

Supplementary material to: Van der Merwe JH, Van Niekerk A. Application of geospatial technology for gap analysis in tourism planning for the Western Cape. S Afr J Sci. 2013;109(3/4), Art. #1226, 10 pages. <http://dx.doi.org/10.1590/sajs.2013/1226>

Supplementary table 1: Spatial variables used for demarcating development potential of seven tourism products

Human heritage resources										
Land cover	N	Poly	Activity opportunity/Interest	.	.	4	3	.	.	
Economic activity: Agricultural type	N	Poly	Activity opportunity/Interest; Food/shopping			4	2	3	2	2
Economic activity: Industry	O	Point	Activity interest			4	2	3	2	2
Nature conservation areas	B	Poly	Activity interest	.	.	4	2	3	2	2
Historical/heritage: Rock art	B	Point	Activity opportunity/interest			4	2	3	2	2
Historical/heritage: Archaeological finds	B	Point	Environmental/Cultural interest			4	2	3	2	2
Historical/heritage: Monuments	B	Point	Cultural interest			4	2	3	2	2
Historical/heritage: Passes/trails	B	Line	Environmental/Cultural interest/Activity			4	2	3	2	2
Historical/heritage: Intangible	B	Point	Cultural interest			4	2	3	2	2
Heritage repository: Museum	B	Point	Environmental/Cultural interest			4	2	3	2	2
Shipwrecks	B	Point	Environmental/Cultural interest/Activity			4	2	3	2	2
Culture: Fine arts & crafts	B	Point	Cultural interest			4	2	3	2	2
Culture: Performing arts	B	Point	Cultural interest			4	2	3	2	2
Town sense of place	B	Point	Environmental/Cultural interest			4
Transportation accessibility										
Road network by class	O	Line	Market and resource access	7	5	5	4	4	.	.
Railway stations (passenger)	O	Point	Market and resource access			5	4			
Airports/airfields by class	O	Point	Market-resource access/Activity opportunity	7		5	5		..	
Weighted metropolitan distance	S	Point	Market-resource access/Activity opportunity		.	5	5	4		
Main tarred and gravel roads	O	Line	Market-resource access/Activity opportunity	7	5	5	4	4	.	.
Settlement structure										
Town population number	S	Point	Likely service level			6	7			3
Population density	S	Poly	Likely service level			6	7			3
Population development:	S	Point	Likely service level			6	6	5	3	3

Economic index										
Population development: Education index	S	Point	Likely service level	8		6	6	5	3	3
Human needs: Composite index	S	Point	Tourism development need			6	6	5		3
District municipality IQ rating	O	Poly	Development support	8		6	7	5	3	.
Services/plant										
Hospitals/clinics/pharmacies	B	Point	Emergency/well-being support	9	6	7	9	7	4	4
Medical staff: Dentist/doctors	S	Point	Emergency/well-being support	9	6	7	9	7	4	4
Police stations	B	Point	Emergency support	9	6	7	9	7	4	4
Post offices	B	Point	Communications support	9		7	9			
Cell phone coverage by provider	O	Poly	Communications support	9	.	.	.	7	.	.
Financial services: Banks	S	Point	Subsistence support	9		7	9		4	4
Petrol service stations	S	Point	Spiritual support	9	6	7	9	7	4	.
Tourism plant: Accommodation	S	Point	Travel support	9	.	8	8	6	.	.
Tourism plant: Restaurants	S	Point	Travel support	9	6	8	8	6	.	.
Blue Flag beaches	B	Point	Travel attraction			.	.		4	
Total: Single variables				6	7	5	5	5	10	9
Total: Indexed variables				9	6	8	9	7	4	4
Total: All variables				15	13	13	14	12	14	13

[†]Data type: N, nominal; O, ordinal; B, Boolean (0,1); S, scale.

Variable format: . , single; 1 – 9, index.

Tourism products: P1&2, Nature: Ecology and scenery; P3, Nature: Adventure and activity; P4, Sun and sand; P5&6, Culture; P7, Rural and agritourism; P8, Meetings, incentives, conferences, exhibitions (MICE) and business; P9, Food and wine.

Raw form or source of data: existing analogue or digital maps and data lists mapped by researchers.

Source institutions: Centre for Geographical Analysis (CGA); Chief Directorate Surveys and Mapping (CDSM); Agricultural Research Council; Agricultural geographical information system (AGIS); Environmental Potential Atlas (ENPAT); Council for Geosciences (CGS); Geological Society; South African National Biodiversity Institute (SANBI); CapeNature; South African Weather Bureau (SAWB); Council for Scientific and Industrial Research (CSIR); South African Heritage Resource Agency (SAHRA); Cape Town Tourism; Cape Town Routes Unlimited (CTRU).