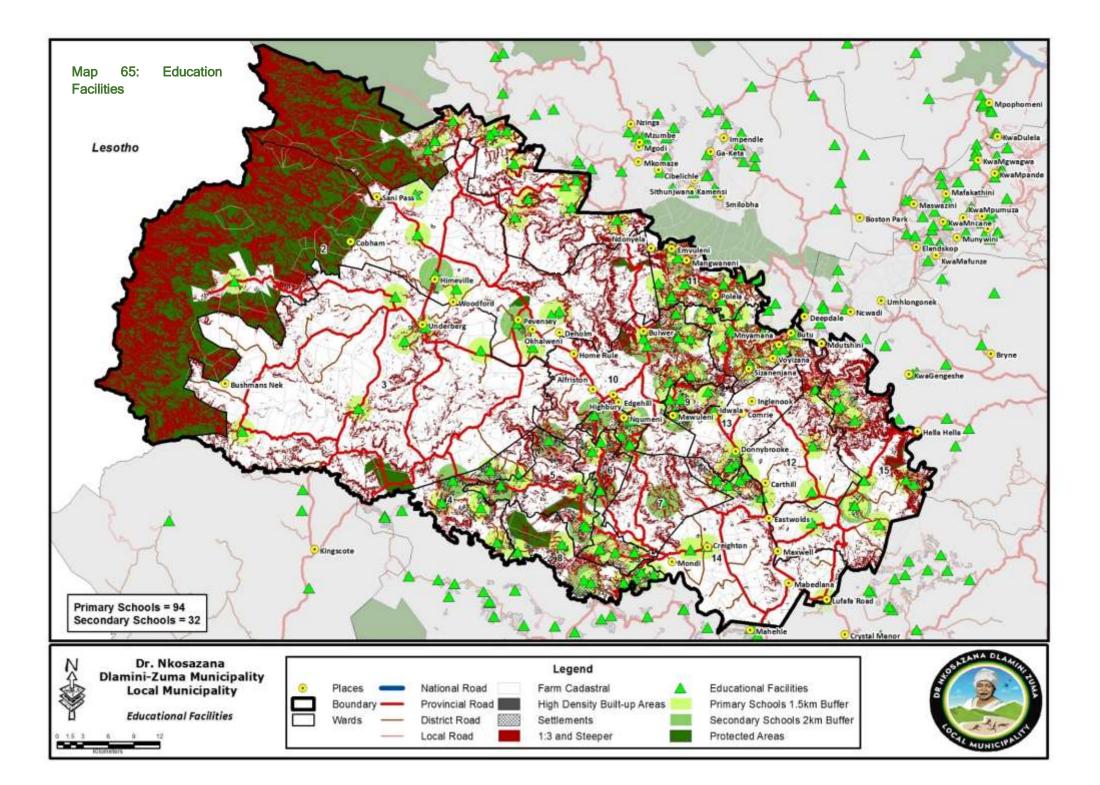
8.2 SCHOOLS

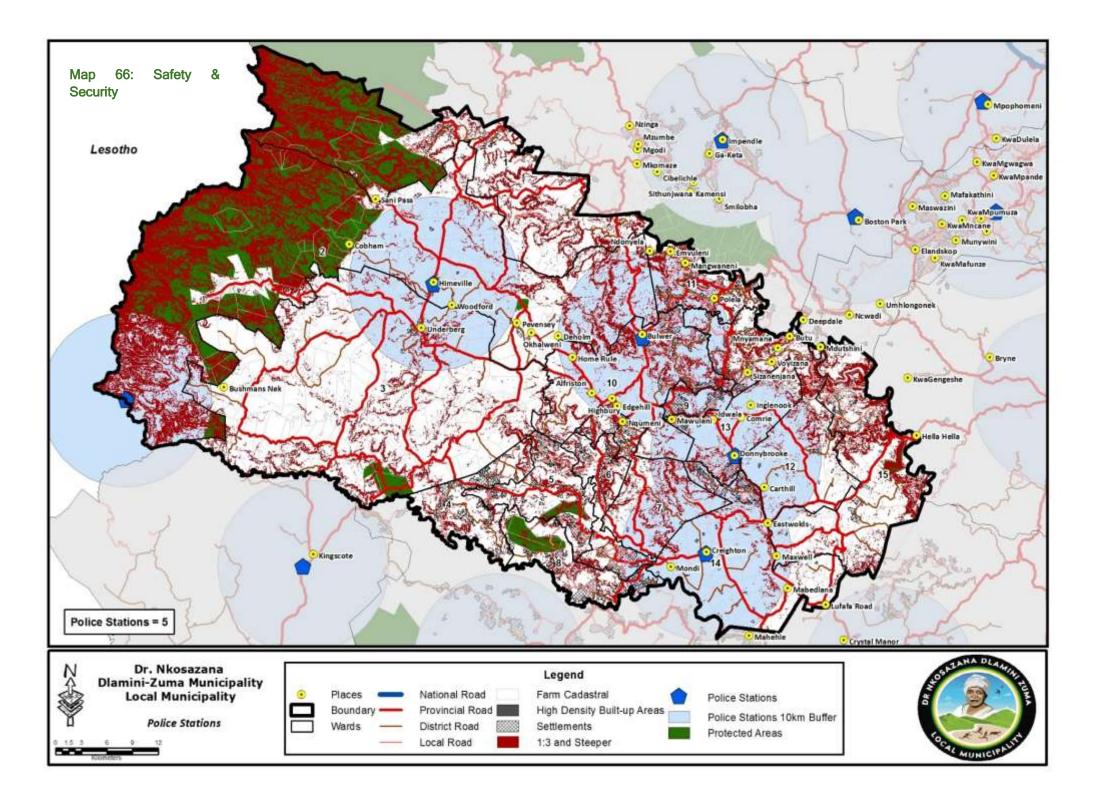
The educational facilities seem to be fairly spread amongst different parts of the municipal area. The KwaZulu-Natal Draft Norms and Standards suggests that primary schools should be accessible within 1,5km while secondary schools are within a 2km traveling distance. The population catchment threshold differs on the basis on the density requirements whereby the lowest density settlements can be provided with a Micro Primary School for every 60 households while the population catchment which warrants the small Secondary School is 200 households. What becomes evident from the application of this requirement is that some of the settlements do not have access to schools within the required distance.

8.3 SAFETY AND SECURITY

There are three (3) existing police stations within Dr Nkosazana Dlamini Zuma LM. They are situated in Creighton, Bulwer and Donnybrook. Their locations are relatively far from various rural settlements, including Ezidweni Village and many others. Therefore, it suffices that many residents currently have to commute long distances to access SAPS. This translates strains on capacity of this form of community amenity and the subsequent service delivery. There are plans to develop a police station in Kilmon (Ezidweni Village) in Ward 1. It will not only benefit residents within this ward but will also provide service to a larger catchment area. This includes Wards 2, 3 and 11, which are in close proximity to ward 1. The development of the Kilmon Police station will serve to increase the capacity of police services within the municipal area.







8.4 CEMETERIES

There are four (4) cemeteries within Dr Nkosazana Dlamini Zuma LM. There is one cemetery in Creighton owned and managed by the local municipality. Other cemeteries in the municipal area are situated in: Bulwer (1) and Donnybrook (1) managed and owned by local communities on properties not owned by the municipality. The fourth cemetery is situated at the Centocow Mission, which is owned and managed by the Catholic Church. The Dr Nkosazana Dlamini Zuma LM does not have a formal cemetery development plan in place but recognizes the need for one.

8.5 THUSONG CENTRE AND COMMUNITY HALLS

The number of Thusong Centres and Community Halls required for the area versus the currently provided facilities depends on an application of the KwaZulu-Natal Draft Norms and Standards which requires one hall for 5 000 people within a 30-minute walking time or 1.5km walking distance, reveal that approximately 46 community halls are required. According to these standards, there are 20 community hall facilities that should be in existence within Dr Nkosazana Dlamini Zuma LM. The provision of these facilities is very necessary for rural area such as Dr Nkosazana Dlamini Zuma LM because most of the local residents cannot afford to have host their events in Hotels or Lodges, hence an establishment of community halls is significant.

8.6 SPORTS AND RECREATION

The geographic spread of sports facilities within the Dr Nkosazana Dlamini Zuma Municipality indicates that only certain areas have access to these facilities. These include Tennis Court in Himeville, Golf Course in Underberg, and Sports grounds within schools in some of towns (Bulwer and Underberg). The majority of these facilities are private which implies a need for accessible public sport facilities.

9. CROSS-BORDER ALIGNMENT ISSUES

"Cadastral boundaries do not necessarily conform to the characteristics of land, the natural environment, residential activities, economic activities and natural phenomena traverse's municipal, provincial and international boundaries. All municipalities do not possess the required resources to provide services to communities e.g., water. Hence the aim of this objective is to ensure that spatial planning is aligned to allow government organizations to take advantage of comparative advantages offered within an area. This also refers to cross boundary provision of services such as education facilities, which can be utilized by communities residing in two municipalities. This allows for cost effective provision of services and is applicable to the provision of civil services, social services and economic opportunities. Alignment of initiatives will also prevent conflicting initiatives and land uses to be implemented on opposite sides of a boundary i.e., mining activities versus tourism due to pristine natural environment." (KwaZulu-Natal PGDS, 2016, p105)

Spatial planning assists municipalities and other authorities to guide their development planning processes; it is a continuous process in the physical space that would almost have no end, however for the SDF the municipal boundary is the indicative point in which the SDF must normally conclude its business. It must be noted however, that Municipal boundaries are mainly for administrative reasons and in the perfect world such boundaries would not really affect the spatial planning process. Communities and the physical environment should not be impacted negatively by administrative boundaries, especially in the case of the delivery of basic services.

Communities should not be affected by Municipal boundaries in the manner and type of services they receive from the government, the government ultimately has one face and should present itself as such in its various plans. Cross boarder Municipal Planning is important in order to co-ordinate service delivery to communities which are affected by cross boarder planning, institutional structures should be put in place to ensure that Municipalities plan together for affected areas, evidence has shown that such areas can be subject to Municipal boundary alignments, making them fall under one Municipal area or dividing them to fall within two Municipal area, hence the importance of tangible spatial plans that go beyond administrative and political boundaries.

As per the National and Provincial policies and legislation (MSA-S26 (d), MSA Regs S2 (4) (h), municipalities are required to provide a clear indication of how the SDF is aligned with the planning of neighboring municipalities. DNDZ Local Municipality has a mandate to ensure that its IDP is in compliance with the planning legislation and policies to give effect to the development of an SDF as spatial representation of the IDP. The municipal SDF, in turn, directs and guides strategic investments that are developmental and beneficial within Harry Gwala District Municipality and across neighbouring district municipalities.

It is further reiterated that DNDZ Local Municipality forms an integral part of a larger system of local governance and regional economy. It

also influences development in the adjoining regions. Cross-border planning issues have become more prevalent and significant. The focus is on strategic or shared development issues that would benefit from a joint approach and engaging with the relevant neighboring authorities to explore joint operational potential. This section is thus intended to ensure that there is no disharmony between proposals that are suggested by Dr Nkosazana Dlamini Zuma Local Municipality's Spatial Development Framework and its neighboring municipalities.

9.1 HARRY GWALA DISTRICT SDF

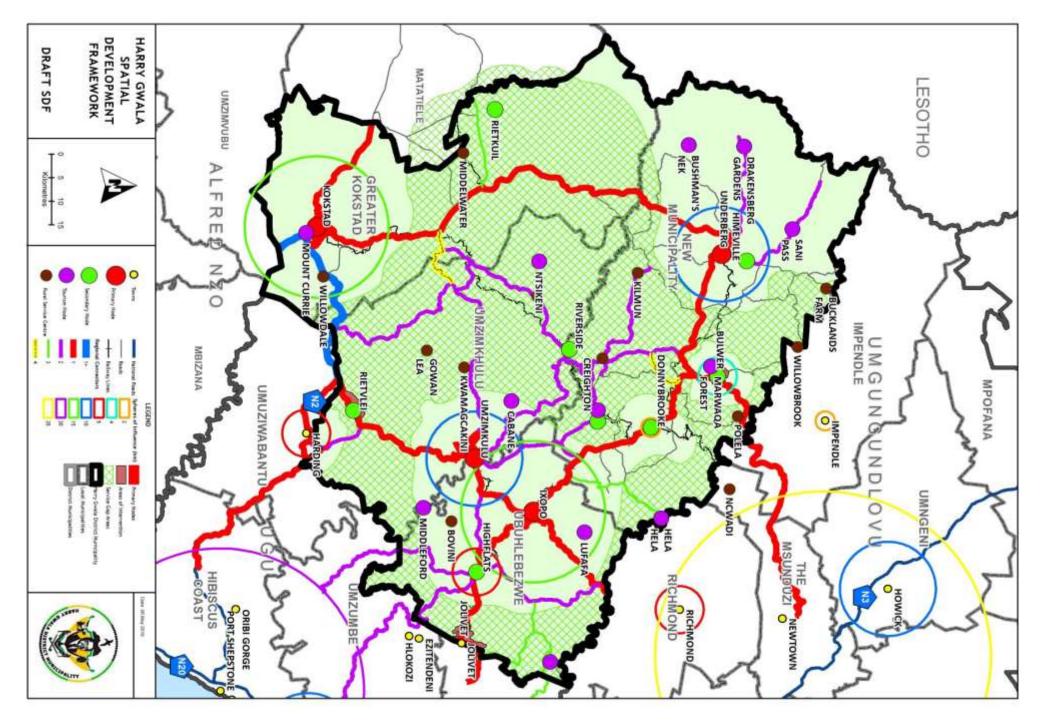
The Harry Gwala District SDF adopts a service center approach. Essentially this is a central based theory which identifies areas that are highly accessible and present opportunities for economic development and service catchment. The following key nodal points are identified for Dr Nkosazana Dlamini Zuma:

Underberg / Himeville as having potential high levels of economic development, growth and expansion. These proposed nodes serve the sub-regional economy of the district and are a prime location for higher order office and small retail development consisting of a variety of goods, services as well as specialty products. Higher density residential development should form an integral part of the environment. However, residential development in the business area must comprise business development on ground floor. Investment in

the quality of the public environment and good urban management are viewed as paramount to retaining existing and attracting new high order business activities. Nature of land uses are focused on local business development and the provision of local community and social services. Detailed urban planning studies in the form of Urban Regeneration Plans have been undertaken on each of these primary nodes. These plans have also indicated the infrastructural and services requirement for growth and expansion.

Donnybrook, Riverside and Bulwer are identified as secondary nodes. Secondary nodes provide a key educational, economic and community service to the surrounding communities. A range of service and economic activities could be concentrated within these areas in a sustainable manner. They are usually located in areas that are accessible and, in some instances, with acceptable walking distance of particular community. Precinct planning for these urban centres have been undertaken with the aim of formalizing, organizing, attracting and promoting sustainable social and economic development within these areas

Creighton is identified as a tertiary node. Tertiary nodes within the district, with lower potential economic activity that provides services mainly to the local economy. Proper formalization in terms of planning and development control is required in these areas to enhance their development potential.



Kilmon, Centacow, Polela and Buckland Farm are identified as the Rural Service Centres. Rural service nodes represent the lowest order of locality, where a range of service and economic activities could be concentrated in a sustainable manner. These are the most accessible locations within an acceptable distance of communities.

Sani Pass, Drakensberg Garden, Maraqwa Forrest, Hela Hela and Bushman's Nek are identified as the Tourism Nodes which are located within areas which are attractive, provide good views, a feeling of "being in the mountains" and have potential for resource orientated activities. These have ready access to the wilderness/ natural areas through controlled points". All these nodes are on private land, adjacent to the UDP, and accessible to public entry points to the Park.

9.2 NEIGHBOURING LOCAL MUNICIPALITIES

9.2.1 GREATER KOKSTAD LOCAL SDF

R617 is identified as a Primary Corridor which links western part of the municipality with Underberg in Dr Nkosazana Dlamini Zuma. These provide high linkages with surrounding municipalities and economic nodes. This corridor centres on tourism and industry and links the primary nodes. This primary corridor facilitates stronger cross border economic flows and economic development. UKhahlamba Drakensberg World Heritage Site Corridor.

The Greater Kokstad SDF has identified the area Kingscote for tourism development as realized on the capital investment framework. The area holds good agricultural potential. However, it is highly dispersed households, the municipality SDF has not acknowledge any form of service delivery development, although it must be noted that it is an under serviced gap area, which is a rural service centre node that requires nodal and developmental corridor intervention. The area in which Dr Nkosazana Dlamini Zuma borders with Greater Kokstad, is the Bushman's Nek, which is also recognized as a tourism node. The area holds hydrological water features, ESA, stewardship sites, accommodation resorts inter alia. Both Kingscote and Bushman's Nek harmonize their tourism characteristic quality. In accordance with GKM IDP (2017-22, p454) the municipality has planned an output/ project of developing a Tourism Sector Strategy by 30 June 2018, which will be mandated with an objective of reducing unemployment. No service delivery projects have been planned by both municipalities along the boundary, besides road infrastructure intervention of resurfacing of R617.

9.2.2 UBUHLEBEZWE LOCAL SDF

Dr Nkosazana Dlamini Zuma shares the south-eastern boundaries with Ubuhlebezwe Municipality, specifically wards 1, 2 and 3. The key alignment issues between these two municipalities include the R612 which has been identified as the Primary Corridor, which further links Ixopo (Ubuhlebezwe) and Creighton (Dr Nkosazana Dlamini Zuma). The existing SDF for Ubuhlebezwe harmonizes with of the DNZ on the potential of agricultural land. As for the boundary cooperation, there is a need for constant engagement for the integrated management of Agricultural plantations and potential on the boundary of NDZ and Ubuhlebezwe. There are also a number of

Biodiversity Priority Area 1 corridors which are located along the boundary of these municipalities. The following areas are affected by cross broader service delivery: Mahehle, Mabedlane, Crystal Manor, Lufafa Road, as well as other tribal areas under the traditional council of Amakuze and Vukani. The following are some of the service delivery projects which are being planned and implemented in the affected areas:

Table 16: Ubuhlebezwe and Dr Nkosazana Dlamini Zuma Cross-border projects

Project name	Implementing Agent	Stage	Budget
Mahehle Housing Project - Phase 2	Ubuhlebezwe Municipality	Planning	TBD
Lufafa primary Renovations	DoE	Planning	R 14 561 000
Ufafa Rural Housing Project	Ubuhlebezwe Municipality	Planning	TBD
Mahehle/ Ncakubana Clinic	DoH	Planning	-
Ofafa/Ntakama	DoH	Planning	-
Ufafa Water Supply Project	Harry Gwala DM	Planning	R 42 745 000
DNDZ LM Households Sanitation Project	Harry Gwala DM	Construction	R 3 500 000
Masamini Senior Secondary School	DoPW	Construction	R 500 000

Project name	Implementing Agent	Stage	Budget
Ntekaneni housing project	DoHS	Planning	R1 417 000

9.2.3 IMPENDLE LOCAL SDF

Impendle Local Municipality is situated within the UMgungundlovu District Municipality. It borders Dr Nkosazana Dlamini Zuma LM to the north. The local municipalities share the following strategic spatial planning issues:

Expansion of rural settlements;

Both municipalities identify Pietermaritzburg as major economic hub within the regional and both seek interventions to strengthen connectivity; and

Dr Nkosazana Dlamini Zuma LM and Impendle LM are linked via the R617 (a main corridor). The Impendle town links to the R617 via the P127-1. Essentially, Dr Nkosazana Dlamini Zuma LM is linked to Impendle via the P73- P72-P137 route to Pietermaritzburg.

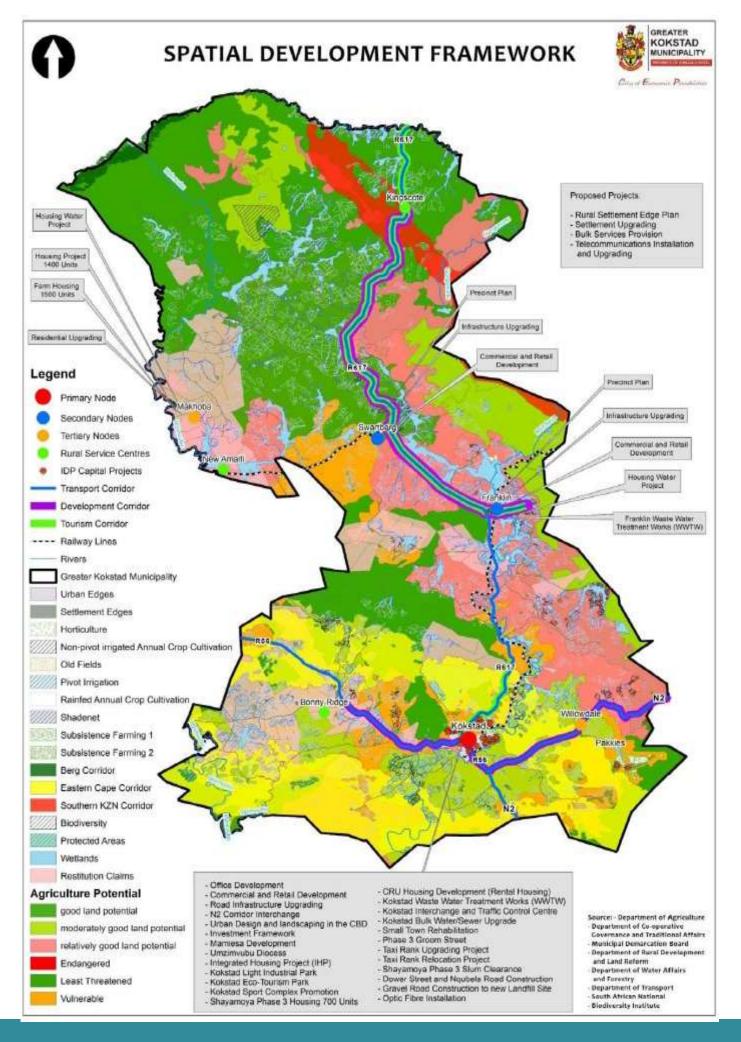
Both SDF's identify Ukhahlamba Drakensberg Park World Heritage Site as a primary tourism Asset from which tourism development can be achieved.

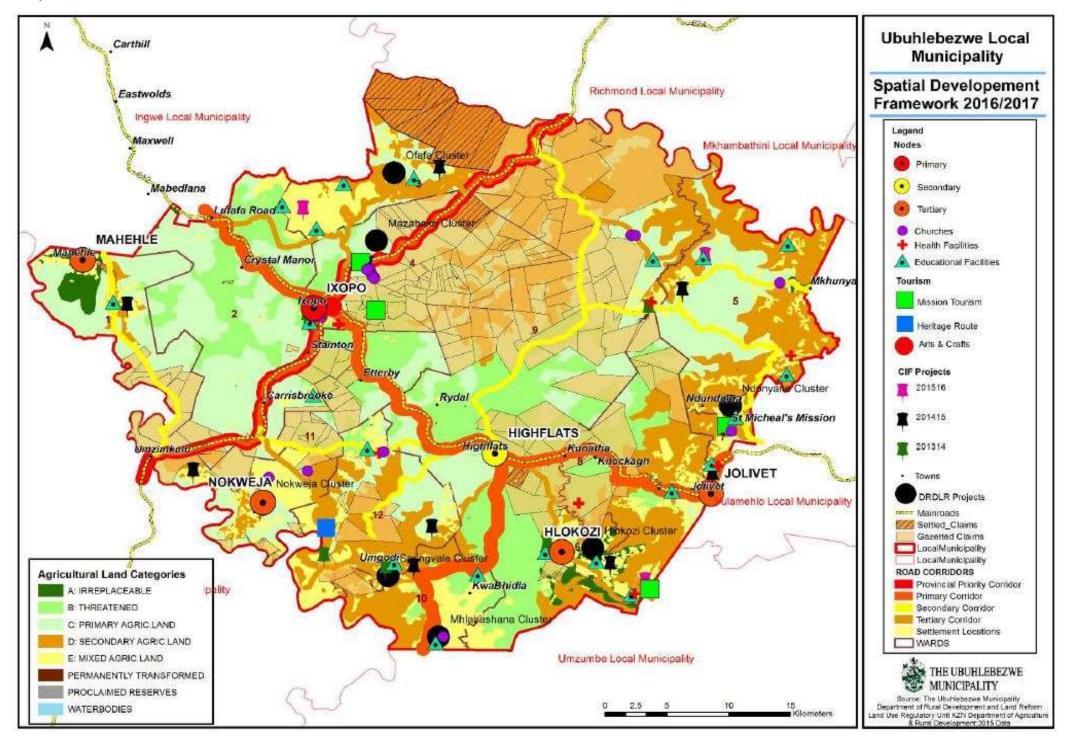
The following areas are affected by cross broader service delivery: Smilobha, Kamensi amongst others within Nxamalala T.C in Impendle and Ndonyela, Emvuleni and Mangaweni under Amangwane T.C in Dr Nkosazana Dlamini Zuma municipality. The

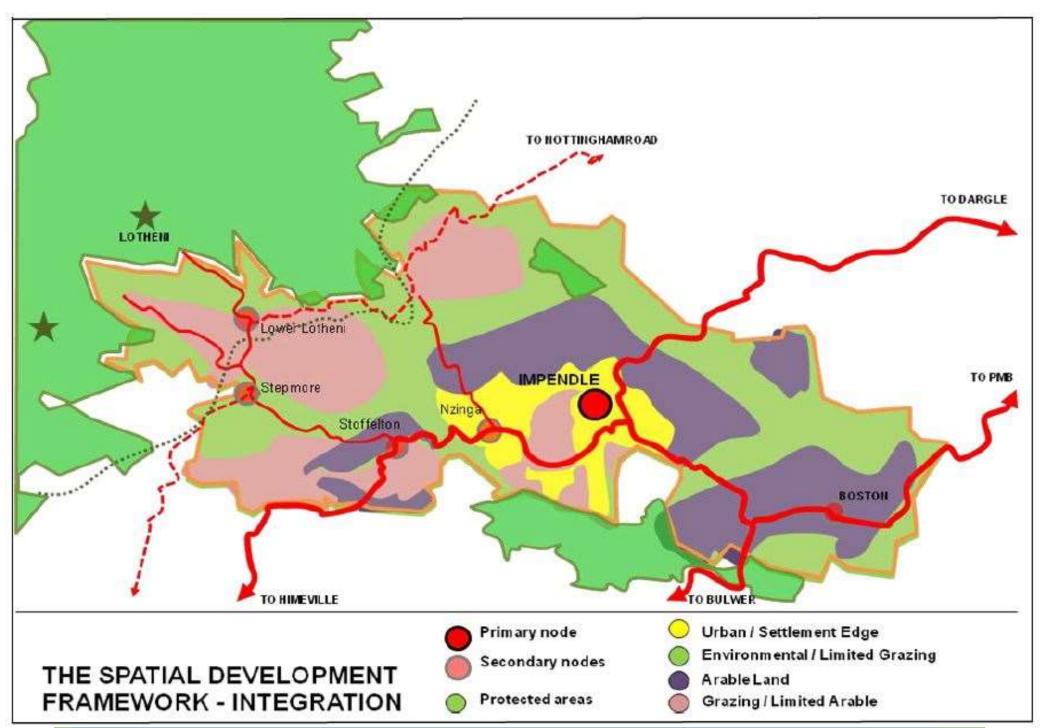
following are some of the service delivery projects which are being planned and implemented in the affected areas:

Table 17: Impendle and Dr Nkosazana Dlamini Zuma Cross border projects

Project name	Implementing Agent	Stage	Budget
DNDZ LM Households Sanitation Project	Harry Gwala DM	Construction	R 3 500 000,00
KwaPitela Creche	Dr Nkosazana Dlamini Zuma & PWBS	Planning	R 1 700 000,00
Mqatsheni electrification	DoME	Construction	R 1 000 000,00
Mqatsheni Stepmore Water Supply Project	Harry Gwala DM	Construction	R336 757,00
Mqatsheni Stepmore Water Supply Project	Harry Gwala DM	Construction	R 11 000 000,00
Impendle Restitution Claims	DoHS	Planning	R1 417 000







9.2.4 MSUNDUZI LOCAL SDF

Msunduzi Local Municipality is situated within uMgungundlovu District Municipality. It is the second largest local municipality in KwaZulu Natal and is the capital of the Province. It shares the northeastern border with Dr Nkosazana Dlamini Zuma LM. The main strategic spatial planning issue between the two municipalities includes the expansion of rural settlements in the Ncwadi area to the south-western parts of Vulindlela- KwaMafuze Traditional Authority Areas. The following local areas are affected by cross broader service delivery: Sizanenja, Voyizana, Mnyamana, Mdutshini, and Butu under Sizanani traditional council within NDZ in Ncwadi, and Kwamncane, Elandskop under Mpumuza and Mafunze traditional councils within area of Msunduzi.

The region where the interface of both these municipalities edge is predominantly agricultural, and the msunduzi SDF has developed strategy though Vulindlela LAP. The LAP proposes an agricultural development in KwaMafuza, and such harmonizes with the arable land and hydrologic features present within the area. The area of Elanskop is recommended for an integrated rapid public transportation network. The following service delivery projects are currently being implemented in the affected area:

Table 18: Msunduzi and Dr Nkosazana Dlamini Zuma Cross border projects

Project name	Implementing Agent	Stage	Budget
Implementation of IRPTN - Upgrade and widening of M70 Upgrade of existing rail network for passenger & goods traffic	Msunduzi Municipality	Planning	R 25,000,000
Vulindlela Agricultural Development Project	Msunduzi Municipality	Planning	R 5,000,000
DNDZ LM Households Sanitation Project	Harry Gwala DM	Construction	R 3 500 000
Mvutshini Housing	DoHS	Planning	TBD

9.2.5 RICHMOND LOCAL SDF

Richmond Local Municipality is situated on the southern portion of the uMgungundlovu District Municipality. It is approximately 38 km south of Pietermaritzburg. It borders Dr Nkosazana Dlamini Zuma

Local Municipality to the east. The following alignment is evident between these local municipalities:

Catchment Management particularly with the major UMkhomazi River that runs through both municipalities;

Both municipalities identify the P121 to Indaleni and P8-2 linking from P8-1 as a Tertiary Corridors aligns to Richmond proposals of Corridors;

There is an alignment between Agriculture and tourism zones identified by both municipalities; and

Management of agricultural land considering the impact of the land reform programme.

The following areas are affected by cross broader service delivery: Hella Hella, KwaGengeshe in Richmond and Vezakuhle traditional council in Mdutshini within NDZ. The following service delivery project is being delivered in the affected area;

Table 19: Richmond and Dr Nkosazana Dlamini Zuma Cross border projects

Project name	Implementing Agent	Stage	Budget
DNDZ LM Households Sanitation Project	Harry Gwala DM	Construction	R 3 500 000
Mdutshini housing project	DoHS	Planning	-

9.2.6 UMZIMKHULU LOCAL SDF

UMzimkhulu Local Municipality is situated Southwestern portion of the District. It is the most populated municipality within the district and is highly dependent on agriculture and tourism. The alignment between the Dr Nkosazana Dlamini Zuma LM and UMzimkhulu LM SDFs is as follows:

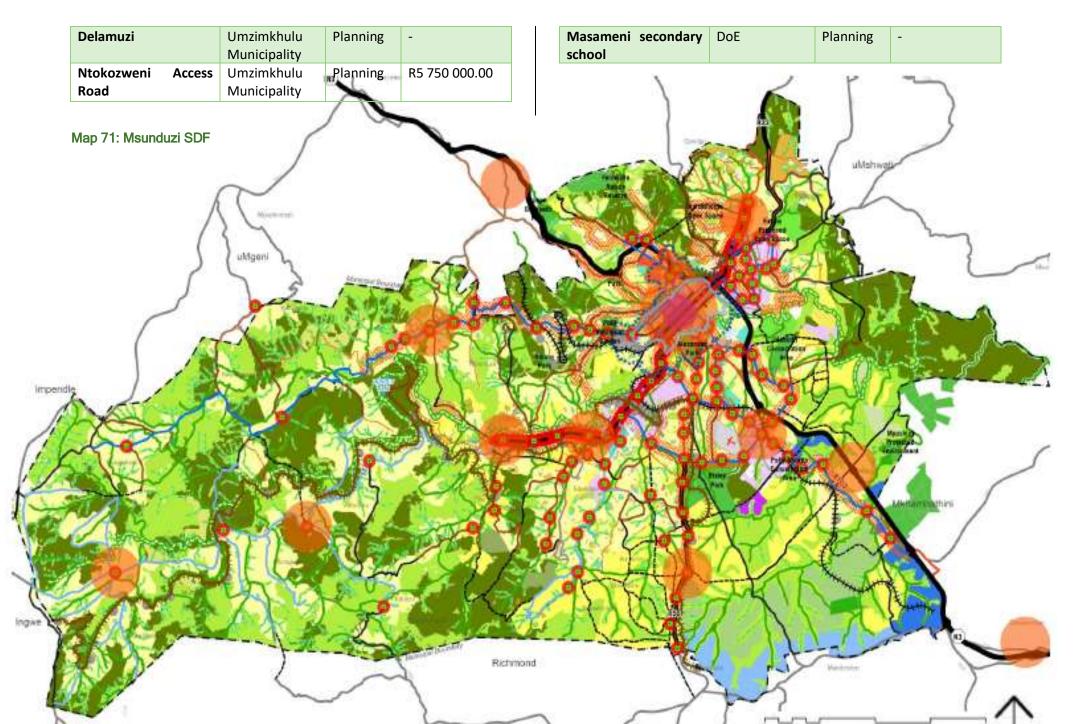
The minor rural service centres of Glengarry, Ntsikeni, and Ncambele rely on Creighton and Franklin as functional and accessible economic service centres, even though they are situated outside the municipal area.

Both SDFs identify the issue of catchment Management particularly with the major UMzimkhulu River that runs through both municipalities.

The following areas are affected by cross broader service delivery: northern of traditional areas of Ndawana, Koite under Zweletu TA within KwaDelumuzi, Enyanisweni and Riverside as well as other tribal areas under the traditional council of Madzikane-Bhaca and isibonelo esihle in NDZ. The following are some of the service delivery projects which are being planned and implemented in the affected areas:

projects			
Project name	Implementing Agent	Stage	Budget
Khayeka Access Road	Umzimkhulu Municipality	Planning	R9 645 000.00
Masameni/Skhesheni Housing Project	DoHS	Planning	TBD

Table 20: uMzimkhulu and Dr Nkosazana Dlamini Zuma cross border projects



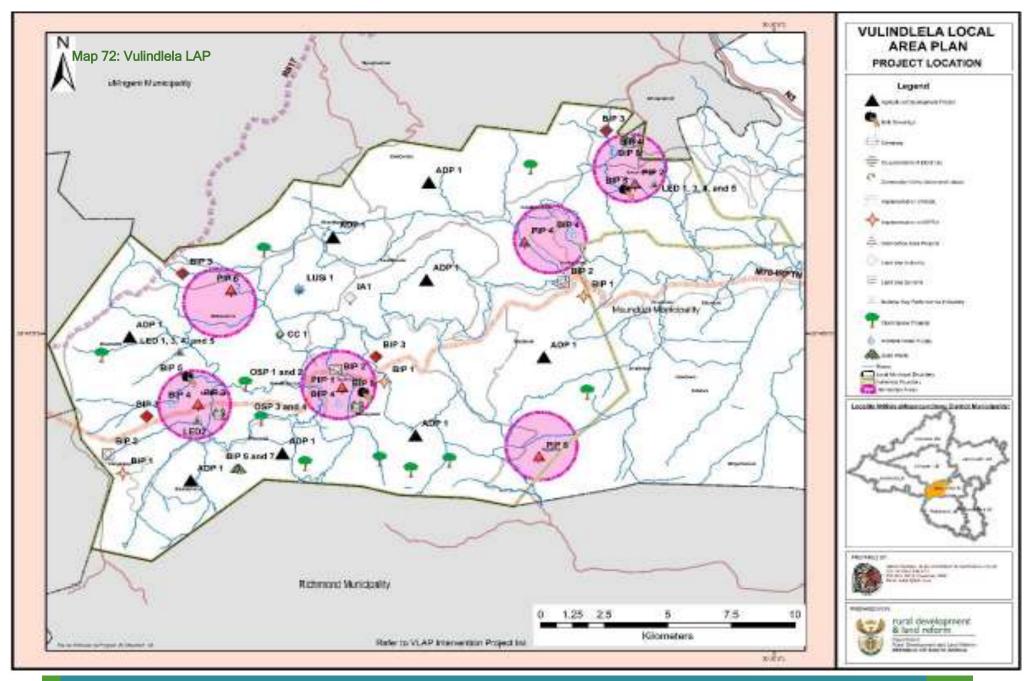




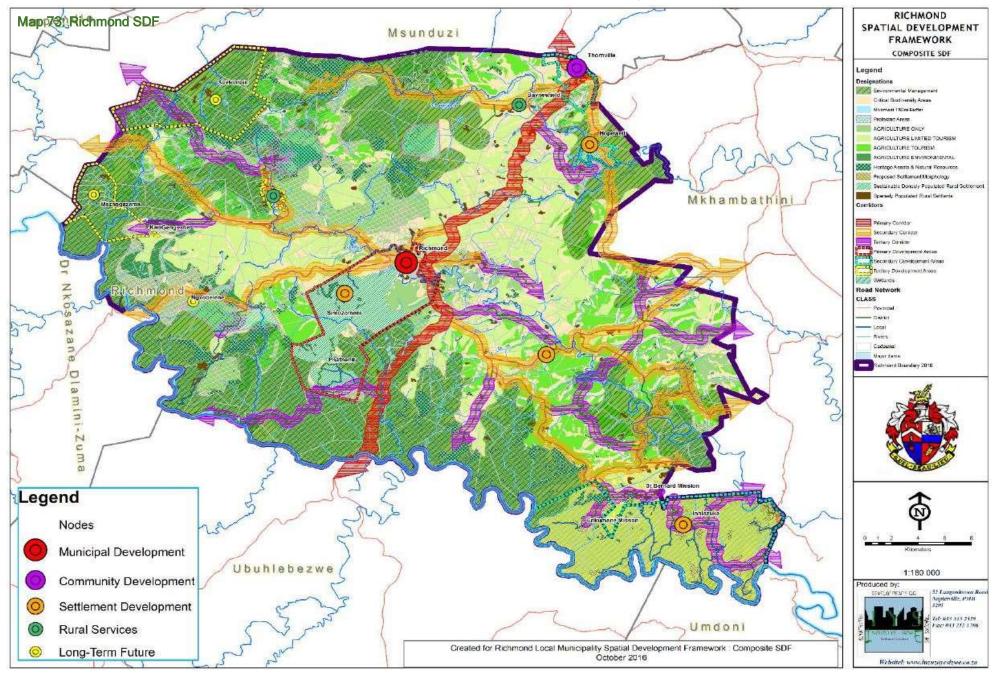
OUALITY URBANISM Note: Existing Residential Densification/Intensification Zones CBD Growth Boundary 5 km Catchment Coverage CBD Urban Hubs Sustainable Urban Centres Public Place Making SOCIAL INCLUSIVITY Existing Residential Informal Settlement Redevelopment Proposed Housing **Civic and Social** Education Hospitals. Recreation Land Use

The size of the consolidated Msunduzi SDF has resulted in it being enlarged and the legend being displayed on this page.

Waste Water Treatment Works

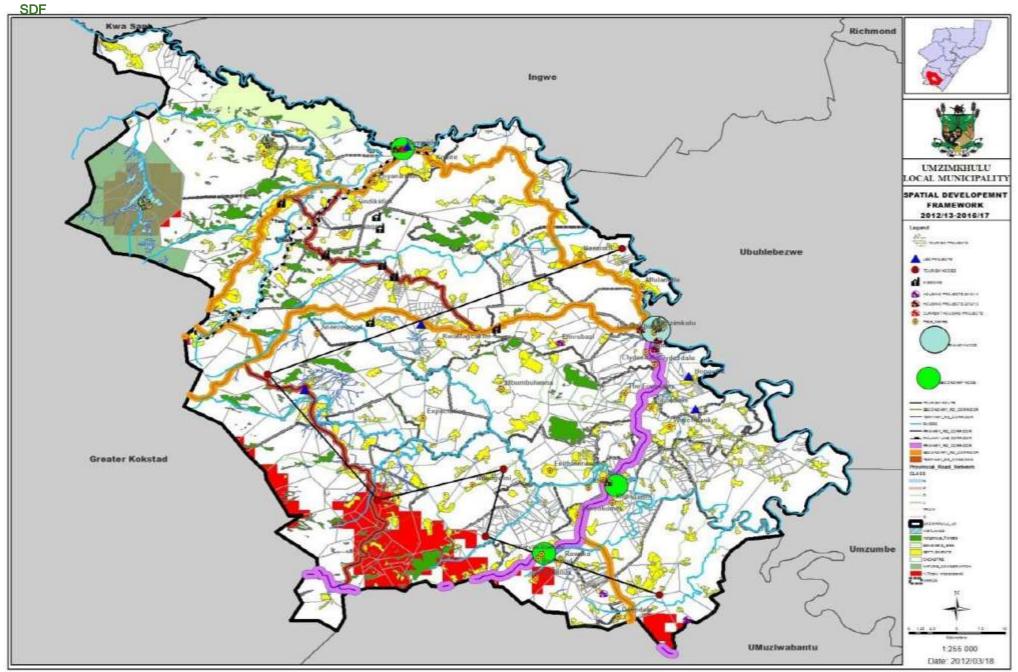


223



224





Both SDF's identify the R56 provincial road as a primary corridor into the district that links major economic hubs such as Pietermaritzburg, Kokstad and Ixopo.

Both local municipalities identify significance of rail tourism from a district level. Both municipalities are directly impacted by this form of tourism and seek to exploit all subsequent opportunities.

