

THE ROLE OF DROUGHT IN AGRARIAN CRISIS AND SOCIAL CHANGE: THE FAMINE OF THE 1890s IN SOUTH-EASTERN AFRICA

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SUPPLEMENTARY INFORMATION

S1 Data sources and region of interest

Apart from the literature dedicated to the drought driven crisis and the cattle plague given in the main text of the paper, histories of southern African people and states also include information on the subject (de Kiewiet 1941; Molosiwa 2013; Ramsay et al. 1996), but a coherent analysis over wider south-eastern Africa is lacking. The utilisation of new information sources – in particular a plethora of letters and reports by various protestant mission societies – allows for a detailed study of the drought-driven environmental crisis and its impacts.

The colony of Natal possessed one of the densest networks of mission stations worldwide (Etherington 1989): material from the Anglican Society for the Propagation of the Gospel, the Lutheran German Hermannsburg mission and the Norwegian mission, and the American Board of Commissioners of Foreign Missions has been included in the study. The Hermannsburg and Norwegian mission stations were concentrated in northern Natal and in British and SAR Zululand (south-eastern SAR); the American stations clustered in coastal Natal. A second Hermannsburg mission province was located mainly in western Transvaal, although this Tswana mission extended also into south-eastern BLP. In the northern districts of SAR, the Berlin and Swiss missions were active; their crisis records have been studied by Dreier (2005). The Tswana mission of the London Missionary Society was located in the semi-arid region east of the Kalahari from CCBL to northern BLP. The natural world was of interest to many missionaries working in the rural hinterland. However, this interest was more pronounced in mission societies with a lower economic resource base, as missionaries were forced to integrate into their new environment. In this respect, particularly the Hermannsburg missionaries who had a background in agriculture and were members of a comparatively poor mission society that obliged them to also farm for sustenance and trade, and to a lesser degree the Norwegian missionaries, were exceptionally sensitive to climatic, environmental and agricultural fluctuations.

Across the former British dominions, the mission records are supplemented with information from colonial Blue Books. These are collections of statistical data by the British administrations on a wide

variety of sectors perceived to be essential for the territory, such as economic activities, customs, public works, military and meteorology. The statistical information provided for agriculture is usually precise for the population of European descent but is estimated for the African population, and does not encompass Africans outside of 'native reserves' in the case of Natal. For Natal, the *Natal Witness* newspaper provides additional temporally highly resolved data.

All original source references are given in endnotes in the Supplement 8 (S8).

S2 Agricultural statistics for the Colony of Natal for 1896

Natal is the only part of the study area where administrative systems were sufficiently advanced to supply comparatively robust agricultural estimates through which the subsistence crisis can be quantified; in 1895 the maize acreage had exceeded sorghum by c. 36%, which was also the average for the years 1891-95. In 1896 then, there were only 23% more maize acres, and until 1903 the quota would oscillate between 11% and 22% (Fig. S6.A).^{cxviii}

That sorghum withstood the environmental pressures of the agricultural crisis in the second half of the 1890s better than maize is also demonstrated by the agricultural statistics for the summer season 1895-96 in Natal. Acres reaped and harvest quantity of both maize and sorghum collapsed in 1896, but maize suffered even worse than sorghum (Fig. S6.A-B).^{cxix} The midland districts south of Pietermaritzburg (Fig. S4) formed the epicentre of the harvest failure. From 1895 to 1896, maize yields amongst the predominantly African population here dropped by 86-98%; for sorghum the reduction was 78-98%. Reaped acres for the main crops also dropped dramatically: 67-98% for maize and 72-88% for sorghum. In this region, there was almost no harvest in 1896.

