William G.Clarence-Smith (SOAS) - African records

Format (N.B. documents, met. tables, paintings etc)	Quantity	Content	Creators	Location
Documents				National Archives of Zambia, Lusaka
Mission Periodicals				Livingstone Museum, Livingstone, Zambia

Rob Allan (Met Office, Hadley Centre, Director of ACRE historical climate reconstruction initiative) - Indian Ocean, Ship's logbooks

Format (N.B. documents,	Quantity	Content	Creators	Location
met. tables,				
paintings etc)				
	900	The English Fast	Mot	UK British
Meteorological Observations	900	The English East	Met	
		India Company	Office/ACRE	Library
from ship logs		(EEIC) (1780s-1830s)		
		- 900 logbooks of		
		ships travelling		
		between the UK,		
		India and China held		
		in the British Library		
		have instrumental		
		weather data		
		(imaging by the		
		British Library,		
		digitised by the		
		Climate Data		
		Modernization		
		Program [CDMP] in		
		the US) Complete.		
Meteorological	Some	Indian Ocean data in	Met	UK National
Observations	portion	global observations	Office/Old	Archives
from ship logs	of 7,000	for an extended	Weather/ACR	
	total	period during and	E	
		following World War		
		1 (1914-1923) -		
		approx 7,000 Royal		

				T 1
		Navy logbooks held in the UK National Archives (imaging by the UK National Archives) Digitised by OldWeather.org Complete.		
Meteorological Observations from terrestrial stations and ship logs	1893- 99 (7 volumes)	Digitisation of weather observations (daily surface air and sea temperature, pressure, winds) from terrestrial stations and ship log book observations across the whole Indian Ocean region and some surrounding countries for the period 1893-1899 from the old Indian Meteorological Department (IMD) publication 'Daily Weather Charts of the Indian Monsoon Area' Complete.	ACRE	UK National Meteorological Archive, Met Office
Meteorological Observations from ship logs	27 Digitised 16 Scanned and to be digitised	Indian Ocean segments within the digitisation of published weather observations from the ship logbooks of various explorations, expeditions and circumnavigations during the late 18th and 19th centuries. Ongoing.	ACRE	Online scans (e.g. Google, NOAA Central Library) and hard copy documents
Meteorological Observations from ship logs	Numerous		ACRE	Online scans (e.g. Google, NOAA Central Library) and hard copy documents

		reports pertaining to		scanned from
		specific tropical		UK National
		storms (tropical		Meteorological
		cyclones, hurricanes,		Archive, Met
		typhoons etc)		Office
		affecting the Indian		
		Ocean (e.g.		
		Transactions of the		
		Meteorological		
		Society of Mauritius,		
		Transactions of the		
		Bombay		
		Geographical		
		Society, Journal of		
		the Asiatic Society of		
		Bengal), the South		
		China Sea (Hong		
		Kong and Shanghai		
		Observatory		
		,		
		reports), and the		
		Philippines region		
		(Philippine		
		Observatory/Philippi		
		ne Weather Bureau		
		Annual Reports and		
		Monthly Bulletins)		
		during the 19th and		
		early 20th centuries		
		Ongoing.		
Historical	1878-	With monies from a	Met	UK National
terrestrial	1992	DECC underspend,	Office/ACRE	Meteorological
weather	(300-400	plus working closely		Archive, Met
observations	volumes)	with the Met Office		Office and US
	,	Archives, the NOAA		National
		Central Library and		Archives
		the US Archives, we		
		are scanning (and		
		will eventually		
		digitise) all the data		
		published in the		
		Indian Daily		
		Weather Reports		
		from 1878-1992		
		Ongoing		
		Oligoling		

Simon Pooley (Imperial College London) - Sources for the historical climatology of the Cape of Good Hope (. . . and some for shipping in the Indian Ocean between Cape Town and Batavia)

Format	Quantity	Content	Creators	Location
(N.B.				
docume				
nts,				
met.				
tables,				
painting				
s etc)	_			
Journals,	Substanti	VOC records for the	Various	Western Cape Archives
reports,	al (406-	period leading up to,		and Records Service, 72,
letters,	page pdf	and to the end of,		Roeland Street, Cape
resolutio	listing of	Dutch East India Co.		Town, South Africa. Tel.
ns of	all	(VOC) occupation of		+27 (0)21 466 8100, email:
council,	documen	the Cape of Good		Archives@pgwc.gov.
etc.	ts)	Hope, c.1647-1795).		Za
		Probably very little		Further details and online
		quantitative data,		searches and inventories
		but the daily		available via Tanap:
		journals for the settlement at the		http://tanap.net/content/
				archives/archives.cfm?Arti cleID=203
		Cape of Good Hope include information		CleID=203
		on winds, rainfall,		
		snow, temperature.		
		The first decade		
		(1652-62) is		
		available in		
		published form, a		
		three volume		
		translation of the		
		journals during the		
		period of Jan van		
		Riebeeck's		
		command. These		
		journals and other		
		sources include		
		accounts of storms		
		and their effects on		
		shipping between		
		the Dutch Republic,		
		Cape Town and		
		Batavia.		

