

Mpumalanga Provincial Government



Department of Agriculture and Land Administration

Integrated Resource Information Report

Mkhondo

06 May 2005

**RESOURCE MANAGEMENT AND LAND USE PLANNING
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Mkhondo

Summary

Mkhondo is situated in the south-eastern corner of Mpumalanga on the Drakensberg escarpment. Piet Retief is the main commercial center of the area. Moderate summer and cold winters characterize the climate of the area. The annual rainfall, which falls mainly during summer, varies between 600 and 1050 mm. The area of approximately 4 870 km² is covered by grassland. The area is known for the enormous wattle and pine plantations. Other crops include maize, cotton and tobacco. The Ngoye Paper Mill outside Piet Retief is one of the largest in South Africa. The Heyshope Dam near Piet Retief is a superb fishing destination.

GENERAL INFORMATION

Common Name(s)	Piet Retief
Area	486,815.0 ha
Coordinates	30°14'23"E 26°30'0"S 31°16'48"E 27°22'12"S
District Municipality	Gert Sibande District Municipality
Region	Gert Sibande Region

Towns

Name

Amsterdam

Piet Retief

Neighbouring Municipalities

Name

Albert Luthuli

Msukaligwa

Pixley Ka Seme

Natural Resources

Climate

Rainfall

Rainfall Range 600 to 1,050 mm per year

Temperature

Temperature Zone 35/14

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	14.2	13.8	10.8	8.9	7.4	10.9	13.9	13.5
Tn	7.5	6.5	4.9	3.6	2.8	5	6.6	7.1
Td	20.9	21.1	16.7	15.2	12	16.9	21.2	19.9
Tmax	24.7	25.3	21.2	17.2	14.6	20.2	25.4	23.6
Tmin	3.2	2.3	1.5	0.6	0.2	1.6	2.4	3.1

Temperature Zone 46/14

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	17.3	16.2	13.4	9.5	7.4	11.3	14.9	16.3
Tn	12.8	11.7	8.6	4.7	2.8	6.7	10.2	11.8
Td	21.8	20.7	18.2	14.3	12	15.9	19.6	20.8
Tmax	24.4	23.3	20.9	17	14.6	22.3	22.3	23.4
Tmin	10.2	9.1	5.8	2	1.7	4.1	7.5	9.2

Temperature Zone 57/15

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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T	20	17.8	14	10.5	8	14.2	17.9	18.8
Tn	17.7	15.5	12.5	9.3	7.5	12.6	15.7	16.6
Td	23.3	20.1	15.5	11.7	8.5	15.8	20.1	21
Tmax	23.6	21.4	16.4	12.4	8.8	16.7	21.4	22.3
Tmin	16.3	14.2	11.6	8.6	7.2	11.7	14.4	15.3

Temperature Zone 57/25

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	20	19.2	16.9	13.8	11.9	15.7	18	19.3
Tn	17.6	16.5	13.4	9.5	7.2	11.5	15.2	16.6
Td	22.4	21.9	26.4	18.1	16.6	19.9	26.8	22
Tmax	23.8	23.4	22.4	26.6	14.3	22.3	22.4	23.5
Tmin	16.2	14.9	11.4	7.1	4.5	9.1	13.8	15.1

Temperature Zone 57A/35

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	20	18.9	17	15.4	14.2	17.1	19	19.4
Tn	17.5	15.6	12.5	9.3	7.4	12.6	15.7	16.6
Td	22.5	22.2	21.5	21.5	21	21.6	22.3	22.2
Tmax	23.9	24.1	24.1	24.9	24.9	24.2	24.2	23.8
Tmin	16.1	13.7	9.9	5.8	3.5	10	13.8	15

Temperature Zone 67A/35

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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T	21.5	20	17.9	15.6	14.2	18	20.1	20.8
Tn	17.5	15.5	12.6	9.4	7.4	12.7	15.6	16.6
Td	25.5	24.5	23.2	21.8	21	23.7	24.6	25
Tmax	27.8	27.1	26.2	25.3	24.9	26.3	27.2	27.4
Tmin	15.2	12.9	9.6	5.9	3.5	9.7	13	14

Temperature Zone 77B/46

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	23.5	22.2	20.4	18.5	17.1	20.6	22.3	22.9
Tn	17.5	16.6	15.1	13.6	12.6	15.2	16.8	17.4
Td	29.5	27.8	25.7	23.4	21.6	26	27.8	28.4
Tmax	33.9	31	28.7	26.2	24.2	29.1	30.9	31.5
Tmin	14.1	13.4	12.1	10.8	10	12.1	13.7	14.3

