Early South African Newspaper Reporting of Climate Change Supplementary Reader

Jarred Dean McCarthy (453411)

Submitted in fulfillment of the requirements for the degree, Master of Science (by dissertation) in Geography and Environmental Studies, in the School of Geography, Archaeology and Environmental Studies, in the Faculty of Science, the University of the Witwatersrand, Johannesburg



List of Figures:Other English Newspapers

•	• •	
Figure 5.5.7	7.1: Portrait of Prof. Schwarz by Elliott and Fry	3
_	•	

List of Tables:

Table 5.4.1: Indicators of Uncertainty Frame	4
Table 5.4.2: Indicators of Risk Frame	9
Table 5.4.3: Indicators of Adaptation and Mitigation Initiative Frame	12
Table 5.4.4: Indicators of Developing Versus Developed Frame	15
Table 5.4.5: Dominant Framing of Articles	18
Table 5.5.7.1a: Vrede Monthly Rainfall for 1948, observed by F. L Biggs	24
Table 5.5.7.1b: Witteklip Monthly Rainfall for 1948, observed by the Government Dennis Archer	25
Table 5.5.7.1c: Weltevreden Monthly Rainfall for 1948, observed by H. R Sheard	26
Table 5.5.7.1d: Roodebloem Monthly Rainfall for 1948, observed by Alex C. Murray	27
Table 5.5.7.1e: New Bethesda Monthly Rainfall for 1948, observed by A. G Erlank	28
Table 5.5.7.1f: Bloemhof Monthly Rainfall for 1948, observed by D. Hess	29



Figure 5.5.7.1: Portrait of Prof. Schwarz by Elliott and Fry (After Unknown, *The Cape Argus*, 26 August 1922).

Table 5.4.1: Indicators of Uncertainty Frame

Article Title, and Year	General: Did the article contain mentions of uncertainties about climate science/climate change discourse, including future projections?	Did the article contain such terms as 'increasing uncertainty', 'increasing evidence that', 'almost certain', 'most certain to date', 'record breaking' (without an explanation) when referring to climate science/ climate change discourse, including future	Specific: Did the article include uncertainty parameters or ranges in projections?	Did the article mention the shortcomings of statistically based projections?	Did the article mention the 'extension of problem domain' (more research is needed)?	Tone: Did the article have a presence of 'duelling experts' suggesting contestation about some aspect of the science?
Advance of the Desert, 26 August	Yes	projections? Yes	No	No	Yes	No
1922	163	163	NO	NO	163	140
The 1924 Rainfall, 6 January 1925	No	No	No	No	No	No
Kalahari Scheme, 8 Apr 1925	No	Yes	No	No	Yes	Yes
The Kalahari Scheme, 24 Apr 1925	No	Yes	No	No	Yes	No
"Thirstland" Redemption, 25 Apr 1925	No	No	No	No	Yes	No
Correspondence, After 25 April 1925	No	No	No	No	No	No
Wet and Dry, 5 May 1925	No	No	No	No	No	No
Secrets of the Weather, 9 May 1925	Yes	No	Yes	No	Yes	Yes
A time of storms, Yes Dec 1925	Yes	Yes	No	No	Yes	No
The Weather, 7 Jan 1926	Yes	Yes	No	No	Yes	No

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 4 of 29

Article Title, and Year	General: Did the article contain mentions of uncertainties about climate science/climate change discourse, including future projections?	Did the article contain such terms as 'increasing uncertainty', 'increasing evidence that', 'almost certain', 'most certain to date', 'record breaking' (without an explanation) when referring to climate science/ climate change discourse, including future projections?	Specific: Did the article include uncertainty parameters or ranges in projections?	Did the article mention the shortcomings of statistically based projections?	Did the article mention the 'extension of problem domain' (more research is needed)?	Tone: Did the article have a presence of 'duelling experts' suggesting contestation about some aspect of the science?
Waiting for the rain, 12 Jan 1926	Yes	No	No	No	Yes	No
Sun and Weather, 16 Jan 1926	Yes	Yes	Yes	No	Yes	Yes
The hurricane month, 25 Apr 1926	Yes	Yes	Yes	No	Yes	No
Frost does damage in the city, 23 Jul 1926	Yes	Yes	Yes	No	No	No
A Cyclone year, 10 Nov 1926	Yes	Yes	Yes	No	Yes	No
Reader's PO, 16 Oct 1933	Yes	No	Yes	No	Yes	No
The Remedy for Drought, 17 Oct 1933	No	No	Yes	No	Yes	No
Is the Union Drying Up?, 23 Nov 1933	Yes	Yes	Yes	No	Yes	No
Changed S.A. Rainfall, 24 Nov 1933	No	No	No	No	Yes	No
Drying Up?, 25 November 1933	Yes	Yes	Yes	Yes	Yes	Yes
Prophet versus expert, 30 Nov 1933	Yes	No	Yes	Yes	Yes	No
"Prophet versus Expert", 9 Dec 1933	Yes	Yes	Yes	No	Yes	No

