

Mpumalanga Provincial Government



Department of Agriculture and Land Administration

Integrated Resource Information Report

Govan Mbeki

06 May 2005

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

Govan Mbeki

Summary

Highveld East is situated in the western part of Mpumalanga on the highveld. Major towns in the area are Bethal, Secunda, Evander and Leandra. Moderate summers and cold winters characterize the climate of the area. The annual rainfall, which falls mainly during summer, varies between 600 and 750 mm. The area of 2 960 km² is covered by grassland. Mixed farming is practiced in the area. Cattle (beef and dairy), sheep, maize, potatoes, sunflower seed and grain sorghum are produced. The various coal and gold mines found in this area resulted in the development of many industries, most notably the SASOL oil-from-coal plant next to Secunda.

GENERAL INFORMATION

Common Name(s)	Bethal / Highveld Ridge
Area	295,897.0 ha
Coordinates	28°45'36"E 26°10'12"S 29°37'47"E 26°44'23"S
District Municipality	Gert Sibande District Municipality
Region	Gert Sibande Region

Towns

Name

Bethal
Evander
Kinross
Leandra
Secunda
Trichardt

Neighbouring Municipalities

Name

Delmas
Dipaleseng
Emalahleni

Lekwa
Msukaligwa
Steve Tshwete

Natural Resources

Climate

Rainfall

Rainfall Range 600 to 750 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 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

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	6,347.9	2.1
Dystrophic and/or mesotrophic; red soils not widespread (Bb)	73,398.4	24.8
Pedologically young soils (lime rare or absent) (Fa)	5,098.3	1.7
Red, dystrophic and/or mesotrophic (Ab)	5,134.4	1.7
Vertic, melanic, and/or red structured diagnostic horizons (Ea)	205,621.1	69.5

Soil Clay Contents

ClayClass	Area (ha)	%
Clay	58,715.4	19.8
Clayey	57,524.4	19.4
Loam	54,637.2	18.5
Loam & Clay	12,589.1	4.3
Loamy Sand	59.6	0.0
Non-perennial pans	63.3	0.0
Sandy	478.5	0.2
Sandy Loam	17,880.1	6.0
Very Clayey	92,110.9	31.1
Very Sandy	91.3	0.0
Waterbodies	1,747.5	0.6

Soil Depth

Soil Depth Class	Area (ha)	%
Deep	55,979.6	18.9
Medium Deep	55,072.4	18.6
Medium Shallow	90.5	0.0
Non-perennial pans	63.3	0.0
Shallow	138,908.7	46.9

Steep Slopes	117.6	0.0
Very Deep	36,869.2	12.5
Very Shallow	7,048.3	2.4
Waterbodies	1,747.5	0.6

Soil Form Association

Soil Form Association Class	Area (ha)	%
Ar, My, Va	41,555.7	14.0
Ar-dominant	119,238.9	40.3
Av, Gc, We, Cv	53,641.0	18.1
Hu, Av, Cv, Gc	12,144.0	4.1
Hu, Sd, Sw, Gs	188.4	0.1
Hu-dominant	3,739.7	1.3
Lithosols, Cv, Va	5,592.6	1.9
Lithosols, Hu, Cv, Gc	90.5	0.0
Lithosols, Hu, Cv, Sd, Sw	1,543.4	0.5
Non-perennial pans	63.3	0.0
Rg, Ar	56,352.3	19.0
Waterbodies	1,747.5	0.6

Topography

Elevation

Range (m)	Area (ha)	%
1501 - 1600	75,722	25.6
1601 - 1700	220,175	74.4

Slope

Class	Area (ha)	%
--------------	------------------	----------

Level (0 - 3%)	210,882	71.3
Moderate (4 - 15%)	85,015	28.7

Vegetation

Acocks Veld Type (1975)

Acocks Veld Type	Area (ha)	%
Bankenveld (61)	16,744	5.7
Themeda Veld or Turf Highveld (52)	279,154	94.3

Water Resources

Dams

Dam	Primary Drainage Region	River	Capacity
Bossiesspruit	Vaal		
Trichardsfontein	Vaal		

Drainage Regions

Drainage Region / Catchment				
Primary	Secondary	Tertiary	Area	%
Olifants	Olifants	Upper Olifants River	101,775.6	34.4
Wilge	Wilge	Wilge River	14,346.0	4.8
Suikerbosrand	Suikerbosrand	Suikerbosrand River	15,001.3	5.1
Vaal	Vaal	Bo-Vaal River	48,206.5	16.3
Vaal	Vaal	Vaal-Watervals Rive	116,567.9	39.4

Land Utilisation

Land Cover (1995)