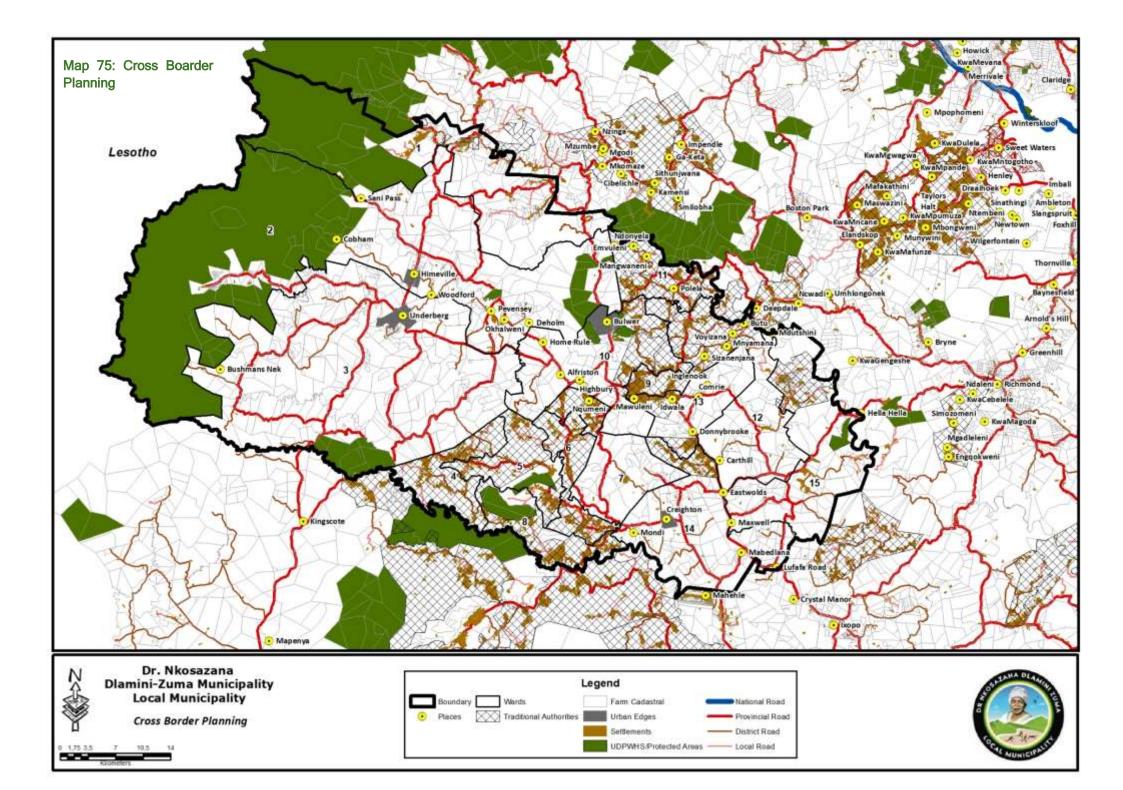
Investigations need to be undertaken with regards to the upgrade of the road between Franklin and Creighton, which will serve to further strengthen the linkages between the municipalities and serve to provide services to these centres.

9.3 IMPLICATIONS FOR DR NKOSAZANA DLAMINI ZUMA SDF

The following implications can be drawn in relation to the wider environment that Dr Nkosazana Dlamini Zuma exists within and around in:

- It accommodates fourteen (14) nodes within Harry Gwala District Municipality so it is a crucial contributor to the economic structure of the district;
- It exists within the Foothills of the World Heritage Site (UKhahlamba Drakensberg) which is a highly competitive tourism advantage that the area has;
- It is highly connected and linked with the surrounding local municipalities through a well-established road network which includes R617 and R612;
- A need to invest in small rural towns rehabilitation programme;

- A continuum of densely populated rural settlements from Ubuhlebezwe, Impendle and Msunduzi may extend to adjoin the existing cross-border rural settlement web within the area;
- It entails a number of environmentally sensitive areas and sites which includes protected conservation sites and other unprotected biodiversity management areas;
- Harmonization of environmental corridors identified by Richmond Municipality SDF;
- Strengthen tourism/ eco-tourism linkage corridors centred around Mkomazi River;
- Agricultural land management at a cross-border level; and
- A number of catchment management areas can be noted given the existence of the Drakensberg as well as the major rivers that originate from it including UMkhomazi River.



10.SPATIAL PLANNING ISSUES AND CHALLENGESSIGNIFICANCE OF TOURISM CORRIDOR

Dr Nkosazana Dlamini Zuma Municipality is located within a very rich tourism region which involves Maloti UKhahlamba Drakensberg Park. This is a world asset and an outstanding attraction within the country. It also creates numerous opportunities for the tourism market and product offering that the area can explore. The SMME opportunities should be explored as part of this sector using the propoor tourism model or a community-based tourism model.

10.1 SIGNIFICANCE OF AGRICULTURE

The municipal area boosts with an abundance of high potential agricultural land and this gives the country a competitive advantage in terms of food production and export opportunities given the location in terms of proximity to the Kingdom of Lesotho. A number of opportunities should be explored for mainstreaming the SMMEs on this sector.

10.2 RURAL TOWNS REHABILITATION

A number of small rural towns exists within the area. The role that rural towns play in the economy include that of a service centers and an economic hub which supports the clusters of rural settlements that surround it. Some of these have dilapidated and are in need for a rehabilitation programme which involves amenity building and placemaking criterion. The most visible interventions would include addressing the poor urban character i.e., lack relation between streetscapes, building facades, poor street furniture and land use; inefficient urban structure that promotes congestion, lack of parking and informality; and lack of requisite urban infrastructure which includes storm-water drainage, streetlights and signage.

10.3 FUTURE NEED FOR INTEGRATED MIXED RESIDENTIAL

A need for future housing should be well thought-out and planned for given the fact that the area may grow in terms of population in the near future. If such growth has not been planned for then one of the most visible crises that may emerge may be informal settlements which can act as poverty traps that are badly located and are ideal breeding grounds for social problems (e.g. routine aggression and violence, substance abuse, broken family relations) and suffer high levels of violent crime (compared with commercial and middleclass areas). A study undertaken by South African Cities Network (titled Towards an Integrated Urban Framework) advised that a "growing town/ city can win with sustainable and mixed-use development". Central to this advice is a need to plan for a livable, economically viable and sustainable towns with infrastructure that resilient enough to support inclusive growth. If properly managed, urbanization generates significant opportunities for economic growth and poverty reduction.

10.4 TRANSPORT ROUTE AS AN INFLUENCE FOR FUTURE DEVELOPMENT DIRECTION

The rural settlements within Dr Nkosazana Dlamini Zuma are highly influenced by factors of accessibility and proximity to public transport routes. These settlements tend to develop or concentrate along ridgelines and create a complex web. This is usually where transport routes run, which provides people with easy access to public transport that links them to areas that provide a range of services and public facilities. Rural settlement patterns in Dr Nkosazana Dlamini Zuma are closely related to migration patterns, livelihood survival strategies and the ability to access certain services and infrastructure. They have not developed according to predetermined systems and procedures and therefore future settlement trend predictions are limited to that which is known and experienced.

10.5 ENVIRONMENTAL ANXIETIES

Dr Nkosazana Dlamini Zuma exists within a very sensitive environment given the fact it is within the foothills of UKhahlamba Drakensberg Park. In addition, there are a number of biodiversity characteristics within various parts of the municipal area which should be treated with a lot of caution. These include the issues of catchment management, bird species, sensitive vegetation and riparian zone

11. SPATIAL DEVELOPMENT STRATEGY

11.1 SPATIAL DEVELOPMENT VISION AND MISSION

Figure 41: Spatial

HARRY GWALA DM VISION

By 2030 Harry Gwala will be a leading water services provider in the KZN Province with its communities benefitting from a vibrant agriculture and tourism sector.

Dr NKOSAZANA DLAMINI ZUMA LM VISION

DNDZ strives to be a responsive, democratic and accountable Local Government by: creating vibrant communities through delivering sustainable basic services with a strong focus on Socio-Economic Development and protecting the environment.

Dr NKOSAZANA DLAMINI ZUMA SPATIAL VISION

An equitable, sustainable municipality with vibrant communities, well managed environment and growing tourism and agricultural economy by 2040.

Dr Nkosazana Dlamini Zuma Municipality has a mandate of being a responsible and accountable municipality in order to meet the needs of the local communities. This vision appears on the municipal Integrated Development Plan (IDP) and it was informed by the broader vision of Harry Gwala District Municipality. The District vision is aiming at the creation of a vibrant agriculture and tourism economy. The common underlying themes within these two visions are:

Vibrant economy;

Delivery of services; and

Community benefits.

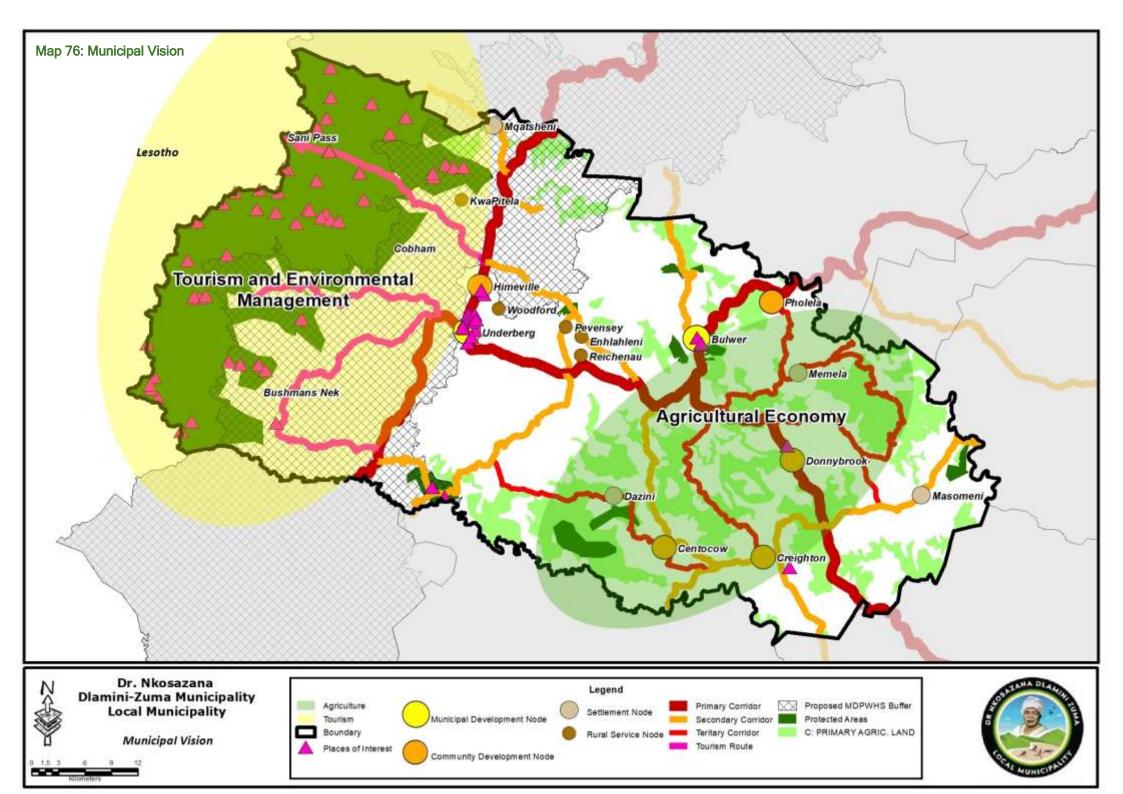
The spatial vision has incorporated these themes and added the principles that emanate from the Spatial Planning and Land Use Management Act No. 13 of 2016 which are:

Environmental endowment;

Spatial equity; and

The principle of sustainability.

These also takes into cognisance of the issues that emanated from the status quo which include environmental management, significance of tourism and agriculture on the local economy, need to resource and rehabilitate the rural towns as well as future need for integrated mixed residential development to accommodate the growing population.



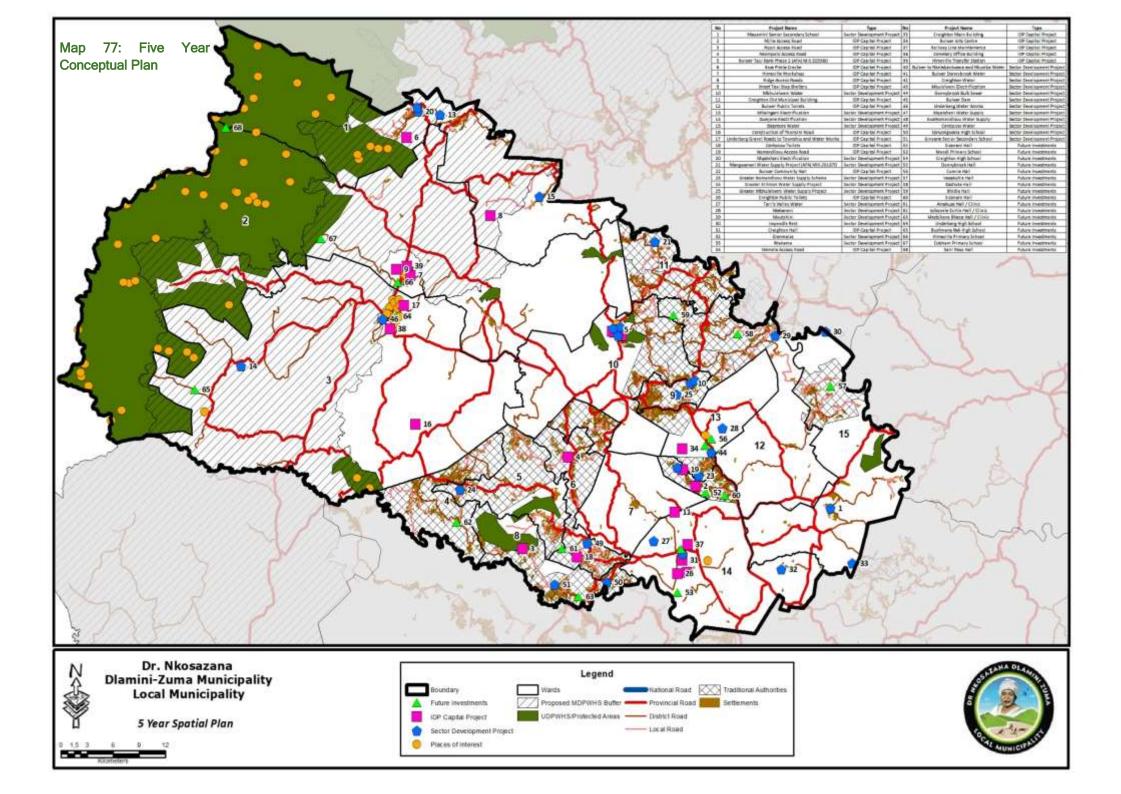
11.2 FIVE-YEAR SPATIAL DEVELOPMENT PLAN

In compliance with section 21 (b) of SPLUMA, the NDZ SDF (2019/20 review) will envisage the following vision within the next five year;

"By the year 2023, Dr Nkosazana Dlamini Zuma Municipality will be an environmental resilient, educationally progressive, well serviced and self -sustaining community through the adequate access to equitable bulk infrastructure, government and social facilities as well as increased access to conservation tourism opportunities".

The key objectives to be considered are enlisted as follows:

- Promote maintenance of social facilities.
- Increased access to adequate government facilities.
- Improve quality of household life through sustainable human settlement.
- Increase environmental awareness and conservation
- Promote sustainable environmental tourism through strategic tourism guidelines
- Improved environmental management and planning through the implementation of the municipal integrated waste management plan and integrated environmental management plan
- Improve the rapid response to climate change
- Increase the provision and maintenance of infrastructural development



11.3 SPATIAL PLANNING PRINCIPLES

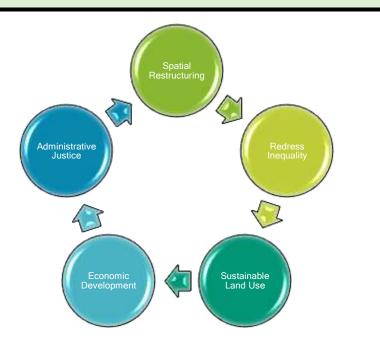


Figure 42: Spatial Principles

Dr Nkosazana Dlamini Zuma SDF is strengthened by following principles which have been extracted from various pieces of legislation and policy documents and are considered applicable to guide the preparation, review and implementation of Dr Nkosazana Dlamini Zuma Municipality SDF. The objective of the principles and norms is to influence directly the fundamental outcomes of planning decisions, whether they relate to spatial development frameworks or decisions on land use change or development applications. These include: promoting sustainable use of the land;

channeling resources to areas of greatest need and development potential, thereby redressing the inequitable historical treatment of marginalized areas;

Supporting an equitable protection of rights to and in land.

restructuring spatially inefficient settlements;

stimulating economic development opportunities in rural and urban areas; and

Considering the fiscal, institutional and administrative capacities of role players, the needs of communities and the environment.

In addition, they promote:

accountable spatial planning, land use management and land development decision-making by organs of state;

cooperative governance and wider information sharing in planmaking and implementation; and

Maximum openness and transparency in decision-making.

The principles and norms collectively form a vision for land use and planning in Dr Nkosazana Dlamini Zuma. They constitute a single point of reference, and an overarching coherent set of policy guides to direct and steer land development, planning and decision-making in land use so that outcomes thereof are consistent with the development objectives as outlined in the IDP.

11.4 DEVELOPMENT OBJECTIVES

11.4.1 OVERARCHING OBJECTIVE 1: DEVELOPMENT GROWTH EXPANSION AND BALANCE WITH ENVIRONMENTAL ENDOWMENT

This objective is informed by the principle of sustainable environmental planning to manage the future growth and development in a way that balances growth, human benefit and environment. It addresses the impacts of climate change on livelihoods, urban infrastructure as well as biodiversity. Dr Nkosazana Dlamini Zuma SDF seeks to assist property developers to make informed investment decisions, develop in appropriate locations, by identifying the areas that are most suited to urban development and those that should be avoided for environmental reasons or for the hazards or risks they create for residents. It highlights the importance of cross-sectorial forward planning, the spatial alignment of interventions and provides broad guidelines for the phasing of the growth of the town. It recommends that cross-sectorial growth management plans such as IDP shall be used to guide the town's growth, development, and provide information on the municipality's bulk infrastructure delivery plans. To manage the urbanisation challenges, pressures facing Dr Nkosazana Dlamini Zuma by proposing that the future form of urban

development should be more compact and that higher densities be encouraged in targeted locations.

principle of natural and built The environment conservation needs to be adopted for the area such as Dr Nkosazana Dlamini Zuma. The built environment includes the important buildings and structures that are of conservation value within the town. This is purely because, the area has an abundance of heritage resources in the form of buildings and monuments. These should be listed with Amafa KwaZulu-Natal as the local monuments are deserves to be adequately protected from any vandalism, demolition or decay. Lastly, it is advocated that development impacts on natural resources be appropriately managed. The biodiversity network and agricultural areas to be protected must be taken into consideration when planning for new development, and national biodiversity targets should be pursued. More efficient use needs to be made of non-renewable resources. The protection and maintenance of existing surface water, groundwater resources and

the sustainable sourcing and use of existing as well as future water supplies are critical.

TABLE 1: Managing Development SPLUMA PRINCIPLES		STRATEGIES	SUPPORTING	ALIGNMENT WITH
(ALIGNMENT)			FRAMEWORKS	POLICIES
 Good Administration All spheres of government must ensure an integrated approach to land use and land development that is guided by the spatial planning and land use management systems as embodied in this Act. 	Facilitate urban and rural development	 identifying the locations potentially suited to densification and in-fill development Facilitate urban development and direct the phasing of urban growth through deliberate and integrated use of planning, infrastructure provision, and the regulatory and fiscal authority of all spheres of government. 	 Precinct Plans Updating of Planning Schemes and make provisions for new potential developments. Development of Densification Strategy Development of Nodal Framework 	 Dr Nkosazana Dlamini Zuma Spatial Development Framework Dr Nkosazana Dlamini Zuma Local Economic Development Strategy
 Spatial Sustainability Promote and stimulate the effective and equitable functioning of land markets; Promote land development that is within the fiscal, institutional and administrative means of the country; Promote land development in locations that are sustainable and limit urban sprawl; and Result in communities that are viable. 	Encourage a more compact form of development	 Promote appropriate land use densification; Contain the development footprint of the settlements, towns and protect natural, rural, urban and heritage assets with development edges: Urban Edge. New developments that promote urban sprawl should be discouraged. Prioritize infill development in areas that provide opportunities for linking and integrating peripheral areas. Ensure clustering of various activities (work, live, play and pray) at appropriate locations. Densification and Infill should be promoted in well serviced, strategically located areas and should contribute to the 	Plans Development of Precinct Plans	

TABLE 1: Managing Development Growth and Balance with Environmental Protection				
SPLUMA PRINCIPLES (ALIGNMENT)	OBJECTIVES	STRATEGIES	SUPPORTING FRAMEWORKS	ALIGNMENT WITH POLICIES
		 restructuring of urban environment. Densification and Infill should help to create thresholds for public transport and contribute to the more effective utilization of various modes of public transport. Higher residential densities should be promoted around nodes and within corridors 		
	Manage development impacts on natural resources and critical biodiversity networks	 Increase efforts to protect and enhance biodiversity networks at all levels of government Reduce the impact of development on river systems and wetlands. Manage urban development in a sustainable and precautionary manner Protect valuable agricultural areas, existing farmed areas and horticultural areas from urban infringement, and support urban agriculture Adopt a proactive planning approach to excavating resource management 	 Develop a Strategic Environmental Assessment (SEA) Develop the Environmental Management Plan 	 Dr Nkosazana Dlamini Zuma Spatial Development Framework Dr Nkosazana Dlamini Zuma Local Economic Development Strategy
 Spatial Efficiency Land development optimises the use of existing resources and infrastructure. 	Make efficient use of non- renewable resources	Promote a culture of sustainable development and living		

SPLUMA (ALIGNMENT) PRINCIPLES OBJECTIVES STRATEGIES SUPPORTING PRAMEWORKS ALIGNMENT WITH POLICIES (ALIGNMENT) Protect and enhance the municipality's rural environment Prevent development from intruding into the rural environment Develop a Strategic Environmental Assessment (SEA) Develop the Environmental assessment (SEA) Develop the Environmental assessment (SEA) Develop the Environmental assessment (SEA) Spatial Resilience Sustain environments sustainable invironments sustainable livelihoods in communities who are most likely to suffer from the impacts of economic and environmental shocks. Sustain environments and commodated to ensure sustainable livelihoods in communities who are most likely to suffer from the impacts of economic and environmental shocks. Sustain environments and commodated to ensure sustainable livelihoods in communities who are most likely to suffer from the impacts of economic and environmental shocks. Sustain environments and commodated to ensure succes Sustain environments and commodated to ensure space can effectively deliver services Develop and marage precise Sustain environmental environmental resources should be protected and enhance to ensure that the ecosystem within the open space can effectively deliver services Sustain environmental precise Sustain environmental precise Sustain environmental precise Protect iver catchments and environmental solis and steep space Protect river catchments and Sustain environmental precise Protect iver catchments and	TABLE 1: Managing Development Growth and Balance with Environmental Protection				
 Protect and enhance the municipality's rural environment Protect and enhance the municipality's rural environment Protect and enhance the municipality's rural environment Spatial Resilience Flexibility in spatial plans, policies and land use management systems is accommodated to ensure sustainable livelihoods in communities who are most likely to suffer from the impacts of economic and environmental shocks. Sustain environments resources Sustain environments environmenta and resources Provent development from the impacts of economic and environmental shocks. Develop a Strategic Environmental shocks. 		OBJECTIVES	STRATEGIES		
 Spatial Resilience Flexibility in spatial plans, policies and land use anagement systems is accommodated to ensure sustainable livelihoods in commental shocks. Sustain environments and activities in rural accommodated to ensure sustainable livelihoods in communities who are most likely to suffer from the impacts of economic and environmental shocks. Sustain environments and states slopes Protect environmental shocks. 	(ALIGNMENT)				
develop a catchment management plans for river systems where rapid	 Spatial Resilience Flexibility in spatial plans, policies and land use management systems is accommodated to ensure sustainable livelihoods in communities who are most likely to suffer from the impacts of economic and 	municipality's environmentruralImage: Sustain environmentsnatural and	 intruding into the rural environment Support appropriate development and activities in rural areas, in and around unique and culturally significant rural settlements Rationalise and proactively manage smallholdings Develop and manage rural gateways Optimize the economic, social, appealing and functional value of open space services through the implementation of Open Space System Existing natural environmental resources should be protected and enhanced to ensure that the ecosystem within the open space can effectively deliver services Development must be directed away from hazardous areas such as floodplains, unstable soils and steep slopes Protect river catchments and develop a catchment management plans for river 	 Develop a Strategic Environmental Assessment (SEA) Develop the Environmental Management Plan Carefully consider the compatibility of proposed land use when assessing rezoning application especially in predominantly 	 Dr Nkosazana Dlamini Zuma Spatial Development Framework Dr Nkosazana Dlamini Zuma Local Economic Development

TABLE 1: Managing Development Growth and Balance with Environmental Protection				
SPLUMA PRINCIPLES (ALIGNMENT)	OBJECTIVES	STRATEGIES	SUPPORTING FRAMEWORKS	ALIGNMENT WITH POLICIES
		 Create a network of green open spaces and protect important environmental areas Support sustainable catchment management and storm water practices. Promote the prevention and reduction of pollution. 		
 Spatial Justice Past spatial and other development imbalances are redressed through improved access to and use of land; and Spatial Development Frameworks and policies at all spheres of government address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation. 	Establish an integrated, Urban-wide public transport system that supports the accessibility grid	 Create a hierarchy of integrated public transport services related to the accessibility grid Ensure that new urban development is supported by appropriate public transport infrastructure and services Include walking and cycling as essential components of land use planning Introduce parking policies to encourage use of the most context-specific and appropriate modal travel choice 	Develop the Integrated Transport Plan	
 Spatial Sustainability Promote land development in locations that are sustainable and limit urban sprawl; and Result in communities that are viable. 	Integrate land use, economic and transport planning	 Reinforce and enhance development corridors Encourage medium to higher- density forms of urban development to locate on or adjacent to activity routes, development routes and activity streets. 	Develop the corridor development studies.	

TABLE 1: Managing Development Growth and Balance with Environmental Protection				
SPLUMA PRINCIPLES (ALIGNMENT)	OBJECTIVES	STRATEGIES	SUPPORTING FRAMEWORKS	ALIGNMENT WITH POLICIES
		 Support the development of an integrated system appropriate surrounding land uses Strengthon and integrate 		
 Spatial Efficiency Land development optimises the use of existing resources and infrastructure. 	Improve connectivity within the Municipal area.	 Strengthen and integrate public transport networks, services and modes to ensure that passengers move optimally from origin to destination in an efficient manner and in the shortest time possible. Investigate and promote public transport links between disadvantaged areas and main economic nodes of the Municipality Include Non-Motorized Transport as essential components of land use and transport planning Investigate new road and railbased network links. 		

Table 21: Managing Development Growth and balance with Environmental Protection

DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT 11.4.2 OVERARCHING OBJECTIVE 2: ECONOMIC OPPORTUNITIES AND EMPLOYMENT CREATION

This objective is informed by principles of spatial concentration to enhance, promote planning for employment, support economic growth by responding appropriately to the spatial needs, requirements of the economic sectors that are attracted to and function within Dr Nkosazana Dlamini Zuma. Land use policies, mechanisms, economic incentives will be introduced to promote shared and inclusive economic growth. To correct spatial imbalances, the municipality shall support employment generating development in locations accessible to areas that are around Dr Nkosazana Dlamini Zuma. The Municipality shall also use public investment and public interventions to generate market opportunities for investment and job creation in these areas. Perhaps most importantly, the municipality is prioritising investment in the improvement of its public transport systems and transport linkages, to facilitate more convenient, affordable access to employment opportunities, natural resources and social amenities. In support of these investments, Dr Nkosazana Dlamini Zuma SDF has adopted an integrated approach towards land use, economic development and transport planning. Economic development and higher density forms of residential development will be encouraged to locate in areas well served by public transport. This will increase the efficiency of the local's public transport systems and ensure that the town's opportunities become more accessible. Lastly, recognising the importance of regional connectivity, the town will engage with the relevant authorities to ensure that the town's function within KwaZulu-Natal is strengthened through sustained investment in strategic infrastructure.

TABLE 2: EMPLOYMENT AND ACCESS TO ECONOMIC OPPORTUNITIES				
SPLUMA PRINCIPLES (ALIGNMENT)	OBJECTIVE	STRATEGIES	SUPPORTING FRAMEWORKS	ALIGNMENT WITH POLICIES
 Good Administration All spheres of government must ensure an integrated approach to land use and land development that is guided by the spatial planning and land use management systems as embodied in this Act. 	Promote inclusive, shared economic growth and development	 Maintain and enhance the features of Dr Nkosazana Dlamini Zuma that attract investors, visitors and skilled labour Introduce land use policies and mechanisms that will support the development of small business (both informal and formal) Encourage area specialisation and the development of a diverse, mutually supportive system of economic areas Encourage the use of available economic incentives Promote sub-regional economic planning 	trends.	Dlamini Zuma Local Economic Development Strategy Dr Nkosazana

Spatial Justice	Address spatial economic imbalances	generating opportunities within Dr Nkosazana Dlamini	
• Land use management systems are inclusive of all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas.		Zuma Support private-sector development initiatives in locations that are easily accessible Improve public transport links between the towns and the other economic nodes of the municipality	

Table 22: Employment and access to economic opportunities

11.4.3 OVERARCHING OBJECTIVES 3: EQUITABLE, COHESIVE AND LIVELY TOWN

This strategy is informed by the principle of spatial concentration to build an inclusive, integrated and vibrant town that addresses the legacies of apartheid by rectifying the existing imbalances in the distribution of different types of residential development and avoiding creating new imbalances. The transformation of townships and informal settlements into economically, socially integrated neighbourhoods and the encouragement of public/private partnerships to diversify housing delivery are considered to be integral to this process. Dr Nkosazana Dlamini Zuma SDF promotes a greater mix of land uses, people and or densities, and the adequate, equitable provision of social facilities, recreational space and public institutions, in order to achieve integrated settlement patterns. Dr Nkosazana Dlamini Zuma heritage resources, cultural landscapes, scenic routes and destination places that are fundamental to this town's unique sense of place are to be identified, conserved and managed in accordance with statutory requirements. Diverse historical legacies are to be celebrated and reinforced through appropriate management of urban form, architectural design, signage and artwork

TABLE 3: INCLUSIVE, COHESIVE AND LIVELY ENVIRONMENT				
	OBJECTIVE	STRATEGY	SUPPORTING FRAMEWORKS	ALIGNMENT WITH POLICIES

 Spatial Justice Past spatial and other development imbalances are redressed through improved access to and use of land; and Spatial Development Frameworks and policies at all spheres of government address the inclusion of persons and areas 	Transform the apartheid structure	 Redress existing imbalances in the distribution of different types of residential development, and avoid creating new imbalances Transform townships and informal settlements into economically and socially integrated neighbourhoods Encourage public/private partnerships to develop integrated human settlements and diversify housing delivery 	Support development initiatives in locations that are easily accessible especially to areas of need
that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation.	Encourage integrated settlement patterns	 Generally, support development, rezoning, subdivision and similar applications that promote a greater mix of land uses, people and/or densities Ensure that land uses and built form within predominantly residential areas support the daily functioning of those areas and contribute to their overall character and well-being Ensure that development proposals provide an adequate and equitable distribution of social facilities, recreational space and public institutions 	Land identification and packaging exercise Zuma SDF
Spatial Resilience	Enhance the unique sense of place and quality of the built form	Promote good contextual urban design fit, and ordering of the relationship between people, urban space and the environment (built and natural)	
policies and land use management systems is accommodated to ensure sustainable livelihoods in communities who are most likely to suffer from the impacts of	Enhance the value of heritage resources and scenic routes	 Identify, conserve and manage heritage resources, including cultural landscapes Ensure access to and provide information about, public heritage resources 	

economic and environmental shocks.		 Nkosazana Dlamini Zuma's diverse historical legacies through urban form, architectural design, signage and, where appropriate, artwork Provide positive spaces for cultural and social ceremonies and life-related events Carefully manage land uses and interventions along identified scenic routes, and in places of scenic and visual quality
	Promote accessible, town wide destination places	 Identify additional scenic routes Develop high-quality, accessible destinations and public spaces in newly developed and neglected areas

Table 23: Cohesion and lively environment

12. SPATIAL STRUCTURING ELEMENTS

12.1 SPATIAL STRUCTURING

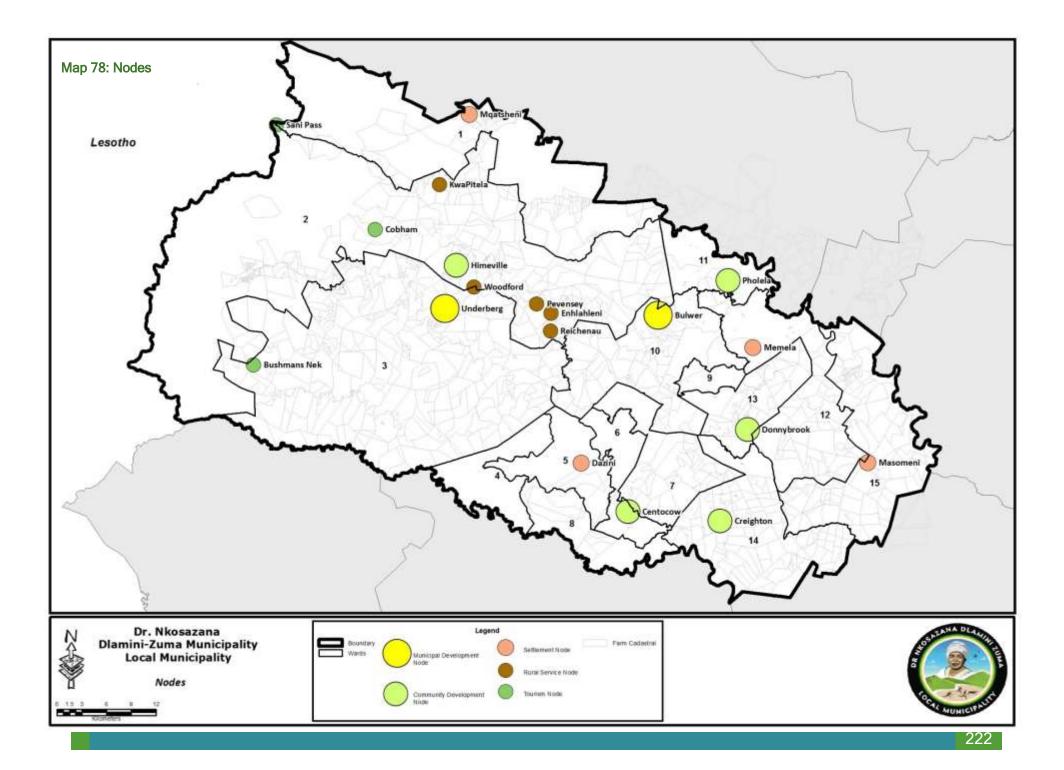
The first structuring element is the development and reinforcement of a system of varied activity nodes. This will enable greater access to town-wide opportunities, as well as equitable access to a system of local opportunities. The idea is to ensure that all people within the area live within easy walking distance of a public transport hub which will link to the town's public transport systems. These nodes, depending on their position in the hierarchy, will form points of access to a range of local and in some cases regional opportunities. Through the focus of development at these points the 'emerging core' will begin to reflect the opportunities that are present in the more developed areas of DNDZ Local Municipality.

12.1.1 SYSTEM OF ACTIVITY NODES

A development node refers to already established areas or potential ones that connects places of residence to areas of economic activities/opportunities. A development node may be a place of high or low-density intensity of development chosen for private or public investment to provide goods and services to the local communities based on their threshold of demand. A development node may be large or small depending on the area it serves. However, a properly functioning development node ought to have amenities like shopping, work opportunities, social and cultural opportunities and public transport facilities in a high quality and safe public environment. It includes cities, towns and other areas that exhibit or have potential for the developing the above-mentioned characteristics. This takes cognisance of the cost limitations and that growth/ investments cannot occur everywhere at the same level or with the same intensity.

Table 24: Nodal Classification

CLASSIFICATION	ECONOMIC DEVELOPMENT	SERVICE DELIVERY CENTRE	ADMINISTRATIVE CENTRE
Municipal Development Node	Economic centre that serves the entire municipal area	Centre for the coordination of delivery of services to the local communities.	Should ideally be the seat of local municipality offices or decentralised government offices
Community Development Node	Location of economic activities that serve the surrounding communities	Cluster of public facilities serving the surrounding communities.	Ward Councillors Satellite Offices
Neighbourhood/ settlement Development Node	Location of economic activities that serve the surrounding settlements (urban/rural).	Cluster of community facilities serving the surrounding settlements.	
Rural Service Nodes	Local convenient shops and manufacturing activities	Small centres will serve as location points for community facilities	
Long Term Future Node	Small local shops and farmstalls	Mobile facilities (health, pension pay-out points etc.)	
Tourism Node	Tourism accommodation, recreational activities, art and craft outlets and local service shops	Basic mobile services as and when required	Bushman's Nek, Cobham, Sani Pass & UWHS



12.1.1.1 MUNICIPAL DEVELOPMENT NODE: BULWER AND UNDERBERG

Bulwer and Underberg are the main urban centres for the municipality. Bulwer is the most strategically located commercial centre which is centrally positioned to service the entire municipality. Underberg is an important administrative centre of the municipality. Bulwer has over the last few years suffered due to economic decline. This is signalled by decaying buildings, lack of new investment and deteriorating infrastructure. This has impacted negatively on the ability of the town to play its service centre role effectively, attract new investment and to diversify. This has resulted in the leakage of purchasing power to Pietermaritzburg.

A Municipal Development Nodes is physically linked to urban centres outside their regions (districts) by frequent and reliable transportation and all-weather roads. They offer diversified commercial, financial, professional and administrative services. They accommodate municipal offices, sub-regional offices of national government departments and branch offices of provincial government department. They provide facilities for large scale and diversified markets, function as a communications node for a broad rural hinterland, and provide sites for agri-business and large-scale agricultural processing. They provide space of the location of smallscale consumer goods industries, repair workshops and light durable goods. They offer higher educational opportunities and more specialized vocational training; and provide diversified and multipurpose hospitals and health clinics. Municipal offices would mostly be in these development nodes. An urban regeneration plan was prepared for Bulwer, it will need to be funded and implemented. Particular focus should be given to the redevelopment of the town which included infrastructure upgrade of old dilapidated infrastructure

(such as roads, sanitation and water), giving a town a facelift through urban design and amenity improvement, introduction of social housing, upgrading of strategic town facilities, introduction of town social facilities such as town square, sport complex and introduction of land administrative procedures such as revised Town Planning Scheme and Land Disposal Policy. Some of these recommendations will need to be carried forward to advance the intent of transforming Bulwer into a notable Municipal Development Node.

12.1.1.2 Community Development Node: Himeville, Creighton and Donnybrook

Himeville, Creighton and Donnybrook have been identified as a Community Development Nodes. This is essential a small town that provide an area-wide exchange point household, common consumer products and farm inputs. They serve as nodes of transportation and distribution linked to regional centres within the province. They provide higher-level administrative services that cannot be found in settlement development nodes and offer vocational and secondary education, health, childcare services and rural commercial services. These boosts with a number of unique advantages which needs to be taken advantage of and these include:

High level of visibility due to a very close proximity in relation to the main routes; and

Central location in relation to the surrounding population which creates opportunities for commercial developments.

The current challenges that faces these nodes includes the fact these are currently underdeveloped and underserviced with the requisite bulk infrastructure. The initial goal would be to resource these areas with the requisite infrastructure services, devise a very sound vision, create a proper realistic structure plans that will guide their future development.

12.1.1.3 Settlement Development Nodes: Centecow, Pholela And Richenau

Centecow, Pholela and Richenau are the notable peri-urban and densely populated rural settlement within Dr Nkosazana Dlamini Zuma Municipality. These areas have been identified as the Settlement Development Node. The Settlement Development Nodes would locate a settlement or cluster of settlements. The services that these provide are limited to the surrounding settlements and include low order public, shopping and small business enterprise facilities. These serves as a link between the local communities and the major towns as such they should locate in accessible areas along or at the intersection of public transport routes.

There are currently limited developments in these areas e.g. commercial, education, etc. nodes have been identified at strategic locations within these settlement areas. Centacow and Richenau is originally a Catholic mission outstation with various self-contained amenities. It located in a rural section of the municipality. It is accessible through district roads. It accommodates an Informal taxi rank, Informal stalls/ tuck shops and secondary and primary schools. The focus should be the settlement development plans that will guide the creation of the proper structure for these nodes and the application of the place-making criterion which includes the creation of the central spot to resource with infrastructure and develop into a focal point per nodal area.

12.1.1.4 RURAL SERVICE NODES: HLANGANANI

In addition to the settlement development nodes, the vision for the future spatial development provides for the development of community centres within a cluster of settlements. These small centres will serve as location points for community facilities serving the local community such as:

- Local Commercial and Industrial Centre;
- Primary and secondary schools;
- Mobile clinics, Pension pay points; and
- Community halls and other community facilities.

There are no foci that operate as Rural Service Centres at this stage, but some Activity could be upgraded to perform this role. The location of these nodes is usually the most accessible location within an acceptable walking distance of a particular community. These were identified in Hlanganani. These areas have potential for the location of multi-purpose community centres (to include clinics, AIDS support services, library, adult education and skills training and computer facilities). Major capital investment is not required and by making use of alternative approaches, including mobile structures (containers or prefab construction) and providing only essential infrastructure, combined with periodic service delivery and markets, the potential of centres to fulfil a rural service function can be tested efficiently and at relatively low cost. Approaches to attracting private sector investment to these nodes must be further considered.