<u>Prof Mushirul Hasan (National Archives of India) - Data of records on Environment in the National Archives of India</u>

Format (N.B. documents, met. tables, paintings etc)	Quantity	Content	Creators	Location
Public records mainly correspondence between British Indian officials and with Home Office in London	1026	These are documents that are searchable under the keyword 'weather'. They reflect movement of ships based on 'weather' of the country, impact of weather on the trade, transfer of officials facing ill health to different places for recuperation in good weather, transport of troops and animals in inclement weather	1. Home Departmen t - Public Branch & 2. Military Departmen t (1765- 1859)	National Archives of India
Documents mainly official communications	20	Keywords: weather & crops Relates to impact of weather conditions on various cash crops like cotton, jute, silk	1. Revenue & Agricultue Departmen t - Fibres & Silks Branch , Meteorolo gy Branch (176-1858) 2. Rajputana Agency Records	-do-
Docs	26	Keywords: weather & reports Daily, weekly and monthly weather reports, impact of weather on certain types of crops; about weather conditions in the frontier; reports from various native states being provided by the office of the Agent	1. Revenue & Agriculture - Meterolog y, 2. Foreign- Internal 3. Foreign - frontier 4. Legislative	

	T	<u> </u>	
Docs		of the Resident Keywords: weather and irrigation	Deptt 5. Baghelkha nd Agency (English files) Punjab, Sikkim, Rajputana agency 1. PWD - Irrigation
		Weather reports, construction of fair weather road, detention of soldier in hot weather, movement of troops during unfair weather/ hot weather, etc. Allowance for workforce in railways, construction of fair weather railway lines	2. Revenue & Agriculture - Meteorolo gy 3. Home - Public 4. Railways
Docs	151	Keywords: climate and health Impact of trees on climate, environment and productiveness of a province, climatic study of hill stations to establish sanatoriums for convalescence (Chamba, Murree, Darjeeling, Report on climate of Cachar, Sylhet, Chirrapunji, Sikkim, Tibet, Nepal, Bad Climate Allowance, continuation of Bad Climate Allowance in Post-Independence India	1. Home- Public 2. Military Departmen t 3. Railways 4. Residency Records 5. Post & Telegraph
Docs	999	Keywords: Botanical Gardens Identifying land for botanical gardens, compensating occupiers	(1787- 1950) 1. Home - Public 2. Revenue

		of the land, selection of	&
		plants, acquisition of	Agriculture
		plants from foreign	-
		countries and also	Agriculture
		bringing in local people	3.
		from those countries to	Education,
		take care of these	Health &
		plants, replacement of	Lands-
		convicts with coolies to	Agriculture
		work in these botanical	4.
		gardens,	Secretary
		Botanists like Kyd,	to the
		Roxburgh	Governor
			General
Report on the	3	Report of the Botanical	(1948-
Department including		Survey of India	1950)
explorations, discoveries		(publications, Calcutta)	
Systematic enumeration		Record of Botanical	(1906-51)
of species of plants		Survey of India	
		(Publications, Calcutta)	

<u>Linden Ashcroft (University of Melbourne) - Ships logbooks from S.E</u> <u>Australia and Indian Ocean</u>

Format (N.B. documents, met. tables, paintings etc)	Quantity	Content	Creators	Location
Ship logbooks	~34	Logbooks of ships in Australian waters from 1790 until 1900. Some books contain weather descriptions, others contain meteorological data. The ships were chosen because they sailed through southeastern Australian waters, but many of them also sailed across the Indian Ocean on their way to or from the southeast.	Various	Original documents are in the UK. Microfilm copies are available at several Australian libraries thanks to the Australian Joint Copying

		Project.
		The
		National
		Library of
		Australia
		scanned
		the
		logbooks of
		34 ships as
		a part of
		the South
		Eastern
		Australian
		Recent
		Climate
		History
		Project
		(SEARCH).
		Digital
		copies of
		the scans
		are at the
		University
		of
		Melbourne.

<u>Adrian Thomas (Kings College London) - Historical Climate Statistics in India</u>

Format (N.B.	Quantity	Content	Creators	Location
documents,				
met. tables,				
paintings etc)				
Meteorological		In Gleanings in		Seen at the
Tables for Feb		Science (periodical)		Library of the
1831		Vol. 3 p. 63-64 (and		Asiatic Society,
		later in the volume		Kolkata
		for subsequent		
		months)		
Meteorological		In Gleanings in		Seen at the
Register from		Science (periodical)		Library of the
Lohooghaut		Vol. 3 p. 227 ff.		Asiatic Society,
				Kolkata
Five year		From article entitled		Seen at the
temperature		"The Climate of the		Library of the

