

Mpumalanga Provincial Government



Department of Agriculture and Land Administration

Integrated Resource Information Report

Tubatse

06 May 2005

RESOURCE MANAGEMENT AND LAND USE PLANNING
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Tubatse

Summary

Tubatse is situated in the northern part of Mpumalanga on the escarpment. Major towns in the area are Burgersfort, Ohrigstad and Steelpoort. Warm summers and cold winters characterize the climate of the area. The annual rainfall of the area is between 500 and 800 mm. The area of 2 291 km² is covered by bushveld. Mixed farming is practiced in the area. Cattle, tobacco, peaches, sunflower seed, citrus, wheat and maize are produced in the area. Irrigation farming is found next to the Ohrigstad Dam.

GENERAL INFORMATION

Common Name(s)	Burgersfort / Steelpoort
Area	229,082.0 ha
Coordinates	29°53'59"E 24°31'48"S 30°43'48"E 25°7'47"S
District Municipality	Sekhukhune Cross Boundary District Municipality
Region	Ehlanzeni Region

Towns

Name

Burgersfort

Ohrigstad

Neighbouring Municipalities

Name

Groblersdal

Mbombela

Thaba Chweu

Natural Resources

Climate

Rainfall

Rainfall Range 450 to 800 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 57/14

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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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 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/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 67/25

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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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 67A/35

	DJF	Mar	Apr	May	JJA	Sep	Oct	Nov
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 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
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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 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
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)	%
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Duplex soils with vertic, melanic, and/or red structured diagnostic horizo	14,352.8	6.3
Dystrophic and/or mesotrophic; red soils widespread (Ba)	3,405.8	1.5
Expose rock with little or no soil (Ic)	9,982.9	4.4
Exposed rock areas with miscellaneous soils (Ib)	94,661.5	41.3
Pedologically young soils (lime occurs regularly) (Fb)	1,905.6	0.8
Pedologically young soils (lime rare or absent) (Fa)	24,839.4	10.8
Red and yellow dystrophic and/or mesotrophic (Ac)	2,099.0	0.9
Red, dystrophic and/or mesotrophic (Ab)	325.4	0.1
Red, high base status > 300 mm deep (no dunes) (Ae)	68,009.7	29.7
Vertic, melanic, and/or red structured diagnostic horizons (Ea)	7,068.8	3.1

Soil Clay Contents

ClayClass	Area (ha)	%
Clay	2,497.4	1.1
Clayey	31,258.8	13.6
Loam	56,232.8	24.5
Loam & Clay	114,427.8	50.0
Loamy Sand	233.8	0.1
Sandy	1,402.9	0.6
Sandy Loam	16,480.1	7.2
Very Sandy	6,528.9	2.9
Waterbodies	19.5	0.0

Soil Depth

Soil Depth Class	Area (ha)	%
Deep	2,926.9	1.3
Medium Deep	7,686.4	3.4
Medium Shallow	11,504.5	5.0
Shallow	20,315.8	8.9

Steep Slopes	115,527.2	50.4
Very Deep	64,303.6	28.1
Very Shallow	1,635.4	0.7
Very Steep Slopes	5,162.4	2.3
Waterbodies	19.5	0.0

Soil Form Association

Soil Form Association Class	Area (ha)	%
Ar, My, Va	16,944.0	7.4
Av, Gc, We, Cv	92.4	0.0
Hu (30%), Sd (30%)	41,699.1	18.2
Hu, Sd, Sw, Gs	75,441.4	32.9
Hu-dominant	10,273.1	4.5
Lithosols, Cv, Gc, Hu	70.5	0.0
Lithosols, Cv, Va	907.1	0.4
Lithosols, Hu, Cv, Gc	6,919.3	3.0
Lithosols, Hu, Cv, Sd, Sw	54,670.3	23.9
Rg, Ar	106.0	0.0
Sd, Bo, My, Ar, Hu	21,939.2	9.6
Waterbodies	19.5	0.0

Topography

Elevation

Range (m)	Area (ha)	%
601 - 700	2,760	1.2
701 - 800	13,800	6.0
801 - 900	22,080	9.6

901 - 1000	27,600	12.0
1001 - 1100	27,600	12.0
1101 - 1200	49,680	21.7
1201 - 1300	35,880	15.7
1301 - 1400	27,600	12.0
1401 - 1500	16,560	7.2
1501 - 1600	5,520	2.4

Slope

Class	Area (ha)	%
Level (0 - 3%)	24,827	10.8
Moderate (4 - 15%)	81,251	35.5
Steep (16 - 25%)	37,240	16.3
Very Steep (25+%)	85,765	37.4