At the coast, the acreage reaped by Africans was generally maintained or dropped by only up to 40%; harvest losses did not exceed 66%. The sorghum harvest varied widely. However, these values may be overly optimistic since locusts had already affected the coastal belt during the summer of 1894-95, resulting in a below average harvest. In 1896, the maize harvest amongst farmers failed completely: north of Durban the acreage reaped collapsed almost entirely. Given that the sugar cane acreage was maintained from 1895 to 1896, it can be assumed that the cash crop was prioritised in the fight against locusts.^{cxx}

In the midlands north of Pietermaritzburg and in north-west Natal, the acreage of maize and sorghum sown by Africans was generally maintained or even increased, whereas productivity was low. In about half of the districts the yield remained stable, in the other half the decrease did not exceed 50-60%. Farmers also enlarged their area sown with maize and sorghum, and this extension

resulted in a harvest quantity that was generally on par with 1895. By the time the drought had broken in late 1895 it must have been obvious that maize would fetch high prices in 1896, so Africans and farmers alike would have tried to avoid depending on the market and hoped to produce a marketable surplus.

The pastoral sector of Natal also came under pressure due to the 1895-96 drought and long before the arrival of the Rinderpest in 1897. Estimates of African-owned cattle declined sharply in some mid- and highland districts. Numbers of White-owned cattle increased colony-wide, but such increases appear to have been restricted to areas close to railways. It seems likely that in these districts, farmers acquired cattle that were sold by Africans to raise money for foodstuffs and tax or rent obligations. Colony-wide, cattle numbers remained stable (Fig. S6.C). The low quality of pasture is also demonstrated by the drop in sheep numbers in north-western Natal.^{cxxi}

S3 Measures against the locust plague

As locusts had already damaged the sugar cane and grain crops in the coastal belt of Natal, the Natal Locust Extermination Bill was passed in 1895 (Ballard 1983; Lambert 1995). According to the Bill, locust eggs were to be dug up for cash. Manifold are the descriptions of the fight against the pest, African communities expended days and weeks in the generally futile activity of chasing locusts off fields using fumes, noise, sticks or controlled burning. Ditches were also dug to collect and kill the young hoppers.^{cxxii} The Bill enabled magistrates to enlist unpaid African labour to fight the pest, a measure taken frequently in the coastal districts to protect the sugar cane (Ballard 1983; Lambert 1995; Ramdhani 1989). Conscription often required so much effort that Africans were forced to neglect their own crops. Effective locust control was developed by a sugar farmer in the form of an arsenic and treacle based insecticide; this could only be used where the risk of poisoning stock was minimal.^{cxxiii} No attempt was made to provide Africans with the insecticide (Ballard 1983; Lambert 1995); however, due to the risk locust-poison posed to cattle it was still viewed with suspicion by Africans decades later (Beinart 2003). Fungi were also used experimentally against the pest.^{cxxiv} To adapt to the constant threat of locust swarms, Africans increased the acreage dedicated to root vegetables, and land planted with sweet potatoes doubled in the years after 1895, albeit remaining overall on a low level. Sweet potatoes were almost exclusively grown along the coast, but, faced with food shortages, the people of Upper Umkomanzi in the Natal midlands increased the area of cultivation by more than five times in 1896 compared to the 1891-95 average.^{cxxv}

S4 Abbreviations

BL RH	Bodleian Library at Rhodes House, University of Oxford, UK
BLP	Bechuanaland Protectorate (British)
CCBL	Crown Colony of Bechuanaland (British)
CUL	Cambridge University Library
DCCU UI	Digital Content Creation Unit, University of Illinois, USA
ELM	Evangelisch-lutherisches Missionswerk, Hermannsburg, Germany
HHL	Harvard University, Houghton Library, USA
HMB	Hermannsburger Missionsblatt
JHB	Johannesburg
KCAL	Killie Campbell Africana Library, University of KwaZulu-Natal, Durban, South Africa
LMS	London Missionary Society
MB	Missionsblad
MHS	Misjonshøgskolen
N	Natal (British)
NMT	Norsk Missionstidende
OFS	Orange Free State
SOAS	School of Oriental and African Studies, London, UK
TNA	The National Archives, London, UK
USPG	United Society for the Propagation of the Gospel
WBM	Woman's Board of Missions
SAR	South African Republic (Transvaal)
ZL	Zululand (British)