12.1.1.5 TOURISM NODES: SANI PASS, BUSHMENS NEK AND COBHAM

Sani Pass, Bushmen's Nek and Cobham have been identified as the tourism nodes. These areas currently exist with limited activities. In

addition to the above-mentioned developmental factors, these nodes will materialize provided that it is found to be economically and physically feasible. Economic feasibility will be dependent on market forces and attitude of investors for the area. Physical feasibility is depended on specialist's studies such as geotechnical assessment, EIA and infrastructure capacity. The economic assessment should be the first point of departure prior to embarking towards the physical feasibility assessment.

12.1.2 PSEDS PROJECTS WITHIN DNDZ MUNICIPALITY

The Provincial Spatial Economic Development Strategy (PSEDS) has identified an area of potential IREDC (Integrated Rural Economic Development Initiatives) within the jurisdiction of DNDZ area. The area of Isibizane/ Makholweni in ward 2 holds potential of agricultural development. Reason for such acknowledgement includes area

being dense rural - high poverty - primary / secondary agricultural land - ITB land. This project is identified on Creighton - Kokstad corridor, 10 km along P8-3 from Creighton turn onto D1345. Other projects which the PSEDS has acknowledged within HGDM, specifically in Dr Nkosazana Dlamini-Zuma LM are enlisted as follows;

- Bulwer Dam;
- Clover Powder Milk Factory;
- Infrastructure: Donnybrook Railway Houses;
- Marutswa Nature Reserve;
- Sani Pass Summit;
- The Shayamoya Train; and
- Bio-fuel Hub as development of Agro-processing.

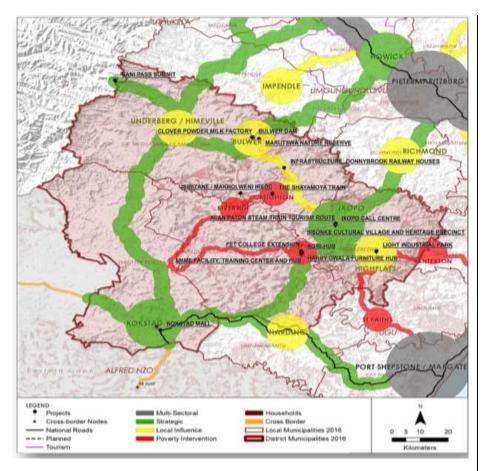


Figure 43: PSEDS Projects with the HGDM

12.2 Hierarchy of Development Corridors

Development corridors are dynamic, mutually supporting movement system and entail a very close relationship with land use. These are generally supported by a hierarchy of transport services that function as an integrated system to facilitate ease of movement for private and public transport users. Corridor development is focused predominantly on activity/ development routes serviced by mass rapid public transport services. However, the system of routes may serve different functions, with some routes combining functionality in terms of accessibility and mobility.

The concentration of intense bands of high-density urban development reduces overall trip lengths and improves access to opportunities, offering a means of conveniently integrating communities with service provision, and fulfilling a range of economic and social needs. Development corridors attract different levels and types of private investment, which generate different types of formal and informal economic and social opportunities. The areas of intensification are usually characterised by strip or nodal development located within development corridors on activity routes.

The second structuring spatial element is the development and reinforcement of a hierarchy of activity routes. This supports the strategic direction of the framework in several ways. Firstly, it involves reinforcing a hierarchy of 'integrating' activity routes, which provide access to both citywide and local opportunities. These activity routes are focussed on linking and reinforcing clusters of activity (activity nodes), with frequent access points supporting business activity locating at accessible places along the route. The conceptual framework reflects:

Higher order activity routes, adjoining Route 56, connecting major activity nodes. These routes have high levels of continuity.

Local activity routes, which connect local activity nodes to each other and to major activity nodes and feed into the higher order activity routes.

New links supporting physical integration of the areas

Secondly, to support the role of these activity routes as integrating elements, a set of tools or supportive strategies are identified and are reflected below.

Key network linkages are developed to reinforce the accessibility grid and the centrality of the activity nodes

An integrated network of Non-Motorized Transport (NMT) routes is developed to support access to local and broader opportunities.

Development corridors in Dr Nkosazana Dlamini Zuma Local Municipality occur at different scales depending on function and categorization of the transportation route that forms the basis of the corridor. They carry the flows of people and trade between two points (origin and destination) and encourages nodal development at strategic point. Corridor development as a spatial structuring element, and a tool for economic growth, seeks to create functional linkages between areas of higher thresholds (levels of support) and economic potential, with those that have insufficient thresholds.

This will enable areas that are poorly serviced to be linked to areas of opportunity and benefit with higher thresholds. Corridors constitute an effective form of decentralization and enables larger and smaller activities to form a relationship. Linear systems can handle growth and change well. They are an effective means for breaking down fragmentation and increasing integration and spatial transformation. System of development corridors in Dr Nkosazana Dlamini Zuma Local Municipality has been developed based on the levels of mobility and access routes, intensity of use and role in the regional spatial economy. The aforesaid figure summarizes the relationship between these two concepts and provides a framework for the three levels of corridors in Dr Nkosazana Dlamini Zuma Local Municipality. Upgrade and road maintenance projects on corridors that leads to development opportunity areas such as rural service centres, high potential agricultural land and tourism nodes should be prioritized as this will encourage investment, improve accessibility and enhance mobility.

Table 25: Corridor classification

TYPE OF ROUTE	FUNCTIONS	BUILDING LINES
Provincial Route (Primary Corridor)	Major ArterialMobility HighwayLimited Access	15 metres.
District Routes (Secondary Corridors)	Minor ArterialMain RoadLimited Access	15 metres
Local Collector Roads (Tertiary Corridor)	 Collector Road Access Permitted Off Road Edge or Lay- byes 	7 metres
Tourism Routes	Aims at promoting and facilitating tourism development	15 metres

12.2.1 PRIMARY CORRIDOR

R617 is the primary movement corridors. This route runs through from a north east to westerly direction and traverses the northern parts. It plays an important role from a regional perspective in terms of facilitating access to the municipality. It links the municipality with major urban centres such as Pietermaritzburg and centres such as Underberg and Kokstad. This route is an important tourist route; it serves as a linkage to the Drakensberg Okhahlamba Park and is endowed with areas of scenic beauty and picturesque landscape. Development along this route should be undertaken with care so as not to detract from the visual asset value of the area. There are also various leisure sites (Birding Park), BnB's, lodges contribute to the tourism character of this corridor.

R612 is also considered a primary corridor. This route runs from a south to a northerly direction and joins with the R617. It connects the municipality with towns such as Ixopo, Highflats and Umzinto. It also plays a role in terms of facilitating linkages between the municipality's three towns viz. Bulwer, Creighton and Donnybrook. It is an important route along which development should be focused. The route also serves as a transportation corridor, where various goods pass. P27-2 links the Municipality with Impendle Municipality to the north which provides an important movement corridor for cross border trade opportunities. P318-2 links the Municipality and the province to Lesotho via a formal border post in the west and provide internal linkage to the Ukhahlamba Drakensberg Park from within KwaSani.

This is in line with the NDP principles of ensuring that development has positive outcomes on the local residents thus addressing social inequalities. The importance of the route has also been identified in the PSEDS as a secondary and agricultural corridor within the Province (route which serves areas of high poverty levels and good economic development potential). The identification of the R56 as a primary corridor is also in line with the other spatial economic development principles proposed in the SDF. Public interventions envisaged in this area relate to:

- Constant Inter Governmental communication and coordination relating to the development of the Major Economic Corridor and its impact on the Municipality.
- Tarring of roads which will provide transport services access to the remote regions and open up additional economic opportunity in opening the areas. Accessibility is of key importance.
- Developing a localized Corridor Development Strategy, this will focus on spatial structure, infrastructure provision and attract both public and private sector investment.
- Ensure multimodal transport integration occur along these roads at key points.
- This route provides development opportunities that must be explored, and development should be encouraged along this primary route.

12.2.2 SECONDARY CORRIDORS

The subsequent level of corridor hierarchy are the secondary corridors which connects directly with the primary corridor. The

importance of maintaining these routes and ensuring that they are in good condition cannot be emphasized. This is based on the notion that, most elements within the municipality area functions around these routes. Although these routes share a very common feature which includes high level of connectivity with primary routes, however these have different roles such that some of these are:

- Agri-tourism routes;
- Tourism routes; and
- Mobility routes.
- The following secondary corridors have been identified:
- P121 links Newadi to the primary corridor (the R617) in the north.
- P246 provides a linkage between Creighton and areas within UBuhlebezwe.
- P422 provides a linkage between Creighton and runs through Centocow, linking up to the R617 in the north.
- P128 in the north provides linkages between Bulwer and areas to the north of the municipality.
- P8 provides a linkage between Creighton and Masomeni and areas within the Richmond municipality. It roughly runs in an east – west direction.
- P317 from Underberg leading west towards Garden Castle/ Drakensberg Gardens.

- P125 on the western side leading of the R617 and joining up again serving farms around the Penwarn Country Lodge.
- The P265, P320 and P27-1 serving as an access route to local farmers.
- P252 leading of the P27-2 and linking up with Impendle Municipality.
- P346 leading of the P27-2 in a north western direction towards Mgatsheni.

12.2.3 TERTIARY CORRIDORS

Tertiary corridors link service satellites in the sub-district and provide access to public and commercial facilities at a community level. The majority of these access roads are not tarred (are gravel) and therefore access at times of bad weather becomes problematic. The following tertiary corridors have been identified:

- P429, which links Centocow with other areas in Amakuze and Isibonelo Esihle traditional council.
- P299, which branches of from the R612 and links with Creighton in a south easterly direction.
- P419, which traverses Bhidla traditional council and links with the R612 south west.
- P282, which branches off from the R612 and links with the P8-2.
- D818, branches of from the P419 and P282 and traverse traditional council areas such as Vezokuhle and Zashuke.

12.2.4 TOURISM ROUTES

The function of a tourism route aims at promoting and facilitating tourism development. The land use intensity should be limited to tourism and Cultural Activities. The following tertiary corridors have been identified;

- P125, which detours to Bushmans Nek;
- P317; and
- P318-1 route to Sani Pass.

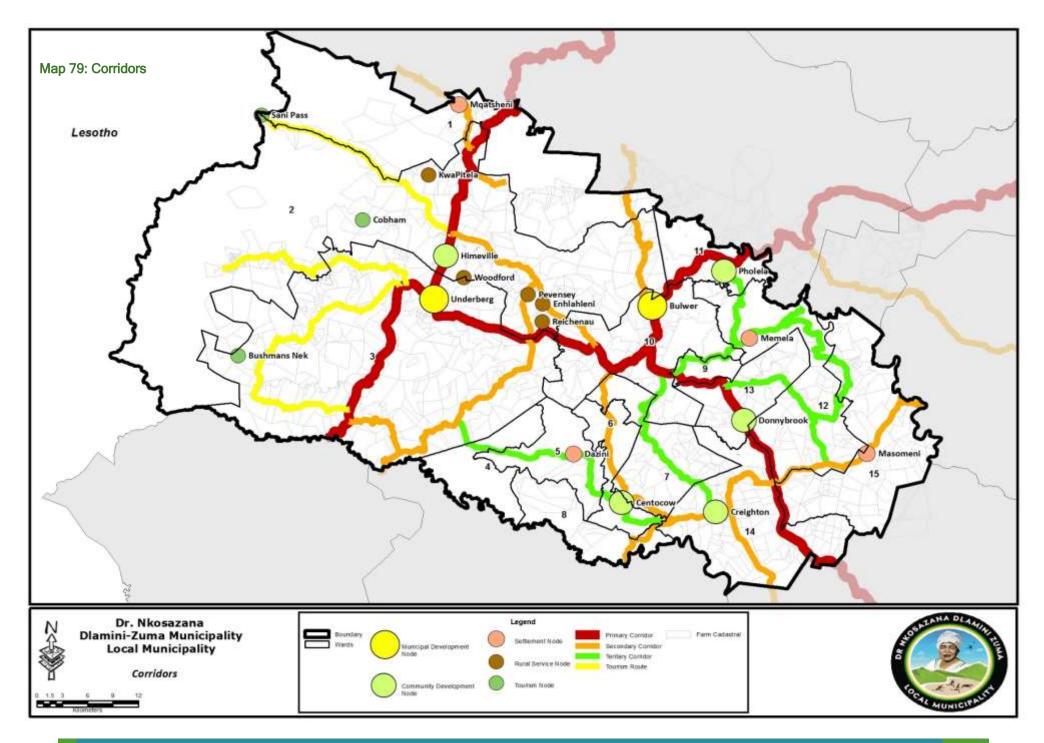
12.2.5 PSEDS INTERVENTION CORRIDORS WITHIN DNDZ MUNICIPALITY

A strategic corridor which the PSEDS has observed within Dr Nkosazana Dlamini Zuma is the corridor from Howick - Underberg -Sani Pass; two sections involved (1) Bulwer – Underberg, and (2) Underberg - Sani Pass. The type of development which is envisaged is Agriculture; tourism; agro-processing (dairy), priority A2. Underberg / Himeville is noted as local influence.

The following projects are envisaged by the PSEDS within the Dr Nkosazana Dlamini Zuma LM, and they are enlisted as follows;

- i. Tourism Development Sani Pass Border Development initiative. Explore precinct development at Sani Pass for tourism purposes. This initiative will be located at Sani Pass on the Corridor: Howick - Underberg - Sani Pass, and
- ii. Critical Road Upgrades P12 Himeville Loteni and Nottingham Road to unlock tourism from Gauteng, R56 Pietermaritzburg to Kokstad to Eastern Cape upgrades to

improve accessibility and R612 Mzinto to Bulwer to improve accessibility.







0 0.0750,15

0.3 0.45 0.6

Farm Cadastisi - Provincial Road Urban Cadastral ---- District Road Activity Spine



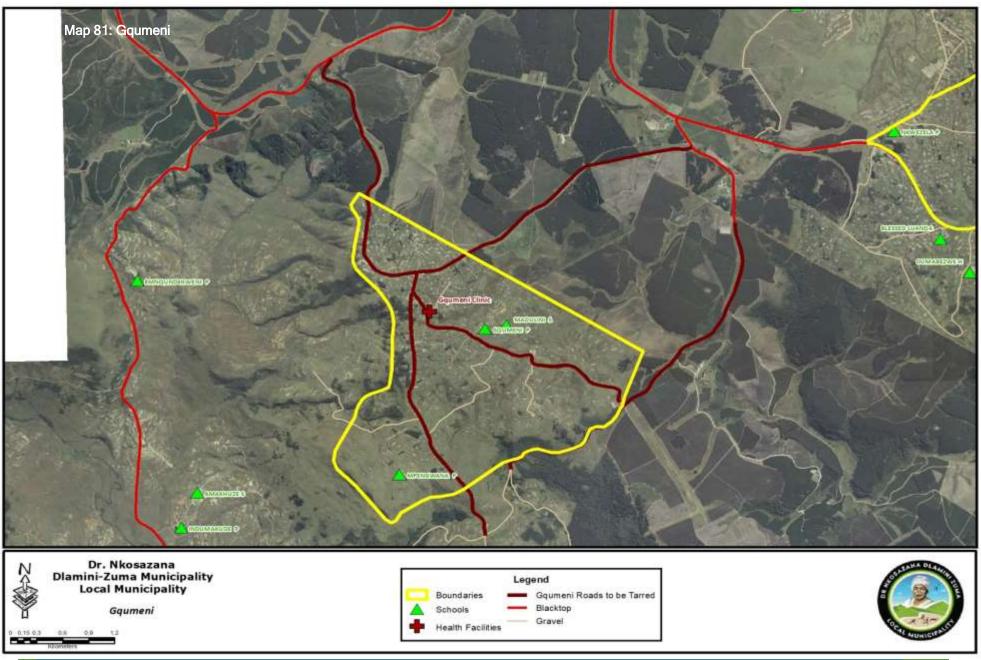
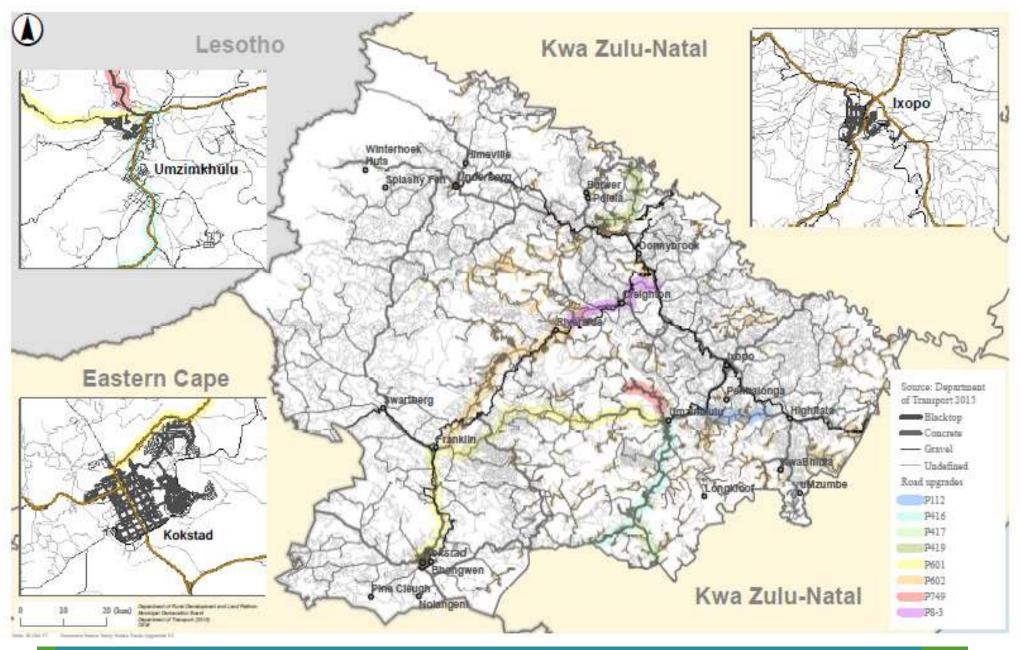


Figure 44: Road upgrades by KZN DOT



12.3 INTEGRATED PUBLIC TRANSPORT NETWORK (IPTN)

The Harry Gwala Integrated Public Transport Network Infrastructure and Network Plan identified several secondary corridors within DNDZ LM, and only one primary corridor from Donnybrook - Ixopo (P23). The plan also proposed scheduled services based on the on the outcomes from the public transport surveys and other informants. The key driver in the development of these corridor has been the following factors:

- Passenger demand survey data;
- The CBD areas; and
- The location of key medical facilities in the district municipality.

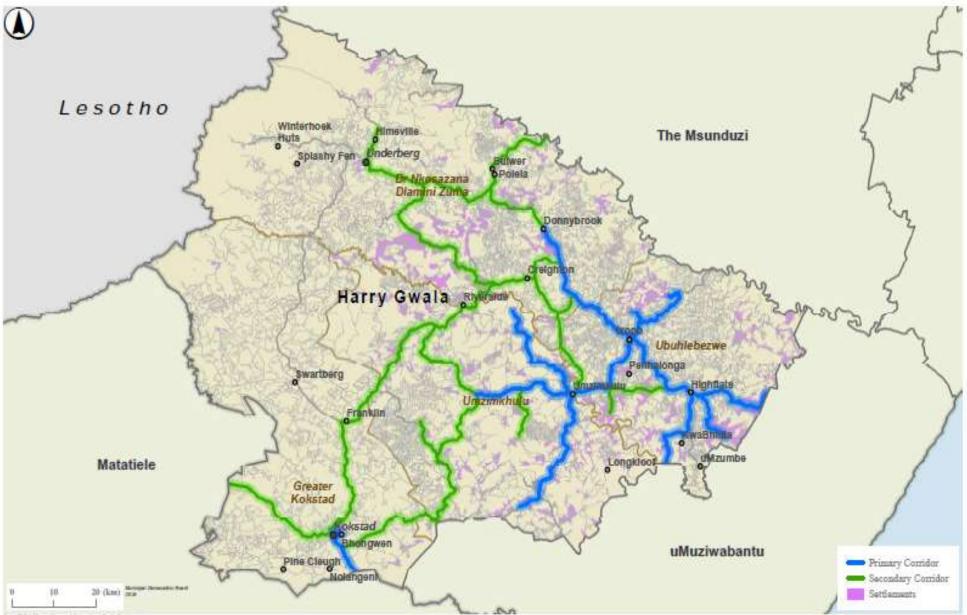
The illustration of the proposed scheduled service corridors is seen below, within DNDZ only phase 2 of mini bus is observed. The plan also identified quite a number of roads which will be upgraded according to KZN DOT, within the study areas, these are highlighted and illustrated on the figure below (see figure 30). These are P 429 and D 200. Proposed rank upgrades in Dr Nkosazana Dlamini Zuma is essential according to HGDM IPTN, these elevations of formal taxi ranks are proposed in Creighton, Donnybrook, Riverside and Centacow, however non-major stops were observed.

Pedestrian and NMT infrastructure should be a standard requirement along all existing and new roads within the municipality. However, in reality the roll out of this is a major endeavour and will take a number of years to complete. In this regard, it was proposed that observations be undertaken within the study area to identify those routes and corridors where it was easily apparent that there is little or no infrastructure serving a substantial pedestrian and (latent) NMT demand, and within DNDZ the list of sidewalks and NMT infrastructure is proposed as follows (see figures 32 - 34);

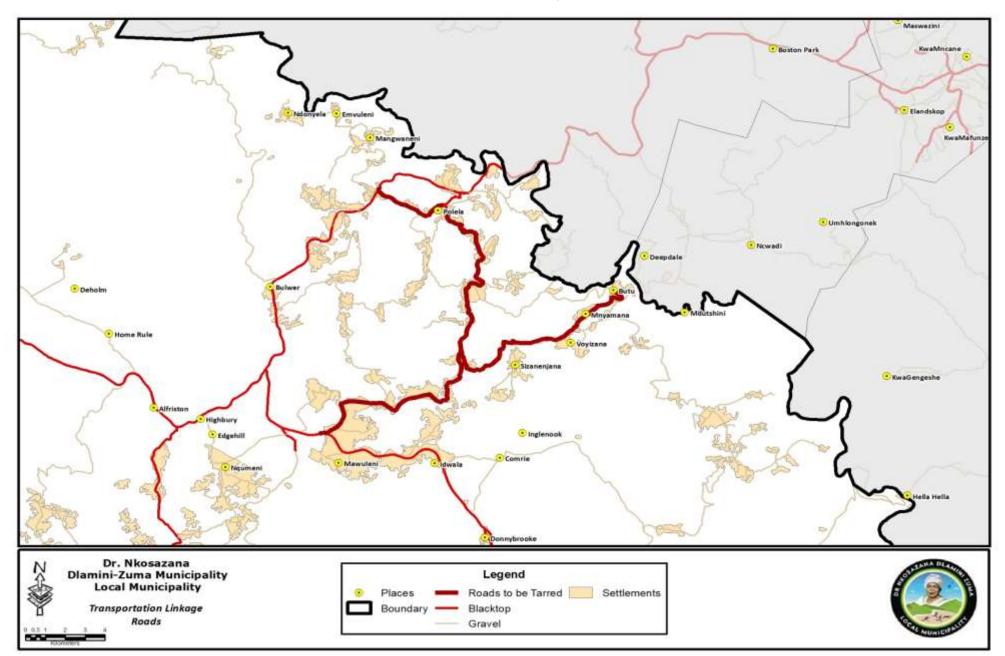
- Sani Rd to Underberg CBD sidewalk provision of a 2m sidewalk on both sides of Sani Road between the clinic and Underberg CBD – R 1 600 000.00
- Bulwer CBD sidewalks the provision of sidewalks and footpaths within the Bulwer CBD. – R3 500 000.00, and
- St Catherine's Hospital Sidewalks provisions of sidewalk in the vicinity of the St Catherine's Hospital R 500 000

The map below illustrates transportation linkage routes which can connect some of the areas by gravel or through the existing roads to R612 with R612 to the R56 to improve to the District Municipality.

Figure 45: Harry Gwala Public Transport Corridors



ten U.M. 17 Connect Spine York Date Dermony



DR NKOSAZANA DI AMINI ZUMA SPATIAL DEVELOPMENT ERAMEWORK 2020/21 LDEVELOPMENT & TOWN PLANNING DEPARTMENT Figure 46: Phase 1 and 2 proposed scheduled service routes

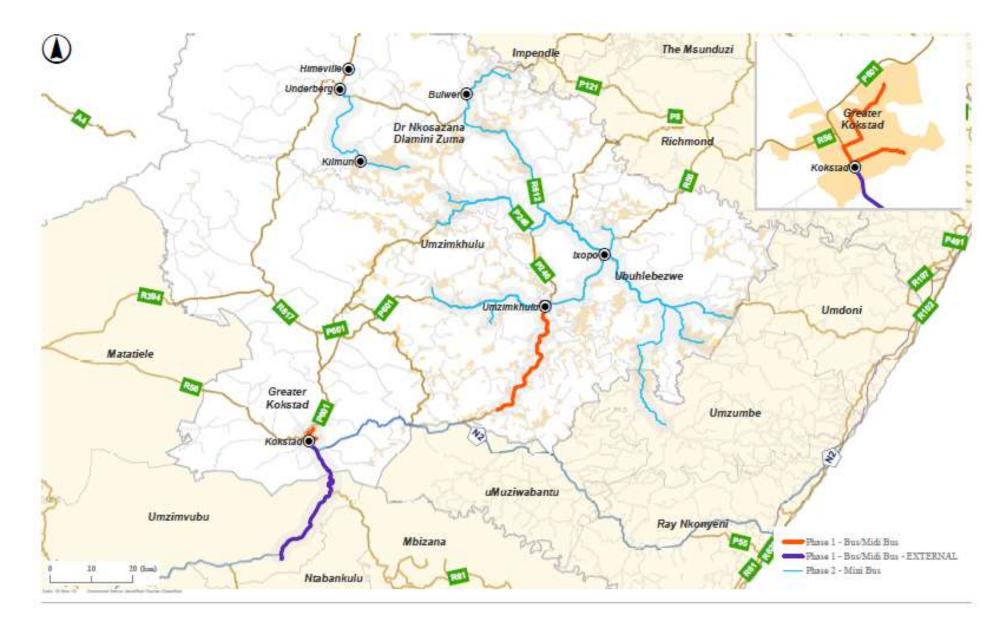


Figure 47: Phase 1, 2 and 3 proposed scheduled service routes

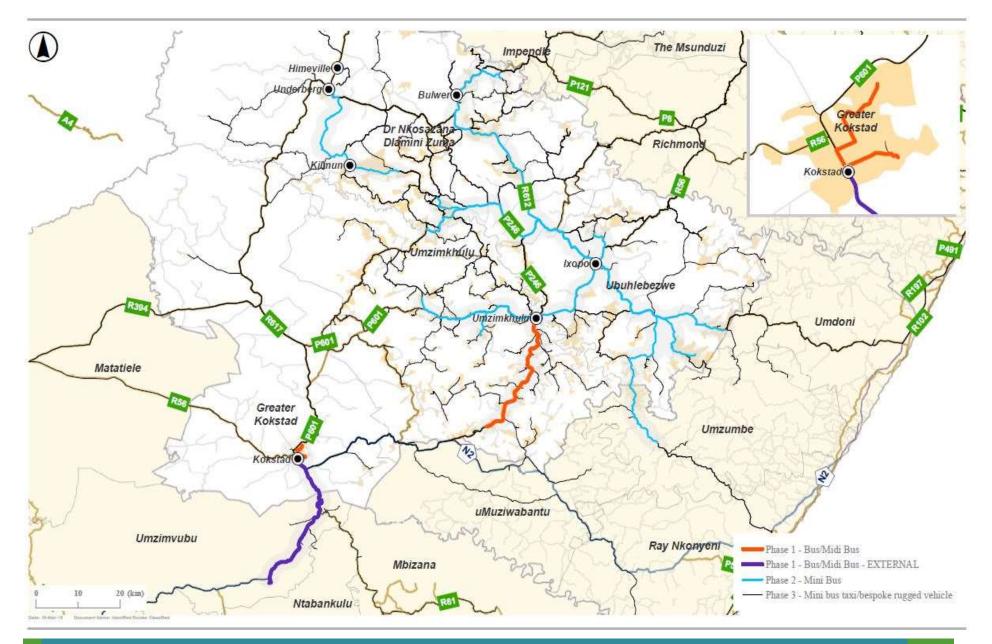
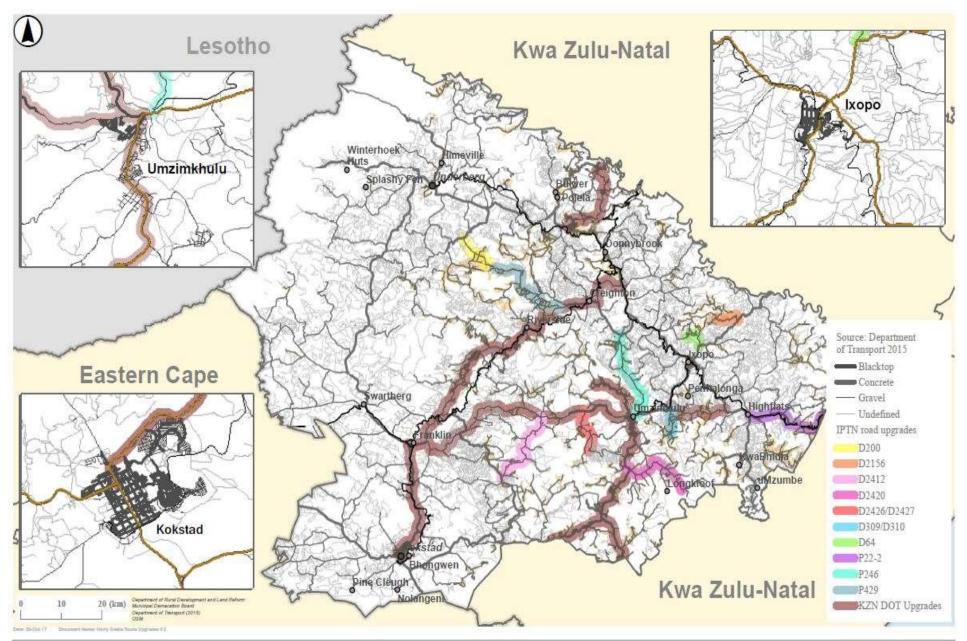
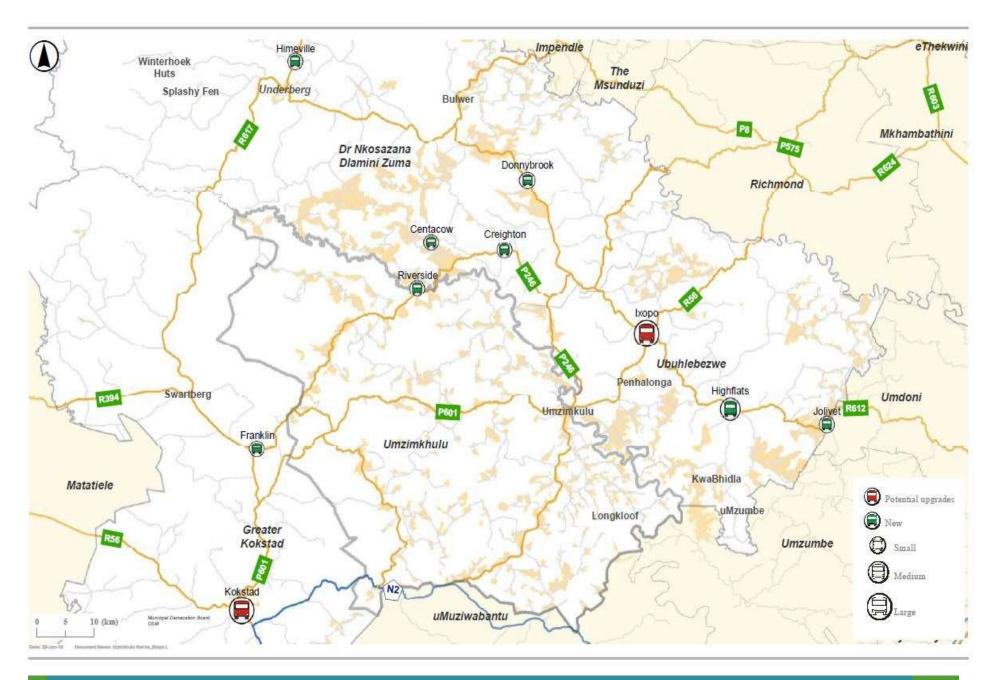


Figure 48: Road upgrades as identified by the HGDM IPTN



MEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT



'MENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT

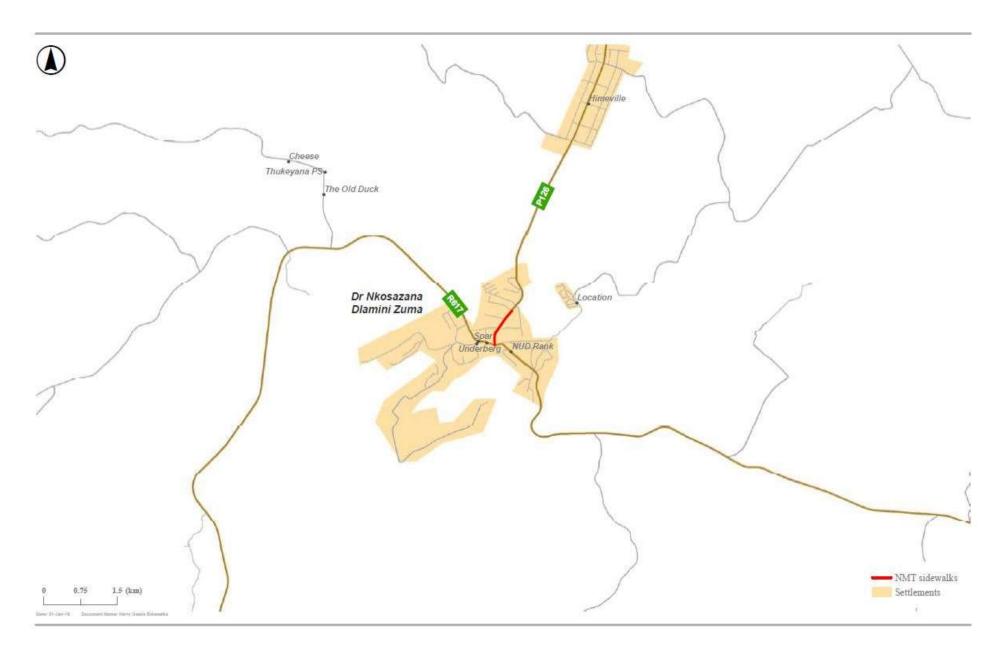
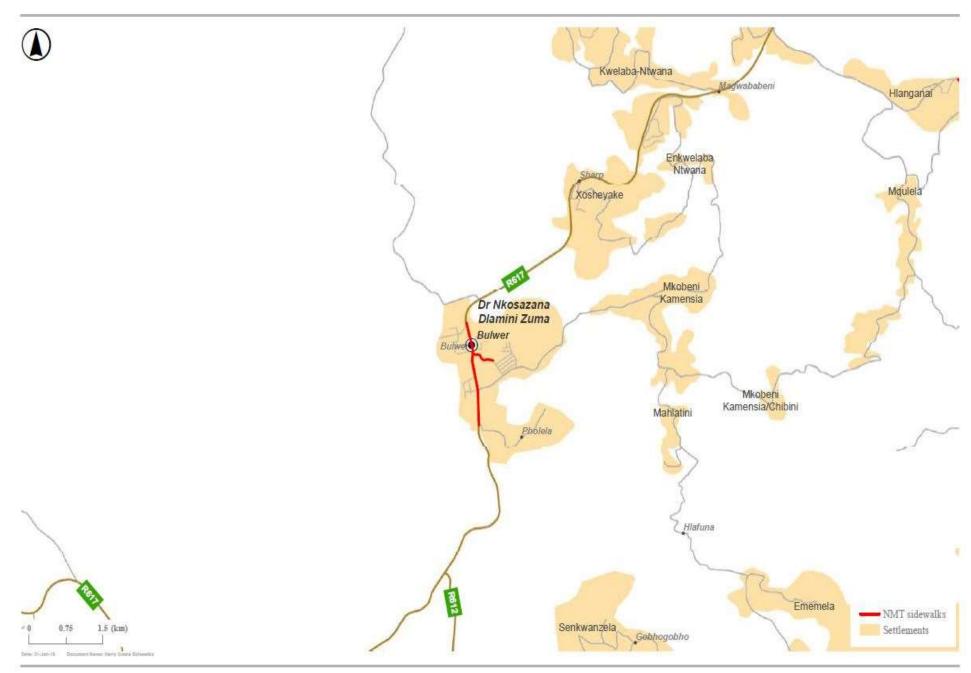
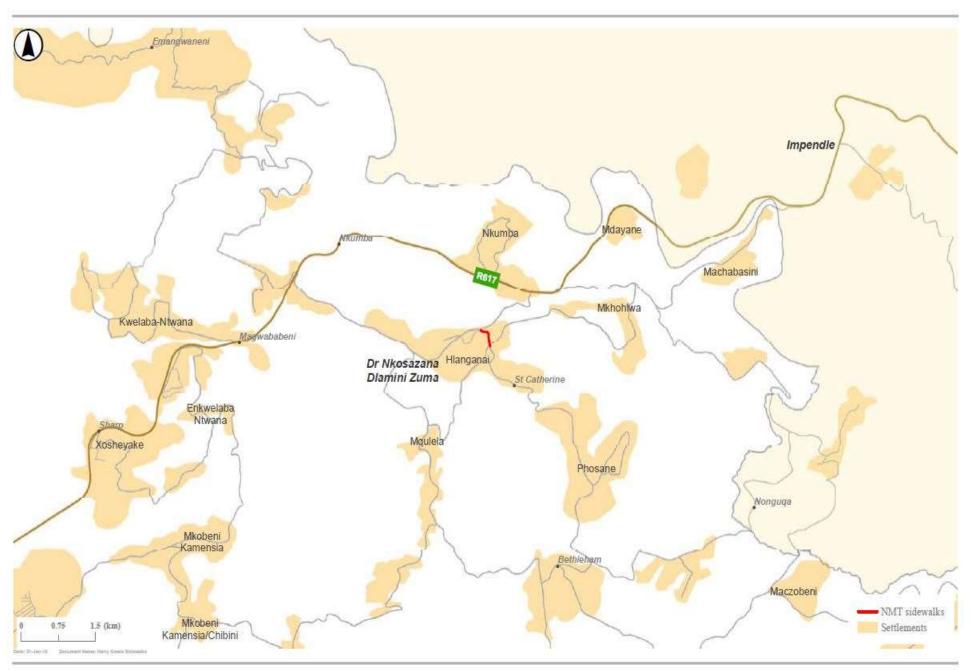


Figure 51: Bulwer CBD Sidewalk upgrade

NT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT



240



12.4 DISASTER MANAGEMENT STRATEGIC INTERVENTION

12.4.1 DR NDZ MUNICIPAL LOCAL DISASTER MANAGEMENT STRATEGY

12.4.1.1 ESTABLISHMENT OF AN EMERGENCY CENTRE

The Disaster Management amended Act 2015, (Act 16 of 2015), section 16 subsection 4, read in conjunction with the Disaster Management Act of 2002, (Act 57 of 2002) indicate that, a local municipality MAY establish a disaster management centre in consultation with the relevant district municipality in accordance with the terms set out in a service level agreement between the two parties, in alignment with the national norms and standards. Dr. Nkosazana Dlamini Zuma municipality in a process of establishing an integrated emergency Centre that will house all the emergency services within the municipality which are as follows:

- Disaster Management;
- Fire Services; and
- Traffic.

The municipality has applied to Cooperative Governance and Traditional Affairs, for funding to construct such a Centre. It is the vision of the municipality to have a fully fletched fire services before or on the fiscal year 2021/2022 and as a result it has started to channel more financial resources towards realizing this goal. The financial muscle for the municipality is very limited and hence will also be going out to source funds to realize this goal, as such an application of R 15, 000 000. 00 (Fifteen Million Rands Only) to boost the municipal financial muscle to realize the facility. In the financial year 2018/2019, the municipality reserved a budget of R 500 000. 00,

for the designs of the emergency Centre, and to this end such was advertised by the municipality and hence supply chain processes are being followed to realize such designs. For the financial year 2019/2020, the municipality has budgeted an amount of R 3, 000 000. 00 (Three million Rands) for the construction of phase 1 of the Dr. Nkosazana Dlamini Zuma Municipality Emergency Centre.

Furthermore, the municipality budgeted an amount of R 2, 500 000.00 for the procurement of a fire truck and such was advertised accordingly, and a service provider was appointed to supply the Fire Truck. For the financial year 2019/2020 the municipality has, furthermore, budgeted an amount of R 1, 700, 000.00 (One million seven hundred thousand Rands) for procurement of three (3) vehicles being the emergency response vehicle, a double cab for fire services and once again another double cab for traffic.

During the financial year 2018/2019, the municipality budgeted salaries towards the employment of a Chief Fire Officer and two (2) fire fighters. Such positions will be filled in this current year 2019. Over and above this, the municipality has further channelled some budget towards undertaking some disaster risk reduction projects as part of its commitment towards complying with the disaster management act, as amended from time to time.

The municipality has also budgeted for the procurement of disaster relief in case disaster incidents and/ or disasters are realized within the area of jurisdiction of the municipality.

12.4.1.2 NDZ LOCAL DISASTER MANAGEMENT POLICY FRAMEWORK

Disaster Management Framework must be approved by council, once developed. NDZ has developed a Disaster Management Plan (DMP) which is reviewed on an annual basis.

12.4.1.3 NDZ LOCAL DMP INSTITUTIONAL KEY PERFORMANCE INDICATORS

Disaster Management Advisory Forum sustainable and taking relevant decisions to promote disaster risk reduction within the area of the municipality. Disaster Management Advisory Forum to ensure representation from the following categories of stakeholders:

- Representative from the Women Forum;
- Representative from the Youth Forum;
- Representative from the people with disabilities;
- Representative from migrants' structures; and
- Representative from old citizens.