Vegetation

Acocks Veld Type (1975)

Acocks Veld Type	Area (ha)	%
Bankenveld (61)	3,022	1.3
Mixed Bushveld (18)	76,145	33.2
North-eastern Mountain Sourveld (8)	7,501	3.3
North-eastern Sandy Highveld (57)	44,012	19.2
Sourish Mixed Bushveld (19)	98,402	43.0

Water Resources

Dams

Dam	Primary Drainage Region	River	Capacity
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Der Brochen Olifants

Drainage Regions

Drainage Region / Catchment				
Primary	Secondary	Tertiary	Area	%
Blyde	Blyde	Blyde River	65,402.0	28.5
Steelpoort	Steelpoort	Steelpoort River	115,961.2	50.6
Steelpoort	Steelpoort	Watervals River	47,719.0	20.8

Land Utilisation

Land Cover (1995)

Class	Area (ha)	%
Cultivated: permanent - commercial irrigated	71.1	0.0
Cultivated: temporary - commercial dryland	4,337.6	1.9
Cultivated: temporary - commercial irrigated	14,698.2	6.4
Cultivated: temporary - semi-commercial/subsistence dryland	5,192.3	2.3
Degraded: thicket & bushland (etc)	1,064.4	0.5
Dongas & sheet erosion scars	1,070.1	0.5
Forest and Woodland	4,104.6	1.8
Mines & quarries	716.4	0.3
Thicket & bushland (etc)	173,186.0	75.6
Unimproved grassland	24,358.0	10.6
Urban / built-up land: residential	170.3	0.1
Waterbodies	113.1	0.0

Silos

Co-operatives

Location	Co-operative
Burgersfort	OTK
Ohrigstad	OTK

Conservation Areas

Name	Authority	Area (ha)
Blyde River Canyon Nature Reser	Mpumalanga Parks Board	

Demographic Information

Population Distribution and Dynamics

Population Group (Dominant)

	2001	1996
African	267,487	226,325
Coloured	318	228
Indian	247	127
White	2,072	1,592
Total	270,124	230,203

Home Language (Dominant)

	2001	1996
Afrikaans	2,396	1,627
English	530	254
IsiNdebele	323	230
IsiXhosa	593	168
IsiZulu	3,217	3,115
Sepedi	243,676	205,736
Sesotho	1,462	2,049
Setswana	474	167
SiSwati	11,126	8,751
Tshivenda	171	54
Xitsonga	5,960	5,241
Other	195	221

Place of Birth

	2001	1996
RSA	269,580	

SADC (Excluding RSA)	444
RestAfrica	14
Europe	24
Asia	51
North America	0
Central/South America	6
Australia/New Zealand	4

Citizenship

	2001	1996
RSA	269,714	230,002
SADC (Excluding RSA)	344	75
Rest of Africa	5	6
Europe	8	5
Asia	51	4
North America	0	2
Central/South America	6	2
Australia/New Zealand	1	0

Demographic Characteristics

Age

	2001	1996
Age 0 - 4	32,981	32,076
Age 5 - 14	80,284	71,872
Age 15 - 34	92,368	73,953
Age 35 - 64	50,851	37,916
Age 65+	13,638	11,127

Gender

	Males		Females	
	2001	1996	2001	
0 to 4	16,361	15,856	0 to 4	16,620
5 to 14	39,862	35,918	5 to 14	40,422
15 to 34	40,868	32,055	15 to 34	51,500
35 to 64	19,994	15,167	35 to 64	30,857
Over 65	4,171	3,589	Over 65	9,467
Total	121,256	102,585	Total	148,866

Persons with Disabilities

	2001	1996
Sight	3,519	5,547
Hearing	2,373	3,115
Communication	639	
Physical	2,525	4,928
Intellectual	1,386	1,088
Emotional	1,842	
Multiple	1,457	1,094

Socio-Economic

Highest Level of Education

	2001	1996
None	47,792	39,373
Some Primary	15,622	10,405
Complete Primary	6,066	5,491
Secondary	33,076	23,176
Grade12	12,010	9,688
Higher	4,943	1,734

Persons Attending Education Institutions

Institution	2001	1996
None	12,772	
Pre-school	5,081	
School	106,709	
College	217	
Technikon	148	
University	106	
Adult Education Centre	95	
Other	183	

Economic Active Population

	2001	1996
Employed	19,188	14,403
Unemployed	30,672	25,118
No Economical Active	94,509	
Total Labour Force	49,860	

