

Mpumalanga Provincial Government



Department of Agriculture and Land Administration

Integrated Resource Information Report

Dr. J.S. Moroka

06 May 2005

**RESOURCE MANAGEMENT AND LAND USE PLANNING
PRIVATE BAG X9019, ERMELO, 2350 TEL: (017) 8115811 FAX: (017) 810 1223**

Dr. J.S. Moroka

Summary

Dr. J.S. Moroka is situated in the northwestern part of the Mpumalanga highveld. Siyabuswa is the major town in the area. Warm summers and moderate winters characterize the climate of the area. The annual rainfall, which falls mainly during summer, varies between 500 and 650 mm. The area of 1 400 km² is covered by savanna veld. Cattle, maize and vegetables are the main agricultural produce produced in the area.

GENERAL INFORMATION

Common Name(s)	Moretele / Mbibaba
Area	141,573.0 ha
Coordinates	28°22'12"E 24°53'59"S 29°07'47"E 25°19'47"S
District Municipality	Nkangala District Municipality
Region	Nkangala Region

Towns

Name

Bamokgobo
Mabhoko
Mapoch
Masobe
Siyabuswa

Neighbouring Municipalities

Name

Marble Hall
Thembisile

Natural Resources

Climate

Rainfall

Rainfall Range 500 to 650 mm per year

Temperature

Temperature Zone 57/14

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	20	17.5	13.8	10	7.4	13.9	17.6	18.9
Tn	17.6	14.8	10.1	5.6	2.7	10.2	14.9	16.2
Td	22.4	20.2	17.5	14.4	12.1	17.6	20.3	21.6
Tmax	23.8	21.7	19.6	16.9	14.8	19.7	21.8	23.2
Tmin	16.2	13.3	8	3.1	0	8.1	13.7	14.7

Temperature Zone 67/25

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	21.5	19.8	16.8	13.9	12	16.9	19.9	20.7
Tn	17.5	15.5	12.5	9.4	7.2	12.6	15.7	16.6
Td	25.5	24.1	21.1	18.4	16.9	21.2	24.1	24.8
Tmax	25.5	26.6	23.6	21	19.5	23.7	26.5	27.1
Tmin	15.2	13	10.1	6.8	4.5	10.2	13.3	13.9

Temperature Zone 77/25

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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T	23.5	20.9	17.5	14.2	12	17.6	21	22.2
Tn	17.8	15.4	12.4	9.5	7.2	12.5	15.5	16.9
Td	29.2	26.4	22.6	18.9	16.8	22.7	26.5	27.5
Tmax	32.5	29.5	25.5	21.6	19.5	25.6	29.6	30.5
Tmin	14.5	12.3	9.5	6.8	4.5	9.6	12.4	13.9

Temperature Zone 77/35

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	23.6	21.8	18.9	16	14.3	18.9	21.9	22.6
Tn	17.6	15.8	12.7	9.4	7.5	12.8	15.9	16.8
Td	29.6	27.8	25.1	22.6	21.1	25	27.9	28.4
Tmax	33	31.2	28.6	26.4	25	28.5	31.3	31.4
Tmin	14.2	12.4	9.2	5.6	3.6	9.5	12.4	13.5

Temperature Zone 77A/35

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	23.6	21.8	18.9	16	14.3	18.9	21.9	22.6
Tn	17.6	15.8	12.7	9.4	7.5	12.8	15.9	16.8
Td	29.6	27.8	25.1	22.6	21.1	25	27.9	28.4
Tmax	33	31.2	28.6	26.4	25	28.5	31.3	31.7
Tmin	14.2	12.4	9.2	5.6	3.6	9.5	12.4	13.5

Temperature Zone 88B/46

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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T	26	24.2	21.6	18.9	17.2	21.8	24.4	25.1
Tn	22.5	21.2	18	14.8	12.9	18.1	21.4	22.7
Td	29.5	27.2	25.2	23	21.5	25.5	27.4	28.3
Tmax	31.5	28.9	27.3	25.3	24	27.6	29.1	29.9
Tmin	20.5	19.5	15.9	14.5	10.4	16	19.8	21.1