Article Title, and Year	General: Did the article contain mentions of uncertainties about climate science/climate change discourse, including future projections?	Did the article contain such terms as 'increasing uncertainty', 'increasing evidence that', 'almost certain', 'most certain to date', 'record breaking' (without an explanation) when referring to climate science/ climate change discourse, including future projections?	Specific: Did the article include uncertainty parameters or ranges in projections?	Did the article mention the shortcomings of statistically based projections?	Did the article mention the 'extension of problem domain' (more research is needed)?	Tone: Did the article have a presence of 'duelling experts' suggesting contestation about some aspect of the science?
Strange Weather of 1931, 11 June 1934	Yes	Yes	Yes	No	Yes	No
Huge afforestation plan in America, 23 Jul 1934	No	No	Yes	No	No	No
Effects of trees on climate, 24 Jul 1934	No	No	No	No	No	No
Development of the Kalahari [Pt. 1], 19 August 1934	Yes	Yes	No	No	Yes	No
Development of the Kalahari [Pt. 2], 26 August 1934	Yes	Yes	No	No	Yes	No
The Kalahari and Our Climate [Pt. 1], 2 September 1934	Yes	Yes	Yes	Yes	Yes	Yes
The Kalahari and Our Climate [Pt. 2], 9 September 1934	Yes	No	No	No	Yes	No
Is South Africa Drying Up?, 8 Jan 1935	Yes	No	No	No	Yes	No

Article Title, and Year	General: Did the article contain mentions of uncertainties about climate science/climate change discourse, including future projections?	Did the article contain such terms as 'increasing uncertainty', 'increasing evidence that', 'almost certain', 'most certain to date', 'record breaking' (without an explanation) when referring to climate science/ climate change discourse, including future projections?	Specific: Did the article include uncertainty parameters or ranges in projections?	Did the article mention the shortcomings of statistically based projections?	Did the article mention the 'extension of problem domain' (more research is needed)?	Tone: Did the article have a presence of 'duelling experts' suggesting contestation about some aspect of the science?
The Drought Menace, 9 Jan 1935a	Yes	Yes	Yes	No	Yes	No
Not So Dry, 9 Jan 1935b	Yes	Yes	Yes	Yes	Yes	No
The Drought Problem in South Africa [Pt. 1], 18 August 1935	Yes	Yes	Yes	No	Yes	No
The Drought Problem in South Africa [Pt. 2], 18 August 1935	Yes	Yes	Yes	No	Yes	No
The Kalahari Scheme Again, 18 August 1935	Yes	Yes	Yes	No	Yes	Yes
Scientists and weather "prophets" disagree, 14 Jan 1939	Yes	Yes	Yes	Yes	Yes	Yes
Rains not what they were, 6 Apr 1948	Yes	Yes	Yes	No	Yes	No
63-Year-Old Rainfall Records for News Bethesda Analysed, 10 January 1949	Yes	Yes	Yes	No	Yes	No

Article Title, and Year	General: Did the article contain mentions of uncertainties about climate science/climate change discourse, including future projections?	Did the article contain such terms as 'increasing uncertainty', 'increasing evidence that', 'almost certain', 'most certain to date', 'record breaking' (without an explanation) when referring to climate science/ climate change discourse, including future	Specific: Did the article include uncertainty parameters or ranges in projections?	Did the article mention the shortcomings of statistically based projections?	Did the article mention the 'extension of problem domain' (more research is needed)?	Tone: Did the article have a presence of 'duelling experts' suggesting contestation about some aspect of the science?
		projections?				
Eight Months Very Dry, 10 January 1949	Yes	Yes	No	No	No	No

Table 5.4.2: Indicators of Risk Frame

Article Title, and Year	Did the article include general, unsourced statements mentioning risks (broadly defined as possible adverse impacts or consequences) from, for example, warmer temperatures?	Did the article include named sourced statements from scientists/experts or scientific reports mentioning risk (broadly defined as possible adverse impacts or consequences) from, for example, warmer temperatures?	Did the article include statements, either sourced or unsourced, mentioning risks more explicitly, either by the use of the word 'risk', 'precaution', 'threatens' or 'insurance', or where the odds, probabilities or chance of something adverse happening are given?	Does the article include more information on scientific aspects, consequences or knowledge gaps from, for example, warmer temperatures (future predictions) compared to societal impacts or consequences? a) Scientific b) Societal c) Both Scientific and Societal d) No clear distinction between the two e) Other (specify)
Advance of the Desert, 26 August 1922	Yes	Yes	Yes	c) Both Scientific and Societal
The 1924 Rainfall, 6 January 1925	No	No	No	a) Scientific
Kalahari Scheme, 8 Apr 1925	Yes	Yes	Yes	b) Societal
The Kalahari Scheme, 24 Apr 1925	Yes	Yes	Yes	b) Societal
"Thirstland" Redemption, 25 Apr 1925	No	No	No	e) Other (Criticism of Kalahari Scheme)
Correspondence, After 25 April 1925	Yes	Yes (As Author—Prof. Schwarz)	Yes	c) Both Scientific and Societal
Wet and Dry, 5 May 1925	Yes	No	Yes	b) Societal
Secrets of the Weather, 9 May 1925	No	No	No	a) Scientific
A time of storms, Yes Dec 1925	No	No	No	a) Scientific
The Weather, 7 Jan 1926	Yes	No	No	a) Scientific
Waiting for the rain, 12 Jan 1926	No	No	No	a) Scientific
Sun and Weather, 16 Jan 1926	No	No	No	a) Scientific
The hurricane month, 25 Apr 1926	Yes	No	Yes	b) Societal