S5 References to primary sources

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- ⁱⁱ HMB 43/3, 1896, 40, Rodewald, H.W., c. July 1895, Mocoeli SAR; SOAS, LMS C 51-2-C, Willoughby, W.C., 17.12.1894, Palapye BLP; SOAS, LMS C 52-1-B, Willoughby, W.C., 18.3.1895, Palapye BLP; SOAS, LMS R Box 2, Willoughby, W.C., report, 20.3.1895, Palapye BLP.
- ⁱⁱⁱ HMB 43/11, 1896, 223-6, [Müller, Chr.], July 1896, Limao BLP; HMB 45/2, 1898, 24-5, Müller, Chr., Jan. 1897, Limao BLP; HMB 46/9, 1899, 224-5, Behrens, G., early 1899, Ramotswa BLP; HMB 43/3, 1896, 40, Rodewald, H.W., c. July 1895, Mocoeli SAR; SOAS, LMS C 52-2-B, Ashton, W., 12.10.1895, Barkly CCBL.
- ^{iv} KCM 98/75/7/1-3 Groom, T., File 7. Diaries 1895, 3. – 7.9.1895, Verulam N.
- ^v Natal Witness 1895: 9.10. Bulwer N, Dargle N.
- ^{vi} Natal Witness 1895: 20.9. Newcastle N, Nottingham Road N, Estcourt N, 24.9. Tugela River N, 26.9. Pietermaritzburg N, 27.9. Colenso N, Newcastle N, Estcourt N, Umzinto N, Barberton SAR, Pretoria SAR, Johannesburg SAR.
- ^{vii} Natal Witness 1895: 16.10. Nottingham Road N, 18.10. Pietermaritzburg N, 21.10. Pietermaritzburg N, 25.10. Nottingham Road N, Estcourt N, Pietermaritzburg N, York N, 26.10., Newcastle N, 31.10. Colenso N, Vryheid SAR, Dargle N, Pietermaritzburg N.
- ^{viii} Natal Witness, 1895: 18.10. Pietermaritzburg N, 31.10. Pietermaritzburg N, 5.12. Pietermaritzburg N.
- ^{ix} Natal Witness 1895: 4.10. Pietermaritzburg N, 1896: 17.1. Pietermaritzburg N; KCM 98/75/7/1-3 Groom, T., File 7. Diaries 1895, 12.11.1895, Verulam N.
- ^x HHL, ABC 15.6.2, vol. 1. Zulu, East Africa, WBM 1886-1899, Mellen, L.M., 19.11.1895, Esidumbini N; HMB 43/6, 1896, 58-61, Wolff, D., early 1896, Ekuhlengeni ZL; Natal Witness 1895: 6.11. Ixopo N, 7.11. Pietermaritzburg N, 8.11. Ixopo N, 13.11. Colenso N, 14.11., 20.11. Nottingham Road N, 23.11. Harding N, 27.11. Little Tugela N, 3.12. Durban N, 5.12. Pietermaritzburg N.
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- ^{xii} "The Transvaal." Times [London, England] 30 Jan. 1896: 5. *The Times Digital Archive*. Web. 13 Feb. 2015.
- ^{xiii} HMB 44/2, 1897, 28, Meyer, H., 4.12.1896, Bethanie SAR; HMB 44/4, 1897, 76-9, Behrens, A.H., 27.1.1897, Bethanie SAR; HMB 44/6, 1897, 121-2, [Jordt, H.P.], early 1897, Eben-Ezer SAR; HMB 44/11, 1897, 258, Schulenburg, H., early 1897, Ramaliane [Ramadiane] SAR; HMB 44/7, 1897, 166, [Penzhorn, J.C.E.], early 1897, Saron SAR; HMB 44/9, 1897, 222-4, Lohann, K.A., July 1897, Emmaus SAR; SOAS, LMS R Box 2, Lloyd, E., report, 17.2.1897, Kanye BLP; SOAS, LMS R Box 2, Williams, H., report, 1897, Molepolole BLP; SOAS, LMS C 53-3-C, Brown, J., 10.11.1896; Taung CCBL; SOAS, LMS R Box 2, Ashton, W., 28.12.1896, Barkly CCBL.
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BLP; SOAS, LMS C 55-2-D, Brown, J.T., 29.11.1898, Kuruman CCBL; SOAS, LMS C 56-1-C, Price, R., 9.5.1899, Kuruman CCBL.