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)	%
Duplex soils with vertic, melanic, and/or red structured diagnostic horizo	4,204.8	3.0
Eutrophic; red soils not widespread (Bd)	53,741.2	38.0
Eutrophic; red soils widespread (Bc)	2.1	0.0
Exposed rock areas with miscellaneous soils (Ib)	11,747.7	8.3
Pedologically young soils (lime rare or absent) (Fa)	8,020.5	5.7
Red, high base status > 300 mm deep (no dunes) (Ae)	48,996.4	34.6
Vertic, melanic, and/or red structured diagnostic horizons (Ea)	13,872.5	9.8

Soil Clay Contents

ClayClass	Area (ha)	%
Clay	10,696.8	7.6
Clayey	11,434.4	8.1
Loam	26,760.9	18.9
Loam & Clay	14,231.9	10.1
Loamy Sand	43,278.8	30.6
Non-perennial pans	18.4	0.0

Sandy	2,411.9	1.7
Sandy Loam	25,780.1	18.2
Very Clayey	2,633.0	1.9
Very Sandy	4,069.6	2.9
Waterbodies	258.6	0.2

Soil Depth

Soil Depth Class	Area (ha)	%
Deep	40,620.4	28.7
Medium Deep	4,057.2	2.9
Medium Shallow	31,811.5	22.5
Non-perennial pans	18.4	0.0
Shallow	22,149.2	15.6
Steep Slopes	3,796.6	2.7
Very Deep	28,639.0	20.2
Very Shallow	10,223.3	7.2
Waterbodies	258.6	0.2

Soil Form Association

Soil Form Association Class	Area (ha)	%
Ar, My, Va	10,037.4	7.1
Ar-dominant	104.5	0.1
Av, Gc, We, Cv	16,257.2	11.5
Hu, Av, Cv, Gc	25,063.1	17.7
Hu, Sd, Sw, Gs	60.1	0.0
Hu-dominant	19,421.4	13.7
Lithosols, Cv, Gc, Hu	3,424.7	2.4
Lithosols, Cv, Va	11,391.6	8.0

Lithosols, Hu, Cv, Gc	32,610.3	23.0
Lithosols, Hu, Cv, Sd, Sw	392.5	0.3
Non-perennial pans	18.4	0.0
Rg, Ar	4,361.4	3.1
Sd, Bo, My, Ar, Hu	18,173.0	12.8
Waterbodies	258.6	0.2

Topography

Elevation

Range (m)	Area (ha)	%
801 - 900	1,490	1.1
901 - 1000	95,375	67.4
1001 - 1100	44,707	31.6

Slope

Class	Area (ha)	%
Level (0 - 3%)	111,236	78.6
Moderate (4 - 15%)	26,966	19.
Steep (16 - 25%)	2,247	1.6
Very Steep (25+%)	1,124	.8

Vegetation

Acocks Veld Type (1975)

Acocks Veld Type	Area (ha)	%
Mixed Bushveld (18)	107,344	75.8
Sourish Mixed Bushveld (19)	17,189	12.1
Springbok Flats Turf Thornveld (12)	17,042	12.0

Water Resources

Dams

Dam	Primary Drainage Region	River	Capacity
Rhenosterkop	Olifants		205.0

Drainage Regions

Drainage Region / Catchment				
Primary	Secondary	Tertiary	Area	%
Pienaars	Pienaars	Pienaars River	1,587.0	1.1
Elands	Elands	Elands River	139,987.3	98.9

Land Utilisation

Land Cover (1995)