Class	Area (ha)	%
Cultivated: temporary - commercial dryland	98,949.6	33.4
Cultivated: temporary - commercial irrigated	283.3	0.1
Forest plantations	1,045.2	0.4
Improved grassland	617.6	0.2
Mines & quarries	4,280.0	1.4
Thicket & bushland (etc)	166.3	0.1
Unimproved grassland	179,662.7	60.7
Urban / built-up land: commercial	89.2	0.0
Urban / built-up land: industrial / transport	1,912.7	0.6
Urban / built-up land: residential	5,606.3	1.9
Urban / built-up land: residential (small holdings: grassland)	201.6	0.1
Waterbodies	1,934.7	0.7
Wetlands	1,147.9	0.4

Silos

Silo	Owner	Commodities	Capacity (Ton)
Bethal	OTK	Maize (White & Yellow), Sunflower	142,308
Kinross	OTK	Maize (White & Yellow), Soya beans, Sorghum, Sunflower	36,538
Leslie	OTK	Maize (White & Yellow), Soya beans, Sorghum, Sunflower	106,077
Trichardt	OTK	Maize (White & Yellow), Soya beans, Sorghum, Sunflower	40,769

Co-operatives

Location	Co-operative
Bethal	OTK
Kinross	OTK
Leslie	OTK

Conservation Areas

Name	Authority	Area (ha)
-------------	------------------	------------------

No Records		
------------	--	--

Demographic Information

Population Distribution and Dynamics

Population Group (Dominant)

	2001	1996
African	185,456	164,491
Coloured	2,366	2,390
Indian	2,055	2,402
White	31,870	38,488
Total	221,747	209,659

Home Language (Dominant)

	2001	1996
Afrikaans	30,339	35,801
English	6,518	7,410
IsiNdebele	19,427	15,332
IsiXhosa	15,997	14,974
IsiZulu	111,684	99,194
Sepedi	5,244	4,710
Sesotho	14,598	12,903
Setswana	1,900	1,142
SiSwati	9,250	8,503
Tshivenda	835	715
Xitsonga	5,095	4,875
Other	862	1,191

Place of Birth

	2001	1996
RSA	215,765	

SADC (Excluding RSA)	5,170
RestAfrica	92
Europe	580
Asia	87
North America	7
Central/South America	42
Australia/New Zealand	3

Citizenship

	2001	1996
RSA	218,671	204,660
SADC (Excluding RSA)	2,784	4,108
Rest of Africa	29	30
Europe	201	225
Asia	87	19
North America	6	7
Central/South America	25	48
Australia/New Zealand	4	2

Demographic Characteristics

Age

	2001	1996
Age 0 - 4	21,670	20,759
Age 5 - 14	42,620	39,706
Age 15 - 34	84,517	82,880
Age 35 - 64	66,438	58,129
Age 65+	6,503	5,711

Gender

	Males		Females	
	2001	1996		2001
0 to 4	10,705	10,204	0 to 4	10,965
5 to 14	21,124	19,590	5 to 14	21,496
15 to 34	42,312	43,482	15 to 34	42,205
35 to 64	35,577	33,830	35 to 64	30,861
Over 65	2,601	2,340	Over 65	3,902
Total	112,319	109,446	Total	109,429

Persons with Disabilities

	2001	1996
Sight	4,737	9,369
Hearing	2,471	2,752
Communication	349	
Physical	2,844	2,612
Intellectual	793	723
Emotional	1,318	
Multiple	1,271	754

Socio-Economic

Highest Level of Education

	2001	1996
None	22,382	24,685
Some Primary	22,514	19,589
Complete Primary	9,029	9,478
Secondary	43,132	40,300
Grade12	28,829	19,223
Higher	10,139	7,128

Persons Attending Education Institutions

Institution	2001	1996
None	22,379	
Pre-school	2,833	
School	52,865	
College	741	
Technikon	722	
University	299	
Adult Education Centre	136	
Other	167	

Economic Active Population

	2001	1996
Employed	60,681	67,172
Unemployed	40,189	28,172
No Economical Active	50,746	
Total Labour Force	100,870	

Industry

	2001	1996
Agriculture/Forestry/Fishing	3,269	3,414
Community/Social/Personal	8,038	6,062
Construction	3,617	2,889
Electricity/Gas/Water	514	1,048
Financial/Insurance/Real Estate/Business	3,331	1,755
Manufacturing	10,276	9,130
Mining/Quarrying	12,062	20,018
Other	0	

Private Households	6,287	7,119
Transport/Storage/Communication	1,697	2,343
Undetermined	3,387	7,471
Wholesale/Retail	8,193	6,078