^{xvii} E.g. SOAS, LMS C 56-1-A, Partridge., 19.1.1899, Molepolole BLP; SOAS, LMS C 56-1-A, Young, 18.3.1899, Palapye BLP; SOAS, LMS C 56-1-C, Wookey, A.J., 26.4.1899, Molepolole BLP; SOAS, LMS C 56-1-C, Hargreave, 13.5.1899, Palapye BLP; SOAS, LMS C 56-2-B, Williams, H., 21.7.1899, Palapye BLP; SOAS, LMS C 56-1-A, Brown, J., 8.2.1899, Taung CCBL; SOAS, LMS C 56-1-C, Brown, J.T., 2.5.1899, Kuruman CCBL; SOAS, LMS C 56-1-C, Price, R., 9.5.1899, Kuruman CCBL. For Molepolole BLP and Kuruman CCBL there rains arrived too late in 1898 to ensure a good harvest the following year.

^{xviii} ELM, Südliches Afrika, Chronik der Station Emmaus, District Rustenburg, Transvaal, August Lohann, Anno 1891, p. 25.

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^{xxi} Natal Witness 1892: 22.12. Newcastle N; Natal Witness 1893: 4.1. Dundee N.

^{xxii} ELM, Südliches Afrika, Chronik der Station Emmaus, District Rustenburg, Transvaal, August Lohann, Anno 1894, p. 27.

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- ^{xc1} HMB 46/6, 1899, 113-5, Jensen, F., c. July 1898, Limao BLP; HMB 43/12, 1896, 231-4, Schumann, F.B., c. July 1896, Umlalazi ZL; SOAS, LMS C 53-1-B, Brown, J.T., 27.2.1896, Kuruman CCBL; SOAS, LMS C 55-2-A, Brown, J.T., 9.8.1898, Kuruman CCBL; MHS, Mission Archives, A1045-140b-8, Stavem, O., 13.10.1896, Durban N; MHS, Mission Archives, A1045-140b-10, Borgen, M., 23.3.1897, Inhlasatye SAR; BL RH, USPG E50d, Samuelson, S.M., 31.12.1895, St Paul's KwaMagwaza ZL.
- ^{xcii} HMB 43/11, 1896, 223-6, [Müller, Chr.], July 1896, Limao BLP; HMB 45/2, 1898, 24-5, Müller, Chr., Jan. 1897, Limao BLP; HMB 46/9, 1899, 224-5, Behrens, G., early 1899, Ramotswa BLP.

^{xciii} DCCU UI, Annual reports BLP 1896-7, Southern Protectorate, 10, London 1898; HMB 46/6, 1899, 113-5, Jensen, F., c. July 1898, Limao BLP; SOAS, LMS C 54-1-B, Williams, H., 10.3.1897, Molepolole BLP; SOAS, LMS C 54-2-B, Willoughby, W.C., 14.8.1897, Palapye BLP; SOAS, LMS C 54-2-B, Lloyd, E., 17.9.1897, Kanye BLP; SOAS, LMS R Box 2, Williams, H., report, 1897, Molepolole BLP.

^{xciv} Food was shared along kinship networks, particularly women and children moved to relatives, HMB 44/4, 1897, 72-4, Kück, J., c. July 1896, Empangweni N; BL RH, USPG E51b, Samuelson, S.M., 30.6.1896, Polela. Where the resources existed, mission stations tried to give food to refugees or encouraged sharing, HMB 44/1, 1897, 6, Engelbrecht, J.D., c. July 1896, Ekombela SAR. Even though the coastal lowlands of Zululand were badly affected by locusts, upland Zulus joined family in the lowlands, because sweet potatoes which were generally not attacked by locusts, were grown in the lowlands, MHS, Mission Archives, A1045-140b-7, Braatvedt, N., 8.12.1896, Ongoye ZL. In Bechuanaland and Transvaal references to migration to relatives for food sharing appear again after the travel restrictions due to the *rinderpest* were lifted in 1897: HMB 46/1, 1899, 23-4, [Müller, E. Chr.], c. Jan. 1898, Limao BLP; HMB 46/6, 1899, 113-5, Jensen, F., c. July 1898, Limao BLP; HMB 46/1, 1899, 21-2, [Behrens], c. July 1898, Bethanie SAR.