Disaster Management Forum to ensure alignment with the above structures to ensure that, disaster management issues are dealt with in an integrated manner.

12.4.1.4 DISASTER MANAGEMENT PLACES OF SAFETY (SOCIAL FACILITIES, HALLS AND SCHOOLS)

During the risk assessment the municipality also identified the number of halls and schools available in each ward that can be utilized as places of safety should a need arise wherein major disaster incidents and/ or disasters warrant that; residents or victims of such disasters can be evacuated to ensure their safety. Such halls and schools can be utilized to accommodate residents for a duration that will be determined by the disaster management officials, acting in conjunction with the Joint Operations Centre and management.

12.4.1.5 DISASTER INCIDENT MAPPING

The municipality will be soon, be starting with the mapping of disaster incidents, as part of ensuring that, every incident that occur GPS coordinates are taken to indicate a historical occurrence of such an event. Such incident mapping will be very useful in the future on the basis that, risk assessment will be informed by historical recorded and reliable data, which shall pin point exactly where the incidents occurred specifically. A GPS unit was procured for the sole purpose to map incidents mapping, one should also acknowledge the Geographical Information Systems (GIS) unit, at COGTA for assisting with training on such incident mapping. In the financial year 2019/ 2020, more GPS gadgets will be procured to ensure that each official/ group of officials conducting disaster assessment do have one.

The Disaster Management and Fire Fighters personnel will be trained on how to utilize the GPS unit and all of them are expected to utilize it. This makes it easier whenever an incident has occurred on the basis that such data is collected on site, immediately, and such is thereafter captured into the system in terms of filling the beneficiary list which is later submitted to the district municipality and thereafter to the provincial disaster management center (COGTA).

12.4.1.6 DEALING WITH SNOW

One of the highest risks within the area of jurisdiction of Dr. Nkosazana Dlamini Zuma municipality is the prevalence of snow in winter on our roads and the R 617 that links Greater Kokstad and Pietermaritzburg. The Sani Pass road the leads to the border post also experience closure in cases where the snow is experienced. It is therefore of paramount importance that, the municipality and other relevant stakeholders react swiftly to remove the snow on the roads to allow traffic flow to be normal.

Road closures have a negative impact on the economy and to tourists as well given the fact that, Underberg and Himeville are tourists destinations. While the realization of snow also has got a very good turnover of spinoff in terms of tourists coming to the area, but the roads must be cleared to ensure that tourists reach their destinations. To deal with the snow the municipality and the department of transport in the area have got the following equipment:

EQUIPMENT	QUANTITY	STAKEHOLDER		
Snow Plough	1	Department of transport		
Graders	5	Department of transport		
Raw Salt	5 bgs	Department of transport		
Graders	1	NDZ Municipality		

Figure 53: Equipment requirements to deal with snow

12.4.1.7 EARLY WARNING SYSTEMS

- The municipality considers the issue of early warning systems very seriously and hence it receives such from the South African weather board, provincial disaster management centre and the district municipality.
- Whilst the system works very well but, it is equally important to be very vigilant when such is cascaded to the community as skilled people would need to be identified to receive the early warnings and digest same before taking actions.
- Currently, the early warnings are received, processed by the municipality, and be shared amongst disaster management unit personnel and other stakeholders to be alert for any

reported adverse weather conditions to respond as soon as it is necessary in case of any eventualities.

12.4.1.8 Education, Training, Public Awareness and Research

In line with the Disaster Management Act (Act 57 of 2002), section 44 (h), the municipality promotes capacity building, training and education including at schools in the municipal area.

Furthermore, the municipality conducts continuous disaster management awareness campaigns and training in the following areas:

- Community level;
- Schools;
- Clinics;
- Home Affairs Offices; and
- Hospitals.

12.4.1.9 FUNDING ARRANGEMENTS FOR DISASTER RISK MANAGEMENT

The municipality, from the fiscal year 2018/2019 has started prioritizing disaster management budget, for both proactive and reactive disaster management initiatives for the purposes of ensuring that, it complies with the requirements of the Disaster Management Act (Act 57 of 2002) as amended from time to time.

INTERNAL FUNDING: Dr Nkosazana Dlamini Zuma municipality, is currently funding disaster risk management programmes and projects from its own internal funding in terms of the current and medium-term expenditure framework. In the financial year 2018/2019, the municipality reserved in the budget an amount of two million and five hundred thousand Rands to procure a fully equipped fire truck.

GOVERNMENT FUNDING: The municipality also receives equitable share, from national treasury in terms of the Division of the Revenues Act (DoRA), which funds are then divided in accordance to the needs of the community of Dr. Nkosazana Dlamini Zuma municipality, in line with the approved IDP. There are also funds such as the Municipal Infrastructure Grants (MIG) that are provided to municipalities to fund infrastructure related projects. The municipality is currently lobbying for funding to build a fire station that will be strategically positioned to discharge suffice provision of disaster risk management

PRIVATE SECTOR AND NON-GOVERNMENTAL ORGANIZATIONS: The municipality also partner with the private sector and none governmental organizations to play their roles on disaster management programmes, in terms of sponsoring such programmes whenever are implemented.

12.4.1.10 ENERGY SAVING

Energy is one of the most culprits in terms of contribution to the greenhouses gases wherein it is rated at 83 %. It is therefore of paramount importance for municipalities to engage on initiatives that will ensure energy saving to relieve pressure from the national grid. Dr. Nkosazana Dlamini Zuma Municipality is looking at different infrastructure development models that will ensure minimum usage

of electricity and thus promoting greening of our environment. When building halls, they should be such that, they allow more natural illumination as compared to putting more electricity bulbs. The municipality has also undertaken the installation of solar guizers in most of its townships in Underberg and Himeville. Of more interest is that, those that can afford installing such solar guizers in the suburbs are also doing so, to alternatively switch from the electricity grid to the solar electricity.

12.4.1.11 PLANTING OF TREES, FLOWERS AND BEAUTIFICATION

The municipality promotes the planting of trees, flowers, grass and beautification on all open spaces to prevent the environment from degrading whilst on the other hand ensuring beautification of the land. Areas that a planted trees and grass do not easily get eroded, but they become firm that even during the occurrence of disasters it is not easy for the soil to be easily moved from one area to the other. The municipality also participate in a programme called the Greenest Municipality competition run by the district municipality of Harry Gwala, which seek to encourage its family of municipalities to respond on issues of climate change in terms of diverting resources to landscaping, waste management and as well energy efficiency within their areas of jurisdiction. The municipality has won some categories in such competition as a testimony of protecting the environment.

12.4.2 DR NDZ DISASTER RISK REDUCTION PROJECTS

NO	NAME OF HAZARD	DISASTER RISK REDUCTION PROJECTS	STAKEHOLDER
		Enforcement of legislation to ensure building of houses in accordance to building standards	NDZ Municipality
		Construction of dams	HGDM Municipality
		Ongoing awareness campaigns conducted	All
		Always improving early warning systems and cascading thereof	Weather Services and municipalities
1	FLOODS	Construction of high standard bridges with long life spans	NDZ and Public Works, DoT
		Procurement of a fully equipped fire truck	NDZ
		Procurement of Fire beaters and knapsack tanks	NDZ
		Continuous burning of fire breaks	NDZ
2	FIRE	Procure and recruit state of the art fire equipment and personnel respectively to enhance fire fighting	NDZ
		Conduct fire safety inspections	NDZ
		Identify site to construct fire station	NDZ
		Construction of fire station	NDZ
		Promote partnership with forestry companies such as Mondi and Sappi	NDZ
		Procurement and Installation of lightning conductors	NDZ
		Continuous awareness campaigns	NDZ, District
3	LIGHTNING	Distribution of early warning systems	Weather services and NDZ, COGTA and District
4	STORMS	Distribution of early warning systems	Weather services and NDZ, COGTA and District
-T		Ongoing awareness campaigns	NDZ
		Early warning	Weather services and NDZ, COGTA and District

NO	NAME OF HAZARD	DISASTER RISK REDUCTION PROJECTS	STAKEHOLDER
		Putting snow protocol contingency plans into place	NDZ
5	SNOW	Grading of snow from the roads and surrounding areas	Department of transport
	Motor Vehicle	Improve road maintenance and upgrading	NDZ and dept of transport
	Accidents	Improve law enforcement and visibility of traffic police on the roads	NDZ, RTI and SAPS
6		Continuous awareness campaigns	NDZ, RTI
		Conduct ongoing awareness campaigns	NDZ
7	Drought	Promote water harvesting and assist with water tanks where possible	NDZ, district and Human Settlement
		Promote planting of trees as wind breakers	NDZ
8	Fierce Winds	Awareness Campaigns	NDZ
		Promote building of houses in accordance with building standards	NDZ
9	Hail Storms	Awareness Campaigns conducted continuously	NDZ

12.4.3 DISTRICT DISASTER MANAGEMENT STRATEGY

As specified on section 8.3 of this document, that the management of disasters is a shared responsibility between Dr Nkosazana Dlamini Zuma Municipality and Harry Gwala District Municipality. The area of Harry Gwala District Municipality is prone to different types of disaster risks both natural and human induced. It is of essence therefore to understand that, natural disasters cannot be prevented but the least that, the municipality can do is develop strategies to mitigate the effectives of such natural disasters. On the other hand, human induced disasters can be prevented by making sure that, continuous sharing of information with the community takes place at all times.

In the next five years, i.e. 2017-2022, the Harry Gwala District Municipality, will strive to create an environment that will promote continuous and integrated multi-sectoral, multi-disciplinary processes of planning and implementation of measures aimed at:

- Preventing or reducing the risk of disasters within the district;
- Mitigating the severity or consequences of disasters;
- Ensuring emergency preparedness at all times;
- Ensuring a rapid and effective response to disasters; and
- Ensuring post-disaster recovery and rehabilitation.

The Disaster Management Act (Act 57 of 2002) has highlighted projects for disaster management which will assist municipalities to deal with disasters effectively in their areas of operation. These projects include:

12.4.3.1 DISTRICT DISASTER MANAGEMENT CENTRE

Harry Gwala District Municipality has completed its disaster management centre in sub 5 of Lot 419 situated in Morningside Ixopo

along R56 route from Pietermaritzburg to Kokstad, under Ubuhlebezwe Local Municipality. This is one of the most important projects that, the district municipality has seen being realized in a short space of time and it has allowed the disaster management section to operate efficiently. In the 2016-2017 financial year the municipality will continue equipping the centre so as to make that it does respond to the needs of its community. The centre has deployed 8 full time employees (Head of the Centre, x2 Disaster Management Officers, Assistant Disaster Management Officer, Administrative Officer, x2 Truck Drivers, a Driver, and x108 Disaster Management Volunteers currently receiving a monthly stipend from EPWP.

12.4.3.2 DISTRICT MUNICIPAL DISASTER MANAGEMENT POLICY FRAMEWORK AND MANAGEMENT PLAN

The Harry Gwala District Municipality's Disaster Management Framework was reviewed internally in the 2016/17 financial year. Among other things it discussed the objectives and significance of including indigenous knowledge in disaster management. The local communities have well-developed traditional indigenous knowledge system for environmental change. Therefore, communities can easily identify with this knowledge as it facilitates their understanding of certain modern scientific concepts for environmental management including disaster prevention and mitigation. According to the HGDM Disaster Management Fire Rescue Sector Plan (2017) 'such indigenous methods discussed during the workshops relate mainly to thunderstorms and lightning'. The Dr Nkosazana Dlamini Zuma is in a process to draft a disaster management plan for the purpose of establishing institutional arrangement and putting contingency plan in place for responding to the emergencies. Dr Nkosazana Dlamini Zuma Risk Management System will be developed to reduce unacceptable risks and improve response and recovery activities.

12.4.3.3 DISTRICT DISASTER MANAGEMENT ADVISORY FORUM

The District Disaster Management Advisory Forum Meeting was established and sits quarterly in accordance with Chapter 5, Section 51 Of the Disaster Management Act 57 of 2002. All relevant stakeholders participate to deal with all disaster management issues that affect the communities. The number of stakeholders and partnerships expands each year. The Disaster Management Centre reports to a standing committee on Social Services and Development Planning. It is very critical and highly recommended that the DMO from DNDZ is part of this forum to inform the forum of issues the municipality is tackled with and be informed of strategies that the district envisages for the local municipalities.

The Harry Gwala District Municipality is in the process of establishing fire services within the Disaster Management Centre. The Fire Services will support the local municipalities under its jurisdiction. A proposed structure that seeks to incorporate fire services has been developed and routed to relevant internal structures for further approval. However, at present there are no bylaws to regulate internal fire and rescue procedures, including fire safety and prevention policies.

12.4.4 DISASTER MANAGEMENT STRATEGIES

The Integrated Development Plan (2017) for DNDZ states that Dr Nkosazana Dlamini Zuma Municipality has Disaster Management Unit two officials, the unit will be capacitated with Chief Fire fighter and 6 fighters as the area is mostly affected by fires and lightening. According to the Harry Gwala Disaster Management Fire Rescue Sector Plan (2017), quite a number of projects have been adopted to mitigate disaster local municipalities are confronted with, this includes;

- Distribution of Fire Beaters HGDM is distributing Fire Beaters to communities that are prone to fires. The fire beaters assist the communities when doing fire breaks and fighting fires in their areas. Fire beaters are distributed to Amakhosi. 20 Fire beaters distributed per Inkosi and are utilized by community members of that area.
- Installation of Lightning Conductors The Harry Gwala District Disaster Management Centre installed 250 lightning conductors as a risk reduction measure for vulnerable communities in 2013/14 Financial Year. HGDM also installed 60 Lightning Conductors in the 2014/15 financial year.
- Early Warning Strategy The district considers the issue of early warning systems very seriously and hence it receives such from the South African weather board, Provincial Disaster Management Centre and the Department of Agriculture, Environmental Affairs and Tourism. The early warnings are received through SMS's and emails. The early warnings are then shared amongst disaster management centre personnel and other stakeholders are alert for any reported adverse weather conditions to respond as soon as it is necessary.

Other projects that were a high priority which the municipality embarked include;

- Disaster Management Awareness Campaigns;
- Convene Disaster Management Advisory Forums;
- Effective Response to Disaster Incidents and/ or Disasters;

- Procurement of Disaster Management Relief;
- Conduct Emergency Exercises;
- Review of Emergency Exercises; and
- Procurement of Disaster Management Relief Material.

Figure 54: Fire beaters



12.4.5 CLIMATE CHANGE RESPONSE PLANS

Dr Nkosazana Dlamini Zuma is also challenged with the effects of climate change, as indicated on the situational analysis, therefore adaption to strategic responses the district has adopted would be promoting the notion of a resilient and vertical sector planning alignment. The priority responses to climate change are clustered per sector with different objectives and different projects, and they are as follows;

12.4.5.1 AGRICULTURE

Ob	ojectives	Projects
1.	Manage the change in another crop production	 Department of Agriculture to improve the extension programme for subsistence farming support. Department of Agriculture to improve farming techniques for water saving, production capacity and organic farming.
2.	Manage increasing risks to livestock	 Private farmers to construct dams on their properties for the collection of water. Harry Gwala District Municipality together with farmers to improve firebreaks and create awareness around the importance of maintaining firebreaks.

Table 26: Climate Change - Agriculture Responsive Projects

BIODIVERSITY AND ENVIRONMENT 12.4.5.2

Objectives	Projects
1. Manage Loss of High Priority Biomes	 Planning Unit in DNDZ Municipality to link the conservation of biomes with spatial planning e.g. define urban edge through LUMS and SDF. Establish a Natural Resource Management Committee for the District Municipality which will be coordinated by the delegated individuals in the Local and District Municipalities. The environmental and social development departments to establish an alien plant removal programme in DNDZ Local Municipality by 2022. The Programme should focus on the identification of priority areas and securing funding from NRM. Map the area and identify landowners and target species within a period of 3 months.

	Implement a business plan in order to manage the loss of priority biomes over a period of four years.	12.4	.5.4 Disas Settlements		MANAGEMENT, INFRASTRUCTURE AND HUMA
 2. Manage Loss of Priority Wetlands and River ecosystems Table 27: Climate Change - 12.4.5.3 HUMAN H 	 alien plant removal programme in each Local Municipality by 2022. The Programme should focus on the identification of priority areas and securing funding from NRM. Map the area and identify landowners and target species within a period of 3 months. Biodiversity Responsive Projects 		jectives Manage potential increase migration to urban and peri-urban areas.	Pro	ojects The Department of Water Affairs and the Harry Gwala District Municipality to investigate the possibility of assisting small scale and subsistence farmers in rural areas by providing infrastructure such as boreholes, water harvesting initiatives, JoJo tanks, water trucks/tankers in order to contribute towards sustainable subsistence farming and food production by 2025. The Department of Agriculture, Department of Environmental Affairs and Local Municipalities to increase awareness campaigns on properly managing environmentally sensitive land that is used for cattle grazing in order to prevent
1. Manage increased malnutrition	 Projects LED to develop a project proposal to source funding for the one home one garden initiative in four wards in the District by June 2019. Environmental Health Practitioners to conduct awareness campaigns on food insecurity in rural areas and informal settlements in the District by June 2019. LED to initiate a project that supports the 	2	Manage		land degradation and improve sustainability by 2030. The Department of Rural Development and Land Reform to accelerate issues of Land Tenure and empower rural communities or how to access any assistance required fo funding and training opportunities in order to contribute to Local Economic Development by 2035. Municipalities to increase public awareness or fire preventions by investing in the

Table 28: Climate Change - Human Health Responsive Projects

Table 29: Climate Change Disaster Management, Infrastructure & Human **Settlements Projects**

12.4	4.5.5 Wat	ER
Ob	jectives	Projects
1.	Manage the change in another crop production	 Department of Agriculture to improve the extension programme for subsistence farming support. Department of Agriculture to improve farming techniques for water saving, production capacity and organic farming.
2.	Manage increasing risks to livestock	 Private farmers to construct dams on their properties for the collection of water. Harry Gwala District Municipality together with farmers to improve firebreaks and create awareness around the importance of maintaining firebreaks.

Table 30: Climate Change Water Projects

The HGDM Climate Change Response Plan was recently developed. It of critical importance the Spatial Development Framework of Dr Nkosazana Dlamini Zuma incorporate the strategies from the plan thus for the plan to take place. This updated plan intends to adopt the climate change projects because the municipality recognises climate change as a threat to the environment, to its residents, and to the future developmentThe climate change impact mitigation strategies proposed in the White Paper on the National Climate Change Response (DEA, 2011b) and which have relevance to activities at a municipal level, include the following:

Biodiversity: mitigation of climate change impacts;

Conserve, rehabilitate and restore natural systems that improve resilience to climate change impacts or that reduce impacts. For example, mangrove forests reduce storm surge impacts and riparian vegetation and wetland ecosystems reduce the potential impact of floods.

- Opportunities to conserve biodiversity and extend the conservation estate through the development of carbon offset programmes to be actively developed.
- Expand the protected area network (in line with the National Protected Area Expansion Strategy) where it improves climate change resilience, and manage threatened biomes, ecosystems, and species in ways that will minimise the risks of species extinction.
- Encourage partnerships for effective management of areas not under formal protection, especially freshwater ecosystem priority areas, critical biodiversity areas, ecological support areas and threatened ecosystems.
- Enhance existing programmes to combat the spread of terrestrial and marine alien and invasive species, especially in cases where such infestations worsen the impacts of climate change.

Water resources: mitigation of climate change impacts;

- Integrating climate change considerations in the short-, mediumand long-term water planning processes across relevant sectors such as agriculture, industry, economic development, health, science and technology.
- Ensuring that water adaptation measures are managed from a regional perspective given the transboundary nature of our major rivers.
- Implementing best catchment and water management practices to ensure the greatest degree of water security and resource protection under changing climatic conditions and, in particular,

investment in water conservation and water demand management.

- Exploring new and unused resources, particularly groundwater, re-use of effluent, and desalination.
- Reducing the vulnerability and enhancement of the resilience to water-related impacts of climate change in communities and sectors at greatest risk.

12.4.6 BIODIVERSITY MANAGEMENT

The BSP (2014) for HGDM has enlisted key priorities for biodiversity management at a municipal level. Planning and protection of CBAs, ESAs and biodiversity corridors through:

- Considered land use change decision making, utilising available biodiversity planning and management tools.
- Agreement and collaboration between adjacent municipalities to maintain biodiversity assets and corridors which traverse boundaries.

The protection of biodiversity assets through:

- Dialogue with communities to manage hunting, grazing and harvesting of natural resources within tribal and rural areas.
- Dialogue with communities to manage the clearing of virgin indigenous land cover (such as grassland & forest areas) for subsistence agriculture, particularly at unsustainable sites, such as steep slopes.

The protection of water resources and riparian/aquatic habitats through:

- Correct maintenance and upgrade of malfunctioning and surcharging sewer infrastructure.
- Upgrade of Waste Water Treatment Works to meet capacity demand with contingency for periods of systems breakdown.
- Enforcement of bylaws and legislation governing the discharge of pollutants to watercourses.
- Enforcement of bylaws and legislation covering the buffering and protection of riparian and wetland areas.
- Efficient, robust and sustainable solid waste collection and disposal procedures.
- Enforcement of legislation covering Category 1 alien invasive plants and the clearing thereof by responsible landowners of private and public property.

Consideration of impacts on biodiversity and ecosystem services as a result of climate change through:

- Correct management and protection of the integrity and health of Ecological Support Areas.
- Promote efforts to conserve, rehabilitate and restore natural systems that improve resilience to climate change impacts.

12.5 CONTINUUM OF SUSTAINABLE HUMAN SETTLEMENT CLUSTERS

12.5.1 HOUSING STRATEGIES

The following strategies emanate from the recently developed Human Settlement Plan (2018). The strategies and projects must lead the municipality to achieve its vision within the framework of its legal obligations, the context of the other role-players, the principles of the development rational and the current reality in which the municipality finds itself. The need for housing strategies will guide the SDF in directing location of housing development within the Dr Nkosazana Dlamini Zuma Municipality.

12.5.1.1 STRATEGY 1: ESTABLISH SUSTAINABLE COMMUNITIES

The housing projects in process and the projects to be undertaken in the future must not only provide a shelter of acceptable standard to the residents of DNDZ but it must be used as an opportunity to shape the developmental fabric of the municipal area in such a way that it will enhance the living standard of all the people in the DNDZ area.

All of the approximately 22 181 housing units needed by the year 2023 as indicated by DNDZ HSP (2018) need to be supplied by the public sector as these units would cater for the low-income population groups that rely on housing subsidies and qualify for such subsidies. Furthermore, to ensure that the housing developments are in keeping with the "human settlement" perspective, there is a need to ensure that adequate land is identified to accommodate the supporting functions. The following objective actions are necessary to ensure that housing delivery targets are met:

12.5.1.1.1 DETERMINE THE ACTUAL HOUSING BACKLOG

If the municipality does not have a record and benchmark of the actual backlog for housing in its area, it is impossible to ensure the required resource targeting to eradicate the backlog and make provision for future developments. It would be of crucial importance to the municipality to establish a housing waiting list with registered potential beneficiaries. The benefits of such a database would be the following;

- The real housing backlog in the municipal area would be determined;
- The areas of greatest need can be spatially determined;
- Planning for future housing projects will be on a solid basis and not on the current ad hoc way;
- The financial status of potential beneficiaries will be available and
- It will be possible to apply for the correct kind of subsidy for potential beneficiaries.

It is recommended that the municipality embark upon an intensive beneficiary registration project in order to gather the relevant information. The following methodology is recommended;

- Capacitate officials of the municipality's housing component to complete the necessary documentation.
- Embark upon an intensive advertising campaign to make residents aware that they should register on the municipality's housing database.

- Make use of the Council's Ward Committees to carry the message to their constituents.
- Should the need arise make arrangements for registration points at specific dates in the rural wards where it may be difficult for people to travel to a central point.
- The possibility to use the same venue as for voter registrations can be investigated.
- Once the database has been compiled it should be kept up to date by the municipality.
- The database should be linked to the municipality's GIS in order to have the various aspects of the housing backlog represented spatially.

12.5.1.1.2 LAND IDENTIFICATION AND EVALUATION

In order to utilize the provision of housing as a catalyst to the socioeconomic development of the DNDZ municipal area the spatial position of housing projects must be very carefully considered. The development of housing at the correct/best position will enhance the area and lead to the optimization of scarce resources such as developable land, expensive services infrastructure and the natural environment. The following actions are recommended within the context of this land identification and evaluation action:

- Undertake a detailed land audit with the focus on land that has been identified as suitable for development in the LUMS; the SDF and the municipality's Strategic Environmental Plan (SEA). This is to ensure that vacant land and potential infill areas are identified;
- Evaluate potential developable land against the development principles to ascertain the most advantageous locality.

12.5.1.1.4 SPEEDY RELEASE AND SERVICING OF LAND

- Assess all the geological, geotechnical, environmental and physical constraints on the land identified that has development potential;
- Determine legal constraints, land restitution issues, tribal or mining rights as well as any land use right considerations;
- Identify land ownership of land that has been screened through the first three categories, prioritize government owned land as far as possible and then embark on a land acquisition process where required. This acquisition process needs to be budgeted for on a regular basis (annually) so as to ensure that the financial allocations are in line with the identified targeted timelines.

12.5.1.1.3 ESTABLISH SECURITY OF TENURE

Land tenure practices in the Ingonyama Trust entails that land is allocated in terms of a "permission to occupy" (PTO) certificate granted by the relevant tribal authority. This is a formal approval protected in the Constitution as a form of ownership. Each Tribal area is administered through an iNkosi (chief) and his Tribal Council. Each Tribal Area is divided into Isigodi areas and ruled by Indunas (deputies). Families are compelled to approach the Induna, who allocates land to the family. This is ratified by the Tribal Authority and Department of Land Affairs in the form of a PTO certificate. The PTO certificate is regarded as a form of ownership and this system of land ownership has a direct impact on land use. No framework is however available to guide the issuing of PTO's. This raises some concerns regarding the environmental, technical and social suitability of sites for land use. Security of tenure can be ensured through the various subsidy schemes and programmes of the government. The focus of this strategy is to facilitate the speedy release and servicing of land. This is achieved primarily through the Spatial Planning and Land Use Management Act (Act 6 of 2013) (SPLUMA). In addition, a number of other Acts and policies were passed to support this Act. Linked to this strategy is also the issue of ensuring appropriate standards in terms of infrastructure, servicing and housing.

12.5.1.2 Strategy 2: Develop the necessary institutional ARRANGEMENTS

The successful implementation of Strategy 1 and its concomitant projects requires that the necessary institutional arrangements are in place at DNDZ municipality. The municipality needs a high-level official who takes the responsibility for the eradication of the housing backlog and who will be the driver who ensures this housing plan is implemented in the most efficient way possible. This official should be assisted by a capacitated team of people who are dedicated to service delivery in general and housing provision specific. Every municipality, as part of its process of integrated development planning, must take all reasonable and necessary steps within the framework of national and provincial housing legislation and policy to ensure that the right to have access to adequate housing is realized on a progressive basis. The municipality needs to implement the following projects in order to put the necessary institutional arrangements for efficient housing delivery in place:

12.5.1.2.1 CAPACITY BUILDING

This project addresses the following two issues;

- The capacity of the institution, and
- The capacity of individuals within the institution.

In order to have the necessary capacity for housing delivery within DNDZ municipality it is recommended that the municipality establish a focused Housing Delivery Management Unit (HDMU) under the auspices of the Municipal Manager. This HDMU should be internally resourced as far as possible but it can outsource some of the specialized functions. It can also have a capacitating and handover programme as the needs require. The HDMU will be required to deal with the entire housing delivery process from land identification through planning, service delivery, development, project management, site handover and long-term management.

12.5.1.2.2 TRADITIONAL LEADER CAPACITATION

DNDZ municipality is faced with the situation that whilst they are responsible for overall land use management, the relevant Traditional Authority, in terms of customary processes and procedures is responsible for land allocation. This dual responsibility in respect of land allocation and land use management requires good co-operation and understanding of all parties.

In order that there is common understanding of these matters, it would be important that the Traditional Leaders be capacitated in respect of these matters. They in turn would be a critical source of local and traditional customs. The performance targets of this tactic are to appoint a Service Provider to develop the required course materials and undertake the capacitation of the Traditional Leaders in DNDZ municipality.

12.5.1.2.3 Decide on the Accreditation Option

The new human settlements plan envisages the accreditation [and assignment] of municipalities particularly the metropolitan areas. The framework will address various policy, constitutional and legislative aspects in order to enable municipalities to manage the full range of housing instruments within their areas of jurisdiction. In order to be accredited [and ultimately assigned the functions], municipalities will have to demonstrate their capacity to plan, implement, and maintain both projects and programs that are well integrated within IDPs and within the 3-year rolling capital investment programs mandated by the Municipal Finance Management Act (MFMA).

(Breaking New Ground, Part B, Section 5.2 "Expanding the role of local government")

"By 2050 visible outcomes from effectively co-ordinated spatial planning systems will have transformed human settlements in South Africa into equitable and efficient spaces with citizens living in close proximity to work with access to social facilities and essential infrastructure.

(National Development Plan, 2012)

In summary, two levels of accreditation are available that devolve national housing programme administration functions:

<u>Accreditation Level One</u>: Subsidy Budget Planning, submission of identified Housing Projects and Programmes to the MEC for approval, Beneficiary Management, Housing Subsidy Registration, Subsidy Management, Accreditation Reporting and Document Management.

<u>Accreditation Level Two</u>: Subsidy Budget Planning, submission of identified Housing Projects and Programmes to the MEC for approval, Beneficiary Management, Housing Subsidy Registration, Subsidy Management, Accreditation Reporting and Document Management, Procurement and appointment of Implementing Agents, Project/ Programme management, Contract Administration, Technical Quality Assurance and Budget Management.

Financial administration responsibilities for national housing programmes only shift to municipalities through assignment. Performance targets for this strategy include;

12.5.1.2.4 ESTABLISH PUBLIC PARTICIPATION STRUCTURES.

Local government have a legal obligation to community participation in its mandate to service delivery. Through the creation of public participation structures the municipality will make certain that it has the buy-in of the citizens in its area. Public participation will also ensure a transparent process where the community is informed about processes and time frames for housing delivery.

To enhance democratic and responsive public participation practices, DNDZ needs to adopt a Community Participation Strategy and Implementation Plan. The Community Participation Strategy provides a framework for community participation is built on the inputs from the National Policy Framework for Public Participation. It supports the commitment of the National Government to deepen democracy, which is embedded in the Constitution (RSA) 1996 and above all to provide for participatory engagements at grassroots level.

The purpose of the strategy is to provide paradigm, which DNDZM must adapt, to fully involve the community in its affairs and must clarify roles and responsibilities of all relevant stakeholders and affected parties. The strategy provides for the community to participate in the decisions making processes regarding future

developments, which is pioneered by the Municipal Council. The most important innovation of public participation at local municipal level lies in the Ward Committee system, chaired by a Ward Councillors.

This will terminate unrealistic expectations regarding the provision of housing and will assist in creating enabled and informed communities which in turn can lead better payment figures for services. As part of the community participation structure there will have to be a communication plan that sets out various aspects of communication e.g. media, timeframes and processes.

12.5.1.2.5 ESTABLISH A HOUSING SPECIFIC PERFORMANCE MANAGEMENT SYSTEM

Set internal performance measures in respect of the Housing Plan and the achievements required to measure and monitor its impact and the effectiveness of the HDMU in achieving its goals in housing delivery and sustainable community development. It is recommended that the municipality include these performance indicators of these tactics as part of their organisational PMS. A performance target for this strategy is to establish a housing performance management system before the establishment of the HDMU.

12.5.1.3 Strategy 3: Settlement Planning and Services identified

Housing development must be a catalyst that leads to Rural Housing development and Urban Housing development. In order to give effect to this broad developmental role of housing development the following projects must be implemented;

12.5.1.3.1 HIERARCHY OF NODES

When locating new housing developments, the chosen areas should always be measured against the extent in which it contributes to the establishment of integrated, economically viable and sustainable communities. This involves promoting infill development, instead of allowing urban sprawl to continue unabated. All housing projects must be done in such a way that the principle of establishing a hierarchy of nodes in the municipal area is adhered to. This includes the strengthening of the primary development nodes, which includes Bulwer and Underberg. This is an ongoing principle that all projects must comply to.

12.5.1.3.2 PROTECTION OF NATURAL RESOURCES

The municipality's natural resources as indicated in the Harry Gwala District Municipality's Biodiversity Sector plan must be protected and declared as "no go" zones for any future development. It is recommended that the municipality embark as a matter of urgency on the compilation of a Strategic Environmental Assessment and Environmental Management Plan in order to protect and manage its most valuable asset.

12.5.1.3.3 PROTECTION OF AGRICULTURAL LAND

The main source of jobs and income in the municipality is the agricultural sector. It is therefore exceedingly important to protect the agricultural land in line with the prescriptions of KZN Department of Agriculture and Rural Development. At present the Municipality does not have an Agricultural Plan and thus need to make use of the Department's KwaZulu-Natal Agricultural Land Potential Categories Report in conjunction with the Bio resource Programme: A natural resources classification system for KwaZulu-Natal and with the

concomitant GIS data to clearly indicate areas that will not be used for any development except agriculturally related.

12.5.1.3.4 EFFICIENT SERVICE DELIVERY

Affordable housing projects are reliant on access to bulk municipal services. These include water as the highest priority, followed by sanitation and electricity bulk infrastructure. Usually bulk municipal services are available in or next to existing urban areas, this favours infill development as the primary option for affordable housing development and opposes urban sprawl as a form of urban development. The municipality's Service Delivery Plan should take into consideration the principles and strategies set out in the Housing Plan in order to ensure that services are provided in such a way that it strengthens the development nodes and contribute to a spatially well-ordered settlement pattern. This will ensure that services can be provided to consumers in a sustainable manner with the concomitant benefit of service delivery at an economy of scale basis.

12.5.1.3.5 FORMALIZATION OF EXISTING INFORMAL SETTLEMENTS

The formalization of existing settlements should be a priority project of the municipality because it would ensure that the principles and strategies of this housing plan are adhered to. This project should be of an integrated nature and the HDMU should work closely with the municipality's Technical and planning departments to achieve the formalization. It is recommended that a Development Framework Plan should form the basis for the formalization process. The Performance Target of this strategy include (a) Obtain funding to compile a Development Framework Plan (DFP), (b) Appoint a service provider to compile a DFP for the Municipality, and (c) Proceed with formalization of exiting settlements in accordance with the DFP.

12.5.1.3.6 PROVIDE OPTIONS OF HOUSING TYPES

The greatest need for housing will be within the nodal areas. The housing need will largely have to be addressed by the public sector. To promote a greater housing typology mix, a certain amount of affordable, government-subsidized housing would need to be developed in DNDZ and a way will have to be found to encourage middle and upper-middle housing private sector development. The municipality needs to access the total range of available subsidies and private sector funding to ensure a variety of housing options over the whole spectrum of requirements.

12.5.1.4 Strategy 4: Make provision for HIV/AIDS affected people

The housing delivery process is faced with problems of having to deal with beneficiaries who are minors after being orphaned by the disease before the project is closed out. It is recognized that the scourge of HIV/AIDS has been stabilizing and even started to show a decline but there are also citizens with all kinds of other special needs that need to be provided for e.g. people with various degrees of physical disabilities, people with mental illness that can still function in the broader society, the aged, the destitute etc.

There is a need to provide easy access for weakened members of society. In effect homes have to be designed around the needs of wheelchair patients. It also means that municipalities, as developers, have to pay more attention to roads and access to the homes themselves. Planning will have to be integrated so as align housing delivery with other service provision in projects if these special needs are to be addressed. More clinics are going to have to be built and public transport improved to make it easier for special need groups to get medical help.

12.5.1.4.1 COMPILE A HIV/AIDS PLAN

It is recommended that the municipality develop a HIV/AIDS plan. The plan must be taking into consideration the impact of the disease on service delivery, including housing.

12.5.1.4.2 COMPILE A SPECIAL NEEDS GROUPS PLAN

It is recommended that the municipality, in partnership with the relevant government departments, NGO's and parastatals, compile a plan to address the requirements of the people with special needs of all different categories in our society. It is further recommended that special attention is paid to the housing, transport, access and medical needs of these vulnerable members of our society.

12.5.1.5 Strategy 5: An Integrated Approach towards Sustainable Human Settlement

In order to ultimately achieve the vision of DNDZ municipality and comply with the strategies of the National Department of Housing it is crucial to have an integrated approach towards sustainable human settlement. It is recommended that this goal be achieved through having settlement progression plans for the different kinds of settlement typologies.

12.5.1.5.1 FORMAL HOUSING SETTLEMENT PROGRESSION PLAN

- Focus on identifying land for infill projects in the urban areas with cost effective settlement as a goal.
- Determine income level housing provision areas/ relating to land potential.

- Research and undertake a land audit in identified areas for expansion in the Bulwer and Underberg areas to broaden the tax income base of the Municipality for cross subsidy purposes. Expand development of the tourism industry, to strengthen development potential.
- Research stimulation of the property market by means of development proposals by private and financial institutionbacked developers for potential tourism areas.
- Determine a Council policy and partnership agreements and incentives for such tourism expansion plan.
- Communication and capacitating of available finance and housing options, tenure options and housing typologies in the DNDZ area.
- Focus on upgrading and maintenance of services to acceptable basic standard levels.
- Access grants (MIG: Municipal Infrastructure Grant) from National Government for identified areas for services.
- Calculate, identify and determine facilities and amenities to achieve sustainable human settlements in the various sectors of the economy.

12.5.1.5.2 RURAL BASED SETTLEMENTS PROGRESSION

- Justify settlement in terms of economic perspective in relation to serviced areas.
- Focus in consolidating existing dispersed populations.
- Maintenance of the rural subsistence relationship determine programs for self-reliance, Community garden projects, social programs and recreation areas.
- Creation and strengthening of individualistic energies rather than to compete with urban areas.

- Address farm labour tenure issues in accordance with DLA.
- Provide sufficient and affective and economic access to basic services by determination of viable connection points to services and upgrading programmes.
- Establish funding on a budget basis on Municipal and district level.
- Establish Partnerships for expropriation with the identified farmers and determine support programs and subsidies for sustainability with DLA and DAEA.
- Formalize a rural development forum and provide support to identify specific community needs.
- Establish Agri-villages according to the prescripts of the Department of Rural Development and Land Reform.

12.5.1.5.3 TRIBAL BASED SETTLEMENTS PROGRESSION

- Establish a formal working partnership or body between tribal authority and the local authority with executive powers in order to have a forum to determine housing development needs and priority areas.
- Undertake a detailed survey of the tribal land versus dwelling types in the area, human densities and demand statistics.
- Determine existing and potential nodal centers for future housing projects.
- Determine levels of service provision according to a standard list and need areas. Pass information to the established forum.
- Develop a rural housing priority settlement plan for implementation with a set of incentives for support services through the partnership.
- Ensure protection of vulnerable and valuable land.

12.5.1.5.4 INFORMAL SETTLEMENT PROGRESSION PLAN

- Develop a strategy to curb informal settlements prioritize the accommodation of resettlement programs in terms of the IDP proposals.
- Undertake the identification of research of backyard shacks and through consultation facilitate a change to higher standards.
- Identification of a housing delivery project that can be eligible for donor funding
- Develop a proposal related to HIV/AIDS and human settlements as a climate change mitigation and energy efficient sustainable practice in upgrading and renewal capacitation.
- Determine a training program on the housing subsidy process to community.
- Communication on alternative housing typologies and tenure.
- Develop, refine and monitor a housing waiting list, with the community by a capacitated official of the local authority.

12.5.1.6 LOCATION OF FUTURE HUMAN SETTLEMENT PROJECTS

The Department of Human Settlements, as part of their mandate has developed a map per municipality, identifying Priority Intervention areas. The Human Settlement Priority intervention plan does generally co-inside with the previous criteria and mapping undertaken. It is therefore essential that the land identified for housing development aligns with the areas with the greatest population, the areas found suitable for development and the settlements identified for development of housing in terms of the 2017 IDP review.