Occupation

	2001	1996
Clerks	6,814	4,089
Craft/Trade	12,345	11,926
Elementary	15,351	18,809
Legislators/Senior Officials	2,316	2,731
Unspecified/Not Economically Classified	0	
Plant/Machine Operators	8,267	10,371
Professionals	3,814	4,550
Service Workers	4,453	4,677
Agricultural/Fishery	763	
Technicians	4,106	2,557
Undetermined	2,447	

Individual Monthly Income

	2001	1996
None	148,530	91,533
R 1 to R 400	9,838	5,432
R 401 to R 800	18,602	29,500
R 801 to R 1,600	15,297	12,347
R 1,601 to R 3,200	12,275	8,272
R 3,201 to R 6,400	8,339	11,036
R 6,401 to R 12,800	5,763	3,136
R 12,801 to R 25,600	2,240	689

R 25,601 to R 51,200	480	328
R 51,201 to R 102,400	215	116
R 102,401 to R 204,800	114	
R 204,801+	53	

Travel to work

	2001	1996
Bicycle	2,335	
Bus	12,942	
Car Driver	14,353	
Car Passenger	11,538	
Minibus/Taxi	19,324	
Motorcycle	750	
Train	258	
NA	107,735	
Foot	51,921	
Other	591	

Households and Housing

Household Size (Average)

Household Size	2001	1996
1	12,311	
2	12,174	
3	10,636	
4	9,997	
5	6,708	
6	4,125	
7	2,447	
8	1,286	

9	844
10+	1,185

Dwelling Type (Dominant)

	2001	1996
Formal	36,413	25,501
Informal	23,687	21,357
Traditional	1,422	1,503
Other	192	147

Rooms per Household (Average)

Room(s)	2001	1996
1	10,544	7,421
2	9,447	6,167
3	8,629	5,989
4	12,192	10,267
5	7,363	6,498
6	6,116	5,077
7	3,489	3,198
8	1,943	1,760
9	948	1,238
10 +	1,043	826

Household Income

	2001	1996
None	14,623	5,882
R 1 to R 4,800	4,764	1,851
R 4,801 to R 9,600	10,044	4,957

R 9,601 to R 19,200	12,721	9,655
R 19,201 to R 38,400	10,240	6,216
R 38,401 to R 76,800	5,958	3,795
R 76,801 to R 153,600	5,021	2,769
R 153,601 to R 307,200	2,999	1,499
R 307,201 to R 614,400	832	137
R 614,401 to R 1,228,800	184	
R 1,228,801 to R 2,457,600	124	
R 2,457,600+	70	

Energy Source for Cooking (Dominant)

	2001	1996
Electricity	23,422	
Gas	1,093	
Paraffin	13,305	
Wood	1,134	
Coal	21,898	
Animal Dung	611	
Solar	119	
Other	133	

Energy Source for Lighting (Dominant)

	2001	1996
Electricity	42,556	25,726
Gas	137	149
Paraffin	2,573	2,936
Candles	16,153	20,084
Solar	70	
Other	225	0

Access to Piped Water (% Households)

	2001	1996
Dwelling	21,074	25,374
Inside Yard	23,266	11,651
Communal Stand	8,164	10,255
Communal Stand 200m+	7,189	
Borehole	433	1,158
Spring	18	153
Rain Tank	69	330
Dam/Pool/Stagnant Water	92	
River/Stream	86	
Water Vendor	58	
Other	1,265	148

Toilet Facilities (% Households)

	2001	1996
Flush Toilet	41,525	35,704
Flush Septic Tank	625	
Chemical Toilet	162	
VIP	638	
Pit Latrine	6,539	4,829
Bucket Latrine	6,537	4,468
None	5,688	4,052

Telephone Facilities (% Households)

	2001	1996
Telephone and Cellphone	8,561	
Telephone	4,508	14,317
Cellphone	13,109	

Neighbour	2,345	1,011
Public Telephone	28,679	26,865
Other Nearby	1,769	2,179
Other Not Nearby	900	1,237
No Access	1,843	3,241

Refuse Removal (% Households)

	2001	1996
Municipal Weekly	50,842	38,476
Municipal Other	1,121	771
Communal Dump	268	1,645
Own Dump	7,618	4,930
No Disposal	1,865	2,780

DISCLAIMER

Whilst all possible care and attention has been taken in the production of this report, the Department of Agriculture and Land Administration, or any of their representatives, do not accept any liability what-so-ever for any perceived inaccuracies or misinterpretations of the information presented within the digital data or accompanying report. Any boundaries either implied or inferred within the report do not have any legal status what-so-ever.

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