T - Average Temperature

Tn - Average Night Temperature

Td - Average Daily Temperature

Tmax - Average Maximum Temperature

Tmin - Average Minimum Temperature

Soils

Land Types

Land Type	Area (ha)	%
Dystrophic and/or mesotrophic; red soils not widespread (Bb)	102,925.2	21.1
Dystrophic and/or mesotrophic; red soils widespread (Ba)	115,109.3	23.6
Exposed rock areas with miscellaneous soils (Ib)	1,747.5	0.4
Pedologically young soils (lime occurs regularly) (Fb)	18,228.6	3.7
Pedologically young soils (lime rare or absent) (Fa)	72,193.7	14.8
Red and yellow dystrophic and/or mesotrophic (Ac)	133,936.7	27.5
Red, dystrophic and/or mesotrophic (Ab)	21,306.4	4.4
Vertic, melanic, and/or red structured diagnostic horizons (Ea)	15,085.2	3.1

Yellow, dystrophic and/or mesotrophic (Ad)

4,529.0

0.9

Soil Clay Contents

ClayClass	Area (ha)	%
Clay	14,117.0	2.9
Clayey	18,864.0	3.9
Loam	123,623.9	25.4
Loam & Clay	169,268.5	34.8
Loamy Sand	38,968.4	8.0
No Data	20.1	0.0
Non-perennial pans	234.2	0.0
Sandy	23,700.3	4.9
Sandy Loam	71,957.7	14.8
Very Clayey	8.1	0.0
Very Sandy	19,928.5	4.1
Waterbodies	6,125.0	1.3

Soil Depth

Soil Depth Class	Area (ha)	%
Deep	47,713.9	9.8
Medium Deep	52,497.5	10.8
Medium Shallow	27,316.9	5.6
No Data	20.1	0.0
Non-perennial pans	234.2	0.0
Shallow	50,168.8	10.3
Steep Slopes	60,633.7	12.5
Very Deep	199,850.3	41.1
Very Shallow	41,469.7	8.5

Very Steep Slopes	785.2	0.2
Waterbodies	6,125.0	1.3

Soil Form Association

Soil Form Association Class	Area (ha)	%
Ar, My, Va	5,832.6	1.2
Ar-dominant	690.4	0.1
Av, Gc, We, Cv	9,005.6	1.8
Es, Gs, Cf	2,467.0	0.5
Gs, Cf, Es	5,554.3	1.1
Hu (30%), Sd (30%)	57,255.5	11.8
Hu, Av, Cv, Gc	74,675.8	15.3
Hu, Sd, Sw, Gs	6,226.5	1.3
Hu-dominant	180,359.7	37.0
Lithosols, Cv, Gc, Hu	5,153.1	1.1
Lithosols, Cv, Va	12,798.3	2.6
Lithosols, Hu, Cv, Gc	51,655.5	10.6
Lithosols, Hu, Cv, Sd, Sw	51,432.7	10.6
No Data	20.1	0.0
Non-perennial pans	234.2	0.0
Rg, Ar	15,392.2	3.2
Sd, Bo, My, Ar, Hu	1,936.9	0.4
Waterbodies	6,125.0	1.3

Topography

Elevation

Range (m)	Area (ha)	%
801 - 900	5,364	1.1

901 - 1000	14,752	3.0
1001 - 1100	21,457	4.4
1101 - 1200	25,481	5.2
1201 - 1300	146,179	30.0
1301 - 1400	171,659	35.3
1401 - 1500	97,899	20.1
1501 - 1600	4,023	0.8

Slope

Class	Area (ha)	%
Level (0 - 3%)	118,682	24.4
Moderate (4 - 15%)	293,408	60.3
Steep (16 - 25%)	47,253	9.7
Very Steep (25+%)	27,473	5.6

Vegetation

Acocks Veld Type (1975)

Acocks Veld Type	Area (ha)	%
Bankenveld to Sour Sandveld Transition (90,199	18.5
Lowveld (10)	5,598	1.1
Lowveld Sour Bushveld (9)	365	0.1
North-eastern Sandy Highveld (57)	1,019	0.2
Northern Tall Grassveld (64)	134,308	27.6
Piet Retief Sourveld (63)	255,326	52.4

Water Resources

Dams

Dam	Primary Drainage Region	River	Capacity
Heyshope	Mfolozi		451.0
Morgenstond	Mfolozi		100.0
Westoe	Mfolozi		59.7