^{xcv} HMB 46/6, 1899, 113-5, Jensen, F., c. July 1898, Limao BLP; HMB 44/5, 1897, 68-70, Hörmann, H.W., early 1897, Emtombeni N; SOAS, LMS C 54-1-B, Williams, H., 10.3.1897, Molepolole BLP; SOAS, LMS C 54-2-B, Willoughby, W.C., 14.8.1897, Palapye BLP; SOAS, LMS C 54-2-B, Lloyd, E., 17.9.1897, Kanye BLP; SOAS, LMS R Box 2, Williams, H., report, 1897, Molepolole BLP; SOAS, LMS C 55-2-A, Wookey, A.J., H., 21.7.1898, Molepolole BLP; SOAS, LMS C 55-2-B, Lloyd, E., 22.9.1898, Kanye BLP; SOAS, LMS C 55-2-C, Wookey, A.J., H., 29.9.1898, Molepolole BLP; SOAS, LMS R Box 3, Williams, H., report, 1898, Palapye BLP; SOAS, LMS C 55-2-A, Brown, J.T., 9.8.1898, Kuruman CCBL; SOAS, LMS R Box 3, Price, R., report, 6.1.1898, Kuruman CCBL; SOAS, LMS R Box 3, Brown, J.T., report, 1898, Kuruman CCBL; MB 20/7, 1896, Astrup, N., 16.5.1896, Untunjambeli N; MHS, Mission Archives, A1045-140b-8, Stavem, O., 13.10.1896, Durban N; MHS, Mission Archives, A1045-140b-10, Borgen, M., 23.3.1897, Inhlasatye SAR; MHS, Mission Archives, A1045-140b-10, Borgen, M., 18.6.1897, Inhlasatye SAR; MHS, Mission Archives, A1045-140b-8, Steenberg, O., 15.8.1896, Mahlabatini ZL; NMT, vol. 51/12, June 1896, Borgen, M., 13.4.1896, Inhlasatye SAR; BL RH, USPG E51b, Samuelson, S.M., 31.12.1896, Polela N; BL RH, USPG E52b, Samuelson, S.M., 31.3.1897, St Paul's KwaMagwaza ZL.

^{xcvi} HMB 45/2, 1898, 24-5, Müller, Chr., Jan. 1897, Limao BLP; HMB 44/5, 1897, 97-8, [Stallbom, H.C.F.], early 1897, Bethel SAR; HMB 45/2, 1898, 21-2, Engelbrecht, W., c. July 1897, Ekombela SAR.

^{xcvii} HMB 46/6, 1899, 113-5, Jensen, F., c. July 1898, Limao BLP; HMB 46/9, 1899, 224-5, Behrens, G., early 1899, Ramotswa BLP; HMB 43/10, 1896, 205-7, Jensen, F., July 1896, Linakona [Dinokana] SAR; HMB 44/10, 1897, 243-4, Schepmann, H., Jan. 1897, Berseba SAR; HMB 44/9, 1897, 222-4, Lohann, K.A., July 1897, Emmaus SAR; HMB 45/9, 1898, 186-7, Schepmann, H., early 1898, Berseba SAR; HMB 45/5, 1898, 74-5, Behrens, H.W., early 1898, Bethanie SAR; HMB 46/8, 1899, 161-3, Schindler, K.G, early 1898, Pella SAR; HMB 46/2, 1899, 33-4, [Schepmann, H.], c. July 1898, Berseba SAR; HMB 46/1, 1899, 21-2, [Behrens], c. July 1898, Bethanie SAR; HMB 48/1, 1901, 7-8, Jordt, H.P., c. July 1899, Eben-Ezer SAR; SOAS, LMS C 53-1-C, Williams, H., 27.3.1896, Molepolole BLP; SOAS, LMS C 54-1-C, Williams, H., 25.5.1897, Molepolole BLP; SOAS, LMS C 54-1-D, Willoughby, W.C., 9.6.1897, Palapye BLP; SOAS, LMS R Box 2, Lloyd, E., report, 17.2.1897, Kanye BLP; SOAS, LMS R Box 2, Williams, H., report, 1897, Molepolole BLP.