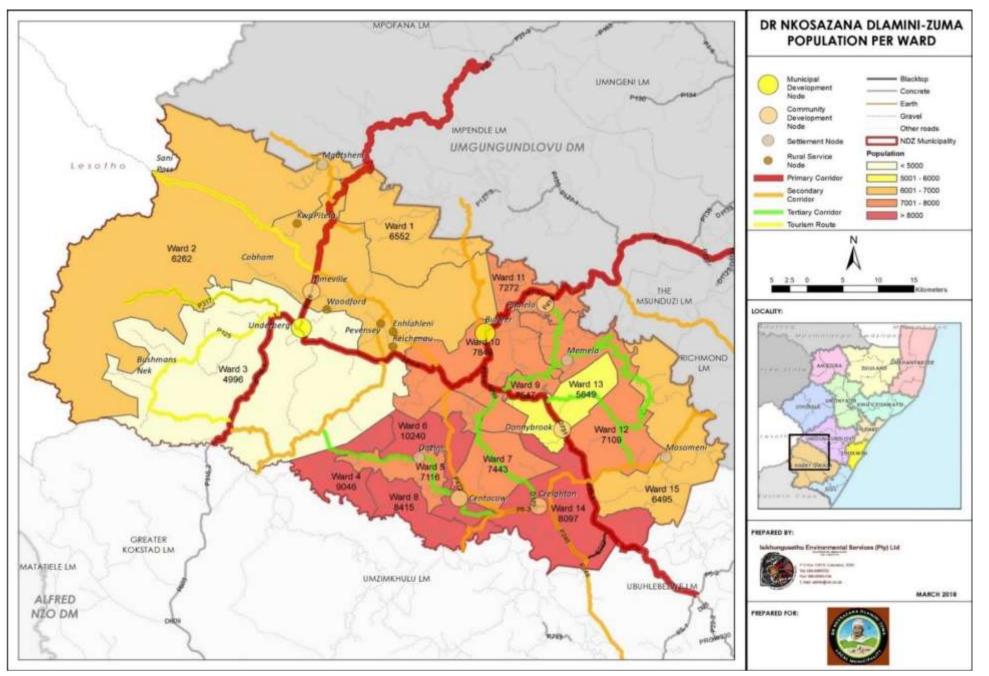
12.5.2 Areas Suitable for Housing Development

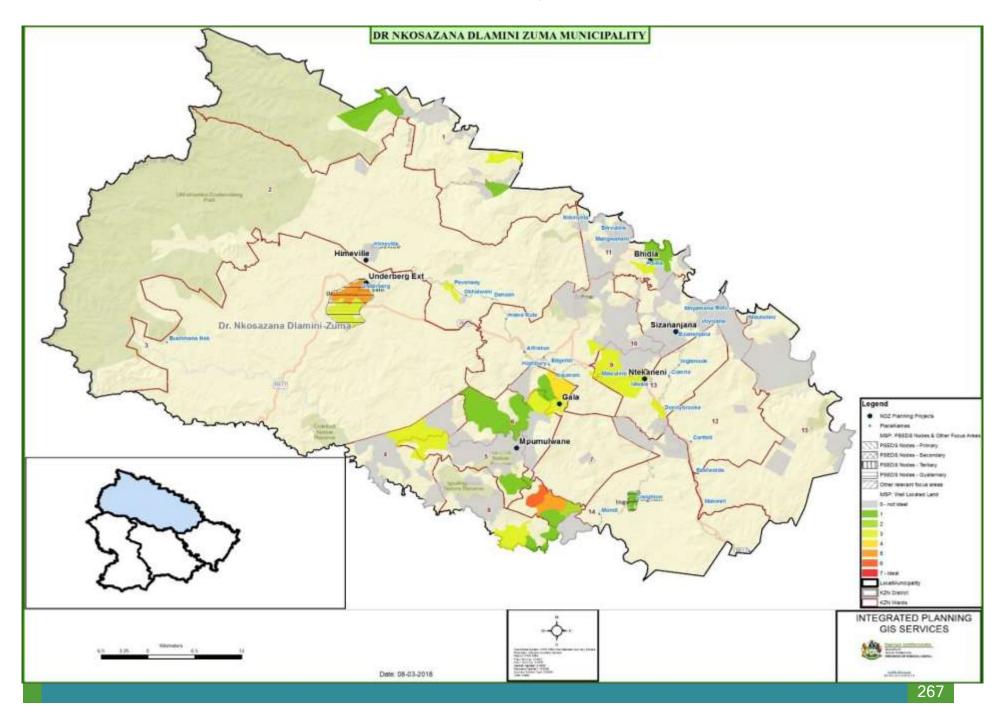
According to the HSP (2018) for the study area, it is proposed that the following areas be excluded as possible suitable green field housing development sites:

- Areas that are further than 30 minutes travel time, by public and other transport, from main roads;
- Areas that are further than 30 minutes travel time, by public and other transport, from development nodes;
- Areas that are further than 20 minutes travel time, by public and other transport, from facilities and other areas;
- Areas where the population density is less than 80 people per km2;
- Environmentally sensitive areas exclude all wetlands, reserves, private reserves and conservation areas as well as all areas with an Irreplaceability Index > 0.8; and
- Slope characteristics exclude all areas with gradient >25%.

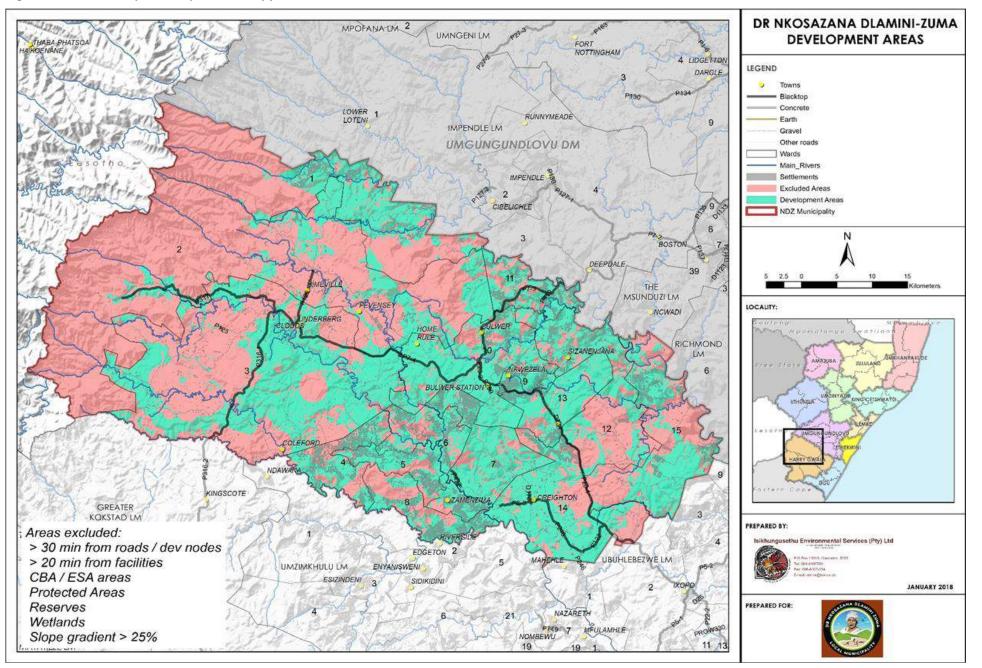
The following diagrams depicts areas suitable for development.

Figure 55: DNDZ Municipal development areas (a)





Figure/56: Staman Settlements Priority agens TIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT



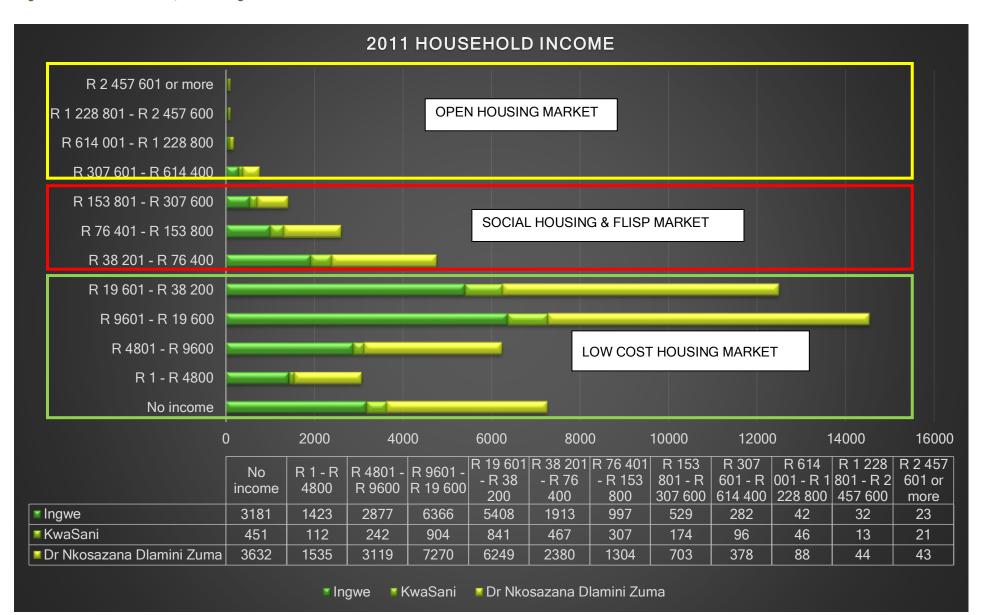
12.5.3 DEMAND FOR FUTURE HOUSING IN MEDIUM AND LONG-TERM

Human settlements are the spatial dimension as well as the physical expression of economic and social activity. The creation of sustainable human settlements is inevitably an objective for social development as it defines and conditions the relationship between where people live, play and work on the one hand and how this occurs within the confines of the natural environment. It is one of the most visible and quantifiable indicators of the society's ability to meet one of its basic needs - shelter, and a pre-requisite for sustainable human development and economic growth.

The need to develop middle-income housing in the municipality has been identified. This will accommodate, amongst others, civil servants who are working in the municipality and are seeking suitable affordable housing, which can be purchased with the assistance of government housing subsidies. Bulwer and Donnybrook have vacant land that would be suitable. However, Department of Public Works and Spoornet own the land respectively. This includes serviced vacant land available in Creighton. DNDZ LM would need to enter into negotiations with both Spoornet and Department of Public Works for the land to be released.

The accurate figure of housing demand for 2016 is estimated at 22 181 in accordance with the DNDZ HSP 2018, by the year 2021 to 23 708, in 2026 it is assumed at 25 341, by 2031 to be 27 086, and given the statistical information obtained, it is assumed that, approximately 21 806 households in Dr Nkosazana Dlamini Zuma Municipality are eligible for low cost housing subsidies. This includes an estimated 3 632 of households who do not have access to disposable income and are therefore regarded as destitute. An addition, 4 387households gualify for social housing and Finance Linked Individual Subsidy Programme (FLISP). While social housing caters for those in need of rental accommodation, FLISP requires an individual beneficiary to access mortgage bond from a financial institution or pay the balance of the value of the house themselves. The figure below (see figure: 13) represents figures that are based on annual household income data from Stats SA Census 2011. However, the beneficiary qualification criteria as specified by the Department of Human Settlements will apply in identifying the household's beneficiaries that truly qualify for the low-cost housing subsidy. The Dr Nkosazana Dlamini Zuma Local Municipality needs to establish a housing demand database to be able to appropriately plan for future housing requirements and the nature of the requirements thereof.

Figure 58: Household income, determining household need 'MENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT



Source: 2011 Household Income, Statistics South Africa

According to the Stats SA Census data 2001 and 2011, Dr Nkosazana Dlamini Zuma Local Municipality experienced a decline between the 2001 and 2011 period, in the number of households within the low-cost housing bracket. The households decreased from 25 204 in 2001 to 21 806 in 2011, at a rate of -1, 3482 % per annum. This decrease in households within the low-cost housing bracket could be due to a myriad of factors such as outward migration of people moving to other neighbouring municipalities or that the households moved to a higher housing income bracket, which is FLISP (GAP) Market. This is credible as it is evident in the increase of households from 1 287 households in 2001 to 4 387 in 2011. Therefore, a shift from low cost housing to GAP (FLISP) housing by the Municipality is required. It is noted however that the beneficiary gualification looks at a number of factors, thus it will have to be applied in identifying the households that actually gualify for the lowcost housing/subsidy. Dr Nkosazana Dlamini Zuma Municipality needs to establish a housing demand database / housing needs register to be able to appropriately plan for future housing demands.



Figure 59: Low cost, social housing & open housing market

12.5.4 LAND REQUIRED

To meet the demand of the 21 806 low-cost housing households, the DNDZ Municipality will need to procure or make available approximately 545.15 hectares of land for green fields development. This is calculated using the minimum site size of a low-cost housing project which is 250m².

To meet the future demand of the FLISP (GAP) housing 4 387 households, the Municipality will require approximately a further 161.61 hectares of land for green fields development. This calculated using the minimum site size of a FLISP housing project which is 300m².

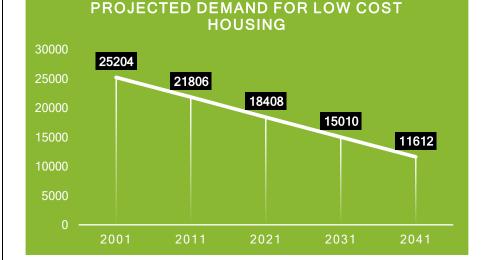


Figure 60: Projected demand for low cost housing market

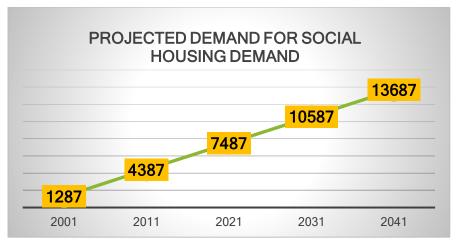


Figure 61: Projected demand for social housing market

12.5.5 SPECIAL HOUSING INITIATIVES IN DNDZ LM

DNDZ LM supports two special housing initiatives in the municipal area:

- The housing estate at the Creighton Golf Course which is private initiative; and
- The project around the purchase and resale of the railway houses in Donnybrook.

The majority of housing projects in DNDZ LM are categorized as rural housing projects, in line with the Government rural housing assistance programme. The Local Municipality adopted a Housing Sector Plan in August 2013. This plan guides the implementation of existing housing projects and provides for the planned housing projects within the municipality. However, it must be acknowledged

that the municipality is in the process of reviewing the housing sector plan upon amalgamation with Kwa-Sani LM.

Recently, three major middle-income housing projects were initiated within the three major nodes; Creighton, Bulwer and Donnybrook. These projects are linked to the Finance Linked Individual Subsidy Programme (FLISP) for people earning between R3 501 and R 15 000 per month. The subsidy is used to decrease the mortgage loan and is only applicable to people who have never been assisted by the state, it is disbursed as a once off subsidy. These projects are current and listed as follows:

- Creighton Extension Project: includes 300 units with the project value of R 28 908 600. The project has been 100% completed.
- Bulwer Project: includes 250 units with the project value of R 24 090 500. The project has started and is in the implementation phase.
- Donnybrook project: includes 200 units at the project value of R 19 272 400. The project has been placed on hold pending the approval for the construction of a reticulated water supply to cater for the increased demand arising from the housing development.

Illustrated below are the status of all the existing housing projects and an indication of planned housing projects. In DNDZ LM, there are housing projects that have been approved and funded by the Department of Human Settlements and other housing projects that currently require approval and funding from the department. The table below indicates the planned housing projects that still need approval and funding from the Department of Human Settlement.

Project name	Number of units	Ward	Status
Ntekaneni Housing Project; 2017/2018	1000	5	Planning Phase
Mpumlwane Housing Project; 2015/2016	1000	2	Planning Phase
Gala Housing Project; 2016/2017	1000	3	Planning Phase
Mdutshini Housing Project; 2018/2019	1000	7	Planning Phase
Ntakama Housing Project; 2019/2020	1000	6	Planning Phase
Butho/Sizanenjana Housing Project; 2016/2017	1000	8	Planning Phase
Glen Maize Village2017/2018	300	6	Planning Phase

Table 31: Existing Housing Projects

DNDZ LM still faces an issue of a housing backlog across the municipal area. This is subsequent to the resolution made by the DNDZ LM Council, at its workshop held on 22 July 2013, to increase initial housing units from 500 to 1 000 units per project. This in turn has resulted in the backlog (in this category) being increased from 3 300 to 6 300 units. The following table illustrates other planned housing projects from budget years from 2017 to 2021.

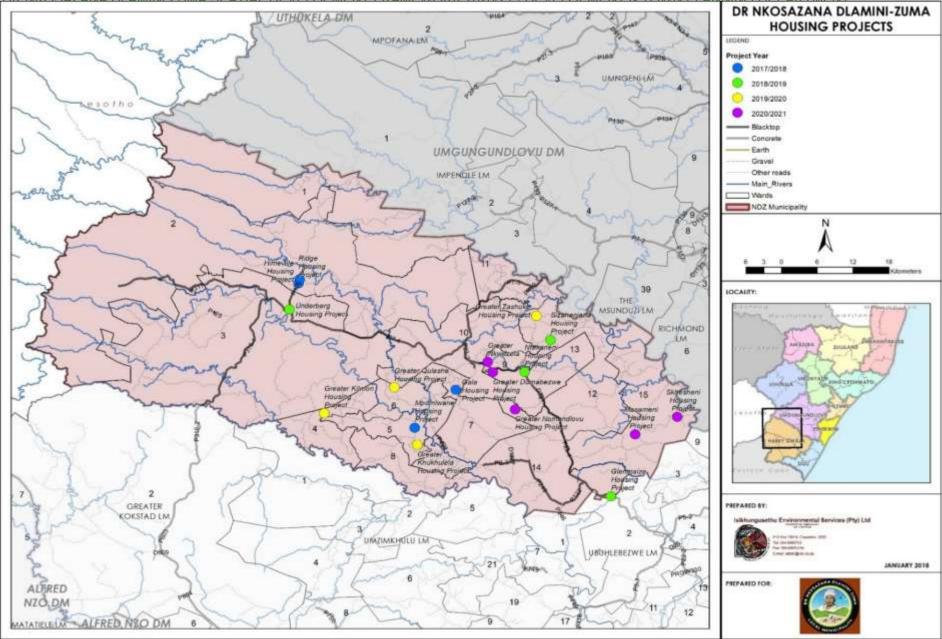
Table 32: Planned (rural) Housing Projects

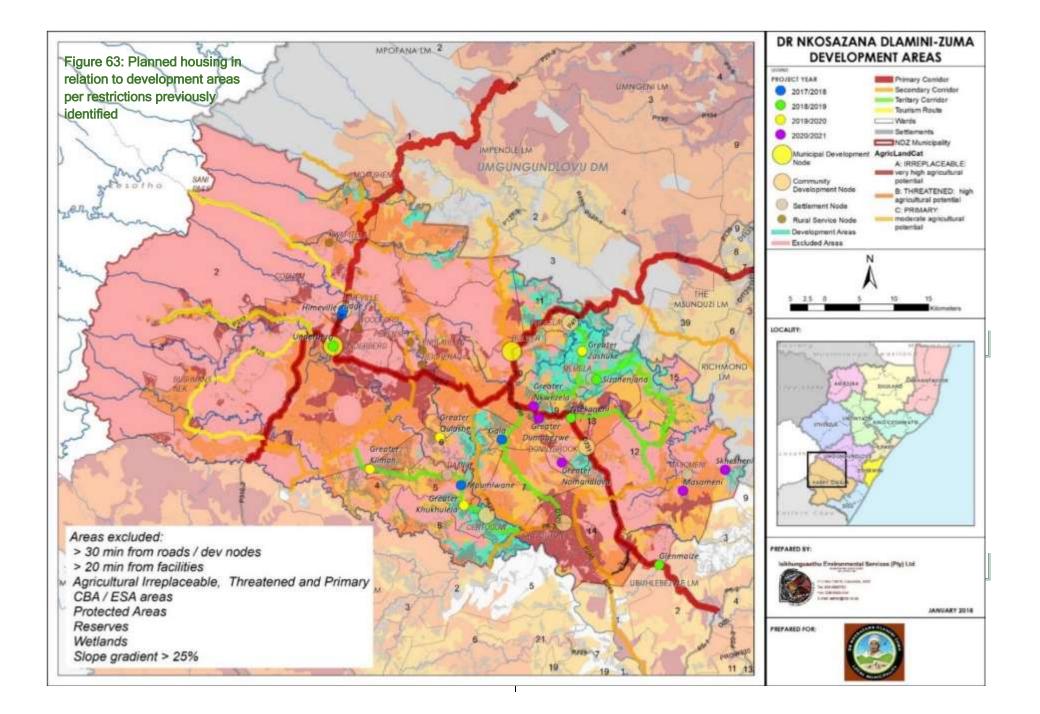
Financial Year	Name of the project	Ward number

2017/2018	Himeville Housing Project Ridge Housing Project Mpumlwane Housing Project Gala Housing Project	03 01 05 07
2018/2019	Underberg Housing Project Ntekaneni Housing Project Sizanenjana Housing Project Glenmaize Housing Project	02 13 12 14
2019/2020	Greater Kilmon Housing Project Greater Khukhulela Housing Project Greater Zashuke Housing Project Greater Qulashe Housing Project	04 05 12 06
2020/2021	Greater Nkwezela (Gwala) Greater Nomandlovu Housing Project Greater Dumabezwe Housing Project Masameni/Skhesheni Housing Project	09 14 13 15

Figure 62: Planned housing as per 2017 IDP







To facilitate the provision of bulk infrastructure and services within the sites earmarked for future integrated residential development; and

To package mixed residential (low, middle and upmarket) housing projects involving the Department of Human Settlements and Private Sector (Banks).

12.5.9 SLUMS CLEARANCE

Dr Nkosazana Dlamini Zuma Municipality has approximately 65 informal dwelling units. The municipality should quantify and confirm the number of all informal units in order to be clear about housing need/ demand. The municipality should also develop and introduce a land invasion policy as a means to prevent development of new and expansion of the existing informal settlements.

12.5.10 RURAL HOUSING: SUSTAINABLE DENSELY AND SPARSELY POPULATED RURAL SETTLEMENTS

Rural housing should be prioritized within the traditional council areas. The government's rural housing assistance programme has been designed to complement the realisation of the objectives of Integrated and Sustainable Human Settlements. The rural housing assistance programme is needs or demand based and designed to provide housing and infrastructure assistance within the specific circumstances. The KwaZulu-Natal Draft Rural Land Use Norms and Standards suggested the following approaches in terms of sustaining rural settlements: Sustaining Densely Populated Rural Settlements: (a) Prioritized for settlement plan (b) Stronger ties between Land Use Managers and Land Allocators (c) Settlement edge: drawn up (d) Advanced Services i.e. waterborne sewerage (e) **Stringent controls i.e. prohibiting on-site/ home burial** (f) Nodal/ Densification Forecasting Plans. This designation has been prioritized for Bulwer and Nqumeni.

Sustaining Sparsely Populated Rural Settlements: (a) Agri-village promotion (b) protection of patches for subsistence agriculture (c) grazing land management (d) Rudimentary services and 'country lifestyle' allowed (e) On-site burial allowed. This designation has been prioritized for the majority of rural settlements areas.

Enforcement of proper farmworker housing: (a) Location: within the farm or the nearby traditional council area if commuting is possible (b) Role of Owner: the farm owner shall engage local municipality with an intent to provide housing for workers (c) **No workers should be accommodated in shacks, stables, wooden cabins, storerooms or informal dwellings** not approved by council.

12.6 PROPOSED LAND USES

12.6.1 PROPOSED COMMERCIAL

There are proposed future commercial activities within Dr Nkosazana Dlamini Zuma. These are proposed on the strategic points of the nodal areas within Bulwer, Underberg, Creighton, Himeville and Donnybrooks. Future commercial land uses are proposed as part of mixed land use zones and future urban expansion. These would include the shopping mall and business parks. The commercial land uses will on the one hand facilitate the expansion of the existing nodes and diversification of the incipient nodes.

12.6.2 PROPOSED LIGHT INDUSTRIAL

The light industries are proposed in Donnybrooks. This entails the Bio-Fuel Project, Timber Hub in Donnybrook and the Heifer Project. This will be ideally located on the outskirt of the main settlement areas in order to avoid conflicting land use activities. A programme of creating Light-Industrial Capacity at Key Nodes of the district, which Underberg is observed as primary, Himeville and Bulwer as secondary nodes within DNDZ area, is proposed for mini-factories at key rural nodes linked to R612, R56 and R617 road corridors for possible agri-processing activities by the DRDP.

12.6.3 PROPOSED MIXED USE

The proposed mixed uses are identified around nodal areas within Bulwer, Underberg, Creighton, Himeville and Donnybrooks. The intention is to encourage commercial, offices and residential. Residential development mainly targets gap housing or middleincome housing within the appropriate threshold of the nodes.

12.6.4 PROPOSED INTEGRATED RESIDENTIAL SETTLEMENTS

The strategically located and prime land parcels within Bulwer, Underberg, Creighton, Himeville and Donnybrook should be unlocked for future integrated residential developments. These land parcels are within the urban areas of the Municipality and should be seen as an opportunity for future housing opportunities which include integrated residential development with diverse typologies.

12.6.5 AGRI-TOURISM DEVELOPMENT

Agri-tourism can be defined as the act of visiting a working farm, or agribusiness enterprise, for the purpose of enjoyment, education or active involvement in the activities of the farm or operation (Che, Veeck and Veeck, 2005:227). The inception of Agri-tourism into traditional farming practices is a relatively new concept in South Africa and is based on the premise of attracting visitors to farms.

Agri-tourism has been identified as a potential means to this end. The tourism route with many visitors passing through the area en-route to the Drakensberg. Therefore, the potential already exists to host Agri-tourism activities that will benefit farmers in various ways. Agri-tourism has been identified as a unique opportunity for Dr Nkosazane Dlamini Zuma Local Municipality to combine its diverse agricultural industries with tourism.

When a farm is diversified into Agri-tourism venture, the farm nature will turn to operate as a supplementary, complementary or primary enterprise (Blacka et al. 2001). All these Agri-tourism enterprises are indispensable to protect the environment and they are considered to be of benefit to the farm business as they are promoting sustainable consumption and production of agricultural goods and services in the societies (GOE, 2007).

12.6.6 AGRICULTURE AND ECO-TOURISM

These are generally areas of lower accessibility and higher environmental sensitivity. The general objective is therefore that agricultural activities should continue, and natural resources be conserved. Tourism developments should be limited to natural and culture-based activities, and preferably integrated with farming activities. Large-scale land transformation such as exclusive residential estates shall not be allowed, nor will other forms of accommodation which have no link to the natural resource base, and which diminish the agricultural potential and biodiversity value. Land subdivision will also be discouraged, but rural housing projects to accommodate the rural poor and farm and tourism workers will be allowed in appropriate locations. Attention should be paid to the retention of the integrity of rural landscapes.

12.6.7 AGRICULTURAL DEVELOPMENT ONLY

Most of the land in the municipality is utilised for commercial agriculture, and a significant proportion of the land has a very high production potential. Those areas identified through the agricultural assessment as having the highest agricultural potential have been reflected on the Spatial Framework Map as areas of agricultural development only. In general, the subdivision of prime agricultural land is discouraged and the development of this land for non-agricultural purposes should only be allowed if:

The land has already been subdivided to such an extent that it is no longer agriculturally viable;

The land has already been developed for non-agricultural purposes;

The proposed development does not compromise the primary agricultural activity of the property;

The proposed development comprises a secondary activity to supplement a landowner's income;

It will facilitate the implementation of the Land Reform Programme and Labour Tenant Projects.

Rural housing projects to accommodate the rural poor and farm and tourism workers will be allowed in appropriate locations.

12.6.8 AGRICULTURAL AND LIMITED TOURISM

The high potential irreplaceable agricultural land should not be subdivided or subjected to any non-agricultural land uses. However, such land is at times located along tourism routes. The farms that are located adjacent to the SDF tourism routes can be allowed to transform into Agri-tourism whereby a % of the farm can be used for tourism related development.

12.6.9 FORMALLY CONSERVED

The formally conserved areas will be protected for conservation purposes. These areas should not be subjected to high intensity development. Any proposal that supplements conservation should be subjected to a detailed Environmental Impact Assessment (EIA).

12.6.10 HERITAGE ASSETS AND NATURAL RESOURCES

Worthington (1964 p 2 and 8) defines the term natural resources as "everything that is derivable for the use of man from any part of the universe". These include organic and inorganic natural resources. The organic being human beings, animals and plants while the inorganic is land surface (i.e. landscape), rocks (i.e. mineral occurrences and power), air (i.e. climate, nitrogen fixation), water (rivers, natural dams, ocean etc.) and soils. The heritage assets on the other hand is defined as "assets of historical, artistic or scientific importance that are held to advance preservation, conservation and educational objectives of charities and through public access contribute to the national culture and education either at a national

or local level" (Accounting Standards Board: Discussion Paper, 2006, p18)

The focus of DNDZ SDF will be on inorganic heritage resources found within rural areas which may include physical material or substances occurring on land which can be exploited for economic gain as well as heritage assets with all the values deemed necessary for conservation. The example of heritage assets that are found within DNDZ are:

Amadliza (Graveyard for Amakhozi); and

Historical Buildings.

The natural resources that are found include:

Aesthetic Historical Mountains and Ridges; and

Historical Forestry.

The KwaZulu-Natal Draft Rural Land Use Norms and Standards suggests that these assets and resources should be maintained as follows:

Table 33: Recommended practices for maintaining Heritage Assets

HERITAGE ASSET MAINTENANCE AND PRESERVATION NEEDED

Idlinza (Graveyard Fencing and placement of signage

for Amakhosi as local Monuments) Clear the site using only hand trimmers or other hand tools

HERITAGE ASSET	MAINTENANCE AND PRESERVATION NEEDED
	Designate dump sites away from monuments/memorials
	Maintain existing pathways
	Do not apply paint to gravestone inscriptions
	Do not burn waste on site or within a memorial.
	Memorial Tombstones should not be cleaned with power washers, sand blasters or with chemical cleaners as these methods enhance the process of decay and will in the long-term speed up the loss of the inscription carved onto the cleaned memorial ¹ .
	The only safe way to clean a memorial is to wash the stone with water by using a damp cloth and followed by gentle brushing that will result in the removal of bird droppings and other biological growths that may be obscuring the inscription on the memorial ² .
Historical Buildings (Cultural Features)	Monthly / Annually – Annual checking of electrical equipment by professional trades people, Annual pest control treatment, Monthly test of alarm systems and smoke detectors, Monthly filter checks and cleaning for air conditioning unit, Annual inspection of ceilings, floors, paving, plumbing, internal painting, door hinges, hooks and locks. Every two years – Replace of glass where necessary and powder coated finishes applied where
	and powder coated finishes applied where necessary.

² Guidance for the Care, Conservation and Recording of Historic Graveyards: September 2011 – Second Edition

¹Guidance for the Care, Conservation and Recording of Historic Graveyards: September 2011 – Second Edition

HERITAGE ASSET	MAINTENANCE AND PRESERVATION NEEDED
	Every five years – Internal painting.
	Every ten years – External painting, Replacement of floor coverings, Replacement of guttering and Replacement of electrical wiring.
	Every twenty-five years – roof refurbishments/ replacement.

The KwaZulu-Natal Draft Rural Land Use Norms and Standards also suggests that the Natural Resources should be maintained as follows:

Table 34: Recommended practices for preserving natural resources

NATURAL RESOURCES		MAINTENANCE AND PRESERVATION NEEDED
0	Aesthetic Historical	Develop the complementary land use and landscape policy for each local area to avoid unacceptable visual intrusion
	Mountains (topographical features)	Prohibit the encroachment of buildings and structures within all historical sites
0	Historical Rivers and Lakes	Disallow the burning of waste, veld fires and setting alight of any material Discourage extensive water harvesting within the
0	Historical Forestry Ridges and	designated historical spot of the rivers and lakes Protect wetlands/ watercourses as the drainage of the wetlands will result in increased velocity of runoff and consequent soil erosion
0	Ridges and Skylines (geological features)	Adequate vegetation cover should be maintained, and unnecessary vegetation removals should be prevented

Control surface runoff through the development of appropriate

Introduce measures to control water quality and prevention of pollution of water sources and air quality

Existing mature trees and other vegetation on site should be retained whenever feasible

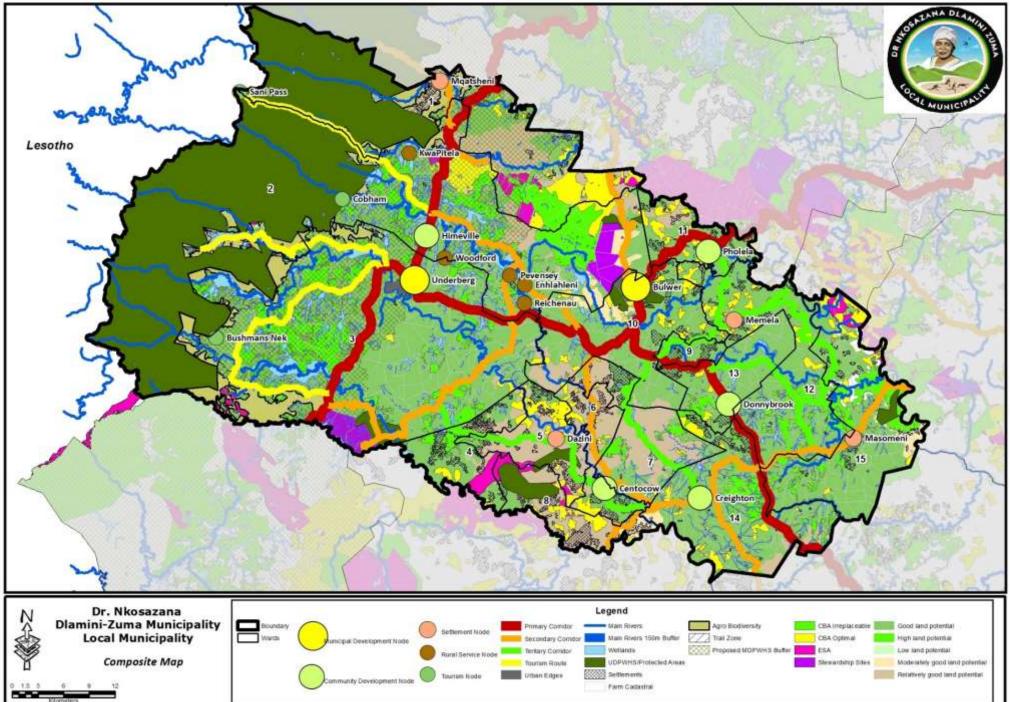
Promote the use of indigenous species

12.6.11 ENVIRONMENTAL MANAGEMENT

The environmentally sensitive areas were identified during the situational analysis. Essentially there are serious environmental risks spots with a high level of endangerment in terms of freshwater catchment, wetlands exposure, critically endangered as well as vulnerable vegetation and soil erosion. The need exists to put measures in-place in terms of conserving and managing this environment. These areas are a high priority in terms of environmental management with an intent to avoid pollution and degradation due to irresponsible development and land uses. More stringent measures are applied when assessing any land use proposal within the vicinity of this designation. Essentially, the key goal is to promote conservation related land usage within these areas.

Map 54: Composite SDF

DO NIKOSAZANIA DI AMINII ZI IMA SOATIAL DEVELODMENT EDAMENADIK 2020/21 L DEVELODMENT & TOMNI DI ANININO DEDADTMENT



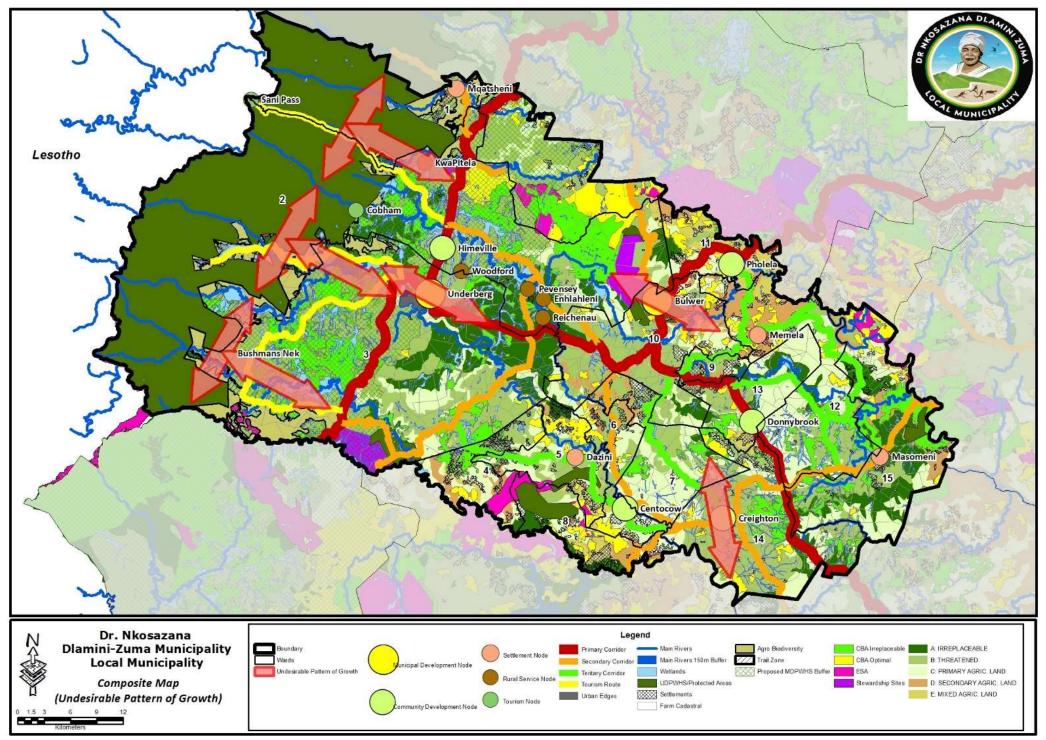
12.7 FUTURE DEVELOPMENT DIRECTION

The following is an undesirable development direction that should be avoided:

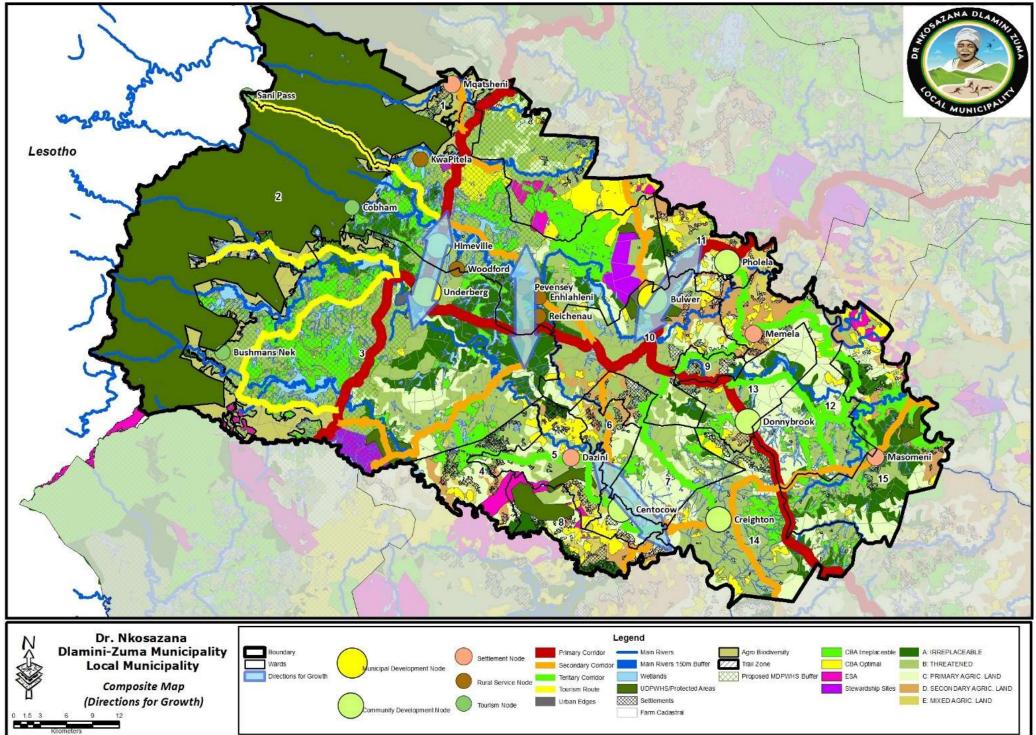
- Development intensity should be discouraged within Ukhahlamba Drakensberg Park WHS since this may compromise the landscape characteristics of the area.
- Expansion of Development towards Ukhahlamba Drakensberg Foothills will also be unfavorable.
- Some of the nodes on the northern part of the municipality are surrounded by agricultural land. Expansion of these nodes to high potential agricultural land would be undesirable.
- The direction for future development within Dr Nkosazana Dlamini Zuma has been prioritized along five areas as follows:
- Decentralization of some of the basic services: this involves the creation of satellite services within the rural service nodes such as Ncwadi;
- Outward expansion of the nodes. This should involves linking the existing nodes through activity or mobility route in a manner that promotes infill and interface development. This should be prioritized for primary and secondary nodes; and
- The existing nodes are still low in terms of densification. Inward densification could be encouraged within the primary

nodes. However, this should be supported provided that there is sufficient infrastructure capacity to warrant it.

Map 55: Undesirable pattern of growth



Map 56: Direction for growth



13. URBAN EDGE

There are four Urban Edges that have been identified within Dr Nkosazana Dlamini Zuma Municipal Area. These cover the following areas:

- Bulwer Town;
- Underberg Town;
- Creighton; and
- Himeville.

In addition, the settlement edges have been identified for the following settlements areas:

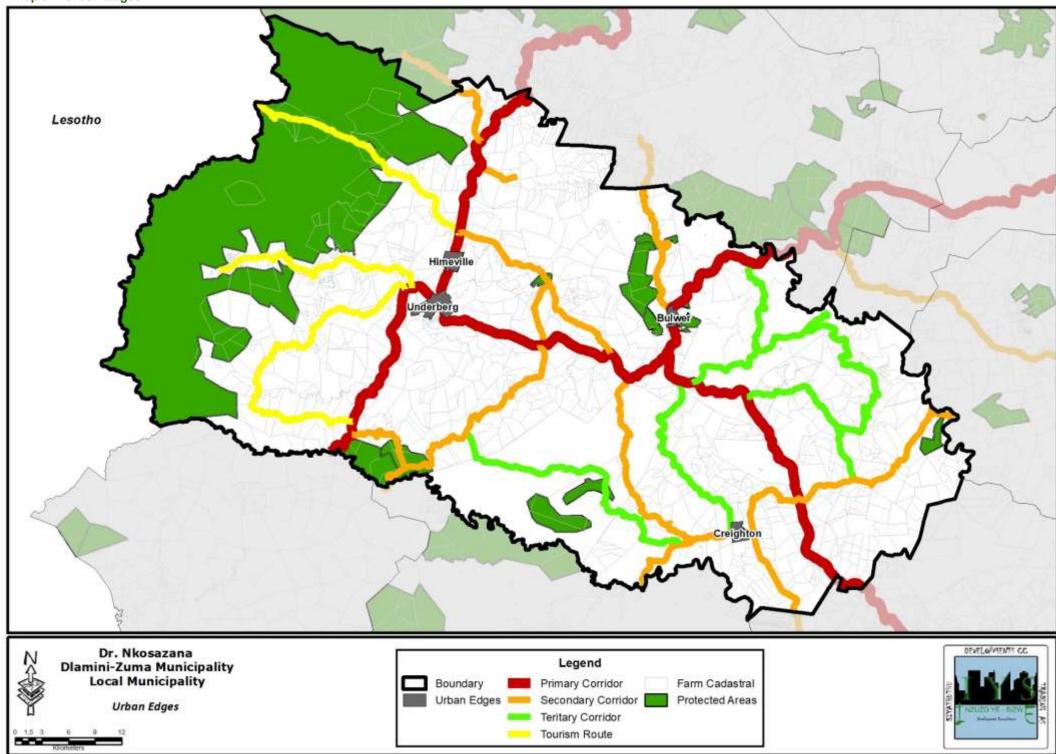
- Donnybrook;
- Pholela;
- Centocow;
- Memela; Masomeni; Dazini; Mqatsheni; and
- WwaPiteni, Woodford, Pevensly, Enhlanhleni and Reichenau.

