

Mpumalanga Provincial Government



Department of Agriculture and Land Administration

Integrated Resource Information Report

Umjindi

06 May 2005

RESOURCE MANAGEMENT AND LAND USE PLANNING
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Umjindi

Summary

Umjindi is situated in the eastern part of Mpumalanga on the escarpment. Barberton is the major town of the area. Warm summers and moderate winters characterize the climate of the area. The annual rainfall is between 600 and 1400 mm. The area of 1 745 km² is covered by grassland and bushveld. Eucalyptus, pine and sisal plantations cover a large part of the area. Crops such as cotton, citrus, sub-tropical fruits, tobacco, coffee, tea, rice, pecan nuts, bananas, sugar and vegetables are produced. The area was the scene of one of the biggest gold rushes in the previous century. Alluvial gold is still mined near Barberton.

GENERAL INFORMATION

Common Name(s)	Barberton
Area	174,549.0 ha
Coordinates	30°43'11"E 25°33'00"S 31°19'47"E 25°55'47"S
District Municipality	Ehlanzeni District Municipality
Region	Ehlanzeni Region

Towns

Name

Barberton

Neighbouring Municipalities

Name

Albert Luthuli

Nkomazi

Natural Resources

Climate

Rainfall

Rainfall Range 600 to 1,400 mm per year

Temperature

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 46/25

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	17.3	16.7	15.3	13.1	11.9	14	15.9	16.8
Tn	12.8	12.1	10.5	8.4	7.2	9.5	11.5	12.2
Td	21.8	21.3	20.1	17.8	16.6	18.5	20.3	21.4
Tmax	24.4	23.9	22.8	20.5	19.3	21	22.8	24
Tmin	10.2	9.5	7.8	5.7	4.5	6.3	9	9.6

Temperature Zone 57/25

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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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/25

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	20	19.2	16.9	15.8	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	13.6	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/35

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
T	23.4	22.4	19.6	16.1	14.1	18	21.1	22.5
Tn	17.8	16.8	13.9	9.6	7.4	11.9	15.4	16.9
Td	29	28	25.9	22.6	20.8	24.1	26.8	28.1
Tmax	32.2	31.2	29.3	26.3	24.6	27.6	30.1	31.3
Tmin	14.6	13.6	10.5	5.9	3.6	8.4	12.1	13.7

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

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)	%
Dystrophic and/or mesotrophic; red soils widespread (Ba)	670.9	0.4
Exposed rock areas with miscellaneous soils (Ib)	5,180.9	3.0
Pedologically young soils (lime occurs regularly) (Fb)	14,821.1	8.5
Pedologically young soils (lime rare or absent) (Fa)	53,569.0	30.7
Red and yellow dystrophic and/or mesotrophic (Ac)	25,932.3	14.9
Red, dystrophic and/or mesotrophic (Ab)	39,618.9	22.7
Red, high base status > 300 mm deep (no dunes) (Ae)	28,684.1	16.4
Vertic, melanic, and/or red structured diagnostic horizons (Ea)	5,922.9	3.4

Soil Clay Contents

ClayClass	Area (ha)	%
Clay	243.7	0.1
Clayey	6,585.8	3.8
Loam	55,099.1	31.6
Loam & Clay	63,719.5	36.5
Loamy Sand	10,020.1	5.7

No Data	38.1	0.0
Sandy	8,598.5	4.9
Sandy Loam	5,966.0	3.4
Very Sandy	24,174.3	13.8
Waterbodies	103.9	0.1

Soil Depth

Soil Depth Class	Area (ha)	%
Deep	742.7	0.4
Medium Deep	9,606.2	5.5
Medium Shallow	9,595.4	5.5
No Data	38.1	0.0
Shallow	6,488.5	3.7
Steep Slopes	90,326.8	51.7
Very Deep	44,771.4	25.6
Very Shallow	9,439.0	5.4
Very Steep Slopes	3,436.9	2.0
Waterbodies	103.9	0.1

Soil Form Association

Soil Form Association Class	Area (ha)	%
Ar, My, Va	931.2	0.5
Av, Gc, We, Cv	175.7	0.1
Es, Gs, Cf	1,407.9	0.8
Gs, Cf, Es	6,442.6	3.7
Hu (30%), Sd (30%)	27,030.2	15.5
Hu, Av, Cv, Gc	1,958.9	1.1
Hu, Sd, Sw, Gs	6,120.5	3.5

Hu-dominant	52,981.9	30.4
Lithosols, Cv, Va	1,575.7	0.9
Lithosols, Hu, Cv, Gc	19,334.2	11.1
Lithosols, Hu, Cv, Sd, Sw	52,646.8	30.2
No Data	38.1	0.0
Rg, Ar	130.4	0.1
Sd, Bo, My, Ar, Hu	3,670.8	2.1
Waterbodies	103.9	0.1