^{xcviii} DCCU UI, Annual reports BLP 1896-7, Southern Protectorate, 10; *ibid*, Northern Protectorate, 25, London 1898.

^{xcix} TNA, Statistical Year Book of the Colony of Natal 1898-1904, Hospitals and asylum, Pietermaritzburg 1899-1905.

^c DCCU UI, Annual reports BLP 1896-7, Southern Protectorate, 10, London 1898; HMB 43/11, 1896, 223-6, [Müller, Chr.], July 1896, Limao BLP; HMB 45/2, 1898, 24-5, Müller, Chr., Jan. 1897, Limao BLP.

^{ci} HMB 44/4, 1897, 76-9, Behrens, A.H., 27.1.1897, Bethanie SAR.

^{cii} DCCU UI, Annual reports BLP 1896-7, Southern Protectorate, 10; *ibid*, Mounted Police, 25, London 1898; HMB 44/9, 1897, 226, [Wolff, D.], early 1897, Ekuhlengeni SAR; HMB 44/11, 1897, 256, Peters, J.H., c. July 1897, Jericho SAR; HMB 44/9, 1897, 216, [Haccius, G.], August 1897, Hermannsburg DE for BLP, SAR; HMB 45/9, 1898, 186-7, Schepmann, H., early 1898, Berseba SAR; HMB 45/12, 1898, 242-3, Peters, J.H., early 1898, Jericho SAR; HMB 46/2, 1899, 33-4, [Schepmann, H.], c. July 1898, Berseba SAR; SOAS, LMS R Box 2, Williams, H., report, 1897, Molepolole BLP; MHS, Mission Archives, A1045-140b-10, Borgen, M., 18.6.1897, Inhlasatye SAR.

^{ciii} HMB 44/9, 1897, 216, [Haccius, G.], August 1897, Hermannsburg DE for BLP, SAR; HMB 46/8, 1899, 161-3, [Haccius, G.], July 1898, Hermannsburg DE for SAR.

^{civ} HMB 45/1, 1898, 12, Stallbom, H.C.F., 7.7.1897, Bethel SAR; HMB 46/8, 1899, 161-3, [Haccius, G.], July 1898, Hermannsburg DE for SAR.

^{cv} HMB 46/6, 1899, 113-5, Jensen, F., c. July 1898, Limao BLP; HMB 45/9, 1898, 178, [Behrens], c. July 1898, Ramotswa BLP; HMB 46/9, 1899, 224-5, Behrens, G., early 1899, Ramotswa BLP; HMB 46/2, 1899, 33-4, [Schepmann, H.], c. July 1898, Berseba SAR; HMB 46/1, 1899, 21-2, [Behrens], c. July 1898, Bethanie SAR; HMB 46/4, 1899, 68, Jordt, H.P., c. July 1898, Eben/Ezer SAR; HMB 45/12, 1898, 243-6, Grotherr, C., c. July 1898, Polonia SAR; HMB 46/3, 1899, 51, Penzhorn, J.C.E., c. July 1898, Saron SAR; HMB 46/8, 1899, 161-3, [Haccius, G.], July 1898, Hermannsburg DE for SAR; SOAS, LMS C 55-1-B, Willoughby, W.C., 22.4.1898, Palapye BLP; SOAS, LMS C 55-2-A, Brown, J.T., 9.8.1898, Kuruman CCBL.

^{cvi} HMB 46/2, 1899, 33-4, [Schepmann, H.], c. July 1898, Berseba SAR; SOAS, LMS C 55-2-A, Brown, J.T., 9.8.1898, Kuruman CCBL.

^{cvi} HMB 48/5, 1901, 72, Schepmann, H., 21.1.1901, Pretoria SAR; ELM, Südliches Afrika, Chronik der Station Emmaus, District Rustenburg, Transvaal, Claus Hansen, 1900, p. 30.