The administrative logic for the demarcation of this urban edge was mainly influenced by the *Provincial Spatial Planning Guideline 5: Defining Limits on Settlement Expansion: The issue of the Urban Edge* produced in July 2009. These guidelines state that:

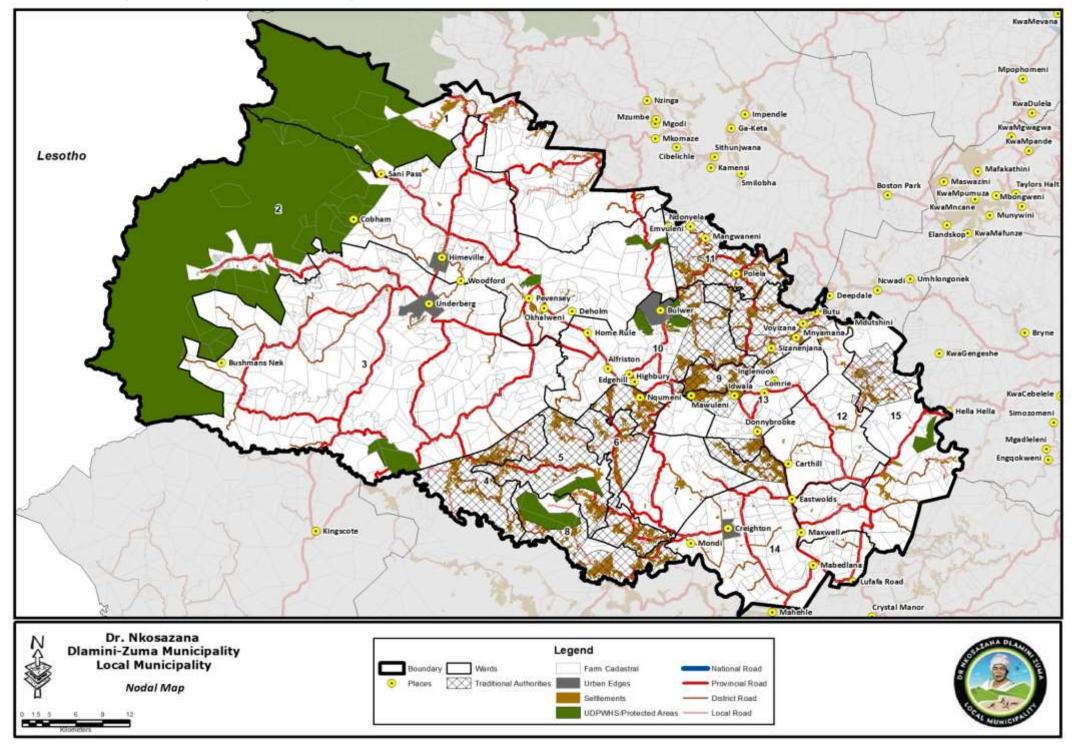
There is no 'scientific' way of defining these containment edges: they require strong administrative actions to defend them. A number of factors contribute to the delineation which are characteristics of the natural environment (natural barriers such as water courses, steep slopes, vegetation of significance and so on), central purpose of these edges is to compact urban development in order to achieve greater urban efficiencies (an effective edge should be as close to the existing built-up area as possible), should not follow existing cadastral boundaries (strong straight geometric edge not wavy lines) and should be reinforced through the creation of fire-breaks and more intensive forms of agriculture which should be encouraged to occur hard against the edge. Suburban and leap-frog' sprawl should be discouraged. As far as is possible, new development should be contiguous with the existing built edge. (Department of Co-operative Government and Traditional Affairs: 2009, p8-10).

The proposed urban edges have incorporated the existing built up areas which are mostly covered by the Urban Planning Schemes of the Municipality. These edges have also incorporated important land parcels that will act the role for infill development requirements and expansion of existing urban areas. The important environmental management areas have also been incorporated for proper management against urban conurbation

Map 57: Urban Edges



Map 58: Urban Edge - Illustrating TCs and settlement edges



14. DENSIFICATION

Traditional Authorities are highlighted as growing, and a response strategy to such is the strategy of densification approach. Inter alia, areas that are experiencing unprecedented growth includes Sizanani TA, Bulwer, Bhidla TA, UMacala Gcwala, Veza Kuhle TA, Qadi TA and etc. These are the identified localities. Densification refers to a process of carefully and meaningfully increasing densities in developed areas to ensure the most effective and efficient use of scarce resources. The process of densification needs to be carefully managed and applied in appropriate areas, as it cannot simply be applied across the area. Densification and the mixing of land uses have become popular in the process towards achieving social wellbeing and healthy environment objectives. The promotion of densification will ensure that future areas for interventions are developed. Through encouraging this strategy, the municipality will aim to achieve a greater mix of land uses that provides a full range of functions; housing, employment and services - in a pattern which minimizes the need to travel great distances to work, shop or conduct business.

The densification to be adopted is dependent on the spatial context of development, the site-specific characteristics, the capacity of existing infrastructure and what the impact of that the development will have on the environment. The municipality should formulate a densification strategy, in which it is acknowledged that there should be a balance between compactness and the retention of significant open space to satisfy other social and environmental needs. The objectives of densification are as follows: Minimising/ Reducing the Footprint of the built-up areas: Settlement (both rural and urban) transforms natural land and alters the ecosystems in which they are located in a magnitude of ways. This in itself warrants a concerted effort to limit the impact on the affected area of land, as well as the ecosystems involved.

Preventing the destruction of Agricultural Land: Outward expansion of settlement occurs at the expense of high-value, very well-located agricultural land in close proximity to urban markets. This resource should be protected from settlement intrusion and should be set aside for productive agriculture.

Improving the Use of Public Transport and Facilitating Pedestrian movement: One of the key means of improving the use of public transport is increasing residential densities in nodes and along public transport corridors, which has major implications for the way in which areas are built and managed. The other is greater integration between the various entities involved in land use and transport planning.

Improving the efficiency of Urban Areas: More compact settlements increase general accessibility, the level of convenience with which people can conduct their daily lives and reduces costs in terms of time, money and opportunity cost, both for local government as well as for its citizens. More compact settlements in which infrastructure investment is planned are more efficient than those in which this is not the case.

Reducing Inequality: One of the objectives of intervening in the form and density of development of settlements is to ensure greater access of all, especially the poor, to the benefits and opportunities of urban living – something that the current fragmented, separated spatial structure works against.

To adhere to legislative directives: A wide range of acts and policies have been brought forward by national government urging local authorities to address the issue of sprawl and urban form. However, in practice, very little has been done to address these legislative directives.

The strategy of densification is aligned with the PGDS 2016 Strategic Goal 7 which emphases greater importance of Spatial Equity. Particular relevance to this report is the strategic objective (1) which aims to enhance the resilience of new and existing towns and rural nodes, ensuring equitable access to resources, social and economic opportunities. This objective encourages spatial concentration which facilitate development interventions areas where by development investment in nodal and corridor areas is motivated to ensure that initiatives are coordinated, cost effective and not counterproductive.

Densification in designated development areas in this context refers to the number of households accommodated within formalized small towns and settlements with efficient and secure land management systems, able to secure investment in rural areas. It is of strategic importance that investment from various departments needs to be coordinated to ensure integrated development that is responsive to the needs and circumstances of the targeted communities. In the context of this municipality, Densification will have the following advantages: It will create convenience particularly for rural dwellers;

It will cumulatively attraction effective increase the range of the individual services (the law of accumulative attraction); people are prepared to travel further to satisfy a range of needs in one area;

It will promote sharing facilities both between different type of facilities and different users (particularly between schools and the broader community;

It will create an opportunity to establish special places to settlements. These should be reinforced wherever possible through housing and other programmes. This is of vital importance. Densification takes an important social function (they should be places of meeting, of promenading, of entertainment). If they achieve this, they will also achieve other activities (such as other small shops) to them. It must be emphasized a key success factor is the quality of the spatial environment, the new facilities should be used to define and make the public space.

The South African Local Government Association (SALGA) developed a programme referred to as the Rural Densification Programme (RDP). The Rural Densification Programme (RDP) is an apex programme at SALGA that is aimed at the densification and spatial reconfiguration of rural areas with a view of achieving more compact and sustainable rural areas that are serviceable & economically viable. It is intended to build a case for the densification and more orderly planning or rural areas as one of many initiatives of achieving the goal of spatial transformation, economic development, and improved quality of life. The vision of this programme is Spatial Justice and Social cohesion through integrated management of

space, economies, and people. DNDZ SDF adopts this programme given the similarity of issues it enlists which are also prevalent within the study area. Overly it notes that an introductory of formal planning through densification will;

protect sensitive areas, and prevent residents from occupying disaster-prone areas;

Poorly located settlements a financial burden to the State (Disaster Management due to low lying areas, high cost of servicing);

Need to adhere to elementary land use practices and preserve catchment areas & heritage sites; and

Urban and rural should be viewed in the context of a settlement continuum & not urban-rural dichotomy.

As for services-related benefits of densification, higher densities in rural areas will bring about benefits over a wide spectrum of areas relating to service provision, including, but not limited to;

- I. On water infrastructure Higher densities significantly reduce the cost of installing water infrastructure in rural areas. For instance, a 500m water pipe, that would, under normal circumstances, service four (4) or five (5) rural households, can service double that number where higher densities exist. With South Africa being a water scarce country, efficiency in water use is of paramount importance. By designing rural areas to be more compact, government will be in a much better position to provide water infrastructure that can be accessible to more people.
- II. On electricity Although the country has made commendable strides in electrifying rural South Africa, it has come at a

significant cost that would otherwise have been abated by moderate to higher rural densities. Similar to the water infrastructure example, the cost of electrifying sparsely arranged rural settlements is incredibly expensive, inefficient, and unsustainable. The densification programme will curtail the current high cost and ensure that limited resources reach out to as many people as possible.

III. On Roads - Out of the many infrastructure backlogs in rural areas, roads are arguably one of the biggest. Provision of high-quality roads is costly, and in the rural context, this is further compounded by the disorganized spatial arrangement of rural areas.

14.1 COST BENEFIT ANALYSIS: COMPARISON OF DIFFERENT



FORMS OF DENSITIES

The following demonstrates of how limited resources can be maximized for greater public good. The drawing consists of twenty (20) properties with a combined frontage length of 200 metres. To provide electricity for the properties, a 200m main cable is required, excluding on-side connections. The same goes for the water mains, only a 200m length is needed, plus on-site connections. Essentially a 200 m water and electricity lines can service 20 households. If this had to be multiplied over bigger settlements, the cost per unit would be greatly reduced due to the economies of scale. The example is a clear demonstration that density is an enabler of sustainable development. Now, envisage if the same amount of resources is utilized in an area where densities are fairly low, as demonstrated in Figure 24.

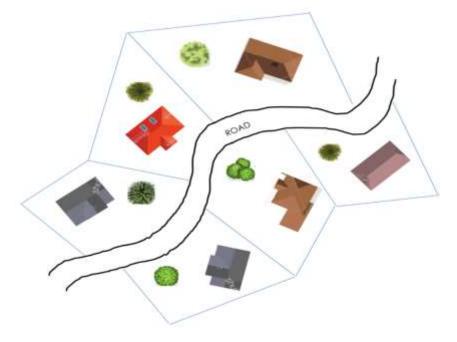


Figure 64: Perils of sprawl

In cases where densities are significantly low, as it the case in most rural parts of South Africa, inefficiencies invariably arise. As depicted in the following Figure, an area equivalent to that of the previous Figure is only able to accommodate about six (6) households, which is in stark contrast to the higher density settlement in the previous figure, which is able to accommodate twenty 20) households on a 200 m road. The diagram accentuates how rural areas, in their current form, are grossly unsustainable – and it is form and structure that has largely contributed to their sluggish growth, or lack thereof.

Such is the lack of structure with Figure 24 that streets are created by cars, not by design.

Where a household has a car or taxis, an access road will be created by card driving over a path persistently to a point that ii becomes a recognizable road. The two (2) diagrams sufficiently prove that densification enables more efficient use of limited resources, and, if correctly applied, can result in more people receiving services. But the biggest triumph of densification is how it enables economic growth, innovation, and sustainability.

14.2 SOCIO-ECONOMIC BENEFITS OF DENSIFICATION

14.2.1 INNOVATION

By concentrating people in one place, it becomes a lot easier for them to invent, connect and learn from each other. There are several examples around the world where higher concentration of people has stimulated innovation.

14.2.2 DENSITY INDUCED ENTERPRISE DEVELOPMENT

Places thrive when they have small enterprises and skilled citizens, where there is a beehive of small-scale interconnected inventors. In South Africa, rural development, in the way it is conceptualized, is flawed. It has largely been limited to external capital and investment. While this is an important element of rural development, it should be balanced with local skills and enterprise development.

14.2.3 SECURITY OF TENURE

The town planning layout will allocate a property number for each property, which can later be used for formal registration of the property. Essentially, Traditional leaders will have a property registry which will also assist them in understanding the number of households in their respective jurisdictions.

14.2.4 CULTURAL CONSIDERATIONS

Rural areas are an important part of the South Africa's heritage and culture. They are an embodiment of the country's diversity, as they are home to various technical groups and tribes. In the South African context, culture and customs are synonymous with the majority of black people, to whom this is a way of life. The proposal takes into consideration and makes provision for the cultural and customary practices rural people engage in, and the most important ones which have been considered are reflected in Table 4

CONSIDERATION	SOLUTION
Burials	Land will still be big enough for on- site burials
Livestock farming	Enough space for on-site grazing. Has been considered in the programme design
Traditional Ceremonies	Sufficiently catered for
Subsistence farming	To be catered for. Land required far less due to high input cost and risk due to unpredictable weather

Table 35: Cultural considerations

15.ROBUST ECONOMY AND SUSTAINABLE JOB CREATION

"South Africa needs faster growth and more inclusive growth. Key elements of this strategy include raising exports, improving skills development, lowering the costs of living for the poor, investing in a competitive infrastructure, reducing the regulatory burden on small businesses, facilitating private investment and improving the performance of the labour market to reduce tension an ease access to young, unskilled work seekers. To eliminate poverty and reduce inequality, South Africa has to raise levels of employment and, through productivity growth, the earnings of working people. Only through effective partnerships across society can a virtuous cycle of rising confidence, rising investment, higher employment, rising productivity and incomes be generated." (National Development Plan 2030, 2012:109).

The key economic sectors of Dr Nkosazana Dlamini Zuma include and exist within opportunities of dairy, tourism, and forestry as well as agriculture, farming, social services and Informal trade within main towns such; Underberg, Himeville, Creighton, Bulwer and Donnybrook.

15.1 DEMAND FOR JOBS IN MEDIUM AND LONG-TERM

The unemployment rate decreased over the past few years i.e. from 2001 to 2011. However, community survey has indicated quite a

sharp increase of the percentage of the unemployed, and inappropriately as the population is projected to increase so as the number of the unemployed people. This is evidenced from a growth rate on the reflected table below.

Year	Total Population	Demand for Jobs				
		Unemployed (%)	No. of unemployed			
2001	122 863	46,05	56 758			
2011	113 446	27,65	31 368			
2016	118 480	62,52	74 074			
2021	124 439	62,52	77 799			
2031	135 348	62,52	84 670			
2041	143 221	62,52	89 542			

 Table 36: Projected demand for jobs 2001-2041

It may not be easy to accurately project future unemployment but for the purposes of future planning an assumption of the current rate of 62, 52% from CS2016 data has been used to project an increase in unemployment. The result indicate that the rate of unemployment may increase from 74 074 to 89 542 individuals by 2041 within Dr Nkosazana Dlamini Zuma Local Municipality's area of jurisdiction.

15.2 FUTURE ECONOMIC ACTIVITIES AND JOB CREATION

The assessment of the proposed economic activities as also cited on the LED plan for NDZ suggests that there would be jobs that will be created within a short and medium term. These can merely be reflected on the table below;

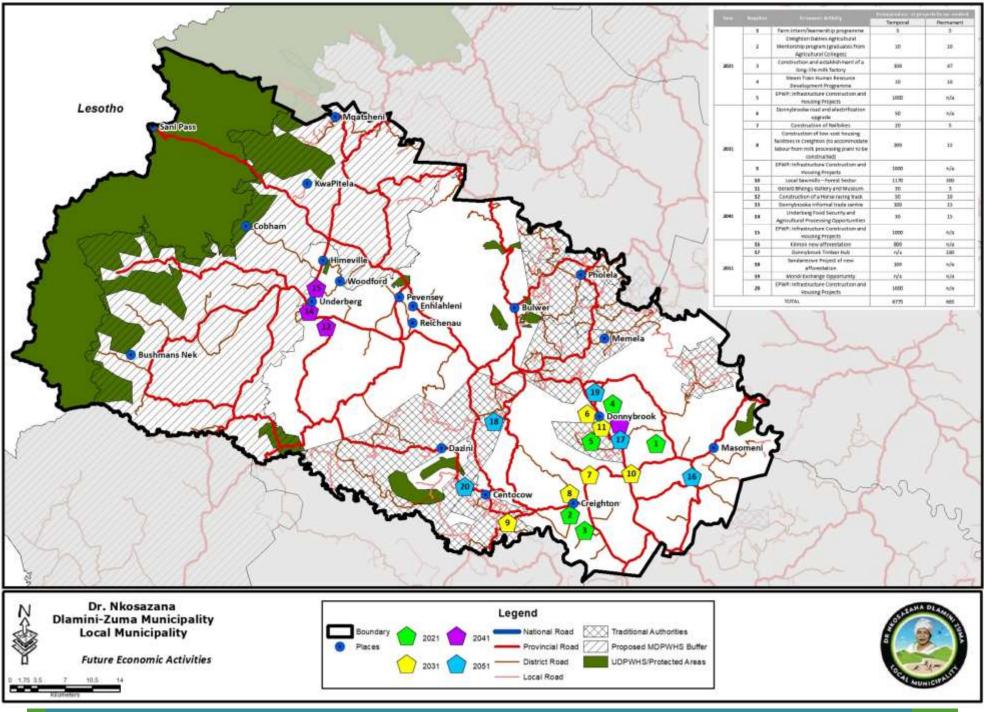


Table 37: Projected number of jobs to be created in the next 20 years

Year	Economic Activity	Estimated no. of projects to be created	
		Temporal	
2021	Farm intern/learnership programme	5	5
	Creighton Dairies Agricultural Mentorship program (graduates from Agricultural Colleges)	10	10
	Construction and establishment of a long-life milk factory	100	47
	Steam Train Human Resource Development Programme	10	10
	EPWP: Infrastructure Construction and Housing Projects	1000	n/a
2031	Donnybrooke road and electrification upgrade	50	n/a
	Construction of Railbikes	20	5
	Construction of low-cost housing facilities in Creighton (to accommodate labour from milk processing	300	15
	plant to be constructed)		
	EPWP: Infrastructure Construction and Housing Projects	1000	n/a
	Local Sawmills – Forest Sector	1170	300
	Gerard Bhengu Gallery and Museum	30	3
2041	Construction of a Horse racing track	50	10
	Donnybrooke informal trade centre	100	15
	Underberg Food Security and Agricultural Processing Opportunities	30	15
	EPWP: Infrastructure Construction and Housing Projects	1000	n/a
2051	Kilmon new afforestation	800	n/a
	Donnybrook Timber Hub	n/a	230
	Sandanezwe Project of new afforestation	100	n/a
	Mondi Exchange Opportunity	n/a	n/a
	EPWP: Infrastructure Construction and Housing Projects	1000	n/a
TOTA		6775	665

Unfortunately, the current and proposed job initiatives do not seem to be accommodating the amount of people who are unemployed. Out of 84 596 people who are unemployed, only 665 may be absorbed permanently while only 6775 could be accommodated only temporally. The

municipality is further advised to develop a poverty alleviation strategy which also proposes strategies on providing job opportunities and sustainable employment.

15.3 SUSTAINABLE LOCAL ECONOMIC DEVELOPMENT

Dr Nkosazana Dlamini Zuma recently developed a Local Economic Development (LED) Plan. This plan merely focuses on four segments;

- Diary sector;
- Timber industry (including Tourism);
- Forestry sector, and;
- Commerce and the informal sector

LED is an outcome based on local initiative and driven by local stakeholders. It involves identifying and using primary resources, ideas and skills to stimulate economic growth and development. It involves mobilisation for self-drive and stimulate local ideas so as to ensure that the local people own and drives the process. It is not only a mean to stimulate economic growth. It prioritises the use of local resources and includes both natural and human resources. Furthermore, LED promotes both economic growth and development in its broad sense and it cannot succeed in the absence of initiatives to address the basic needs of the affected communities. environmental management and accountable leadership. According to the Local Economic Development of DNDZ, "the ultimate purpose of the LED plan is to guide economic growth and maximise the competitive advantage of the Dr Nkosazana Dlamini Zuma Municipality. The importance of Local Economic Development is a key performance area and a strategic intervention for promoting

socio-economic development, alleviating poverty and improving quality of life within the municipal area. As such, this strategy is a further refinement of the IDP and is intended in part, to comply with the Constitutional and legislative obligation, but most importantly, it seeks to address the following:

- Need to exploit strategic location and comparative advantages to achieve economic development, Dr Nkosazana Dlamini Zuma Local Municipality is strategically located close to one of the prime tourist destinations within the KZN Province and one of the world heritage assets 'uKhahlamba Drakensberg World Heritage Site' for the exploitation of nature-based tourism, including rare species, such as blue crane, rivers, wetlands –. According to the LED, the municipal area has a relatively good potential of expansion in the diary sector, timber industry forestry sector, and commerce and the informal sector;
- Need to address massive unemployment and poverty that is envisaged within some parts of the municipal area;
- Need to integrate the local economy and improve functional linkages with the regional, provincial and national economic development initiatives;
- The need to make public sector procurement opportunities accessible to small businesses and co-operatives through set aside instruments;
- The need to facilitate a process where SMMEs and cooperatives participate in the private sector value chains through enterprise and supplier development programmes;

- The need to provide requisite skills, training and capacity building to SMMEs and co-operatives utilising partnerships with agencies, private sector and tertiary institutions;
- The need to provide incentives to make it easy and affordable to run a business as well as easy access to finance; and
- The need to develop a new and appropriate policies as well as review existing policies as a form of reducing regulatory burdens on SMMEs and co-operatives.

According to the HGDM LED strategy, the figure below denotes the drivers of growth within the district, and the enlisted following catalysts projects are drawn within the DNDZ LM;

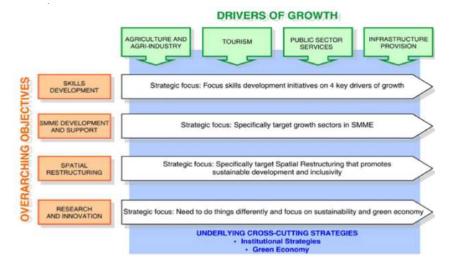
- Underberg town regeneration;
- Bulwer town regeneration; and
- Donnybrook town regeneration.

Economic opportunities which exist within the study area, according to HGDM LED include;

- Eco-tourism activities and the associated routes;
- Agricultural Potential;
- Regional/provincial corridor and trade route which carries both local and passing traffic;
- Location in relation to Impendle Nature Reserve and the uKhahlamba and the surrounding eco-tourism;
- Link to Midlands Meander through Impendle
- Role of Creighton, Donnybrook and Bulwer Town within the district;
- Biodiversity- Birdlife advantageous for (AVI-Tourism)

- Conservation Areas natural heritage sites;
- SMME Incubation Centre;
- A strategic economic infrastructure programme;
- Dairy sector processing;
- A tourism enhancement programme;
- Agricultural support in Enhlanhleni, Mqatsheni, KwaPitela,
- Okhahlamba and Phumlani;
- Rock art, mountain and fly-fishing guides;
- Promotion of trading opportunities with Lesotho;
- The development of informal sector trading centre;
- A recycling programmes.

Figure 66: HGDM - LED: drivers of



The Dr Nkosazana Dlamini Zuma LED strategy has recently developed strategies which also reflect to similar approaches the district has reflected on. This ensures that the vertical alignment has

been taken advantage of. According to the HGDM LED strategy (2015), Agro-processing, SMME development, and job creation initiatives (EPWP) - (LED Projects) (CWP) are also mentioned as part of measures to promote and drive local economic development and tourism. Reference is made to local government support to emerging farmers, caterers, crafters and artists, and promotion of tourism with the Harry Gwala Stimela Tour Train as an attraction over the Aloe Festival celebrated in Ingwe. It has detailed plans for a bio-fuel project. Forestry has been identified as an appropriate vehicle for local economic development through the creation of jobs and addressing poverty in the rural areas. A number of potential new projects have been identified, including the establishment of a timber hub at Donnybrook.

The LED strategy forms part of the sector plans of the IDP of Dr Nkosazana Dlamini Zuma Local Municipality. As such, the LED plan should be aligned and consider the strategies and objectives of the IDP/SDF. In terms of the NDZ IDP, LED strategy should address the Capacity Gap (Agricultural, Tourism, logistics etc.) in response to Vision 2030 and it is also about communities continually improving their investment climate and business enabling environment to enhance their competitiveness, retain jobs and improve incomes. The municipality must ensure that the local investment climate is functional for local businesses. The following table represents a projects matrix which the LED has prioritized;

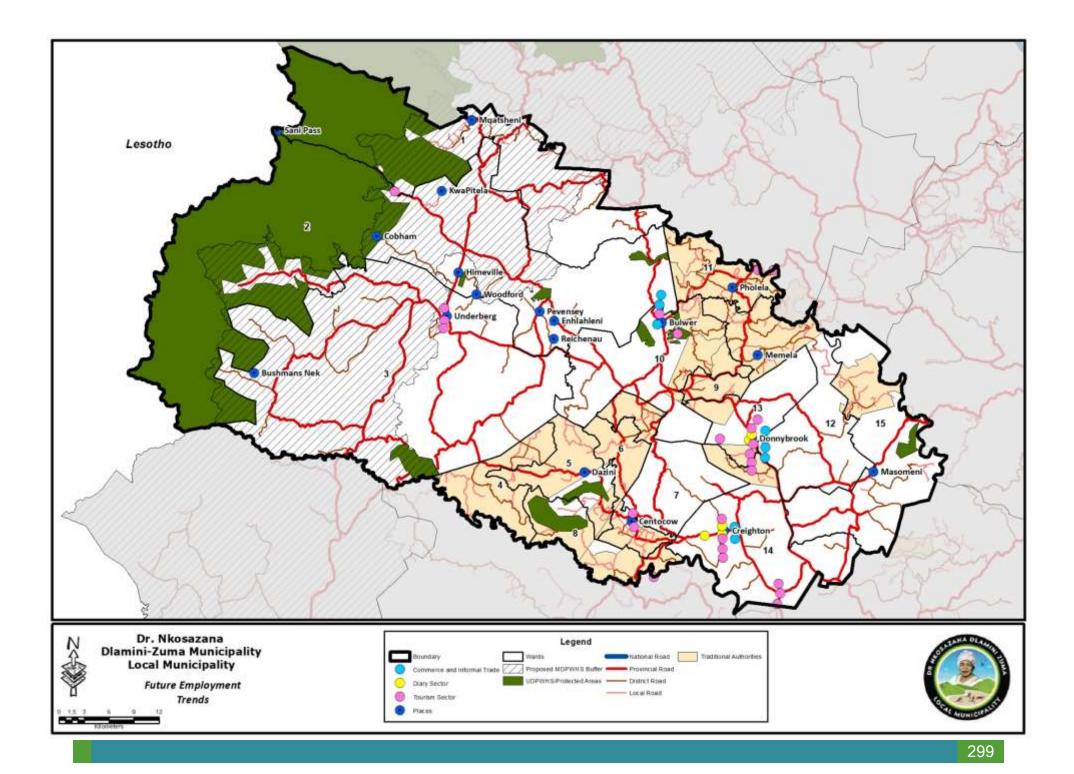


Table 38: LED Project Matrix & location

Sector			Project List	Priority	Location
1	Diary	1.1	The Heifer Project	High	Donnybrook
	Sector	1.2	Tarrying of the road from Franklin to Creighton	High	Franklin to Creighton
		1.3	Construction of the milk processing plant	High	Creighton
		1.4	Training programs for farmers	Medium	Donnybrook
		1.5	Training programs for non-farmers with land resource	Medium	Creighton
2	Tourism Sector	2.1	Refurbishing Rail passenger services such as waiting room, toilets, parking and landscaping as well as other operational requirements such as water and a storeroom	High	Creighton, Underberg and Donnybrook
		2.2	Development of Trains Operations department	Medium	Riverside, Donnybrook, Creighton, Ncwadi and Underberg
		2.3	The establishment of an alien plant clearance programme from Creighton to Donnybrook and Creighton to Riverside, and a related but separate alien plant clearance along the Ngwagwane River valley currently under Ingonyama	High	Creighton, Donnybrook, Riverside and Ngwagwane River
		2.4	Promote the introduction of rail bikes from Donnybrook to Creighton and Donnybrook to Ncwadi	Medium	Donnybrook, Creighton and Ncwadi
		2.5	Allocating a portion of the proposed refurbished Donnybrook station buildings within the broader Timber hub development to serve as a "fit for purpose" meeting point for birders and guides visiting the Gqumeni Forest.	High	Donnybrook
		2.6	Development of a walk through the forest with a level of signage and amenities to enhance the experience.	High	Marutshwa Forest, Gqumeni Forest, and Highover Wildlife Sanctuary
		2.7	Promote the Arts and Crafts	Low	Underberg, Sani Pass
		2.8	Development of a bike trail that links the various missions together	Medium	Centocow, Riverside, Donnybrook, and Bulwer
		2.9	Construction of Gerard Bhengu Art Gallery	Medium	Centowcow

-		1			
3	Forestry	3.1	Afforestation of Mzimkulu and Mkomaas water catchments	High	
	Sector	3.2	Plantations of Eucalyptus by Mondi, in the place of Pine trees.	High	Donnybrook
		3.3	Establishment of a saw mill, timber processing plant and pellet processing plants in Donnybrook.	High	-
		3.4	Establishment of a forestry liaison forum with the specific objective of improving dialog and encouraging alignment among the various forest sector stakeholders	High	
4	Commerce		CREIGHTON		Creighton
	and Informal	4.1	Establishment of vocational training centre for dairy farmers	High	
	Trade	4.2	Facilitating investment in accommodation facilities including low cost housing	Medium	
			DONNYBROOK		Donnybrook
		4.3	Construction of an informal trade centre	High	
		4.4	Upgrade of road and electrification of the area	High	
		4.5	Construction of extra schools and hospitals	Medium	
		4.6	Facilitating investment in low cost housing	Medium	
			BULWER		Bulwer
		4.7	Facilitate investment in property development	Medium	
		4.8	Construction of tertiary institution	High	
		4.9	Facilitate investment in social work as well as counselling services	High	

Source: 2017 Dr Nkosazana Dlamini Zuma Municipality LED Strategic Plan

Prior sections of the above matrix identify various opportunities that exist within Dr Nkosazana Dlamini Zuma municipality. However, these strategies need a well-structured implementation plan that can actualize the required intervention. Key to this process is the inclusion of an institutional arrangement that shall dedicate resources and manpower to SMMEs, also of significance will be the formalization of relationships between the municipality and government organs such as:

- Department of Economic Development, Tourism and Environmental Affairs;
- Tourism KZN;
- Small Enterprise Development Agency (SEDA);
- Sisonke Development Agency Management;
- Companies and Intellectual Property Commission (CIPC);
- Department of Small Business Development (DSBD);
- Department of Trade & Industry (DTI);

- KZN Department of Agriculture; and other relevant departments or institutions.
- 15.3.1 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY TOURISM SECTOR



Figure 67: Shaya Moya Train Express

The proposed vision for Harry Gwala Tourism Strategy: "Harry Gwala District Municipality will be a leading inland destination for rail, nature-based, adventure, historical, culture and heritage tourism by 2021. Promoting use of tourism assets in a socially, propoor and environmentally sustainable manner to achieve equitable economic prosperity."

There are five key strategic focus areas required to boost tourism in HGDM and to some extent DNDZ, namely:

- Infrastructure;
- Governance and institutional;
- Tourism education, training and knowledge production;

- Marketing; and
- Tourism packaging.

15.3.1.1 INFRASTRUCTURE DEVELOPMENT

Tourism infrastructure (TI) refers to the range of devices, developments, institutions, and policies that enable the tourist to move within and experience a destination plus its attraction with ease. Signage, which aid movement within the destination give direction; good transport systems; enhance travelling between locations; availability of accommodation, places to eat and refuelling stations are all examples of tourism enabling infrastructure. Below is a set of interventions required to stimulate tourism and place the tourism industry on a competitive path,

- Tourism specific infrastructure: Expand and improve tourism infrastructure including but not limited to signage, tourism information outlets and tools;
- Supporting infrastructure: Facilitate for upgrading and expansion of supporting infrastructure to improve on the overall attractiveness of the district and further stimulate tourism;
- Rail infrastructure upgrade including expansion, maintenance and management; and
- Road and Water infrastructure: Facilitate and motivate for the improvement and proper management of road infrastructure and key resources such as water in order to support and enable the industry.
- 15.3.1.1.1 TOURISM SPECIFIC INFRASTRUCTURE

The first infrastructure intervention to, "*Expand and improve tourism infrastructure including but not limited to signage, tourism information outlets and tools.*" Signage, information outlets such as tourism offices, ticketing offices, trails and route maps assist visitors navigate the way along a destination. They further guide travellers to accommodation facilities, attractions, and activities available within a destination. Accessing destination information (attractions, accommodations, transport related info, activities, entertainment) prior to travelling influences a traveller's decision to travel to the destination, particularly in relation to the length of stay or extension of the same if already at the destination. Some of the information tourists may require prior to and during their journey includes:

- Direction boards;
- List and Maps of attraction;
- Signage indicating attractions, services (fuel stations), accommodations; and
- Information on entertainment, food outlets.

The table below lists potential projects for this intervention;

Table 39: Tourism specific infrastructure potential projects

No.	Potential Projects
01	Undertake a signage audit to improve and develop road signage indicating location of attractions, tourism establishments, and other supporting facilities.
02	Develop new tourism offices, relocate and refurbish existing tourism offices to areas that are accessible.
03	Ensure and support the development/ establishment of ticketing offices and the use of filling stations and bus stops as strategic areas for the same.

04 Support and facilitate the renovation and upgrade of existing underutilised nature based and adventure tourism infrastructure. (Including the establishment of a permanent security / staffing presence.)

15.3.1.1.2 SUPPORTING INFRASTRUCTURE

The second infrastructure intervention is to: "Facilitate for upgrading and expansion of supporting infrastructure to improve on the overall attractiveness of the Dr Nkosazana Dlamini Zuma and further stimulate tourism." The overall character and attractiveness of a destination influences tourist's perceptions of the tourism about the location and associated experiences. This includes the safety, availability of places to eat, shop and enjoy a town. Improving the aesthetics of a town could include any of the following activities:

- Increasing bins to improve on cleanliness of the tourism node;
- Improving sidewalks and walkways for pedestrians, and parking facilities for vehicles;
- Ensuring there are maps within the town, providing direction; and
- Increasing the variety of food outlets that appeal to tourists, including cultural cuisine.

The table below lists potential projects to support development of the tourism industry;

Table 40: Tourism supporting Infrastructure potential projects

No.	Potential Projects
01	Identify in conjunction with local business owners, lay opportunities to provide services within the tourism gap markets, such as convenient stores, fast food outlets, and craft market popups/ traditional cuisine alongside key tourist attractions or nodes as well as on main roads.
02	Facilitate the municipal support process for development of tourist friendly public facilities along key tourism routes and main roads, for example additional rest stops, toilets, convenience shops, and fast food outlets and eateries.
03	Partner with COGTA Small Town Development Unit to encourage the revitalisation of towns (i.e. through improvement of pavements to reduce congestion, more street parking, improved cleanliness, increase dustbins, etc.) that would improve its attractiveness for tourists and other visitors. Particularly in Bulwer.

15.3.1.1.3 RAIL INFRASTRUCTURE

The third infrastructure intervention is specific to rail infrastructure: *"Rail infrastructure upgrade including expansion, maintenance and management."* Rail tourism in Harry Gwala District has a significant foothold. Upkeep of rail facilities, and proper management will ensure that the industry is sustained and is able to reap gains from proper marketing. Some of the minor recommended upgrades include improvement of shops, food outlets, installation of Wi-Fi and the upgrade of ablution facilities at the various stations. Major upgrades include extension of railway lines, and activation of new routes leveraging existing unused lines; and opening up opportunities for SMMEs to tender for maintenance of the locomotives and coaches. The table below lists the specific potential projects to support development of the tourism industry, specifically for this set of intervention;

Table 41: Rail Infrastructure potential projects

No.	Potential Projects
01	Audit of rail infrastructure (Rail lines, rolling stock, stations) throughout the District and develop business plan for upgrading and maintenance of infrastructure.
02	Assist SMMEs to register as suppliers to partner/sub contract on maintenance as a mechanism for succession and skills transfer within the rail tourism industry in the District.
03	Support the use of the rail line between Underberg and Pevensey in Dr Nkosazana Dlamini Zuma, Creighton to Riverside in Umzimkhulu. (Permission and support will be required from TRF)

04 Facilitate upgrade of stations which includes renovations (i.e. upgrade and increase ablution facilities, food outlets, curio shop, Wi-Fi hotspots etc.) of existing station buildings such as Allwoodburn Station, Riverside Station and Underberg.

05 Leverage on the partnership with Transnet and the Rail Safety Regulator for affordable compliance and safety requirements.

15.3.1.1.4 ROAD AND WATER INFRASTRUCTURE

The fourth infrastructure intervention identified is specific to Road and Water infrastructure: "Upgrade including expansion, maintenance and management". The road infrastructure in HGDM is relatively old and many of the main roads have potholes, to some extent specifically in NDZ, making it particularly difficult to drive at night. The scenic beauty of the district is most accessible by road (even though it can also be seen via rail, paragliding or hot air balloon). Improving the quality of the road and increasing the rest/

Table 42: Road and water infrastructure potential projects

stop areas alongside the route will improve the experience of road travellers in the area – thus increasing the potential for a return visit. With regards to water infrastructure, the region is home to water bodies (dams) that can be leveraged for adventure tourism. Adventure tourism is one of the biggest draw cards for most inland and rural destinations particularly among Wonderlusters, and young families. The table below, lists potential road and water infrastructure projects to support tourism industry;

No.	Potential Projects
01	Lobby DNDZ and other responsible entities to prioritise maintenance of road and water infrastructure within the municipality, particularly to the key tourism sites.
02	Lobby local municipalities and the KZN Department of transport to upgrade and develop key roads creating local, regional linkages to support intra & inter district tourism.
03	Explore the tourism potential of man-made water features in partnership with DWAF (Department of Water Affairs Forestry and Fishery), particularly for adventure tourism.

15.3.1.2 GOVERNANCE AND INSTITUTIONAL FRAMEWORK

Dredge (2006:269) states that research on tourism development suggests that successful tourism planning and development is underpinned by intricate cohesive formal and informal networks spanning both the public and private sectors. Together the networks play a role in determining a destination's effectiveness at optimising its tourism assets and harnessing public-private partnerships for a sustainable tourism industry and to attract travellers. "Local government has a direct impact on the total tourism experience of tourists, and the competitive position and attractiveness of any tourism destination is influenced by the diversity, quality and overall blend of its services and resources" Rogerson, 2013. Tourism Specific Local Government Roles include;

- Simplification of municipal procedures;
- Promoting labour intensive programmes;
- Marketing and investment support; small business support services;
- Targeted assistance to a particular sector in the economy which has the potential to expand and create jobs; and
- Training and placement services (skills development).

The governance and institutional framework within this strategy is twofold. Firstly, it addresses the relationship, and more specifically coordination, between the local government structures / institution and the industry, with particular reference to funding and resource allocation. The ideal situation is to develop a mutually symbiotic /

Recognition of excellence to foster a compliance and service excellent culture. beneficial relationship wherein both the government and the industry engage in robust interaction to develop and reap the benefits of a thriving tourism industry. Some of the gains that government can expect from tourism development include:

- A significant catalyst for economic growth and employment;
- Increases demand for other non-tourism businesses;
- Provides supplementary incomes to those seeking second and or, part time & flexi hours jobs;
- Encourages upgrading and re-use of derelict land and buildings;
- Brings expenditure from external sources into the local market;
- Can be a source of foreign exchange earnings;
- The second priority addressed in this section of the strategy speaks to the level of coordination, collaboration, communication and, particularly, compliance of the industry participants to regulations and standards. More specifically, interventions recommended include:
- Increased collaboration;
- Coordination and communication of CTOs, government and tourism service providers;
- Strengthening of relationships;
- Service excellence; and

The following subsections highlight intervention and projects specifically; these need to be assessed / viewed with the above distinction or roles and responsibilities in mind;

15.3.1.2.1 ACCESS TO FUNDING MECHANISMS TO SUPPORT TOURISM DEVELOPMENT

The intervention to this end is to: "Facilitate access to funding and train local officials on funding application processes to ensure that there is sufficient budget to undertake projects in conjunction with TKZN, SALGA, COGTA and EDTEA." Specific projects to achieve this includes;

To facilitate access to funding and train local officials on funding application processes to ensure that there is sufficient budget to undertake projects in conjunction with TKZN, SALGA, COGTA and EDTEA.