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 9 of 29

Article Title, and Year	Did the article include general, unsourced statements mentioning risks (broadly defined as possible adverse impacts or consequences) from, for example, warmer temperatures?	Did the article include named sourced statements from scientists/experts or scientific reports mentioning risk (broadly defined as possible adverse impacts or consequences) from, for example, warmer temperatures?	Did the article include statements, either sourced or unsourced, mentioning risks more explicitly, either by the use of the word 'risk', 'precaution', 'threatens' or 'insurance', or where the odds, probabilities or chance of something adverse happening are given?	Does the article include more information on scientific aspects, consequences or knowledge gaps from, for example, warmer temperatures (future predictions) compared to societal impacts or consequences? a) Scientific b) Societal c) Both Scientific and Societal d) No clear distinction between the two e) Other (specify)
Frost does damage in the city, 23 Jul 1926	No	No	No	b) Societal
A Cyclone year, 10 Nov 1926	Yes	No	Yes	c) Both scientific and societal
Reader's PO, 16 Oct 1933	Yes	No	No	a) Scientific
The Remedy for Drought, 17 Oct 1933	Yes	No	Yes	c) Both Scientific and Societal
Is the Union Drying Up?, 23 Nov 1933	No	Yes	No	d) No clear distinction between the two
Changed S.A. Rainfall, 24 Nov 1933	No	Yes	Yes	b) Societal
Drying Up?, 25 November 1933	Yes	Yes	Yes	a) Scientific
Prophet versus expert, 30 Nov 1933	Yes	Yes	No	a) Scientific
"Prophet versus Expert", 9 Dec 1933	No	No	Yes	a) Scientific
Strange Weather of 1931, 11 June 1934	Yes	No	Yes	c) Both scientific and societal
Huge afforestation plan in America, 23 Jul 1934	No	No	Yes	b) Societal
Effects of trees on climate, 24 Jul 1934	No	No	No	a) Scientific
Development of the Kalahari [Pt. 1], 19 August 1934	Yes	Yes	Yes	b) Societal
Development of the Kalahari [Pt. 2], 26 August 1934	Yes	No	No	c) Both Scientific and Societal

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 10 of 29

Article Title, and Year	Did the article include general, unsourced statements mentioning risks (broadly defined as possible adverse impacts or consequences) from, for example, warmer temperatures?	Did the article include named sourced statements from scientists/experts or scientific reports mentioning risk (broadly defined as possible adverse impacts or consequences) from, for example, warmer temperatures?	Did the article include statements, either sourced or unsourced, mentioning risks more explicitly, either by the use of the word 'risk', 'precaution', 'threatens' or 'insurance', or where the odds, probabilities or chance of something adverse happening are given?	Does the article include more information on scientific aspects, consequences or knowledge gaps from, for example, warmer temperatures (future predictions) compared to societal impacts or consequences? a) Scientific b) Societal c) Both Scientific and Societal d) No clear distinction between the two e) Other (specify)
The Kalahari and Our Climate [Pt. 1], 2 September 1934	No	No	No	c) Both Scientific and Societal
The Kalahari and Our Climate [Pt. 2], 9 September 1934	No	No	No	c) Both Scientific and Societal
Is South Africa Drying Up?, 8 Jan 1935	Yes	Yes	Yes	c) Both Scientific and Societal
The Drought Menace, 9 Jan 1935a	Yes	Yes	Yes	c) Both Scientific and Societal
Not So Dry, 9 Jan 1935b	No	No	No	a) Scientific
The Drought Problem in South Africa [Pt. 1], 18 August 1935	Yes	No	Yes	c) Both Scientific and Societal
The Drought Problem in South Africa [Pt. 2], 18 August 1935	Yes	Yes	Yes	c) Both Scientific and Societal
The Kalahari Scheme Again, 18 August 1935	No	Yes	Yes	c) Both Scientific and Societal
Scientists and weather "prophets" disagree, 14 Jan 1939	No	No	No	a) Scientific
Rains not what they were, 6 Apr 1948	No	Yes	No	a) Scientific
63-Year-Old Rainfall Records for News Bethesda Analysed, 10 January 1949	Yes	No	Yes	c) Both Scientific and Societal
Eight Months Very Dry, 10 January 1949	Yes	No	Yes	d) No clear distinction