Drainage Regions

Drainage Region / Catchment				
Primary	Secondary	Tertiary	Area	%
Pongola	Pongola	Pongola River	122,492.8	25.2
Usutu	Usutu	Assegaai River	192,564.1	39.6
Usutu	Usutu	Hlelo River	78,045.3	16.0
Usutu	Usutu	Ngwempisi River	88,424.9	18.2
Usutu	Usutu	Usutu River	5,121.4	1.1
Vaal	Vaal	Bo-Vaal River	167.0	0.0

Land Utilisation

Land Cover (1995)

Class	Area (ha)	%
Cultivated: temporary - commercial dryland	37,776.8	7.8
Cultivated: temporary - commercial irrigated	475.6	0.1
Cultivated: temporary - semi-commercial/subsistence dryland	6,183.1	1.3
Degraded: forest and woodland	10.4	0.0
Degraded: unimproved grassland	65.1	0.0
Dongas & sheet erosion scars	43.8	0.0
Forest	2.2	0.0
Forest and Woodland	2,929.2	0.6
Forest plantations	160,834.4	33.0
Mines & quarries	534.5	0.1
Thicket & bushland (etc)	6,229.6	1.3
Unimproved grassland	262,961.1	54.0
Urban / built-up land: commercial	43.2	0.0
Urban / built-up land: industrial / transport	366.4	0.1
Urban / built-up land: residential	1,862.7	0.4
Urban / built-up land: residential (small holdings: grassland)	119.7	0.0
Waterbodies	5,301.0	1.1
Wetlands	1,076.5	0.2

Silos

Co-operatives

Conservation Areas

Name	Authority	Area (ha)
Athole Nature Reserve		
Morgenstond Dam Nature Reserv		

Demographic Information

Population Distribution and Dynamics

Population Group (Dominant)

	2001	1996
African	136,338	91,375
Coloured	587	510
Indian	773	1,065
White	5,195	6,758
Total	142,893	100,245

Home Language (Dominant)

	2001	1996
Afrikaans	4,597	5,438
English	1,777	2,046
IsiNdebele	201	31
IsiXhosa	175	60
IsiZulu	127,446	86,867
Sepedi	255	43
Sesotho	170	54
Setswana	122	4
SiSwati	7,532	4,043
Tshivenda	14	9
Xitsonga	87	54
Other	516	906

Place of Birth

	2001	1996
RSA	141,877	

SADC (Excluding RSA)	888
RestAfrica	29
Europe	61
Asia	29
North America	4
Central/South America	4
Australia/New Zealand	1

Citizenship

	2001	1996
RSA	142,487	99,893
SADC (Excluding RSA)	332	221
Rest of Africa	17	27
Europe	10	19
Asia	29	5
North America	2	1
Central/South America	0	8
Australia/New Zealand	0	0

Demographic Characteristics

Age

	2001	1996
Age 0 - 4	18,609	11,448
Age 5 - 14	37,840	25,406
Age 15 - 34	50,050	37,235
Age 35 - 64	30,715	21,248
Age 65+	5,678	4,012

Gender

	Males		Females	
	2001	1996	2001	
0 to 4	9,205	5,731	0 to 4	9,404
5 to 14	18,978	12,504	5 to 14	18,862
15 to 34	23,812	17,807	15 to 34	26,238
35 to 64	13,700	10,367	35 to 64	17,015
Over 65	2,134	1,610	Over 65	3,544
Total	67,829	48,019	Total	75,063

Persons with Disabilities

	2001	1996
Sight	2,092	3,006
Hearing	1,254	1,143
Communication	258	
Physical	2,268	2,453
Intellectual	580	475
Emotional	786	
Multiple	872	233

Socio-Economic

Highest Level of Education

	2001	1996
None	22,792	18,031
Some Primary	14,910	9,156
Complete Primary	4,299	3,326
Secondary	15,241	12,336
Grade12	8,667	5,578
Higher	2,410	1,559

Persons Attending Education Institutions

Institution	2001	1996
None	17,752	
Pre-school	1,305	
School	45,091	
College	46	
Technikon	25	
University	37	
Adult Education Centre	41	
Other	61	

Economic Active Population

	2001	1996
Employed	24,237	21,941
Unemployed	20,480	10,633
No Economical Active	36,566	
Total Labour Force	44,717	

Industry

	2001	1996
Agriculture/Forestry/Fishing	7,600	7,987
Community/Social/Personal	2,756	2,075
Construction	815	804
Electricity/Gas/Water	96	198
Financial/Insurance/Real Estate/Business	770	546
Manufacturing	4,157	2,657
Mining/Quarrying	609	648
Other	0	