Topography

Elevation

Range (m)	Area (ha)	%
501 - 600	5,723	3.3
601 - 700	17,169	9.8
701 - 800	25,753	14.8
801 - 900	31,476	18.0
901 - 1000	20,030	11.5
1001 - 1100	11,446	6.6
1101 - 1200	14,307	8.2
1201 - 1300	14,307	8.2
1301 - 1400	14,307	8.2
1401 - 1500	14,307	8.2
1501 - 1600	5,723	3.3

Slope

Class	Area (ha)	%
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Level (0 - 3%)	17,676	10.1
Moderate (4 - 15%)	61,865	35.4
Steep (16 - 25%)	29,828	17.1
Very Steep (25+%)	65,180	37.3

Vegetation

Acocks Veld Type (1975)

Acocks Veld Type	Area (ha)	%
Lowveld (10)	45,462	26.0
Lowveld Sour Bushveld (9)	73,742	42.2
North-eastern Mountain Sourveld (8)	48,827	28.0
Piet Retief Sourveld (63)	6,518	3.7

Water Resources

Dams

Dam	Primary Drainage Region	River	Capacity
Lomati	Crocodile/Komati	Mlumati	4,950.0

Drainage Regions

Drainage Region / Catchment				
Primary	Secondary	Tertiary	Area	%
Elands	Elands	Elands River	373.7	0.2
Elands	Elands	Nels River	35.8	0.0
Elands	Elands	Shiyalongube River	134,818.1	77.2
Komati	Komati	Komati River	39.9	0.0
Komati	Komati	Lomati River	22,867.5	13.1
Komati	Komati	Seekoei Spruit	16,319.4	9.3

Komati

Komati

Upper Komati

94.3

0.1

Land Utilisation

Land Cover (1995)

Class	Area (ha)	%
Cultivated: temporary - commercial dryland	10,941.2	6.3
Cultivated: temporary - commercial irrigated	4,122.9	2.4
Forest	1,369.5	0.8
Forest and Woodland	10,454.0	6.0
Forest plantations	54,865.1	31.4
Mines & quarries	305.4	0.2
Thicket & bushland (etc)	55,055.2	31.5
Unimproved grassland	36,740.0	21.0
Urban / built-up land: commercial	23.2	0.0
Urban / built-up land: residential	542.6	0.3
Waterbodies	130.0	0.1

Silos

Co-operatives

Location	Co-operative
Barberton	Laeveld Korporasie (LK)

Conservation Areas

Name	Authority	Area (ha)
Barberton Nature Reserve	Mpumalanga Parks Board	
Dr. Hamilton Nature Reserve		
Ida Doyer Nature Reserve		
Songimvelo Nature Reserve	Mpumalanga Parks Board	13317

Demographic Information

Population Distribution and Dynamics

Population Group (Dominant)

	2001	1996
African	47,649	42,130
Coloured	841	745
Indian	523	598
White	4,730	4,716
Total	53,743	48,577

Home Language (Dominant)

	2001	1996
Afrikaans	4,174	3,721
English	2,208	2,400
IsiNdebele	123	115
IsiXhosa	366	315
IsiZulu	1,245	1,498
Sepedi	575	342
Sesotho	842	782
Setswana	240	29
SiSwati	41,387	36,073
Tshivenda	116	44
Xitsonga	2,219	2,717
Other	250	251

Place of Birth

	2001	1996
RSA	50,900	

SADC (Excluding RSA)	2,663
RestAfrica	35
Europe	96
Asia	9
North America	28
Central/South America	11
Australia/New Zealand	1

Citizenship

	2001	1996
RSA	53,002	47,414
SADC (Excluding RSA)	644	1,007
Rest of Africa	16	8
Europe	44	52
Asia	9	0
North America	28	0
Central/South America	2	3
Australia/New Zealand	2	0

Demographic Characteristics

Age

	2001	1996
Age 0 - 4	5,207	4,508
Age 5 - 14	9,441	8,523
Age 15 - 34	22,555	20,685
Age 35 - 64	14,552	12,089
Age 65+	1,990	1,697

Gender

	Males		Females	
	2001	1996	2001	
0 to 4	2,578	2,192	0 to 4	2,629
5 to 14	4,604	4,130	5 to 14	4,836
15 to 34	12,291	11,385	15 to 34	10,264
35 to 64	7,959	6,981	35 to 64	6,593
Over 65	920	810	Over 65	1,070
Total	28,352	25,498	Total	25,392

Persons with Disabilities

	2001	1996
Sight	933	1,348
Hearing	503	484
Communication	70	
Physical	782	712
Intellectual	158	138
Emotional	330	
Multiple	428	93

Socio-Economic

Highest Level of Education

	2001	1996
None	6,857	6,820
Some Primary	5,636	4,758
Complete Primary	2,396	2,329
Secondary	9,504	8,683
Grade12	7,550	4,871
Higher	1,852	1,301