Class	Area (ha)	%
Cultivated: temporary - commercial dryland	3,145.2	2.2
Cultivated: temporary - commercial irrigated	7.3	0.0
Cultivated: temporary - semi-commercial/subsistence dryland	23,610.2	16.7
Degraded: forest and woodland	34,374.3	24.3
Forest and Woodland	49,905.3	35.3
Forest plantations	78.2	0.1
Thicket & bushland (etc)	9,537.1	6.7
Unimproved grassland	3,338.0	2.4
Urban / built-up land: residential	17,244.1	12.2
Waterbodies	334.6	0.2

Silos

Co-operatives

Conservation Areas

Name	Authority	Area (ha)
Mdala Nature Reserve	DACE	1530
Mkombo Nature Reserve	DACE	17439
Siyabuswa Fisheries	DACE	255

Demographic Information

Population Distribution and Dynamics

Population Group (Dominant)

	2001	1996
African	242,953	258,140
Coloured	186	242
Indian	55	61
White	119	50
Total	243,313	259,846

Home Language (Dominant)

	2001	1996
Afrikaans	295	149
English	443	69
IsiNdebele	89,288	98,536
IsiXhosa	1,218	1,289
IsiZulu	7,253	8,674
Sepedi	71,887	75,978
Sesotho	8,005	5,446
Setswana	45,664	49,127
SiSwati	3,039	3,271
Tshivenda	671	427
Xitsonga	14,243	14,234
Other	1,308	569

Place of Birth

	2001	1996
RSA	242,363	

SADC (Excluding RSA)	855
RestAfrica	52
Europe	6
Asia	26
North America	3
Central/South America	8
Australia/New Zealand	0

Citizenship

	2001	1996
RSA	242,708	259,531
SADC (Excluding RSA)	502	134
Rest of Africa	79	14
Europe	7	14
Asia	26	11
North America	2	0
Central/South America	2	2
Australia/New Zealand	0	0

Demographic Characteristics

Age

	2001	1996
Age 0 - 4	27,147	32,356
Age 5 - 14	65,093	67,473
Age 15 - 34	85,192	91,726
Age 35 - 64	50,146	48,200
Age 65+	15,736	14,746

Gender

	Males		Females	
	2001	1996	2001	
0 to 4	13,466	16,028	0 to 4	13,681
5 to 14	32,322	33,297	5 to 14	32,770
15 to 34	38,798	42,353	15 to 34	46,394
35 to 64	21,283	21,065	35 to 64	28,863
Over 65	5,316	5,528	Over 65	10,420
Total	111,185	118,271	Total	132,128

Persons with Disabilities

	2001	1996
Sight	3,891	9,680
Hearing	2,246	3,307
Communication	450	
Physical	2,587	3,783
Intellectual	1,258	1,596
Emotional	1,885	
Multiple	1,892	844

Socio-Economic

Highest Level of Education

	2001	1996
None	39,521	37,597
Some Primary	16,930	17,619
Complete Primary	5,892	7,991
Secondary	29,870	34,425
Grade12	20,177	18,572
Higher	6,060	3,601

Persons Attending Education Institutions

Institution	2001	1996
None	24,874	
Pre-school	4,885	
School	88,716	
College	666	
Technikon	319	
University	186	
Adult Education Centre	144	
Other	193	

Economic Active Population

	2001	1996
Employed	22,424	31,974
Unemployed	34,633	35,143
No Economical Active	79,344	
Total Labour Force	57,057	

Industry

	2001	1996
Agriculture/Forestry/Fishing	641	1,027
Community/Social/Personal	6,780	6,266
Construction	2,077	3,958
Electricity/Gas/Water	189	712
Financial/Insurance/Real Estate/Business	1,278	1,280
Manufacturing	1,611	1,911
Mining/Quarrying	64	314
Other	0	

Private Households	3,243	6,443
Transport/Storage/Communication	1,346	1,952
Undetermined	1,865	4,847
Wholesale/Retail	3,325	3,695

Occupation

	2001	1996
Clerks	2,230	1,628
Craft/Trade	3,171	6,769
Elementary	6,203	9,397
Legislators/Senior Officials	699	850
Unspecified/Not Economically Classified	0	
Plant/Machine Operators	2,404	2,866
Professionals	1,026	3,160
Service Workers	2,374	3,036
Agricultural/Fishery	384	
Technicians	2,783	845
Undetermined	1,151	