^{cvi} HMB 46/1, 1899, 23-4, [Müller, E. Chr.], c. Jan. 1898, Limao BLP; HMB 44/6, 1897, 118-20, [Rößler, J.K.], early 1897, Elim N; HMB 44/1, 1897, 6, Engelbrecht, J.D., c. July 1896, Ekombela SAR; SOAS, LMS C 54-1-B, Williams, H., 10.3.1897, Molepolole BLP; MB 20/4, 1896, Astrup, H., c. Febr. 1896, Entumeni ZL; MB 20/9, 1896, Astrup, H., 21.8.1896, Entumeni ZL; MHS, Mission Archives, A1045-140b-8, Steenberg, O., 15.8.1896, Mahlabatini ZL; BL RH, USPG E52b, Samuelson, S.M., 31.3.1897, St Paul's KwaMagwaza ZL.

^{cix} HMB 43/11, 1896, 223-6, [Müller, Chr.], July 1896, Limao BLP; HMB 46/6, 1899, 113-5, Jensen, F., c. July 1898, Limao BL; HMB 45/9, 1898, 186-7, Schepmann, H., early 1898, Berseba SAR; HMB 45/12, 1898, 239-41, Kaiser, H.L., early 1898, Hebron SAR; HMB 45/12, 1898, 242-3, Peters, J.H., early 1898, Jericho SAR; HMB 45/12, 1898, 236-7, Wenhold P.C.H., early 1898, Kana SAR; HMB 45/12, 1898, 239-41, Jensen, F., early 1898, Linakona [Dinokana] SAR; HMB 45/12, 1898, 243-6, Grotherr, C., c. July 1898, Polonia SAR; HMB 45/11, 1898, 221, Schulenburg, H.W., c. July 1898, Ramaliane [Ramadiane] SAR; HMB 46/8, 1899, 161-3, [Haccius, G.], July 1898, Hermannsburg DE for SAR. Amongst the Zulus interest in Christianity did not or only very hesitantly rise: HMB 45/10, 1898, 208-10, Bostelmann, T., early 1898, Ehlohlomo ZL; HHL, ABC 15.4, vol. 13, Southern Africa, Zulu Mission 1890-99, Ransom, c. July 1898, Ifafa N; NMT, vol. 53/7, April 1898, Steenberg, O., 31.12.1897, Mahlabatini ZL.

^{cx} HMB 44/6, 1897, 125, [Jensen, F.], early 1897, Linakona [Dinokana] SAR; HMB 46/8, 1899, 161-3, [Haccius, G.], July 1898, Hermannsburg DE for SAR.

^{cx} Colenso, H.E., Famine-making in Matabeleland, Social Democrat, March 1897, 67-70.

^{cxii} "The Rising in Rhodesia." *Times* [London, England] 20 July 1896, 7+. *The Times Digital Archive*. Web. 19 Mar. 2015; the mentioned expedition in the environs of Bulawayo alone destroyed c. 1020 bags of grain which due to the scarcity of food was valued at £12500.

^{cxiii} SOAS, LMS R Box 2, Price, R., report, 12.12.1896, Kuruman CCBL.

^{cxiv} TNA, Statistical Year Book of the Colony of Natal 1895-1905, Agriculture, Pietermaritzburg 1895-1905.

^{cxv} TNA, Statistical Year Book of the Colony of Natal 1895-1905, Agriculture, Pietermaritzburg 1895-1905.

^{cxvi} HMB 43/11, 1896, 223-6, [Müller, Chr.], July 1896, Limao BLP; HMB 45/2, 1898, 24-5, Müller, Chr., Jan. 1897, Limao BLP; HMB 43/10, 1896, 205-7, Jensen, F., July 1896, Linakona [Dinokana] SAR; HMB 44/7, 1897, 148-50, Hansen, C., early 1897, Polfontein SAR; HMB 44/11, 1897, 258, Schulenburg, H., early 1897, Ramaliane [Ramadiane] SAR; HMB 45/9, 1898, 186-7, Schepmann, H., early 1898, Berseba SAR; HMB 46/6, 1899, 106, Engelbrecht, W.H.D., early 1898, Ekombela SAR; HMB 46/4, 1899, 74-5, [Behrens, H.], early 1899, Moseitla and Potuane SAR; HMB 46/1, 1899, 14-6, Schuhmann, F.B., c. July 1898, Emlalazi ZL; HHL, ABC 15.4, vol. 13, Southern Africa, Zulu Mission 1890-99, Wilcox, 2.7.1899, general letter, Natal N; BL RH, USPG E53b, Troughton, A., 31.3.1898, Ladysmith N.