Table 5.4.3: Indicators of Adaptation and Mitigation Initiative Frame

Article Title, and Year	Did the article include statements, either sourced or unsourced, referring to adaptation and mitigation initiatives as a benefit?	If yes from previous question, did the article mention the benefits as; a) Economic; b) Societal; c) Both Economic and Societal; d) No clear distinction OR e) Other (Specify)?	If yes from first question, did the article include named sourced statements from scientists/experts or scientific reports mentioning opportunities and/or possible positive impacts for the discontinuation of burning fossil fuels, essentially addressing climate change?
Advance of the Desert, 26 August 1922	Yes	c) Both economic and societal	Yes
The 1924 Rainfall, 6 January 1925	No	N/A	N/A
Kalahari Scheme, 8 Apr 1925	Yes	c) Both economic and societal	Yes
The Kalahari Scheme, 24 Apr 1925	Yes	c) Both economic and societal	Yes
"Thirstland" Redemption, 25 Apr 1925	No	N/A	N/A
Correspondence, After 25 April 1925	Yes	c) Both economic and societal	Yes (Both as Author—Prof. Schwarz, and Mr. Scullly)
Wet and Dry, 5 May 1925	No	N/A	N/A
Secrets of the Weather, 9 May 1925	No	N/A	N/A
A time of storms, Yes Dec 1925	No	N/A	N/A
The Weather, 7 Jan 1926	No	N/A	N/A
Waiting for the rain, 12 Jan 1926	No	N/A	N/A
Sun and Weather, 16 Jan 1926	No	N/A	N/A
The hurricane month, 25 Apr 1926	No	N/A	N/A
Frost does damage in the city, 23 Jul 1926	No	N/A	N/A

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 12 of 29

Article Title, and Year	Did the article include statements, either sourced or unsourced, referring to adaptation and mitigation initiatives as a benefit?	If yes from previous question, did the article mention the benefits as; a) Economic; b) Societal; c) Both Economic and Societal; d) No clear distinction OR e) Other (Specify)?	If yes from first question, did the article include named sourced statements from scientists/experts or scientific reports mentioning opportunities and/or possible positive impacts for the discontinuation of burning fossil fuels, essentially addressing climate change?
A Cyclone year, 10 Nov 1926	No	N/A	N/A
Reader's PO, 16 Oct 1933	Yes	d) No clear distinction	No
The Remedy for Drought, 17 Oct 1933	Yes	c) Both economic and societal	No
Is the Union Drying Up?, 23 Nov 1933	Yes	d) No clear distinction	Yes
Changed S.A. Rainfall, 24 Nov 1933	Yes	c) Both economic and societal	Yes
Drying Up?, 25 November 1933	Yes	d) No clear distinction	No
Prophet versus expert, 30 Nov 1933	No	N/A	N/A
"Prophet versus Expert", 9 Dec 1933	No	N/A	N/A
Strange Weather of 1931, 11 June 1934	No	N/A	N/A
Huge afforestation plan in America, 23 Jul 1934	Yes	c) Both economic and societal	No
Effects of trees on climate, 24 Jul 1934	Yes	d) No clear distinction	Yes
Development of the Kalahari [Pt. 1], 19 August 1934	Yes	c) Both economic and societal	No
Development of the Kalahari [Pt. 2], 26 August 1934	Yes	c) Both economic and societal	No
The Kalahari and Our Climate [Pt. 1], 2 September 1934	Yes	c) Both economic and societal	No
The Kalahari and Our Climate [Pt. 2], 9 September 1934	Yes	c) Both economic and societal	No
Is South Africa Drying Up?, 8 Jan 1935	Yes	c) Both economic and societal	Yes

Article Title, and Year	Did the article include statements, either sourced or unsourced, referring to adaptation and mitigation initiatives as a benefit?	If yes from previous question, did the article mention the benefits as; a) Economic; b) Societal; c) Both Economic and Societal; d) No clear distinction OR e) Other (Specify)?	If yes from first question, did the article include named sourced statements from scientists/experts or scientific reports mentioning opportunities and/or possible positive impacts for the discontinuation of burning fossil fuels, essentially addressing climate change?
The Drought Menace, 9 Jan 1935a	Yes	c) Both economic and societal	Yes
Not So Dry, 9 Jan 1935b	No	N/A	N/A
The Drought Problem in South Africa [Pt. 1], 18 August 1935	Yes	c) Both economic and societal	Yes
The Drought Problem in South Africa [Pt. 2], 18 August 1935	Yes	c) Both economic and societal	Yes
The Kalahari Scheme Again, 18 August 1935	Yes	c) Both economic and societal	Yes
Scientists and weather "prophets" disagree, 14 Jan 1939	No	N/A	N/A
Rains not what they were, 6 Apr 1948	No	N/A	N/A
63-Year-Old Rainfall Records for News Bethesda Analysed, 10 January 1949	Yes	c) Both economic and societal	No
Eight Months Very Dry, 10 January 1949	No	N/A	N/A