Private Households	2,001	2,133
Transport/Storage/Communication	637	882
Undetermined	1,812	1,820
Wholesale/Retail	2,987	2,314

Occupation

	2001	1996
Clerks	1,447	918
Craft/Trade	2,444	2,330
Elementary	6,808	6,286
Legislators/Senior Officials	708	836
Unspecified/Not Economically Classified	0	
Plant/Machine Operators	2,618	2,272
Professionals	625	1,084
Service Workers	1,565	1,657
Agricultural/Fishery	5,213	
Technicians	1,343	693
Undetermined	1,465	

Individual Monthly Income

	2001	1996
None	108,439	66,042
R 1 to R 400	11,368	5,539
R 401 to R 800	13,122	15,108
R 801 to R 1,600	4,200	2,292
R 1,601 to R 3,200	2,706	1,637
R 3,201 to R 6,400	1,837	1,937
R 6,401 to R 12,800	801	364
R 12,801 to R 25,600	194	97

R 25,601 to R 51,200	72	59
R 51,201 to R 102,400	48	13
R 102,401 to R 204,800	87	
R 204,801+	19	

Travel to work

	2001	1996
Bicycle	832	
Bus	2,578	
Car Driver	2,467	
Car Passenger	7,005	
Minibus/Taxi	2,769	
Motorcycle	794	
Train	132	
NA	72,570	
Foot	51,971	
Other	1,765	

Households and Housing

Household Size (Average)

Household Size	2001	1996
1	3,958	
2	4,152	
3	3,829	
4	3,849	
5	3,160	
6	2,511	
7	1,787	
8	1,398	

9	955
10+	2,266

Dwelling Type (Dominant)

	2001	1996
Formal	10,743	6,875
Informal	2,052	855
Traditional	14,997	10,790
Other	73	19

Rooms per Household (Average)

Room(s)	2001	1996
1	3,589	1,301
2	3,830	2,053
3	4,142	2,820
4	5,147	4,366
5	3,475	2,385
6	2,953	2,275
7	1,704	1,239
8	1,130	795
9	635	471
10 +	1,259	847

Household Income

	2001	1996
None	7,830	2,104
R 1 to R 4,800	3,537	1,847
R 4,801 to R 9,600	6,625	4,294

R 9,601 to R 19,200	5,082	5,277
R 19,201 to R 38,400	2,830	2,016
R 38,401 to R 76,800	1,535	895
R 76,801 to R 153,600	876	617
R 153,601 to R 307,200	355	230
R 307,201 to R 614,400	104	24
R 614,401 to R 1,228,800	32	
R 1,228,801 to R 2,457,600	73	
R 2,457,600+	22	

Energy Source for Cooking (Dominant)

	2001	1996
Electricity	4,882	
Gas	976	
Paraffin	2,273	
Wood	19,061	
Coal	202	
Animal Dung	287	
Solar	54	
Other	129	

Energy Source for Lighting (Dominant)

	2001	1996
Electricity	9,595	6,874
Gas	146	287
Paraffin	279	624
Candles	17,605	10,803
Solar	52	
Other	188	0

Access to Piped Water (% Households)

	2001	1996
Dwelling	4,947	4,257
Inside Yard	5,134	2,865
Communal Stand	3,385	5,476
Communal Stand 200m+	5,164	
Borehole	1,400	1,010
Spring	1,071	4,559
Rain Tank	155	320
Dam/Pool/Stagnant Water	1,115	
River/Stream	4,156	
Water Vendor	482	
Other	856	128

Toilet Facilities (% Households)

	2001	1996
Flush Toilet	8,012	5,182
Flush Septic Tank	633	
Chemical Toilet	223	
VIP	2,125	
Pit Latrine	9,862	8,109
Bucket Latrine	1,059	1,858
None	5,950	3,488

Telephone Facilities (% Households)

	2001	1996
Telephone and Cellphone	1,533	
Telephone	942	2,560
Cellphone	5,577	

Neighbour	1,764	1,005
Public Telephone	12,171	4,506
Other Nearby	1,283	1,831
Other Not Nearby	1,750	1,625
No Access	2,845	7,068

Refuse Removal (% Households)

	2001	1996
Municipal Weekly	8,851	5,476
Municipal Other	421	208
Communal Dump	420	489
Own Dump	12,038	9,266
No Disposal	6,135	3,071

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