Persons Attending Education Institutions

Institution	2001	1996
None	7,870	
Pre-school	669	
School	11,584	
College	88	
Technikon	120	
University	22	
Adult Education Centre	50	
Other	23	

Economic Active Population

	2001	1996
Employed	17,901	17,177
Unemployed	6,400	4,685
No Economical Active	12,990	
Total Labour Force	24,301	

Industry

	2001	1996
Agriculture/Forestry/Fishing	5,329	6,312
Community/Social/Personal	2,751	2,341
Construction	773	518
Electricity/Gas/Water	48	98
Financial/Insurance/Real Estate/Business	899	463
Manufacturing	2,278	1,641
Mining/Quarrying	1,013	2,059
Other	0	

Private Households	1,523	1,139
Transport/Storage/Communication	286	368
Undetermined	1,027	792
Wholesale/Retail	1,968	1,443

Occupation

	2001	1996
Clerks	1,333	790
Craft/Trade	2,008	1,929
Elementary	7,912	6,867
Legislators/Senior Officials	539	630
Unspecified/Not Economically Classified	0	
Plant/Machine Operators	1,193	1,682
Professionals	522	980
Service Workers	1,570	1,712
Agricultural/Fishery	1,026	
Technicians	1,058	469
Undetermined	737	

Individual Monthly Income

	2001	1996
None	31,447	23,717
R 1 to R 400	5,883	2,948
R 401 to R 800	7,860	10,273
R 801 to R 1,600	3,415	2,003
R 1,601 to R 3,200	2,428	1,441
R 3,201 to R 6,400	1,666	1,826
R 6,401 to R 12,800	678	264
R 12,801 to R 25,600	220	77

R 25,601 to R 51,200	68	40
R 51,201 to R 102,400	50	15
R 102,401 to R 204,800	22	
R 204,801+	6	

Travel to work

	2001	1996
Bicycle	257	
Bus	2,641	
Car Driver	2,280	
Car Passenger	3,682	
Minibus/Taxi	2,883	
Motorcycle	150	
Train	82	
NA	24,212	
Foot	17,113	
Other	441	

Households and Housing

Household Size (Average)

Household Size	2001	1996
1	3,538	
2	3,211	
3	2,346	
4	2,083	
5	1,264	
6	799	
7	496	
8	277	

9	181
10+	264

Dwelling Type (Dominant)

	2001	1996
Formal	9,328	7,571
Informal	3,194	2,129
Traditional	1,890	1,751
Other	46	23

Rooms per Household (Average)

Room(s)	2001	1996
1	2,882	2,187
2	3,195	2,151
3	2,366	2,217
4	2,339	2,227
5	1,228	871
6	1,127	958
7	569	388
8	348	266
9	202	134
10 +	202	154

Household Income

	2001	1996
None	1,826	867
R 1 to R 4,800	2,083	817
R 4,801 to R 9,600	3,884	2,428

R 9,601 to R 19,200	3,202	3,568
R 19,201 to R 38,400	2,184	1,518
R 38,401 to R 76,800	1,305	812
R 76,801 to R 153,600	836	445
R 153,601 to R 307,200	377	176
R 307,201 to R 614,400	92	23
R 614,401 to R 1,228,800	21	
R 1,228,801 to R 2,457,600	25	
R 2,457,600+	11	

Energy Source for Cooking (Dominant)

	2001	1996
Electricity	6,592	
Gas	644	
Paraffin	3,409	
Wood	3,504	
Coal	120	
Animal Dung	64	
Solar	65	
Other	61	

Energy Source for Lighting (Dominant)

	2001	1996
Electricity	8,222	5,699
Gas	49	65
Paraffin	814	1,154
Candles	5,295	4,653
Solar	28	
Other	50	0

Access to Piped Water (% Households)

	2001	1996
Dwelling	4,711	5,156
Inside Yard	4,165	1,788
Communal Stand	1,742	2,799
Communal Stand 200m+	1,808	
Borehole	109	262
Spring	40	1,231
Rain Tank	52	163
Dam/Pool/Stagnant Water	145	
River/Stream	1,184	
Water Vendor	278	
Other	223	188

Toilet Facilities (% Households)

	2001	1996
Flush Toilet	8,008	6,125
Flush Septic Tank	490	
Chemical Toilet	267	
VIP	607	
Pit Latrine	3,498	2,868
Bucket Latrine	101	29
None	1,487	2,577

Telephone Facilities (% Households)

	2001	1996
Telephone and Cellphone	1,432	
Telephone	843	2,338
Cellphone	2,560	

Neighbour	418	390
Public Telephone	5,842	3,779
Other Nearby	716	821
Other Not Nearby	547	339
No Access	2,099	3,887

Refuse Removal (% Households)

	2001	1996
Municipal Weekly	9,767	6,299
Municipal Other	214	310
Communal Dump	64	521
Own Dump	3,812	2,462
No Disposal	601	1,915

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