Table 5.4.4: Indicators of developing versus developed frame

Article Title, and Year	Did the article include statements, either sourced or unsourced, referring to climate change discourse as something only happening in South Africa? (No means a global problem, Yes would mean only a South African problem, and N/A means no clear distinction).	Did the article include statements, either sourced or unsourced, referring to climate change discourse as something only developed nations should address? (No would mean that its only a developing nations problem, N/A means no clear distinction).
Advance of the Desert, 26 August 1922	N/A = No clear distinction	N/A = No clear distinction
The 1924 Rainfall, 6 January 1925	N/A = No clear distinction	N/A = No clear distinction
Kalahari Scheme, 8 Apr 1925	N/A = No clear distinction	N/A = No clear distinction
The Kalahari Scheme, 24 Apr 1925	N/A = No clear distinction	N/A = No clear distinction
"Thirstland" Redemption, 25 Apr 1925	No = A global problem	N/A = No clear distinction
Correspondence, After 25 April 1925	N/A = No clear distinction	N/A = No clear distinction
Wet and Dry, 5 May 1925	N/A = No clear distinction	N/A = No clear distinction
Secrets of the Weather, 9 May 1925	No = A global problem	N/A = No clear distinction
A time of storms, Yes Dec 1925	No = A global problem	N/A = No clear distinction
The Weather, 7 Jan 1926	No = A global problem	N/A = No clear distinction
Waiting for the rain, 12 Jan 1926	No = A global problem	N/A = No clear distinction
Sun and Weather, 16 Jan 1926	No = A global problem	N/A = No clear distinction
The hurricane month, 25 Apr 1926	No = A global problem	N/A = No clear distinction
Frost does damage in the city, 23 Jul 1926	N/A = No clear distinction	N/A = No clear distinction

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 15 of 29

Article Title, and Year	Did the article include statements, either sourced or unsourced, referring to climate change discourse as something only happening in South Africa? (No means a global problem, Yes would mean only a South African problem, and N/A means no clear distinction).	Did the article include statements, either sourced or unsourced, referring to climate change discourse as something only developed nations should address? (No would mean that its only a developing nations problem, N/A means no clear distinction).
A Cyclone year, 10 Nov 1926	No = A global problem	N/A = No clear distinction
Reader's PO, 16 Oct 1933	No = A global problem	N/A = No clear distinction
The Remedy for Drought, 17 Oct 1933	N/A = No clear distinction	N/A = No clear distinction
Is the Union Drying Up?, 23 Nov 1933	N/A = No clear distinction	N/A = No clear distinction
Changed S.A. Rainfall, 24 Nov 1933	N/A = No clear distinction	N/A = No clear distinction
Drying Up?, 25 November 1933	No = A global problem	N/A = No clear distinction
Prophet versus expert, 30 Nov 1933	No = A global problem	N/A = No clear distinction
"Prophet versus Expert", 9 Dec 1933	N/A = No clear distinction	N/A = No clear distinction
Strange Weather of 1931, 11 June 1934	No = A global problem	N/A = No clear distinction
Huge afforestation plan in America, 23 Jul 1934	N/A = No clear distinction	N/A = No clear distinction
Effects of trees on climate, 24 Jul 1934	No = A global problem	N/A = No clear distinction
Development of the Kalahari [Pt. 1], 19 August 1934	N/A = No clear distinction	N/A = No clear distinction
Development of the Kalahari [Pt. 2], 26 August 1934	N/A = No clear distinction	N/A = No clear distinction
The Kalahari and Our Climate [Pt. 1], 2 September 1934	N/A = No clear distinction	N/A = No clear distinction
The Kalahari and Our Climate [Pt. 2], 9 September 1934	N/A = No clear distinction	N/A = No clear distinction
Is South Africa Drying Up?, 8 Jan 1935	No = A global problem	N/A = No clear distinction
The Drought Menace, 9 Jan 1935a	No = A global problem	N/A = No clear distinction
Not So Dry, 9 Jan 1935b	N/A = No clear distinction	N/A = No clear distinction
The Drought Problem in South Africa [Pt. 1], 18 August 1935	N/A = No clear distinction	N/A = No clear distinction

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 16 of 29

Article Title, and Year	Did the article include statements, either sourced or unsourced, referring to climate change discourse as something only happening in South Africa? (No means a global problem, Yes would mean only a South African problem, and N/A means no clear distinction).	Did the article include statements, either sourced or unsourced, referring to climate change discourse as something only developed nations should address? (No would mean that its only a developing nations problem, N/A means no clear distinction).
The Drought Problem in South Africa [Pt. 2], 18 August 1935	N/A = No clear distinction	N/A = No clear distinction
The Kalahari Scheme Again, 18 August 1935	N/A = No clear distinction	N/A = No clear distinction
Scientists and weather "prophets" disagree, 14 Jan 1939	No = A global problem	N/A = No clear distinction
Rains not what they were, 6 Apr 1948	No = A global problem	N/A = No clear distinction
63-Year-Old Rainfall Records for News Bethesda Analysed, 10 January 1949	N/A = No clear distinction	N/A = No clear distinction
Eight Months Very Dry, 10 January 1949	N/A = No clear distinction	N/A = No clear distinction