^{cxvii} SOAS, LMS C 55-2-A, Brown, J.T., 9.8.1898, Kuruman CCBL.

^{cxviii} TNA, Blue Book for the Colony of Natal 1890-1 – 1892-3, Agriculture, Pietermaritzburg 1891-3; TNA, Statistical Year Book of the Colony of Natal 1894-1903, Agriculture, Pietermaritzburg 1894-1904.

^{cxix} All agricultural estimates for Natal come from: TNA, Blue Book for the Colony of Natal 1890-1 – 1892-3, Agriculture, Pietermaritzburg 1891-3; TNA, Statistical Year Book of the Colony of Natal 1894-1905, Agriculture, Pietermaritzburg 1894-1906.

^{cx} TNA, Statistical Year Book of the Colony of Natal 1894-1896, Agriculture, Pietermaritzburg 1895-7.

^{cx} Sheep were also scarce in the Cape Colony due to drought, scab and other causes: "Famine in Capetown." *Evening Post* [Wellington, New Zealand] 23 Dec. 1896, 2. *National Library of New Zealand – Papers Past*. Web. 5 November 2014.

^{cxii} HHL, ABC 15.6.2, vol. 2. Zulu, East Africa, WMB 1886-1899, Price, M.E., 22.1.1896, Inanda N; HMB 42/10, 1895, 190, Hörmann, H.W., early 1895, Entombeni N; HMB 42/6, 1895, 82-3, Deppe, F.H., early 1895, Marburg N; HMB 43/10, 1896, 202-3, Rößler, J.K., c. July 1896, Elim N; HMB 43/10, 1896, 205-7, Jensen, F., July 1896, Linakona [Dinokana] SAR; HMB 44/4, 1897, 76-9, Behrens, A.H., 27.1.1897, Bethanie SAR; HMB 48/1, 1901, 7-

8, Jordt, H.P., c. July 1899, Eben-Ezer SAR; HMB 42/6, 1895, 85-6, Schumann, F.B., early 1895, Umlalazi ZL; HMB 43/6, 1896, 58-61, Wolff, D., early 1896, Ekuhlengeni ZL; HMB 43/12, 1896, 231-4, Schumann, F.B., c. July 1896, Umlalazi ZL; MHS, Mission Archives, A1045-140b-1, Eriksen, S., 15.4.1895, Umbonambi ZL; NMT, vol. 51/12, June 1896, Borgen, M., 13.4.1896, Inhlasatye SAR; NMT, vol. 50/21, Nov. 1895, Braatvedt, N., 16.8.1895, Ongoye ZL; NMT, vol. 51/7, April 1896, Berge, L., 28.1.1896, Umpumulo ZL; BL RH, USPG E51b, Samuelson, S.M., 31.3.1896, Polela N; BL RH, USPG E51b, Johnson, C., 31.12.1896, Rorke's Drift N.

^{cxiii} Natal Witness 1898: 22. 1.

^{cxiv} Natal Witness 1899: 11.1.

^{cxv} HHL, ABC 15.4, vol. 13, Southern Africa, Zulu Mission 1890-99, Mellen, L.M., report, 13.6.1897, Esidumbini N; HHL, ABC 15.4, vol. 13, Southern Africa, Zulu Mission 1890-99, Phelps, F., report, July 1898, Inanda N; HMB 44/6, 1897, 118-20, [Rößler, J.K.], early 1897, Elim N; TNA, Blue Book for the Colony of Natal 1890-1 – 1892-3, Agriculture, Pietermaritzburg 1891-3; TNA, Statistical Year Book of the Colony of Natal 1894-1905, Agriculture, Pietermaritzburg 1894-1906.