15.3.1.2.2 BUILDING GOVERNMENT CAPACITY TO SUPPORT AND FACILITATE TOURISM DEVELOPMENT

The intervention thus focuses on: "Building government capacity to support and facilitate tourism development. This includes simple steps, such as responsiveness to enquiries; being able to relay knowledge of investment opportunities and assets, being able to interact with development planning documents and point out opportunities to potential investors; being knowledgeable of enterprise funding streams to sufficiently assist SMMEs; and addressing red tape and bottlenecks quickly. Specific projects to achieve this includes to identify gaps in government capacity and undertake short-term training.

15.3.1.2.3 ENHANCE COORDINATION, COMMUNICATION AND COLLABORATION BETWEEN THE TOURISM STAKEHOLDERS AND OFFICIALS AT LOCAL LEVEL

The intervention focuses on: "Enhance coordination, communication and collaboration between the tourism stakeholders and officials at local and district level." Specific projects to achieve this include;

- Establish regular municipal tourism forums that are vibrant and inclusive in both formal and informal meetings where tourism projects, challenges and opportunities can be discussed including lobbying for industry related matters;
- Develop communication channels including but not limited to newsletters, emails, forums and workshops for sharing of information on tourism development matters; and
- Ensure registration of all tourism businesses with relevant CTOs found within the District and publish databases on the websites of the district, local municipality and CTOs.

15.3.1.2.4 Stakeholder buy-in and support for tourism development

This intervention focuses on fostering "Stakeholder buy-in and support for tourism development." When there is insufficient administration capacity to support the industry effectively; and there is minimal constructing engagement between the public and private sector. In such cases tourism development tends to occur to silos as each entity (government and private sector) drive tourism development in their own direction independent of the other. A recommended project to achieve this is to strengthen the relationship between local government and CTOs.

15.3.1.2.5 Ensure quality experiences through service excellence

This intervention thus focuses to "Ensure quality experiences through service excellence." Recommended projects to achieve this include;

- Assist establishments in the district understand requirements of the Tourism Grading Council's star grading system through workshop or focus group sessions; and
- Initiate an annual awards criteria or competition culminating in a ceremony which recognises excellence in tourism.

15.3.1.3 TOURISM EDUCATION, TRAINING AND KNOWLEDGE PRODUCTION

Skilled human capital is a major determinant of business success; availability of knowledgeable, competent and dedicated personnel enables a business / organisation to execute business strategy and plans effectively in a manner that is both responsive and reflective to external and internal environmental factors impacting on the organisation. The same can be said at industry level, where the ability to retain, develop and expand the depth and base of skills within an industry positively influences the effectiveness and efficiency of that industry, and prevents it from becoming 'extinct'.

This requires, strategic and purposeful fostering of diversity (in age, gender, and skills set) to ensure transfer of critical knowledge, skills and innovation - which allows for industries to respond to market conditions. More so for the services industry, tourism included - as they deal with customers / consumers that are far more informed and are constantly demanding variety, value for money and unique product experience. It is important for the HGDA to promote this

importance of skills in order to ensure sustained existence and growth of the district's tourism industry, especially since its advantage/ product strength is in the niche tourism markets / products.

15.3.1.3.1 DEVELOP TOURISM SUPPORT, AWARENESS AND CAPACITATION MECHANISMS IN THE DISTRICT, FOR COMMUNITIES, ENTREPRENEURS AND OFFICIALS

As such the first intervention with respects to tourism, training and knowledge production is to: "Develop tourism support, awareness and capacitation mechanisms in the district, for communities, entrepreneurs and officials." Recommended projects to achieve this are; -

- In partnership with other stakeholders (e.g. EDTEA, Private Sector) support seminars and awareness campaigns to inform communities, officials, SMMEs and other stakeholders about the value of, opportunities and service excellence within tourism in the DNDZ;
- Facilitate and support training on tourism standards, grading and service excellent for tourism service providers within the various municipalities in the form of workshops, seminars, symposiums and where possible online sessions; particularly for emerging businesses;

- Develop rural birding guide capacity within birding hotspots and routes found within the District by sourcing training provider to run suitable training programme;
- Develop rural birding guide capacity within birding hotspots and routes found within the District by sourcing training provider to run suitable training programme; and
- Put together a help guide for entrepreneurship development and circulate via website.

15.3.1.3.2 LOCAL SKILLS DEVELOPMENT

Training and skills development is a key strategy to ensure industry continuity. However, this needs to be supported with plan for placement and absorption of all newly trained people (graduates etc.). This intervention thus focuses on: "Local skills development." Recommended and potential projects to achieve include;

- Develop key promotion and activities for rail tourism to raise level of awareness of existing and future opportunities;
- Develop a municipal wide database of tourism graduates from tertiary institutions and the various training programmes run at/ by local municipalities;
- Develop a placement programme for tourism graduates, inservice trainees, learnerships and undergrads from university, vocational school and FET training colleges and support development of short qualification for tour guides/tourism buddies/tourism ambassadors to establish small business aligned to the municipal and district's core experiences and products;

- Promote and raise awareness/exposure of tourism career opportunities for school learners e.g. take a girl child to work, tourism career days;
- Train local tourism and ticketing office staff on local activities and attractions, and customer service excellence;
- Promote skills, graduate and other tax incentive schemes to encourage businesses operating within the tourism and support industry to take on youths, and other personnel trained through the district and local municipality skills programmes as interns, or in junior roles;
- Provide training on hospitality in isiZulu, particularly in municipalities with significant rural demographics, to ensure and support development of rural tourism enterprises; and
- Investigate accredited training for specialist skills in the rail tourism industry. E.g., fireman, maintenance staff, train drivers, etc.

15.3.1.3.3 INDUSTRY AND BUSINESS SUCCESSION

Skills transfer and skills development are integral to sustained growth of the district's tourism industry, particularly as the districts comparative/competitive advantage/is in the niche tourism markets/ products. The skills set required are not limited solely to tourism specific knowledge, but should include business management, marketing and entrepreneurship training. Existing tourism businesses within the district are ideally better positioned to contribute to skills transfer through mentorship to SMMEs, graduates. The role of government would therefore be that of coordination and facilitation – to ensure there are no abuses of

mentorship partnerships. Together these steps will lead to industry and business succession. The projects recommended for this intervention therefore speaks to: "Industry and Business Succession." Recommended projects to achieve this are listed as follows;

- Develop business mentorship partnering to encourage established businesses operating in the tourism industry to partner with emerging entrepreneurs to facilitate broad skills transfer (including business management and entrepreneurship skills) within the industry, particularly in rail, avi, adventure and heritage tourism; and
- Facilitate and coordinate the provision of training and mentorship workshops on technical skills, marketing (trends, new developments), governance and legislation, packaging for tourism business, crafters, co-operatives, and emerging entrepreneurs in each of the core experiences sectors as a mechanism to ensure skills transfer and stability within the industry.

15.3.1.4 TOURISM MARKETING

Tourism is increasing nationally and globally, however, some tourism sectors struggle to gain market share. Marketing is a major part of the problem, but it is also an integral part of the solution to grow tourism in Harry Gwala DM, and specifically in DNDZ. Currently, the area is lacking in social infrastructure and marketing of the area as a tourism destination; impaired by the inadequate human and financial resources to support tourism development and marketing; thus, requiring focussed marketing initiatives and investment promotion. The Harry Gwala DM and DNDZ needs to build on its current and potential strengths, by focussing its efforts to define and competitively reinforce the following niche tourism sectors, unique to the area;

- Nature-Based Tourism relating to scenic, wildlife, adventure and eco-tourism;
- Culture and Heritage Tourism, with specific reference to mission tourism;
- Events/Festivals Tourism;
- Rail Tourism; and
- Avi-tourism.

15.3.1.4.1 BRAND DEVELOPMENT AND MARKETING COHESION

The destination brand-image aims to;

- Embody a particular purpose/image;
- Present an image that is unique;
- Ensure that the destination brand-image is served in all the tourism destination and particular stakeholders have to offer; and
- Satisfy wants and needs by building long-term relationships within the destination brand-image.

The following table represents the potential projects that will assist DNDZ LM in focussing their marketing efforts in strengthening and developing a more attractive destination image, thus increasing the

competitive and comparative advantage of DNDZ as a tourism destination;

- Develop marketing message in joint and cross promotional marketing of district as a whole in conjunction with all stakeholders including local municipalities, TKZN, BrandSA, South Africa Tourism, Business stakeholders and communities;
- Ensure rural tourism enterprises receive marketing support particularly for product packaging, promotion of experiences linked to the core tourism projects and promote socially and environmentally sustainable tourism within the district; such as Adventure/ Eco- tourism, home stays, cultural and traditional healing way of life in DNDZ, traditional practice of AmaBaca and other clans (e.g. Ingube).
- Broaden and diversify the destination marketing platforms/ media, to include digital marketing such as social media, websites, intra and inter district web links, online tourism booking and promotion web platforms - that are accessible via both desktop and on mobile devices such as Booking.Com, SafariNow, TripAdvisor, RoomsForAfrica.
- Incorporate the services of a marketing agency to undertake the marketing attractions to specific target markets, particularly international markets where tourist have a keen interest in rail, nature-based tourism, heritage culture tourism including mission tourism and other inland activities.
- Compile a calendar of events and a 'what's on' quarterly brochure highlighting all the major events in the district. To be

made available at the tourism offices; published on multiple advertising platforms such as local & national newspapers, magazines (online& print), internet; interactively linked to websites of all key stakeholders, CTOs, current and potential partner institutions such as TKZN, tourism support businesses/ industry, flight companies e.g. SAA, as well as on webpages of neighbouring municipalities.

- Avi-Tourism: Implement an avi-tourism promotion campaign across all media with the help of Birdlife South Africa (BLSA). Identify and include 'Birder Friendly Establishments' and Birding routes in this campaign.
- Rail-Tourism: Implement a rail-tourism promotion campaign across all media with the help of TKZN and BrandSA. Identify and include rail tourism packages and routes in this campaign.
- Heritage, Culture and Historical -Tourism: Implement a heritage -tourism promotion campaign - across all media with the help of Amafa, TKZN and Local Municipalities. Identify and include heritage site, cultural villages, and historical establishments; product packages and routes in this campaign.
- Develop a heritage-based marketing campaign highlighting the unique and district culture and practices of the AmaBaca, Amakhuze, Hlangweni and Griquas. Include product packages, and related events.

15.3.1.5 TARGETED MARKETING OF TOURISM ATTRACTIONS AND PACKAGES

Tourism promotion plays a very important role in the formation of destination image, attractiveness and actual revenue generation. This component emphasises the need to develop and promote tourism attractions and packages, to increase the attractiveness of the destination. Though promoting specific attractions and tourism packages the tourism sector will gain the following advantage;

- Increased visitor length of stay;
- Coordinated presentation of the area's attraction base;
- Distribution of visitors throughout the area;
- variety of facilities and services involved; and
- Economic impact in overall terms.

The following list represents the potential projects that will assist Harry Gwala DM and particularly Dr Nkosazana Dlamini Zuma LM in successfully developing and promoting tourism attractions and packages;

- Identify, develop and promote all-inclusive packages levering existing and priority attractions in partnership with suitable accommodation establishments;
- Identify and pitch attraction packages to tour operators, who have access to broader scope of international markets;
- Support and facilitate the renovation/restoration underutilised mission tourism infrastructure - such as Mariathal Mission and development of signage, marketing and promotion material to be distributed among tour operators; and
- Advertise the Southern Birding Route and other bird hot spots that are found within the District on the websites of key

stakeholders such as tour operators, district development agency, local municipalities and birding associations.

15.3.1.6 MARKET POTENTIAL INVESTMENT PROJECTS

Tourism investment is a critical component of a sustainable tourism sector. Investment in tourism products and infrastructure are essential for destinations and businesses to provide an attractive environment for tourists and other investments. Thus, creating more opportunities for enterprise development and sector growth. Dr Nkosazana Dlamini Zuma needs to increase investor awareness and confidence to stimulate a more sustainable tourism sector environment. The following list indicates potential investment projects and actions that will improve the tourism investment climate of DNDZ;

- Undertake baseline research into future investment including:
 - Operation, management and maintenance of rail tourism products - locomotives and related experiences;
 - Manufacturing, assembling and maintenance of rail bikes;
 - Route development opportunities;
 - Establishments / provision of tourism support service such as convenient shops/ entertainment spaces/ coffee shops;
 - Establishment of spa; product beneficiation of the healing water and other products from Isinuka in uMzimkhulu; establishment of accommodation facilities linked to nature and avi-tourism;
 - Establishment of resorts, spas;
 - Adventure tourism activities;

- Tour operation businesses for each of the core experience;
- Establishment of rotunda's;
- Trading opportunities at new or existing stations and markets; etc.
- Provide detailed write ups to HGDA and TIKZN Investment Committee for investment promotion; and
- Call for proposals from potential investors / service providers for adventure-based tourism product development within the municipality.

15.3.1.7 UKHAHLAMBA DRAKENSBERG MOUNTAINS



Figure 68: uKhahlamba Drakensburg Mountains

In accordance with Harry Gwala District Growth and Development Plan, tourism, and its linkages, is the third most important contributor to economic growth. The potential within the District for tourism is large and can have significant economic benefits for the communities. Whilst the Drakensberg is a well-known tourist destination, other tourist activities such as Rail Tourism, Mission Tourism and Bird Tourism are not as well-known and could promoted with the potential multipliers exploited. Furthermore, it is suggested that the potential linkages between Tourism, SMMEs and Agriculture are critical opportunities for growth entirely within the municipality. For example, small scale agricultural production such as vegetables, eggs, bottled water, cheese making, as well as other production such as local crafts, fudge, biscuits, high-end eco-resorts etc. could supply the local tourist industry.

Concurrently, the only activities in existence include; (1) Conferencing and weddings in the Drakensberg, (2) Walking, hiking, mountain biking and horse riding, (3) Fly fishing, boating and swimming, and (4) Bird-watching and San rock art viewing. The critical aspect to consider in up skilling people in these areas is quality of goods and reliability of supply. Skills development within the tourism sector is also important and the opportunity for establishing a hotel or hospitality school to train local people to work in the tourist sector should seriously be considered. A demand for this was articulated in Stakeholder workshops and it was proposed as a potential new project.

15.3.1.7.1 RAIL TOURISM

Dr Nkosazana Dlamini Zuma Municipality and the Paton Country Narrow Gauge Railway have since 2000 patiently and purposefully developed a fledgling steam rail tourism sector in the municipality and the broader Harry Gwala District based on the existence of the underutilised Cape Natal Railway line and the remnants of the narrow-gauge line from Ixopo to uMzimkhulu. The Cape Natal Branch line and carries one train of 12-15 wagons every Thursday from Malengeni beyond Creighton to Pietermaritzburg. The emerging Harry Gwala steam rail tourism product in combination with the natural scenery, avi-tourism, mission and other adventure products, provides the Harry Gwala district with a potentially unique competitive tourism advantage. Furthermore, it is a sector that every municipal area in the district can actively participate in by adding value to the "off train" products and benefiting from the "Unique Selling Point" (USP) market channel that a district steam rail tourism sector or cluster would offer the district that distinguishes it from all others.

Underberg is the most populous and prosperous of the villages on the Dr Nkosazana Dlamini Zuma Municipality. It is a well-established tourist destination leveraging the comparative advantage of the uKhahlamba Drakensberg Park (World Heritage Site). In accordance with the LED (2017). It is the intention of the Municipality to facilitate the introduction of a Steam Hauled Tourist Train offering Day Trips from the Underberg Station. The purpose is to create a Steam Hauled, Day Trip, and Rail Tourism Offering in Underberg. The proposal aligns to the Harry Gwala District Tourism Strategy and complements the Rail Tourism offering within the District increasing the critical mass. The potential project within study area in accordance with the district tourism strategy is to support the use of the rail line between Underberg and Pevensey in Kwa Sani, Creighton to Riverside in uMzimkhulu. (Permission and support will be required from TRF), as enlisted on table 26.

Rail tourism was identified in the recommended top 5 priority projects as well as a potential catalytic project for stimulating tourism within the Harry Gwala District, Underberg/ Himeville has been identify as an ideal site for expanding the reach of rail tourism. Exploring viability of, product packaging, marketing and thereafter undertaking of the Rail Alan Paton legacy rail tours. The Harry Gwala Tourism Sector Strategy (2016) adopted the following Vision "to be a leading inland destination for rail, nature-based, adventure, historical, culture and heritage tourism by 2021. Promoting use of Tourism assets in a socially, pro-poor and environmentally sustainable manner to achieve equitable economic prosperity." In line with the potential projects complements the Rail Tourism and adventure offering, the rail bike was identified within the area of DNDZ.

A rail bike is a human powered passenger vehicle suitable to transport up to 6 passengers at a time on a railway line. (Human power can be augmented by supplementary assistance, as for example solar power/assist.) Rail bikes could be hired by any group of people but must at all times be accompanied by a guide/pilot. Users of this product could then embark on a journey along the specified route on the un-utilized TFR line, and only lines no longer in commercial use by TRF will be used. Users could travel in any direction, at a safe speed, could stop when/where they pleased (even to stay over in a local bed and breakfast) before proceeding along the route. The route must be pre-determined, and a permit issued under the control of the operator. The intention is to facilitate Railbikes access on all unused Railway lines within the Municipality and beyond if possible, this will need political persuasion.

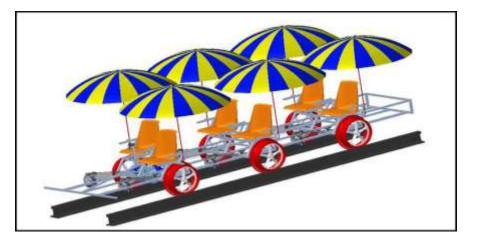


Figure 69: Rail bikes - Tourism product

15.3.1.7.2 AVI TOURISM

Avi tourism, or avian tourism, is travel and tourism that focuses on and highlights local birding opportunities. Avi tourism is one of the fastest growing types of environmental tourism, or ecotourism. Avi tourism, is tourism focused on sighting and observing birds in their natural habitats. This form sort of tourism has been identified together with rail tourism and mission tourism as key potential competitive advantages in the Dr Nkosazana Dlamini Zuma Municipality and the broader Harry Gwala District Municipality.

Dr Nkosazana Dlamini Zuma Municipality is well placed to take advantage of this important tourism niche market as it has a wide variety of extremely valuable birding sites within and adjacent to its boundaries. Two sites in particular have been highlighted as "Top Birding Spots" in South Africa (Chittenden H et al; Top Birding Spots in South Africa 1992), namely the Sani Pass (within the neighbouring Municipality) region and Gqumeni Forest, near to Donnybrook. Dr Nkosazana Dlamini Zuma Municipality and Harry Gwala Municipality together with Birdlife South Africa have developed a specific Harry Gwala Birding Route within the broader Southern KZN Birding Route.

For priority actions and investments, (DNDZ, LED: 2017), the upgrading of the related infrastructure and services for the Gqumeni Forest avi tourism site remains a key priority for the development of the avi tourism sector in Dr Nkosazana Dlamini Zuma Municipality. This would entail ensuring the use of a portion of the proposed refurbished Donnybrook station buildings within the broader Timber hub development to serve as a "fit for purpose" meeting point for birders and guides visiting the Gqumeni Forest. The station buildings could also serve as a place to advertise the forest, its birding assets



Figure 70: Example of Avi tourism

and guides operating in the forest. The prioritised action should also include the development of a walk through the forest with a level of signage and amenities to enhance the experience.

Funding could be sourced through National Treasury's Neighbourhood Development Partnership Grant Fund. A further

aspect of improving the site experience would be an alien clearance programme and indigenous tree revitalization programme to be undertaken in conjunction with the custodian agency for the forest. This would improve the bird habitat and enhance the quality of the tourism experience as well as create employment opportunities. Further attention needs to be given to improving the labour market conditions for optimizing employment opportunities for avi tourism. This would include actions to support the retention and expansion of existing local tour guides through improved market linkages, further skills development and capacity building and the extension of avi tourism guide recruitment and training if the market conditions are suitable. This area will require further research and the development of an action plan.

R56 Underberg CITEAUN REICHERTAU MARIANNIHILL Durbar R624 Donnybrook R603 R617 BINLIEDELS CENTOCOT R612 Rivernie MARIATHAL TELOTE 20000 OT HADORE LOVADE Highflats 1 ST MICHAELS R617 artherg . HIMMELBERG R612 MARIA HILF Frenkli R56 172 MARIA TROST Kokstad MARISSTELLA Port Shepstone

15.3.1.7.3 HISTORIC MISSION TOURISM

Figure 71: Historic Missions

The Harry Gwala district was an important site for a complex of monasteries and missions that the Trappist monks created in the 19th Century across the province of KwaZulu-Natal at Mariannhill East Griqualand and the valleys of the Midlands, and includes Centecow, Kavalaer, Mariathal, Reichnau, Lourdes, Emmaus and the current King's Grant. Historically these missions have always represented the cultural intersection between European monasticism and local black rural culture, and represent important heritage nodes of architecture, art and cultural synthesis and diversity.

The missions constitute a unique cultural and heritage tourism asset in Dr Nkosazana Dlamini Zuma Municipality and the broader Harry Gwala district, and provides an important opportunity for story telling in that among the greatest historical narratives of KwaZulu-Natal is the remarkable story of the silent order of German Trappist monks who came to share their particular vision of Christian life with the population of the KZN region more than a hundred years ago. Centocow Mission in the Dr Nkosazana Dlamini Zuma Municipality is of particular significance because of the architectural heritage of the mission church built there. Not only does this building reflect the style developed by the Trappists in KwaZulu-Natal, it contains a unique record of individuals' influential in the Roman Catholic Church at the time, represented in a stained-glass window. The church also houses a rare reproduction of the famous Polish icon depicting the Black Madonna of Czestochowa.

To enhance the story telling dimension of Centecow Mission, in 2009 Dr Nkosazana Dlamini Zuma Municipality commissioned and produced a CD set called "Hidden Treasures" that provides a narrative account of the Trappist story in KZN with a particular focus on the Centacow Mission and an account of the life Gerard Bhengu.

15.3.1.7.4 GERARD BHENGU ART GALLERY AND MUSEUM

Gerard Bhengu suffered from tuberculosis and was treated in the medical clinic attached to the Centocow Mission. It was here that he was first encouraged to draw and paint by members of staff at Centocow, which finally resulted in further artistic training at Edendale Teachers Training College. Gerard Bhengu went on to have a long career as an artist spanning from 1937 to his death in 1990. Unfortunately, the racial discrimination that dominated the Apartheid era, during which he lived, prevented him from achieving the level of success that his talent deserved, and he died a poor man, (LED, 2017).

One of the remarkable features of Bhengu's art is his portrayal of the lifestyle and customs of the of the Bhaca people around Centocow. Bhengu's art by the year 1936 had it first exhibition, 1948 - Solo-Exhibition, Gallery Beaux-Arts, Johannesburg, 1979 - Contemporary African Art Exhibition, toured South Africa, 1986 - Historical Perspectives of Black Art in South Africa, Pretoria, and in 1988 - Neglected Tradition Exhibition, Johannesburg Art Gallery. Bhengu's art is also an important historical record of Bhaca culture. The most notable aspect of Gerard Bhengu's career is that he acted as a cultural bridge between the purely symbolic arts of pre-colonial South Africa and the more illustrative nature of expression that emerged during the interface between African tradition and European institutions.

Since 2005, the Dr Nkosazana Dlamini Zuma Municipality has been working towards the establishment of a Gerard Bhengu Gallery and Museum at Centocow. Funding was obtained from different sources, and in addition to the public goods dimension of the gallery and museum in conserving important cultural, artistic and heritage artefacts, the gallery and museum will serve as an important node of tourism economic activity. As Gerard Bhengu is required study in the school's art curriculum, the gallery and the associated facilities at Centocow including the accommodation units will provide a sustainable educational schools market. The existence of the gallery and museum will also provide an important additional quality product mix for avi, rail and mission tourism market.

15.3.1.7.5 CENTOCOW AND THE FREEDOM CHALLENGE

The Freedom Challenge is a mountain bike trail that intends eventually to run from Kilimanjaro to Cape Town. The section that starts in Pietermaritzburg and ends 2300km later in Cape Town has already been established. Within the broader Harry Gwala and Dr Nkosazana Dlamini Zuma Municipality, the trail currently goes through Hella Hella and through the indigenous forests of Gqumeni and Nkonzo to Centocow across the Mabandla Community Conservation area to Ntsikeni Nature Reserve and then onto the Little Umzimvubu. The trail is already drawing local and international mountain bikers.

Priority actions and investments, according to municipal LED plan, highlight that the growing popularity of mountain biking as an outdoor and light adventure sport, there is potential to examine the development of a bike trail that links the various missions together. The first step would be to develop a bike trail between Centecow and Reichenau Mission, a distance of 17 kilometres, and harmonize it with existing tourism adventures and events.

The LED SWOT analysis supposed the following opportunities for DNDZ; adventure Tourism, cultural tourism, the Rail Tourism, Donnybrook Town, Value Chain raw material beneficiation. (Milk &

Timber, Labor intensive semi-skilled manufacturing, Historic Trappist Mission Stations, Cape Natal Branch Railway Line, Skills Development initiatives, Urban renewal opportunities with nodal development and corridor enhancement, Alternative waste management practices, and Green economy development.

Dr Nkosazana Dlamini Zuma Tourism Opportunities - HGDM

The Harry Gwala Rural Development Plan enlists the following intervention projects that are prioritised within the area of Dr Nkosazana Dlamini Zuma Municipality with regards to tourism through;

- Unlocking Cultural and Heritage Tourism Potential through the Support development of heritage rail tourism related activities that are linked to the Alan Paton Legacy as well as railway bikes development and day trips linked to the Creighton Railway Station;
- 2) Encouraging Adventure, Eco and Nature Based Tourism Activity Clusters through;
 - Development of rural tour guide capacity within areas surrounding the Ukhahlamba-Drakensberg World Heritage Site (including Mhlwazini Cave and Mpongweni Cave's with rock art);
 - II. Undertake feasibility study and business plan for nature and eco-based tourism (including avi-tourism) product development;
 - III. Undertake feasibility study and business plan for adventure-based tourism product development; and
 - IV. Development of rural birding guide capacity within birding hotspots and routes found within the District.
- 3) Encouraging the expansion of event-based tourism through;

- I. Supporting event-based tourism activities such as the White Mountain Folk Festival, Sani2C and Splashy Fen, and investigate opportunities for potential event-based tourism attractions.
- 15.3.2 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY COMMERCE AND INFORMAL SECTOR

The towns of Underberg, Himeville, Donnybrook, Bulwer and Creighton are small local service and commercial centres in the Dr Nkosazana Dlamini Zuma Municipality area, with Creighton being the capital. These centres form the backbone of commercial activities within the municipality. They are externally linked with larger towns such as Pietermaritzburg and Ixopo both of which supplement the supply of goods and services required locally. Within the three towns, shrinking levels of formal employment over the last decade have seen a growth in the informal sector. Trading and transport have been the two sectors that have been targeted by emerging entrepreneurs.

Unfortunately, the close proximity of the three towns to Pietermaritzburg and Ixopo has limited their growth with the exception of Underberg who have a well-developed commercial economy. The growth of Creighton is further hampered by its location on a tertiary road that is not easily accessible to the entire municipal population. Bulwer and Donnybrook are better placed in that they are located on a secondary provincial road R617 that links Dr Nkosazana Dlamini Zuma Municipality local municipality with all its neighbouring municipalities of Ubuhlebezwe, and Msunduzi.

Like many other growing urban centres, in the main, these three towns contribute the following:

- I. They function as markets for agricultural produce from the surrounding rural areas –through these centres local producers as well as consumers are able to access markets;
- II. They often play the role of production and distribution centre for goods and services to rural regions -Such concentration is assumed to reduce costs and improve access to a variety of services, both public and private and for both rural households and enterprises. Hence, services include agricultural extension, health and education (and access to other government services), as well as banking, post, services of professionals such as lawyers and accountants and lower order services such as bars and restaurants, and wholesale and retail sales of manufactured goods from within and outside the region; and
- III. They are centres for the growth and consolidation of rural nonfarm activities and employment- This is achieved through the development of small and medium-sized enterprises or through the relocation of branches of large private or parastatal enterprises.

15.3.3 UNDERBERG

Underberg is a typical old-style South African farming town, with a mix of basic shops, pubs, dust roads and visiting farmers bustling about. Along the Himeville Road, two new malls are an indication of the town's recent expansion. However, the following should be given attention;

- a) Improvement of Accessibility other than R617 (Road Conditions, Delivery etc.);
- b) Provision of Water and Sanitation;

- c) Facilities for a second order node (Hospital, Community Hall, Recreational Facilities);
- d) Formal Taxi Rank;
- e) Formal Trader Facilities;
- f) Pedestrian Priority areas;
- g) Residential Opportunities (Temporary, Government etc.);
- h) Economic Support (Agricultural Support, Training etc.);
- i) Large tracks of land for potential redevelopment; and
- j) Food Security and Agricultural Processing Opportunities.

15.3.3.1. CREIGHTON

Creighton falls into the category of a commercial agricultural town. The town developed as a result of the need to service the white commercial farmers living in the broader area. The diversion of manufacturing and commercial functions to larger towns and cities since has however significantly reduced the role and activities of these towns. Regarding investment options, Creighton could be developed into a thriving milk production and processing hub mainly through the following initiatives;

- I. Promotion of vocational training for dairy farmers in and around the town;
- II. Provision of accommodation facilities would yield meaningful development of the industry; and
- III. Construction of low-cost housing facilities, considering that the milk processing plant under construction is likely to attract labour force.

15.3.3.2. DONNYBROOK

Categorised as a secondary node by the municipal Spatial Development Framework, Donnybrook's economy consists of government services, commercial and retail services as well as residential housing units. Currently, Donnybrook hosts few government services including the South African Police Services; the Magistrate Court and a post Office. Commercial and retail services thrive on an existing Spar shopping centre within which Bank Auto Teller Machines (ATM's) operate. Other commercial services include hardware and furniture shops. However, an investment opportunity exists. While the forestry chapter has underscored timber processing infrastructure in Donnybrook, few extension services are added here. These could include:

An informal trade centre – This could deal with retail of house furniture, as well as wood sculpture;

Upgrade of road and electrification of the area would also enhance the growth of the timber sector, in Donnybrook.

Low cost housing would go a long way in meeting potential demand for accommodation, as the hub develops to attract 'external' labourers;

To enhance the growth of the town, construction of schools could contribute meaningfully to development of the town, as this is likely to attract in-migration of teachers and related facilities such as hospitals/clinics.

15.3.3.3. BULWER

Bulwer is mainly a social services hub. The existing services in Bulwer range from government, to commercial and retail. The Government services are made up of South African Police Service, Traditional Authority offices, public library, primary and high schools, and a taxi rank. This is in addition to a number of commercial and retail facilities such as Supermarkets; Banks, accommodation facilities and a service station. Investment opportunities which exist include;

Property Development -Shopping facilities, schools and a taxi rank generate demand for property development. The municipality could therefore facilitate investment into the housing sector in Bulwer; and

(b) Social services such as counselling and social work, and construction of tertiary institution[s]could further develop Bulwer town.

Overall on the towns, this plan recommends that (i) a study be conducted to establish spin-off possibilities based on the competitive advantages of the three towns. (ii) A town development plan also needs to be considered, for the three towns. Although this could draw from the Spatial Development Framework, a townbased plan could yield more effective planning and implementation of economic projects. It is also critical for town forums to be created, in all the three towns. The role of these forums would be to coordinate, design and implement town-based projects in a joint stakeholder model.

An intervention programme by DRDP for Business and Commercial Services through developing Retail Capacity is advised. This will have developed through interventions of;

- Undertake feasibility study and business plan for the provision of zoned and serviced land to support commercial retail development;
- Provision of informal trading space surrounding existing and new retail nodes; and
- Provision of business hives in Underberg.
- 15.3.4 DR NKOSAZANA DLAMINI ZUMA MUNICIPALITY DAIRY SECTOR

Dr Nkosazana Dlamini Zuma Municipality has a high concentration of dairy farming. More than half of dairy farmers in Harry Gwala District are situated within Dr Nkosazana Dlamini Zuma Municipality. The Harry Gwala Dairy Farmers represent a sixth of the dairy farmers in KwaZulu-Natal. Harry Gwala produces 800,000 litres of milk per day and about half of this comes from Dr Nkosazana Dlamini Zuma Municipality. The municipality contributes 12 % to the province within this sector. The following recommendations are suggested for more comprehensive impact;

- Provide Secure and adequate access to basic production inputs together with risk coping mechanisms for natural disasters and price shocks;
- Dissemination of livestock market information to livestock producers;
- Develop strong relationships among various chain actors (including commitments from these actors to cooperate on

mutually beneficial actions/investments) and strengthened farmers' organizations;

- Policies and strategies to enhance the ability of smallholders and small-scale market agents to compete in livestock product markets;
- Standards and branding mechanisms to identify high-quality livestock products;
- Kick-starting of domestic markets to allow the poor to exploit market opportunities;
- Product differentiation to create niche markets; and
- Linking of emerging farmers to expanding urban markets.

15.3.5 SKILLS DEVELOPMENT

The future development proposals will focus on exploiting the available skills within the municipality in a manner that attempts to stabilize the projected population increase. According to CS2016, it is notable that the populace is currently at 118 480, but only one percentage of the population possess qualifications higher than graded 12/form 5/ NCV level 4. Highest percentage is seen for no schooling, followed by the grade 11's. It is noted that the low literacy levels lead to the lack of skills and unemployment and the unemployment, leads to low-income levels, with the end result being poverty.

Interventions, such as tourism projects supposed above as well from other sectors, are needed to break this vicious perpetuating cycle, which keeps the local communities in poverty traps. It is clear that much needs to be done to ameliorate the standards of living in the area and create sustainable job opportunities. There is also a clear need to enhance the human development levels of the people in the area. In doing this, it is important to avoid a skills mismatch by ensuring that the skills produced are in line with the current requirements of the industry. For DNDZ, certified skills which the municipality possess include education and development, tourism, primary agriculture and engineering amongst others, which will harmonize with project proposed, including of the divergent sectors, such as the diary sector, timber industry, forestry sector and commerce and informal sector the LED Strategic plan has proposed.

Education and development Mechatronics Safety in soceity Tourism Hospitality Primary agriculture Engineering Civil engineering and building construction Electrical infrastructure construction Office administration Finance Information technology and computer science Marketing Management 20 30 40 50 60 70 80

Figure 72: Certified Skills in Dr Nkosazana Dlamini Zuma

CERTIFIED SKILLS IN DNDZ

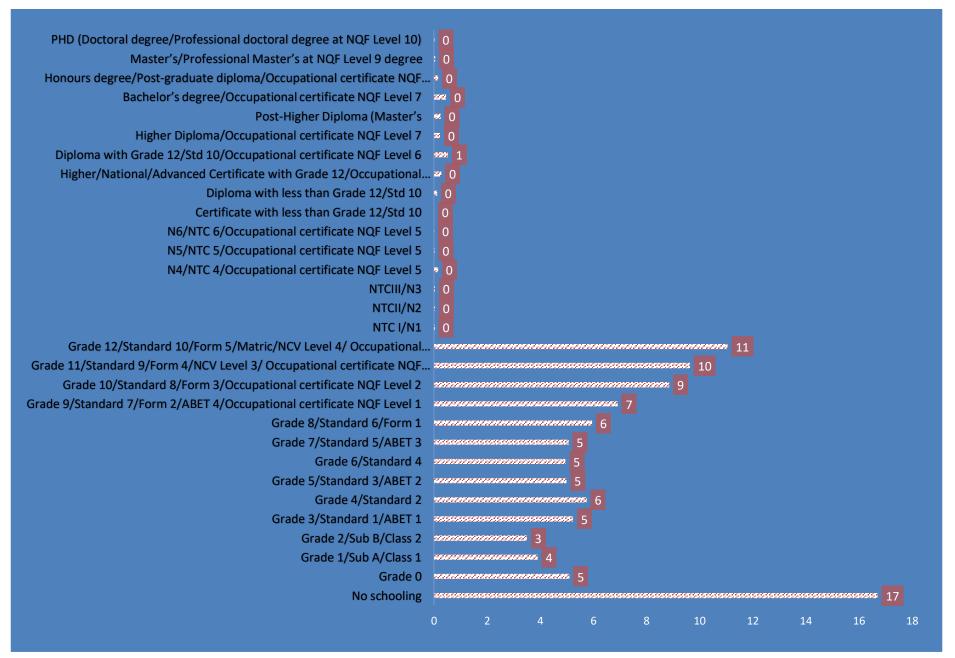


Figure 73: Highest level of Education in Dr Nkosazana Dlamini Zuma

16. AGRICULTURAL STRATEGY

Agriculture remains significant and dominant in terms of space and contribution to the local economy within the municipality and is one of the key drivers of economic growth, development and employment creation. Vast opportunity exists within this sector to help address the municipality's challenges of poverty, food insecurity and unemployment in rural communities, and as such remains crucial in safeguarding food security, creating labour intensive employment and reducing employment. The municipality has good climatic conditions with an average annual rainfall of between 700 and 1200mm making it ideal for a variety of agricultural production. In terms of agricultural potential, the municipality has all five agricultural potential land categories with categories A (Irreplaceable), B (Threatened) and C (Primary agric. Land) dominating accounting for 68 percent of the total area. Although relatively small, Category D and E are also present within the municipality and are located within communal land and areas under tribal authority. Per the Dept. of Agriculture, the breakdown of the land categories within the municipality is as follows:

- Category A land is regarded as very high potential agricultural land that should be retained exclusively for agricultural use to ensure national food security and includes grazing land that has a very high production value for sustained livestock production and accounts for approximately 20 percent of the total area;
- Category B is regarded as high potential agricultural land with potential to be used sustainably having few limitations to agricultural production and accounts for 33 percent of the total area;

- Category C on the other hand is regarded as land with moderate agricultural potential accounting for 16 percent of the total area. Within this category significant interventions would be required to achieve viable and sustainable food production. This category is more limited in the extent of arable land available for cultivation and as such, more suitable for extensive grazing, and the production of fodder crops in support of livestock production;
- Category D is land regarded as low agricultural potential where extensive areas of land are generally required for viable production (e.g. beef and game farming) although intensive production under controlled environmental conditions (including the use of hydroponic and/or aquaponic systems, poultry, piggeries) is not excluded, nor is intensive production on areas of arable land available, for example, along river systems; and
- Category E is land with limited to very low potential for agricultural production thus cultivation within this land category is severely limited in both extent and in terms of the natural resources available, and grazing value will be poor with a very low carrying capacity.

At present the most dominant farming practices include semiintensive beef, dairy, potatoes and timber in commercial farming areas and cattle, maize, potato, vegetable and dry bean farming in tribal areas. Overall, forestry and dairy production dominate the agricultural sector within the municipal area. Whereas most privatelyowned land is utilized for agricultural purposes; the traditional authority land is used mostly for settlement purposes with scattered subsistence farming. To fully take advantage of the municipality's great agricultural potential the vast tract of vacant and unused agricultural land needs to be utilised especially the land in the tribal areas where farming is not practiced in a sustainable manner and land that is under land reform. Subsistence farming within the municipality occurs mainly in the tribal areas with most the households practicing small scale cropping and livestock breeding. However small, subsistence farming has the potential to play an important role in eliminating food insecurity, reducing poverty and improving rural livelihoods within the municipality. Numerous challenges have been identified to plague these farmers including:

- limited access to financial markets for both inputs and outputs affecting actual production;
- limited or poor infrastructure to support farming especially climate resistant infrastructure to help curb the impact of climate change on production;
- market facilities which make cost of production to be high and as such causing a disincentive for small scale farmers to continue and to increase production; and
- Land degradation because of poor land management leading to unproductive land, alien plant invasion, over exploitation of natural resources, uncontrolled rural and urban sprawl.
- Climate change impacts.

The challenges above accompanied by climate change vulnerability have an adverse impact on meaningful and sustainable agricultural production. Even more, the municipality currently has numerous land claims with about three land claims being processed and eight existing land claims to which have already been gazette. The claim settled involves a total of 30.92 ha which was restored to for farming purposes and 5259 ha transferred redistribution, this land along with the other successful future claims will need to be protected and put to production. Thus, several sustainable ways are proposed at which sustainable agriculture can be pursed within the municipality including the promotion of agricultural development, agricultural land care management and lastly the protection of agricultural land.

16.1 AGRICULTURAL DEVELOPMENT

Dr Nkosazana Dlamini local municipality is predominately rural with most the population dependent on agriculture either as a source of income or food. The municipality also boasts vast lands of good agricultural potential which if fully exploited and properly developed can promote sustainable food production, alleviate poverty and create employment. The international standards suggest a ratio of 1 person per 4000m2 of productive agricultural land. South Africa is currently siting at less than 1 person per 2500m² of productive agricultural land which is relatively low. However, Dr Nkosazana Dlamini Zuma Municipality is fortunately higher at 3 699 m²/ person which is slightly close to the international standard. This implies that no land of agriculture within the municipality should be transformed.

The promotion of sustainable agricultural development especially among small scale farmers and households is key towards enhancing food security within the municipality and growing potential income for these respective farmers. Several farming methods can be encouraged to small holder farmers looking to increase their production capacity without having to increase their acreage and beneficiaries of land reform, thus, relevant infrastructure to support production and capacity building of these farmers will need to take place. Furthermore, promoting collaboration and knowledge sharing between small scale farmers and other agricultural organizations will be needed. Below is a list of strategies that can be promoted to promote the development of agriculture within the municipality.