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 17 of 29

Table 5.4.5: Dominant Framing of Article

Article Title, and Year	Salience of placing: headline: is the headline predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the headline predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	First paragraph (~6 lines): is the first paragraph predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the first paragraph predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	Concluding paragraph (~last 6 lines): is the article's conclusion one that predominantly contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the concluding paragraph predominantl y contains 'risk', is it i) implicit or ii) explicit?	Overall dominant framing? a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)
Advance of the Desert, 26 August 1922	b) Risk	ii) Explicit	b) Risk	ii) Explicit	d) Adaptation and mitigation (It must be noted that the last line of the article is missing. Therefore the selected frame is based on context of the remainder of the concluding paragraph).	N/A	d) Adaptation and mitigation
The 1924 Rainfall, 6 January 1925	a) Uncertainty	N/A	b) Risk	i) Implicit	b) Risk	i) Implicit	b) Risk
Kalahari Scheme, 8 Apr 1925	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation
The Kalahari Scheme, 24 Apr 1925	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation
"Thirstland" Redemption, 25 Apr 1925	d) Adaptation and mitigation	N/A	f) Other (article criticised Schwarz's theory)	N/A	d) Adaptation and mitigation	N/A	f) Other (Article criticised Schwarz's theory)

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 18 of 29

Article Title, and Year	Salience of placing: headline: is the headline predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the headline predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	First paragraph (~6 lines): is the first paragraph predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the first paragraph predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	Concluding paragraph (~last 6 lines): is the article's conclusion one that predominantly contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the concluding paragraph predominantl y contains 'risk', is it i) implicit or ii) explicit?	Overall dominant framing? a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)
Correspondence, After 25 April 1925	f) Other ("Correspondence" as the heading does not evoke a headline that predominantly contains one of the frames)	N/A	f) Other (First paragraphs deals with the context and the reason as to why Prof. Schwarz is sending a letter of reply to the Northern News)	N/A	b) Risk	i) Implicit	d) Adaptation and mitigation
Wet and Dry, 5 May 1925	b) Risk	i) Implicit	b) Risk	ii) Explicit	b) Risk	i) Implicit	b) Risk
Secrets of the Weather, 9 May 1925	a) Uncertainty	N/A	a) Uncertainty	N/A	b) Risk	ii) Explicit	a) Uncertainty
A time of storms, Yes Dec 1925	b) Risk	ii) Explicit	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty
The Weather, 7 Jan 1926	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty
Waiting for the rain, 12 Jan 1926	a) Uncertainty	N/A	a) Uncertainty	N/A	b) Risk	ii) Explicit	a) Uncertainty
Sun and Weather, 16 Jan 1926	a) Uncertainty	N/A	a) Uncertainty	N/A	f) Other (its just fodder to bolster Dr. Abbott's abilities)	N/A	a) Uncertainty
The hurricane month, 25 Apr 1926	b) Risk	ii) Explicit	f) Other (Article describes festivals taking place in Mauritius)	N/A	b) Risk	ii) Explicit	b) Risk

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 19 of 29

Article Title, and Year	Salience of placing: headline: is the headline predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the headline predominantly contains 'risk', is it i) Implicit or ii) Explicit?	First paragraph (~6 lines): is the first paragraph predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the first paragraph predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	Concluding paragraph (~last 6 lines): is the article's conclusion one that predominantly contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the concluding paragraph predominantl y contains 'risk', is it i) implicit or ii) explicit?	Overall dominant framing? a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)
Frost does damage in the city, 23 Jul 1926	b) Risk	ii) Explicit	f) Other (Article first speaks of the impacts due to burst pipes from the cold conditions in Johannesburg)	N/A	f) Other (Talks of impacts of current weather, the cold weather experienced in Aliwal North)	N/A	a) Uncertainty
A Cyclone year, 10 Nov 1926	b) Risk	i) Implicit	b) Risk	i) Implicit	b) Risk	i) Implicit	b) Risk
Reader's PO, 16 Oct 1933	f) Other ("Reader Po…" - Title is pasted over)	N/A	f) Other (certainty)	N/A	a) Uncertainty	N/A	a) Uncertainty
The Remedy for Drought, 17 Oct 1933	d) Adaptation and mitigarion	N/A	B) Risk	ii) Explicit	d) Adaptation and mitigation	N/A	b) Risk
Is the Union Drying Up?, 23 Nov 1933	b) Risk	i) Implicit	b) Risk	i) Implicit	f) Other (Dr, Schumann goes through rainfall influencers, and the conclusion includes the minimum and maximum temperature for Pretoria the day before)—certainty.	N/A	b) Risk (this article proved to be the most difficult to categorise—see discussion for the discussion to categorise this article under risk)