Industry

	2001	1996
Agriculture/Forestry/Fishing	1,968	1,594
Community/Social/Personal	4,262	2,444
Construction	876	1,015
Electricity/Gas/Water	226	227
Financial/Insurance/Real Estate/Business	870	543
Manufacturing	1,011	634
Mining/Quarrying	3,287	2,427
Other	3	

Private Households	1,477	1,694
Transport/Storage/Communication	693	836
Undetermined	1,797	2,048
Wholesale/Retail	2,712	1,705

Occupation

	2001	1996
Clerks	1,478	562
Craft/Trade	2,891	2,748
Elementary	4,494	3,434
Legislators/Senior Officials	605	379
Unspecified/Not Economically Classified	0	
Plant/Machine Operators	2,195	1,906
Professionals	1,007	1,871
Service Workers	1,740	1,249
Agricultural/Fishery	848	
Technicians	2,443	403
Undetermined	1,488	

Individual Monthly Income

	2001	1996
None	225,480	174,364
R 1 to R 400	9,627	4,435
R 401 to R 800	21,541	17,886
R 801 to R 1,600	4,497	2,778
R 1,601 to R 3,200	4,607	2,169
R 3,201 to R 6,400	3,074	2,192
R 6,401 to R 12,800	884	259
R 12,801 to R 25,600	178	75

R 25,601 to R 51,200	112	76
R 51,201 to R 102,400	36	13
R 102,401 to R 204,800	74	
R 204,801+	11	

Travel to work

	2001	1996
Bicycle	298	
Bus	4,797	
Car Driver	2,333	
Car Passenger	3,825	
Minibus/Taxi	4,284	
Motorcycle	385	
Train	399	
NA	134,908	
Foot	118,588	
Other	306	

Households and Housing

Household Size (Average)

Household Size	2001	1996
1	5,942	
2	5,310	
3	6,808	
4	7,950	
5	7,573	
6	6,374	
7	4,981	
8	3,475	

9	2,280
10+	3,157

Dwelling Type (Dominant)

	2001	1996
Formal	38,960	25,184
Informal	4,802	3,115
Traditional	9,897	13,651
Other	191	129

Rooms per Household (Average)

Room(s)	2001	1996
1	5,160	5,260
2	7,929	7,151
3	8,831	7,461
4	9,027	6,850
5	6,837	4,967
6	6,694	4,607
7	4,061	2,680
8	2,573	1,555
9	1,457	846
10 +	1,281	545

Household Income

	2001	1996
None	24,065	13,333
R 1 to R 4,800	4,228	4,943
R 4,801 to R 9,600	12,536	8,662

R 9,601 to R 19,200	6,426	7,029
R 19,201 to R 38,400	4,637	2,312
R 38,401 to R 76,800	2,688	811
R 76,801 to R 153,600	1,077	396
R 153,601 to R 307,200	350	236
R 307,201 to R 614,400	105	56
R 614,401 to R 1,228,800	28	
R 1,228,801 to R 2,457,600	60	
R 2,457,600+	22	

Energy Source for Cooking (Dominant)

	2001	1996
Electricity	8,689	
Gas	819	
Paraffin	6,426	
Wood	36,651	
Coal	345	
Animal Dung	418	
Solar	228	
Other	274	

Energy Source for Lighting (Dominant)

	2001	1996
Electricity	25,072	8,751
Gas	91	310
Paraffin	2,731	6,546
Candles	25,424	26,441
Solar	162	
Other	371	3

Access to Piped Water (% Households)

	2001	1996
Dwelling	1,978	2,515
Inside Yard	7,198	2,552
Communal Stand	8,190	17,734
Communal Stand 200m+	16,091	
Borehole	2,345	4,504
Spring	595	13,459
Rain Tank	165	397
Dam/Pool/Stagnant Water	1,018	
River/Stream	13,387	
Water Vendor	578	
Other	2,306	1,054

Toilet Facilities (% Households)

	2001	1996
Flush Toilet	2,475	1,579
Flush Septic Tank	496	
Chemical Toilet	1,294	
VIP	5,742	
Pit Latrine	29,547	26,564
Bucket Latrine	343	183
None	13,952	13,936

Telephone Facilities (% Households)

	2001	1996
Telephone and Cellphone	1,226	
Telephone	1,459	683
Cellphone	8,422	

Neighbour	2,460	1,102
Public Telephone	25,736	11,797
Other Nearby	2,456	1,368
Other Not Nearby	6,419	6,322
No Access	5,673	20,995

Refuse Removal (% Households)

	2001	1996
Municipal Weekly	3,623	630
Municipal Other	325	106
Communal Dump	251	865
Own Dump	35,081	25,695
No Disposal	14,570	14,514

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