16.1.1 AGRO-PROCESSING

Although agro-processing falls under manufacturing sector, this industry gets it primary output from the agricultural sector. Agroprocessing has very strong backward linkages with the primary sector, secondary sector (through further processing including furniture) and tertiary sectors (through trade, transport and finance) creating great opportunities for further economic growth, value adding and employment creation. The development of a dairy processing plant and a wood work plant have been identified as areas of great opportunity within the municipality, it is however noted that there is great need for partnership between public-private partnership for these opportunities to be realised and the collaboration between small-scale and commercial farmers. The Harry Gwala Rural Development Plan enlists the following intervention project which ought to be prioritised within the area of Dr Nkosazana Dlamini Zuma Municipality with regards to Agri-processing opportunities by assisting in the development of dairy factory in Underberg.

16.1.1.1 DAIRY PROCESSING

At present, the municipality has only one small independent cheese factory and a long-life milk processing plant all located in Creighton. Nonetheless, the growth of dairy processing within the district is plagued by several challenges including poor quality roads increasing the cost of transporting final products along with high costs of entering this market that limits potential new entrants especially small-scale farmers lacking financial and production support. This further limit the ability of the existing plants to perform at full potential and diversify and the further expansion of this industry to include small scale farmers. The potential for growth/expansion of this industry requires government intervention in ensuring that proper roads are built to support these producers and that production and financial support is given to small scale farmers looking to venture into dairy processing along with continuous training to ensure that they are well capacitated in the long run.

16.1.1.2 WOOD AND WOOD PRODUCTS

The locality has a well-established forestry sector suggesting a great potential for a woodworking manufacturing industry within the forestry area in the form of indoor and outdoor furniture manufacturing, charcoal and many more. The municipality holds two of the country major forestry companies that is Sappi and Mondi with total land ownership of 14 631 ha and 11 022 ha of land under plantation. However, their products (both soft and hardwood) are sold, treated and processed outside the local municipality posing a challenge for local opportunities that exist associated with this industry (i.e. further processing).

This industry has great potential as it is labour-intensive with the possibility to contribute to increased employment and the development of Small, Medium and Micro Enterprises (SMME) within the municipality and district. The furniture manufacturing industry is among other sectors identified by the Industrial Policy Action Plan (IPAP), New Growth Path and the National Development Plan for its potential for growth and job creation.

Globally South Africa's wood and wood products industry accounts for a very small percentage of the global industry, however the country is a major exporter and the largest producer of furniture in the Southern African region, with the bulk of the manufacturers being small-scale producers (Trade Information Brief, 2005). The Furniture manufacturing sector in the country is primarily concentrated in three provinces; Gauteng, KwaZulu-Natal and Western Cape Province. These three provinces together produce over seventy percent (70%) of the country's furniture manufacturing produce, with the balance produced by the remaining provinces. The formation of strategic partnerships involving government, small scale producers and the forestry industry participants is needed to ensure that these opportunities are realised, and that support is given to the SMME's looking to venture into wood and wood product processing through the provision of inputs, infrastructure, production and financial support and market access. Which will further allow for employment creation and economic growth for the municipality.

16.1.2 TUNNEL FARMING

The introduction of tunnel farming practices more especially in areas of poor agricultural potential is of great advantage in that not only does create the opportunity of increased production but also increases the quality of the crops grown. Furthermore, numerous advantages to using tunnel farming method of cultivating plants exist including the benefits of growing plants in a growth medium other than natural soil which helps eliminate the problem of soil borne diseases, the constant flow of nutrients from the irrigated water system leading to high quality crops and its relative cost effectiveness in that it produces high quality crops, at larger yields and reduces the cost of dealing with soil borne diseases. Another form of this method fast gaining popularity is the utilization of Aquaponics this system is distinctively different to other systems as it is designed as a selfsustainable system with little to no waste products being released into the environment.

Tunnel farming and aquaponics are greatly beneficial in areas with restricted land potential and land size. They allow small scale farmers to adapt to environmental threats associated with climate change, such that, these methods are resilient to the impacts of climate change such as heat stress, flooding, lightning, wind and hail associated with severe storms. The prioritisation of this should focus on the participation and advancement of SMME's and strategic partnerships involving government and other relevant agencies and industry participants will be needed through the provision of agricultural inputs, infrastructure and production and financial support. Furthermore, this provides a great platform for partnerships or collaboration between small-scale farmer groups (including formation of cooperatives) and partnerships involving small-scale farmers and already established commercial farmers which involves knowledge and information sharing, joint ventures between these farmers in marketing of their produce to assist in lowering transaction costs, speeding up spread of knowledge, information and innovation.

16.1.3 FOOD GARDENS

While the vast tracks of this land have been encroached by settlements an opportunity still exists to make use of few patches of the available agricultural land within the settlements to respond to food security initiatives. Intensive production on areas of arable land available, such as, areas located along river systems need to be utilized for food production whilst also encouraging the community and households to participate in the initiative to grow food gardens.

16.2 AGRICULTURAL LAND CARE

Subsistence and small-scale farming remain a major source of food for many rural households within the municipality and as such, proper land care management should form part of promoting food security and sustainable agriculture considering community-based and indigenous approaches to sustainable food production. Rural communities need natural resources to sustain their livelihood and therefore sustainable land care management is required for these communities to continue and prolong this livelihood. Degradation of land because of overuse, settlement invasions, climate change impacts leading to droughts and the grazing system used leads to the long-term loss of production potential. As such, sustainable land care management is required to ensure that rural communities can continue their agricultural activities indefinitely without affecting the natural or semi-natural ecosystem and species loss. Though current and past planning and land use management has plagued these areas threatening their livelihoods and survival, sustainable land care management should be the basis of successful agricultural development, consequently, the following table provides a guide adopted from the draft KZN rural norms and standards by the Dept. of Cooperative Governance and Traditional Affairs (CoGTA) to different standards that can be used to achieving this:

	SITE SELECTION CRITERIA	LAND SIZE	RECOMMENDED PRACTICE
SUBSISTENCE AGRICULTURE	Land for subsistence agriculture should be located on land with relatively good agricultural potential and strategically located near water catchment areas.	Land for subsistence farming needs to be at least 1000m ² to accommodate small scale agricultural production.	 Adoption of conservation tillage practices. development of small-scale irrigation systems Strengthening of community-based activities for farming Promotion of multiple agriculture to reduce risk of monoculture the use of contour ploughing and wind breaks; allowing indigenous plants to grow along the river banks instead of ploughing and planting crops right up to the water's edge; educating communities about the pollution impacts of the use of fertilizers and chemicals on water quality and food safety; Pathways can be easily eroded when water flows over them. Prevent this by breaking the water flow with logs, stone packs or old tyres; and Agricultural landowners need to familiarize themselves with those species that pose a threat on their own land and eradicate them.
GRAZING	Consider the suitability of grazing areas. Divide into camps based on herds and carrying capacity. In areas where tilling (ploughing) is impossible.	 Land allocation for grazing should meet carrying capacity of grazing area such that 1 livestock unit (LU)/ 2.5 hectares (Ha); Land for holding livestock should be at 100m2 per household; and Land for building chicken coup at 50m2 per household 	 Identification of a site for communal grazing where rotational grazing is compulsory and monitored and/or introduce a controlled grazing system that will regulate the amount of time and grazing that should occur at a place. proper disposal of manure produced by intensive livestock breeding to prevent water contamination; limiting herd sizes or restricting grazing ranges, avoiding overgrazing and the overuse of crop lands; and The replanting of indigenous plants to ensure that there are always plants growing on the soil. Alien plant species and bush encroachment control should be done on a regular basis this can be done through the formation of local groups whose purpose is to clear invasive alien plants from public land for the benefit of local communities and their environment.

MANAGING GOOD POTENTIAL AGRICULTURAL LAND		There is no specific site size this depends on specific area and it's potential.		Empowering traditional leaders in respect of the consequences of allocating land for settlements in agricultural lands; proper disposal of sewage from human settlements to prevent run-offs to nearby water sources; organic farming encouraged; and Stimulating the formation of land care groups.
--	--	--	--	---

Table 43: Recommended Agricultural Practices

Source: KZN Rural Norms and Standards Draft, KZN Dept. of COGTA (2016)

16.3 PROTECTION OF AGRICULTURAL LAND

The municipality's agricultural land will need to be protected from settlement encroachment which should be done through proper zoning of these land parcels to prevent loss of good agricultural and production potential. Along with government, rural authorities can play a significant role towards achieving this such that they need to be involved (in their capacity as custodians of land) in relevant workshops or meetings to ensure that agricultural land is protected and only utilized for sustainable agricultural production. Poor resource (veld) management such as overstocking, the development of land for settlement (mainly in land reform projects) and other nonagricultural uses has led to the loss of significant areas of good agricultural land leaving land degraded and unproductive which in most cases the impact is irreversible.

The Department of Agriculture, Environmental Affairs and Rural Development has a responsibility to protect agricultural land from development that leads to its alienation from its primary purpose or to diminish productivity. Thus, the protection of good agricultural land within the local municipality should be based on the following policy principles:

- Any proposal for non-agricultural development on agricultural land should be subject to an application made to, and assessed by, the Department of Agriculture in terms of the Sub-division of Agricultural Land Act, (Act No. 70 of 1970).
- The preparation of planning schemes should include an evaluation of alternative forms of development, and significant

weight should be given to those strategies which minimise the impacts on good quality agricultural land.

- The Land Use Scheme should aim to minimise cases where incompatible uses are located adjacent to agricultural operations in a manner that inhibits normal farming practice. Where such instances do arise, measures to amend potential conflicts should be devised.
- The land use scheme should provide for a hierarchy of agricultural zones based on the agricultural development potential and impact of non-agricultural activities on agricultural land. Non-agricultural activities such as agritourism, game farms with themed estates or lodges, resort developments, etc. should be located on land with low agricultural potential.
- Agricultural potential should be used to establish agricultural zones in terms of the land use scheme and provide for a continuum of agricultural zones from predominantly agriculture only zones to zones that allows for a mixture of agricultural and non-agricultural uses. The following criteria may be used in this regard:
 - i. High potential agricultural land should be used for mainly agricultural activities. However, limited non-agricultural uses may be permitted especially along the corridors and within the designated development nodes. Conservation should form part of a drive to protect and enhance the quality of agricultural land. Irrigated land along the river corridors should be protected equally.

ii. Low potential agricultural land should be subjected to tourism and low intensity agricultural uses. Most of it is degraded and prone to soil erosion.

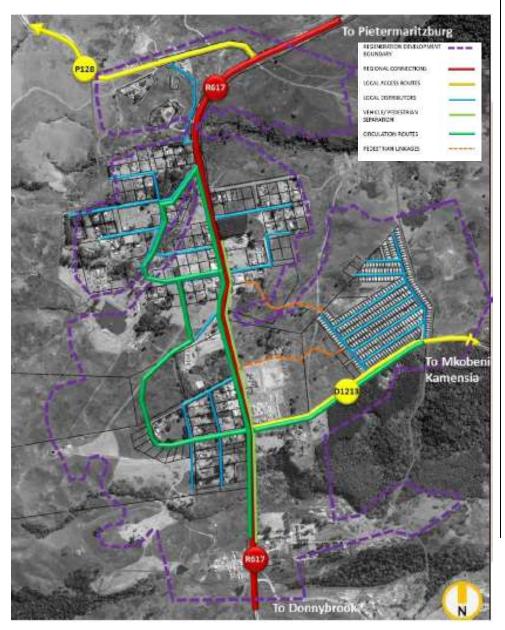
17. NODAL SPATIAL DEVELOPMENT FRAMEWORKS

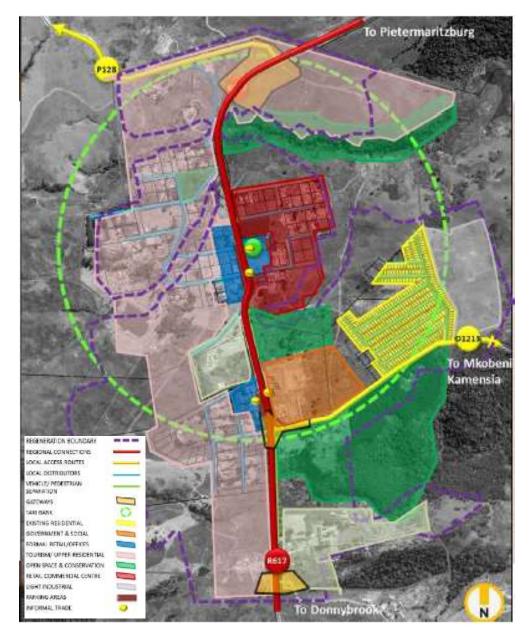
17.1 BULWER TOWN

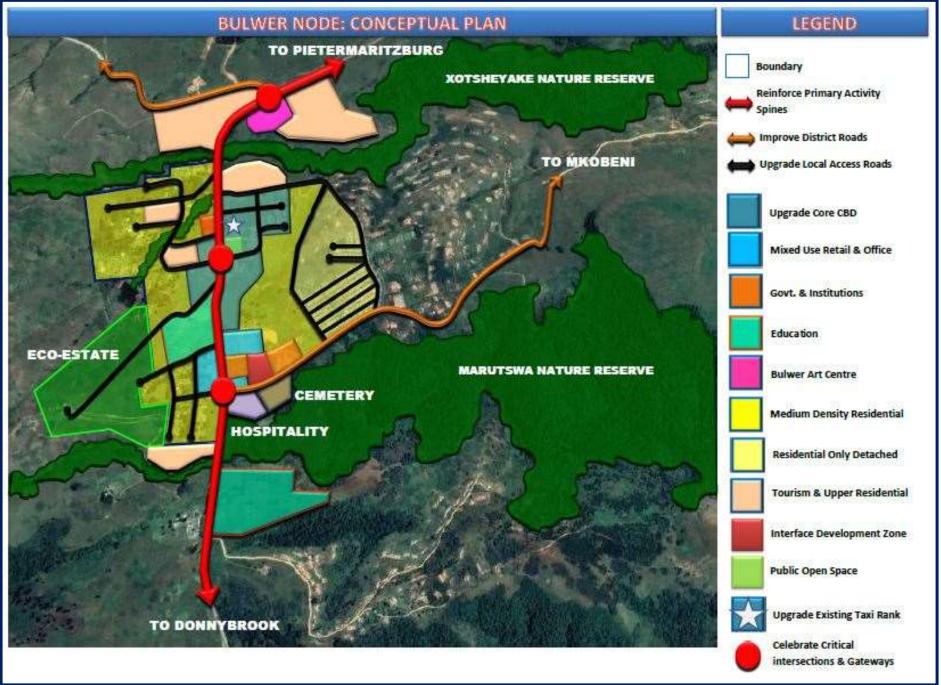
Bulwer is strategically located as it is traversed by the R617. This route provides opportunity for Bulwer to capitalise on the through traffic going to areas such as Pietermaritzburg, Kokstad etc. Bulwer lacks the requisite magnitude of commercial development to support surrounding populations. It is serviced with, inter alia, 2 schools, a police station, library and small scale commercial and retail shops. The town of Bulwer itself is a formal town characterised by various private ownerships. Only three significant landowner classifications can be found within the town which conclude of private ownership as mentioned and those of Trust and State-owned land. Directly to the south of the town along the western side of the R617 route to Donnybrook, a portion of land is found registered as Trust land. To the south east there is registered land in possession of the State.

It encompasses a low-cost housing development and still needs more infrastructure upgrading projects to propel the town forward. Activities such as commercial development, location of government offices and residential development should be encouraged. Importantly, the growth of Bulwer should take cognisance of the environmentally sensitive nature of the surrounding environment. Bulwer is a strong commercial, service and educational node, with several schools, police station, a wide variety of shops and new community facilities. The local municipality aims to promote development opportunities accordingly within the primary node. Bulwer was deemed the appropriate node to develop more affordable housing, which will serve to attract more government employees and private sector employees to stay permanent within Dr Nkosazana Dlamini Zuma. Subsequently, Bulwer was extended to include an affordable housing development and additional up market development around the Mountain Park Hotel. Additional land to the east and south of the town has been

Towns like Bulwer are meant to be rural centres of service delivery but often do not fulfil this function. Instead they are often characterized by poverty, unemployment and economic stagnation. Numerous national and provincial acts and policies govern municipal development but there is no national or provincial policy to guide processes of rural precinct development in practice. Precincts are not necessarily formal administrative areas in terms of current planning legislation or policies. Precinct commonly refers in planning to a geographically smaller area with specific characteristics that requires detailed planning within the broader administrative boundaries of a municipality and the exact size of a precinct will thus vary. Similarly, a rural precinct is a spatially explicit area within a municipal area that is subject to particular administrative arrangements to protect and promote rural and regional landscape values and supporting activities within the rural precinct.







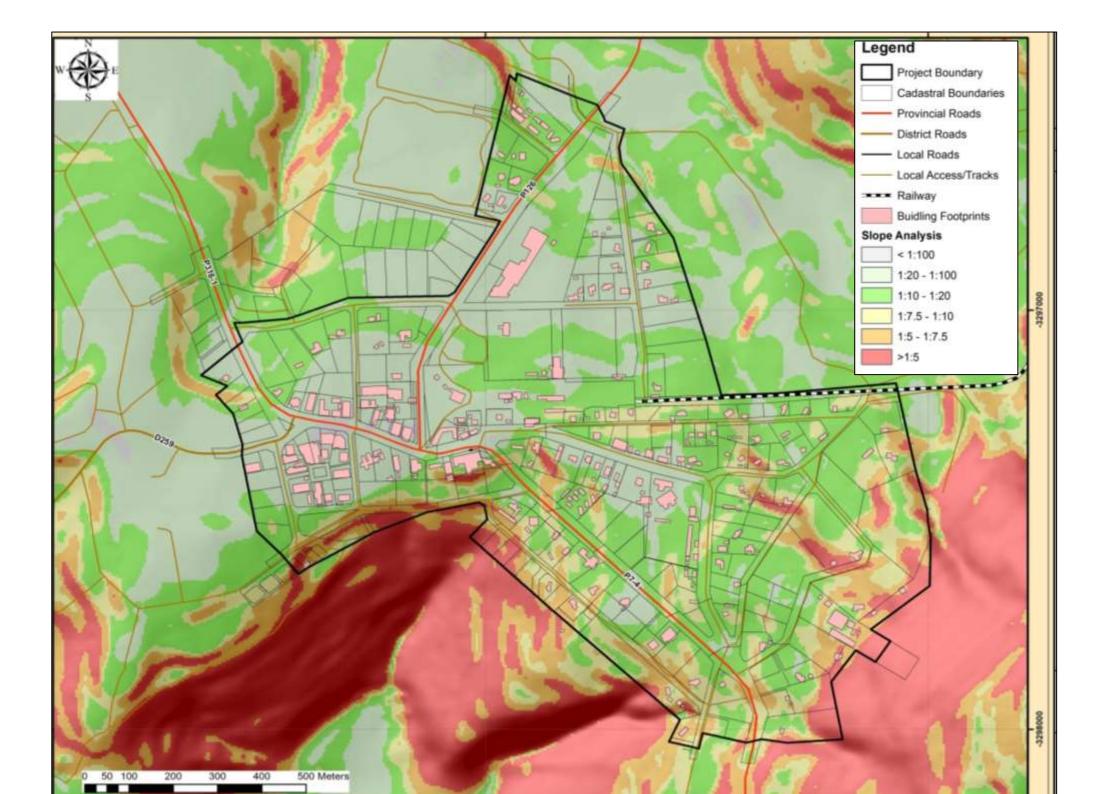
17.2 UNDERBERG TOWN

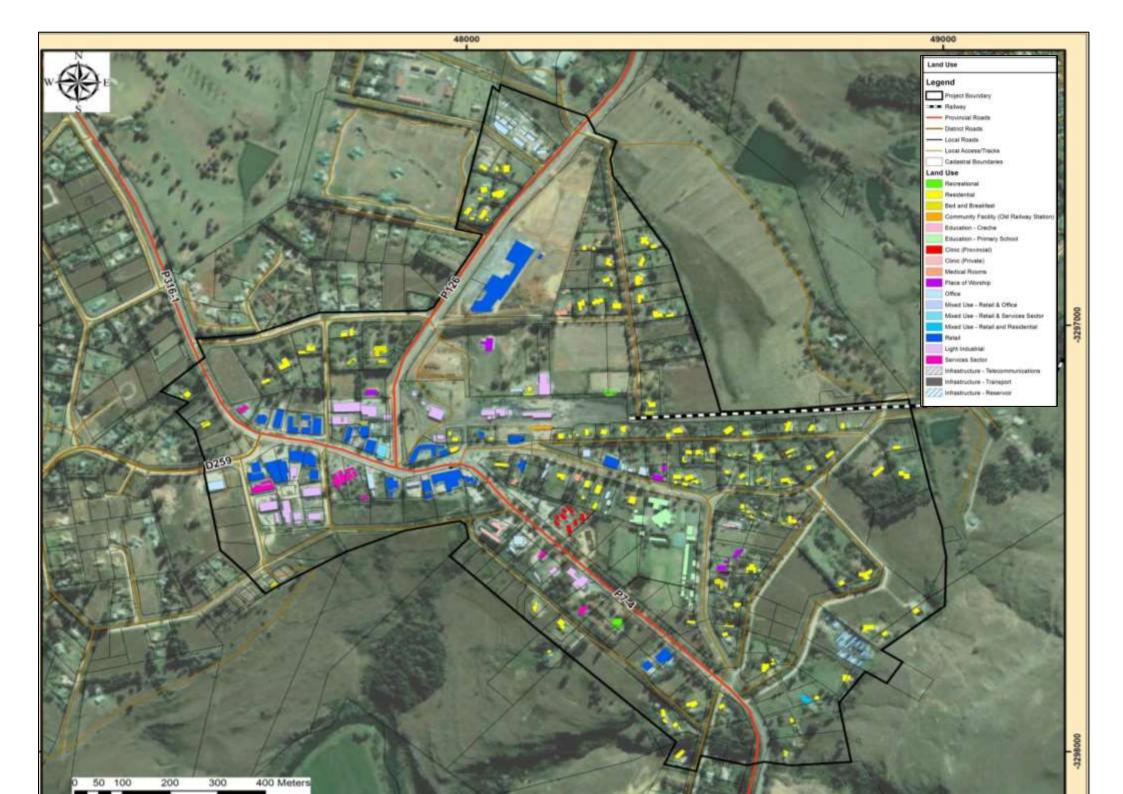
Underberg is the municipality's administrative centre as it accommodates the municipal offices. Underberg has over the years proved itself a "laid back" tourist town forming the core in a web of adjoining tourist destinations including Lesotho, Maluti Drakensberg and other. It also accommodates various economic and commercial activities. In this regard, it proves a stable tourist-oriented property market due to its strategic location. Underberg is an administrative town in a dairy and cattle farming community in the Mzimkulu River valley of KwaZulu-Natal, South Africa. It is situated at the foot of the 1,904 m Hlogoma Peak (place of echoes) in the foothills of the southern Drakensberg, KwaZulu-Natal.

Underberg was established in 1917 when the railway from Pietermaritzburg reached the area. It is an important commercial centre for the region's farming industry providing many of the support services. It is also a trading center for people who come down the nearby Sani Pass from Lesotho. The town also houses provincial offices of the ministries of Social Welfare and Transport, a clinic; as well as the municipal library. The Underberg School offers preprimary and primary education. Churches in town include the Catholic Church, Congregational Church, The Underberg Baptist Church and Highlands Church International.

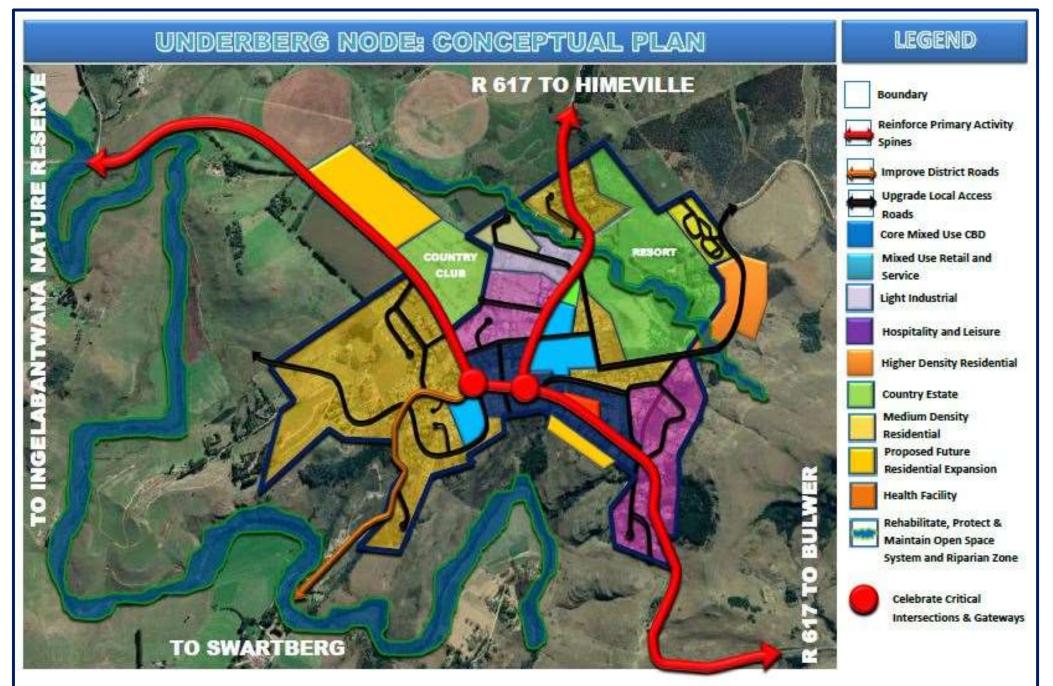
Tourism is the second biggest industry in the area, next to farming. The area surrounding Underberg provides a large variety of tourism offerings, as a gateway to the Southern Drakensberg. The Southern Drakensberg Community Tourism Organisation was established by the community in 2007 and serves to promote tourism under the Southern Berg Escape brand. Underberg offers a variety of accommodation and eatery options, mostly of casual nature to suit most tastes. The Underberg district is, along with Dullstroom, Mpumalanga one of South Africa's premier trout fly fishing destinations. Splashy Fen, an annual outdoor music festival, is held on a farm near Underberg. The internationally acclaimed Sani2C Mountain Bike race held annually starts in Underberg, while the grueling Joberg2C MTB Race passes through along the same route on Day 6 thereof. Paddlers from far and wide gather annually for the Drak Challenge canoe race held on the Mzimkulu river. The key issues affecting the town include:

- Improvement of Accessibility other than R617 (Road Conditions, Delivery etc.),
- Provision of Water and Sanitation,
- Facilities for a high order node (Hospital & Recreational Facilities)
- Formal Taxi Rank, formal Trader Facilities and Pedestrian Priority areas,
- Residential Opportunities (Temporary, Government etc.),
- Economic Support (Agricultural Support, Training etc.), and
- Large tracks of land for potential redevelopment.









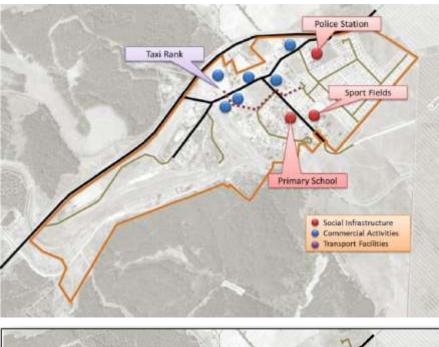
17.3 DONNYBROOK

Donnybrook is located within the central portion of the Local Municipality and along the R612 route between Bulwer and Ixopo. The town itself is not formalised as a result the study areas is loosely defined around the core activity area close to the provincial road but considers the wider context of social facilities and higher density settlements. The rail line runs parallel with the provincial road and significantly impacts on the position and type of land use activities. Furthermore, the study area within Ward 5 and is defined by Ingonyama Trust Land to the south west and priority redistribution land to the south east. Donnybrook has an organic settlement pattern with linier development occurring mainly along the R612 provincial road and the rail line that runs to the west of the town.

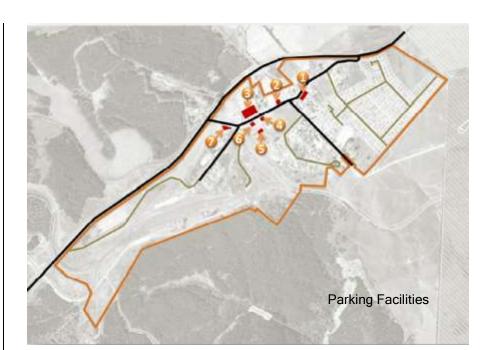
It has contextual growth along the hill that restricts growth between the different transport methods to a certain extend with difficult development opportunities. Donnybrook is identified as a strong commercial and industrial node. The local municipality has also identified the need for affordable housing within this node. The town has a new affordable housing development and is to be extended to make provision for future residential and commercial growth. Additional land has been identified on railway land to the north of the town and to the east for residential expansion. The town boundary is to be extended to include the mission to the north. Towns like Donnybrook are meant to be rural centres of service delivery but often do not fulfil this function. Instead they are often characterized by poverty, unemployment and economic stagnation. Numerous national and provincial acts and policies govern municipal development but there is no national or provincial policy to guide processes of rural precinct development in practice.

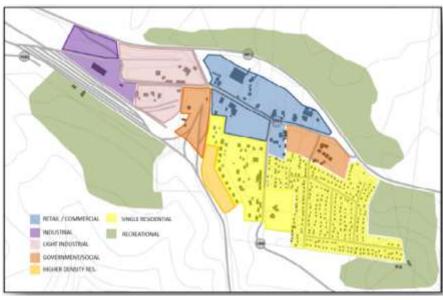
The informal Economy in Donnybrook is very limited with only three areas where informal traders are situated. The main pedestrian circulation is localised within the CBD area. There are two main residential area, namely behind the police station, and to the north around the old water reservoirs, which included government residential buildings. The two residential areas use more or less the same pedestrian route to get to the taxi rank and the Main economic Centre around the SPAR. The Pedestrian Line depicted on the Image below represents the main route utilised, after which the permeability of the area allows for pedestrians to move on various routes to their destinations.

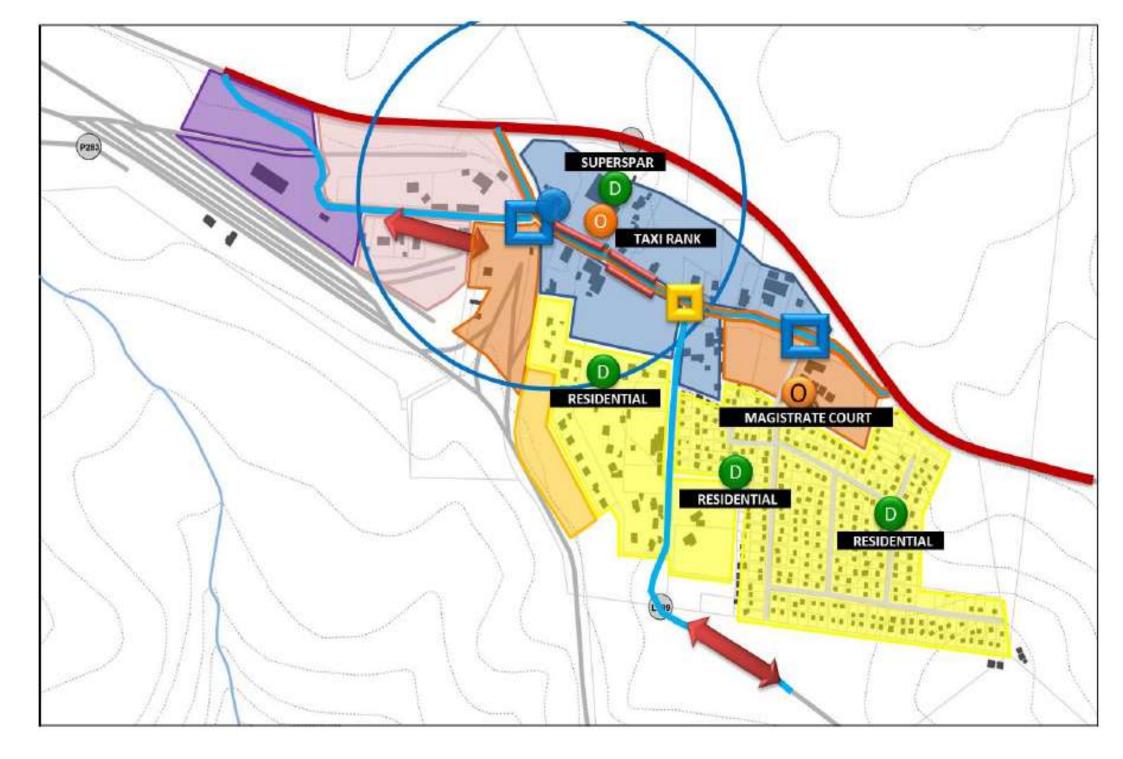
Formal parking facilities in Donnybrook are very limited and most are provided on-street. The parking areas depicted are purely linked to public parking facilities at commercial activities and does not include private parking areas at church sites. The larger hinterland area of the Donnybrook includes a balance of commercial agricultural activities (mostly timber related) and subsistence farming within the Ingonyama Trust land areas. The Donnybrook precinct area, as demarcated for the purpose of this plan, excludes the predominantly rural residential areas to the south of the settlement, but includes the low-income housing area to the south of the CBD.

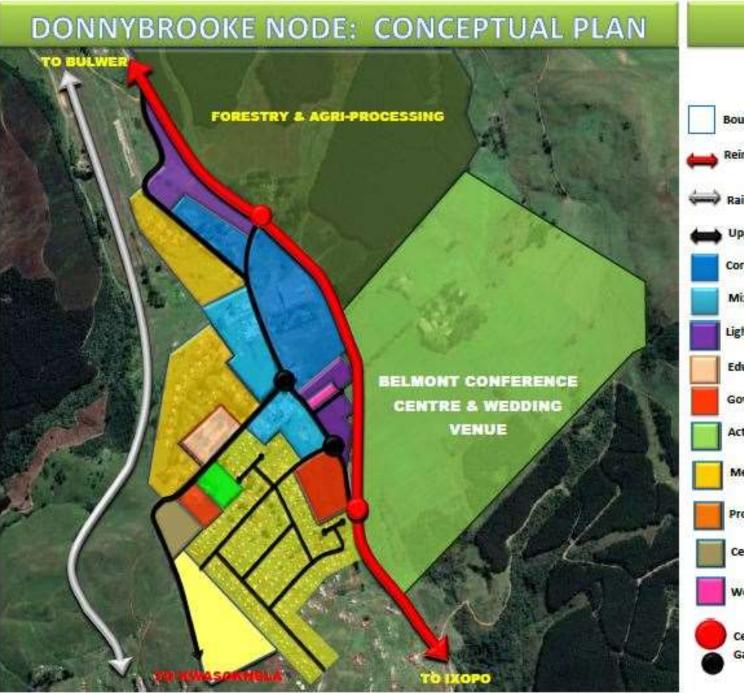












LEGEND



17.5 HIMEVILLE

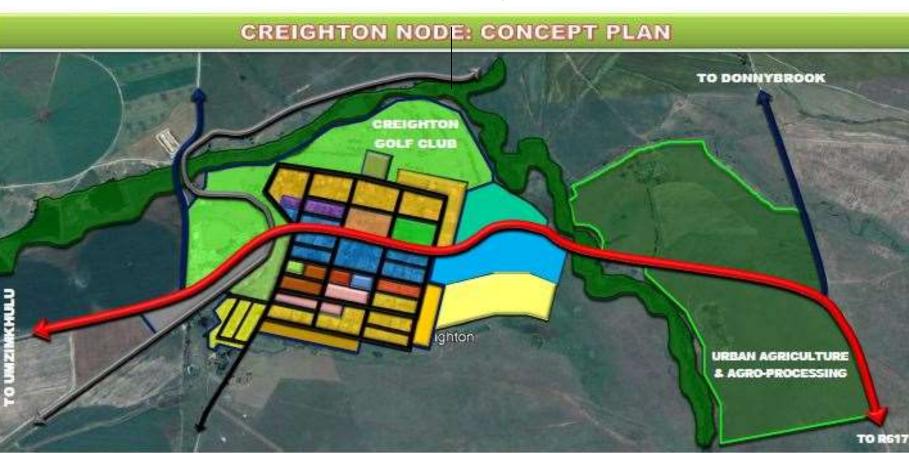
Himeville is an important gateway to Lesotho but also serves the local Township of Himeville with necessary amenities. It currently houses the administrative centre of Kwasani Municipality. There is also a police station, various commercial outlets, offices and tourist geared facilities.

17.6 CENTOCOW

Centocow is located on the south-western part of the municipality and is well serviced and is accessible via provincial roads such as the P246 or P299. The major land uses in Centocow are the St Appolinaris hospital and the Centocow mission. These land uses serve as major attractors of people to the node. They are strategic assets that can be used to further catalyse public and private investment to this area. Centocow has the potential to provide more services to the surrounding rural settlements. Spatial development in Centocow should focus on transforming the area into a mixed land use area, and a viable service centre developed with social, economic and other facilities.

17.7 PHOLELA

Pholela node exhibits clear nodal characteristics. The node has land use diversity and consists of core land uses that serve as significant attractors of population from various parts of the municipality. Pholela can be seen as an administrative node as it has a number of public facilities and offices of government departments. These include a Community Health Centre; a magistrate's court, a traditional council administrative centre, a school; Department of Agriculture and Rural Development, SASSA and Department of Social Development offices. Other uses within his node include commercial activities and places of worship.



LEGEND

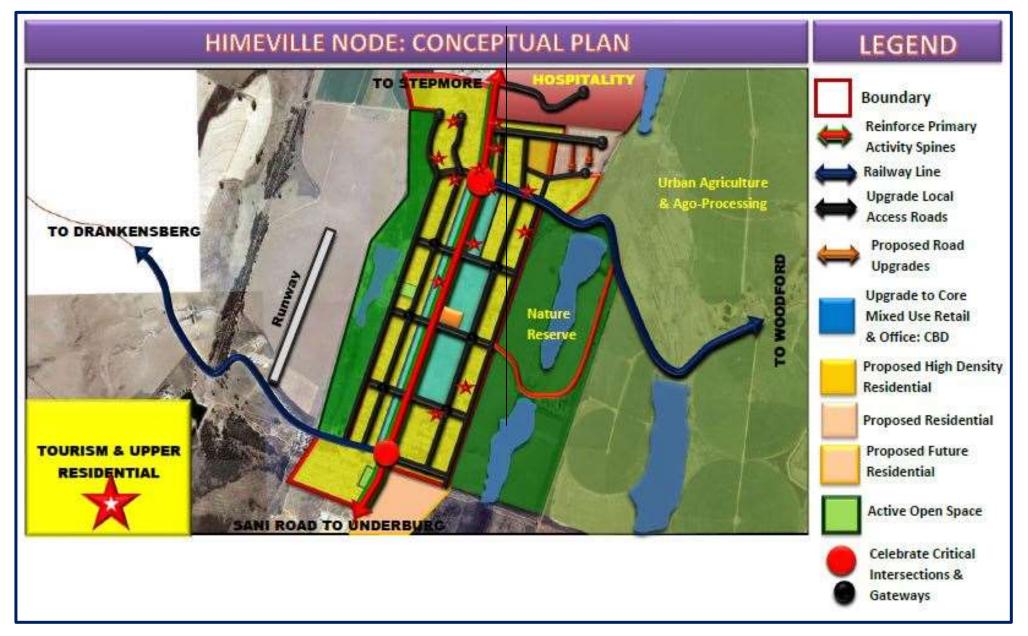


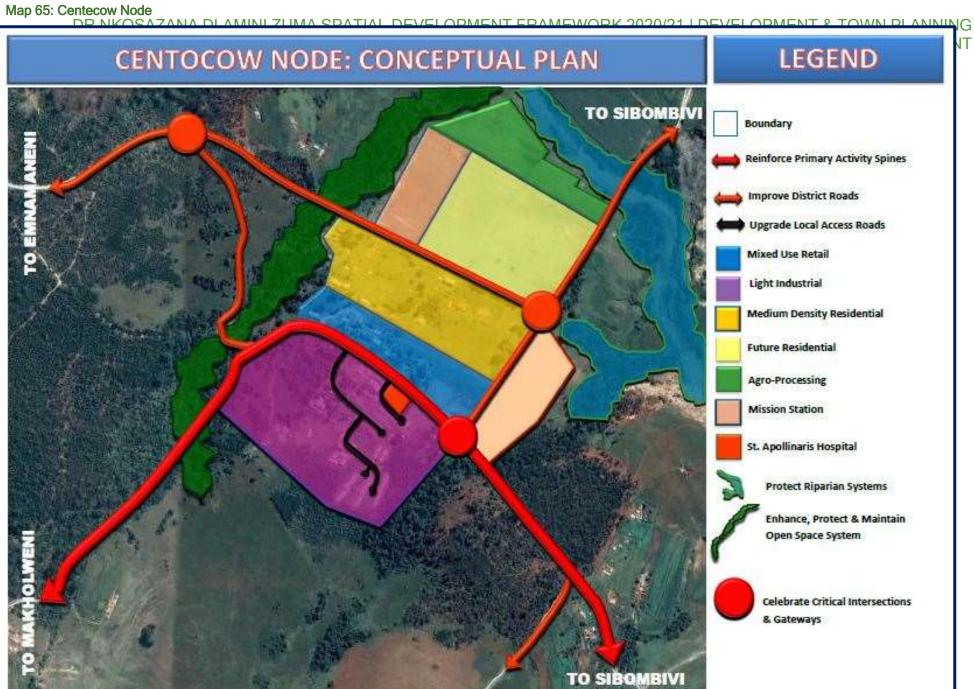
Upgrade Local Access Roads

Railway Line



Map 64: O Smewille Node MINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING DEPARTMENT





Map 66: Pholela Node DR NKOSAZANA DLAMINI ZUMA SPATIAL DEVELOPMENT FRAMEWORK 2020/21 | DEVELOPMENT & TOWN PLANNING

PHOLELA NODE: CONCEPTUAL PLAN