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 20 of 29

1934 mitigation mitigation Effects of trees on climate, 24 Jul 1934 a) Uncertainty N/A d) Adaptation and N/A d) Adaptation and mitigation	Article Title, and Year	Salience of placing: headline: is the headline predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the headline predominantly contains 'risk', is it i) Implicit or ii) Explicit?	First paragraph (~6 lines): is the first paragraph predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the first paragraph predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	Concluding paragraph (~last 6 lines): is the article's conclusion one that predominantly contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the concluding paragraph predominantl y contains 'risk', is it i) implicit or ii) explicit?	Overall dominant framing? a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)
Prophet versus expert, 30 Nov 1933 a) Uncertainty N/A a) Uncertainty N/A a) Uncertainty N/A a) Uncertainty "Prophet versus Expert", 9 Dec 1933 a) Uncertainty N/A b) Risk i) Implicit a) Uncertainty N/A a) Uncertainty Strange Weather of 1931, 11 June 1934 a) Uncertainty N/A b) Risk ii) Explicit f) Other (certainty, as author concludes with scientific thoeries on ENSO) Huge afforestation plan in America, 23 Jul d) Adaptation and mitigation N/A d) Adaptation and M/A b) Risk i) Implicit d) Adaptation and mitigation Effects of trees on climate, 24 Jul 1934 a) Uncertainty N/A d) Adaptation and M/A d) Adaptation and M/A d) Adaptation and mitigation	Changed S.A. Rainfall, 24 Nov 1933	b) Risk	ii) Explicit	B) Risk	ii) Explicit		N/A	b) Risk
"Prophet versus Expert", 9 Dec 1933 a) Uncertainty N/A b) Risk i) Implicit a) Uncertainty N/A a) Uncertainty Strange Weather of 1931, 11 June 1934 a) Uncertainty N/A b) Risk ii) Explicit f) Other (certainty, as author concludes with scientific thoeries on ENSO) Huge afforestation plan in America, 23 Jul d) Adaptation and mitigation N/A d) Adaptation and M/A b) Risk i) Implicit d) Adaptation and mitigation Effects of trees on climate, 24 Jul 1934 a) Uncertainty N/A d) Adaptation and N/A d) Adaptation and M/A d) Adapta	Drying Up?, 25 November 1933	a) Uncertainty	N/A	a) Uncertainty	N/A		N/A	a) Uncertainty
Strange Weather of 1931, 11 June 1934 a) Uncertainty N/A b) Risk ii) Explicit f) Other (certainty, as author concludes with scientific thoeries on ENSO) Huge afforestation plan in America, 23 Jul d) Adaptation and mitigation M/A d) Adaptation and mitigation b) Risk i) Implicit d) Adaptation and mitigation Effects of trees on climate, 24 Jul 1934 a) Uncertainty N/A d) Adaptation and N/A d) Adaptation and N/A d) Adaptation and mitigation	Prophet versus expert, 30 Nov 1933	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty
author concludes with scientific thoeries on ENSO) Huge afforestation plan in America, 23 Jul d) Adaptation and M/A d) Adaptation and M/A b) Risk i) Implicit d) Adaptation and mitigation mitigation Effects of trees on climate, 24 Jul 1934 a) Uncertainty N/A d) Adaptation and N/A d) Adaptation and Mitigation and Mitigation and M/A d) Adaptation and Mitigation and	"Prophet versus Expert", 9 Dec 1933	a) Uncertainty	N/A	b) Risk	i) Implicit	a) Uncertainty	N/A	a) Uncertainty
1934 mitigation mitigation Effects of trees on climate, 24 Jul 1934 a) Uncertainty N/A d) Adaptation and N/A d) Adaptation and mitigation	Strange Weather of 1931, 11 June 1934	a) Uncertainty	N/A	b) Risk	ii) Explicit	author concludes with scientific	N/A	b) Risk
1			N/A		N/A	b) Risk	i) Implicit	d) Adaptation and mitigation
mitigation mitigation	Effects of trees on climate, 24 Jul 1934	a) Uncertainty	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation
Development of the Kalahari [Pt. 1], 19 d) Adaptation and N/A d) Adaptation and N/A d) Adaptation and M/A d) Adaptation and M/A d) Adaptation and M/A d) Adaptation and mitigation and mitigation			N/A	, .	N/A		N/A	d) Adaptation and mitigation

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 21 of 29

Article Title, and Year	Salience of placing: headline: is the headline predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the headline predominantly contains 'risk', is it i) Implicit or ii) Explicit?	First paragraph (~6 lines): is the first paragraph predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the first paragraph predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	Concluding paragraph (~last 6 lines): is the article's conclusion one that predominantly contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the concluding paragraph predominantl y contains 'risk', is it i) implicit or ii) explicit?	Overall dominant framing? a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)
Development of the Kalahari [Pt. 2], 26 August 1934	d) Adaptation and mitigation	N/A	f) Other (First paragraph details the northern Transvaal bushveld as a ranching area)	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation
The Kalahari and Our Climate [Pt. 1], 2 September 1934	f) Other (the headline can be read as either uncertainty or certainty)	N/A	f) Other (Certainty— on moisture conservation resulting in an increase in rainfall)	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation
The Kalahari and Our Climate [Pt. 2], 9 September 1934	f) Other (the headline can be read as either uncertainty or certainty)	N/A	a) Uncertainty	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation
Is South Africa Drying Up?, 8 Jan 1935	b) Risk	i) Implicit	f) Other (certainty, with first line of risk)	N/A	b) Risk	ii) Explicit	b) Risk
The Drought Menace, 9 Jan 1935a	b) Risk	ii) Explicit	a) Uncertainty	N/A	d) Adaptation and mitigation	N/A	d) Adaptation and mitigation
Not So Dry, 9 Jan 1935b	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty
The Drought Problem in South Africa [Pt. 1], 18 August 1935	b) Risk	i) Implicit	a) Uncertainty	N/A	a) Uncertainty	N/A	d) Adaptation and mitigation