Individual Monthly Income

	2001	1996
None	195,589	148,492
R 1 to R 400	7,588	4,638
R 401 to R 800	24,194	31,824
R 801 to R 1,600	7,017	6,533
R 1,601 to R 3,200	5,256	3,715
R 3,201 to R 6,400	2,648	3,487
R 6,401 to R 12,800	716	304
R 12,801 to R 25,600	87	85

R 25,601 to R 51,200	63	76
R 51,201 to R 102,400	73	27
R 102,401 to R 204,800	72	
R 204,801+	9	

Travel to work

	2001	1996
Bicycle	529	
Bus	9,966	
Car Driver	2,241	
Car Passenger	2,186	
Minibus/Taxi	5,154	
Motorcycle	182	
Train	222	
NA	125,411	
Foot	97,195	
Other	227	

Households and Housing

Household Size (Average)

Household Size	2001	1996
1	7,514	
2	6,487	
3	7,564	
4	8,131	
5	7,195	
6	5,679	
7	3,964	
8	2,687	

9	1,720
10+	2,641

Dwelling Type (Dominant)

	2001	1996
Formal	45,605	38,575
Informal	5,204	4,432
Traditional	2,701	4,364
Other	73	153

Rooms per Household (Average)

Room(s)	2001	1996
1	2,955	3,330
2	6,282	6,192
3	7,600	7,065
4	9,469	8,785
5	7,207	6,418
6	7,298	6,396
7	5,292	4,313
8	3,364	2,765
9	1,891	1,366
10 +	2,225	1,344

Household Income

	2001	1996
None	21,042	7,989
R 1 to R 4,800	2,866	3,912
R 4,801 to R 9,600	12,446	8,124

R 9,601 to R 19,200	8,023	9,973
R 19,201 to R 38,400	5,618	4,539
R 38,401 to R 76,800	2,830	1,317
R 76,801 to R 153,600	1,091	479
R 153,601 to R 307,200	246	206
R 307,201 to R 614,400	59	33
R 614,401 to R 1,228,800	30	
R 1,228,801 to R 2,457,600	45	
R 2,457,600+	27	

Energy Source for Cooking (Dominant)

	2001	1996
Electricity	23,403	
Gas	897	
Paraffin	8,991	
Wood	15,728	
Coal	4,083	
Animal Dung	229	
Solar	119	
Other	133	

Energy Source for Lighting (Dominant)

	2001	1996
Electricity	49,309	35,643
Gas	144	385
Paraffin	211	947
Candles	3,773	10,852
Solar	35	
Other	112	2

Access to Piped Water (% Households)

	2001	1996
Dwelling	2,133	8,408
Inside Yard	25,607	17,874
Communal Stand	5,988	8,297
Communal Stand 200m+	4,896	
Borehole	10,692	10,121
Spring	52	159
Rain Tank	299	1,653
Dam/Pool/Stagnant Water	343	
River/Stream	185	
Water Vendor	865	
Other	2,524	1,457

Toilet Facilities (% Households)

	2001	1996
Flush Toilet	6,222	4,577
Flush Septic Tank	452	
Chemical Toilet	374	
VIP	2,913	
Pit Latrine	42,249	41,561
Bucket Latrine	330	741
None	1,044	1,142

Telephone Facilities (% Households)

	2001	1996
Telephone and Cellphone	2,261	
Telephone	3,304	1,944
Cellphone	11,936	

Neighbour	1,939	1,851
Public Telephone	31,090	32,359
Other Nearby	991	1,785
Other Not Nearby	512	4,530
No Access	1,552	5,445

Refuse Removal (% Households)

	2001	1996
Municipal Weekly	6,621	6,538
Municipal Other	1,397	323
Communal Dump	948	834
Own Dump	37,144	36,781
No Disposal	7,473	2,915

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