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 22 of 29

Article Title, and Year	Salience of placing: headline: is the headline predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the headline predominantly contains 'risk', is it i) Implicit or ii) Explicit?	First paragraph (~6 lines): is the first paragraph predominantly one that contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the first paragraph predominantl y contains 'risk', is it i) Implicit or ii) Explicit?	Concluding paragraph (~last 6 lines): is the article's conclusion one that predominantly contains: a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)	If the concluding paragraph predominantl y contains 'risk', is it i) implicit or ii) explicit?	Overall dominant framing? a) Uncertainty b) Risk c) Opportunity d) Adaptation and mitigation e) Developing versus developed f) Other (specify)
The Drought Problem in South Africa [Pt. 2], 18 August 1935	b) Risk	i) Implicit	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty
The Kalahari Scheme Again, 18 August 1935	d) Adaptation and mitigation	N/A	a) Uncertainty	N/A	d) Adaptation and mitigation	N/A	a) Uncertainty
Scientists and weather "prophets" disagree, 14 Jan 1939	a) Uncertainty	N/A	a) Uncertainty	N/A	f) Other (Certainty, as author concludes with scientific opinion of Johannesburg scientists, that all weather is natural and 'normal')	N/A	a) Uncertainty
Rains not what they were, 6 Apr 1948	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty	N/A	a) Uncertainty
63-Year-Old Rainfall Records for News Bethesda Analysed, 10 January 1949	a) Uncertainty	N/A	f) Other (First paragraphs deals with the context— Erlank's 63 year rain gauge collection in New Bethesda)	N/A	f) Other (Equally risk and uncertainty)	i) Implicit	b) Risk
Eight Months Very Dry, 10 January 1949	b) Risk	ii) Explicit	b) Risk	ii) Explicit	b) Risk	ii) Explicit	b) Risk

The University of the Witwatersrand MSc by J D McCarthy (453411) Page 23 of 29

Table 5.5.7.1a: Vrede Monthly Rainfall for 1948, observed by F. L Biggs (After Unknown, The Graaff-Reinet Advertiser, 10 January 1949).

Month	Monthly Rainfall in inches
January	.85
February	3.83
March	5.7
April	6.5
May	_
June	_
July	2.08
August	_
September	.35
October	1.1
November	_
December	.61
Total for 1948	21.06

Table 5.5.7.1b: Witteklip Monthly Rainfall for 1948, observed by the Government Dennis Archer (After Unknown, The Graaff-Reinet Advertiser, 10 January 1949).

Month	Monthly Rainfall in inches	No of rainy days
January	1.16	5
February	2.32	6
March	2.14	5
April	2.59	6
May	.08	1
June	.2	1
July	.26	2
August	.27	2
September	.14	1
October	.57	4
November	.29	2
December	1.21	2
Total for 1948	11.23	37
Total for 1945	13.88	31
Total for 1946	13.06	38
Total for 1947	13.08	35

Table 5.5.7.1c: Weltevreden Monthly Rainfall for 1948, observed by H. R Sheard (After Unknown, The Graaff-Reinet Advertiser, 10 January 1949).

Month	Monthly Rainfall in inches
January	.97
February	3.23
March	1.52
April	4.14
May	_
June	.23
July	.51
August	.25
September	.05
October	.19
November	.49
December	.76
Total for 1948	12.34

Table 5.5.7.1d: Roodebloem Monthly Rainfall for 1948, observed by Alex C. Murray (After Unknown, The Graaff-Reinet Advertiser, 10 January 1949).

Month	Monthly Rainfall in inches	No of rainy days	Greatest amount in 24 hours in inches
January	.78	1	.78
February	2.14	6	.91
March	2.29	6	1.53
April	3.71	7	1.57
May	_	_	_
June	_	_	_
July	.57	2	.54
August	_	_	_
September	.13	1	.13
October	.36	3	.18
November		_	_
December	.18	1	.18
Total for 1948	10.16	27	April 1.57

Table 5.5.7.1e: New Bethesda Monthly Rainfall for 1948, observed by A. G Erlank (After Unknown, The Graaff-Reinet Advertiser, 10 January 1949).

*Parts of this graph have frayed badly, hence data denoted with the an asterisk are missing.

Month	Monthly Rainfall in inches (and millimeters)	No of rainy days
January	.75	4
February	4.71	7
March	2.48	7
April	4.18	8
May	*	*
June	*	*
July	*	*
August	*	*
September	*	*
October	*	2
November	.29	2
December	.50	3
Total for 1948	11.23	37
Total for 1947	11.85	_
Average for last 10 years	13.60	_

Table 5.5.7.1f: Bloemhof Monthly Rainfall for 1948, observed by D. Hess (After Unknown, The Graaff-Reinet Advertiser, 10 January 1949).

Month	Monthly Rainfall in inches (and millimeters)	No of rainy days
January	.54	5
February	3.17	8
March	3.06	7
April	2.81	7
May	_	_
June	.16	1
July	.12	2
August	_	_
September	.10	1
October	.47	3
November	.85	3
December	.36	3
Total for 1948	11.64	40