table	Valley of the Nerbudda" in Gleanings in Science (periodical) Vol. 3, Sept 1831 p. 287		Asiatic Society, Kolkata
Register of Rain fallen at Sagar, Central India	In Gleanings in Science (periodical) Vol. 3, Dec 1831 p. 407		Seen at the Library of the Asiatic Society, Kolkata
Meteorological Diary	In Gleanings in Science (periodical) Vol. 3, p. 417	Major Burney, Resident, Ava (Burma)	Seen at the Library of the Asiatic Society, Kolkata
Meteorological Register	In Calcutta Journal of Natural History Vol 2 (1842) pps. 308 & 462		Seen at the Library of the Asiatic Society, Periodicals Section, Metcalfe Hall, Kolkata
Meteorological Register	In Calcutta Journal of Natural History Vol 3 (1842) p. 460		Seen at the Library of the Asiatic Society, Periodicals Section, Metcalfe Hall, Kolkata
Meteorological Statisitics	In Calcutta Journal of Natural History Vol 4 (1844) p. 155		Seen at the Library of the Asiatic Society, Periodicals Section, Metcalfe Hall, Kolkata
Article on Meteorological Observations from Doab	In Calcutta Journal of Natural History Vol 4 (1844) p. 413		Seen at the Library of the Asiatic Society, Periodicals Section, Metcalfe Hall, Kolkata
Meteorological Observations from Assam	In Calcutta Journal of Natural History Vol 4 (1844) p. 438		Seen at the Library of the Asiatic Society, Periodicals Section, Metcalfe Hall, Kolkata
Met Tables 1853-55	In Report on the Present Condition & Future Prospects of	Jameson, Supt of Saharanpur	Seen in Library of Botanical Survey of India at the AJC

Tea Cultivation in the	Botanic	Bose Indian
NW Provinces and	Garden?	Botanic Garden,
Punjab (Selections		Kolkata
from the Records of		
the Govt of India		
(Home Dept)) XXIII,		
Calcutta, 1857		

Anna Winterbottom (University of Sussex and McGill University, Montreal) - Sources for the environmental history of Sri Lanka

Format (N.B. docum ents, met. tables, paintin gs etc)	Quantity	Content	Creators	Location
Herbari um of Paul Herma nn	1000 specime ns in 4 volumes	Plant specimens collected between 1672 and 1679. Digitised (http://www.nhm.ac. uk/research- curation/research/pr ojects/hermann- herbarium/). Scattered specimens from Sri Lanka in other collections (see Dandy, J E, and James Britten. The Sloane Herbarium, London: British Museum, 1958.)	Paul Herman n	Natural History Museum, London
Herbari a collecte d by Directo rs of the Royal Botanic	Extensiv e	Plant specimens collected by A. Moon and subsequent Directors, from 1824 onwards. Digitisation initiated.	Various	National Herbarium (http://www.botanicgarden s.gov.lk/herbarium)

al Garden , Sri Lanka				
	Extensiv e	Colonial collections of plants from 1795 onwards, including some specimens from Sri Lanka	Various	Central National Herbarium, Howrah (http://164.100.52.111/cnh /index.htm)
	Extensiv	For discussion, see Pethiyagoda, Rohan. Pearls, Spices, and Green Gold: An Illustrated History of Biodiversity Exploration in Sri Lanka. Colombo: WHT Publications, 2007. Paul Hermann, Museum Zeylonica, Grimm and Pielat, Insulae Ceylonae Thesaurus medicus; articles by Laurent Garcin (Journal helvétique, 1735-48), Linnaeus, Flora Zeylonica; Burman, de Jonville (see Pethiyagoda pp. 59- 60 and 165 and Philippe Fabry, and Marie-Hélène Estève. Quelques Notions Sur L'isle De Ceylan: À La Fin Du Xviiie Siècle, Un Naturaliste Français Découvre Ceylan = Some Notions About the Island of Ceylon: Late 18th Century, a French Naturalist Discovers Ceylon. Colombo] Sri Lanka:	Authors listed	Research libraries, some databases. The Hathi trust has several of these works - http://www.hathitrust.org/

Г	T	
		Viator, 2012),
		Thunburg <i>Florula</i>
		Ceylanica, 1825, see
		also Pethiyagoda pp.
		54-7), Banks
		(Pethiyagoda, pp. 60-
		61), Moon (1817-9
		Pethiyagoda pp. 62-
		3), J.D. Hooker (note
		the unpublished
		description of SL
		among his
		correspondence),
		G.H.K. Colombo
		Journal 30, Jan 1833,
		Thwaites 1857; Wight
		(visited 1839, Icones
		(1840-53), see
		Pethiyagoda p. 68),
		Gardner and
		Ferguson
		(Pethiyagoda p. 70,
		Algae ceylanicae and
		Descriptive list of
		Celon timber trees,
		1863), Champion
		(Pethiyagoda p. 71),
		Thwaites,
		Enumeratio:
		Plantarum Zeylaniae,
		Catalogue of the
		Ferns (Pethiyagoda
		pp. 72-4), Lewis
		1
		(rubber, sixty four
		years in Ceylon, 1926)
		Trimen, Hortus
		Zelonicus, a classified
		list of the plants
		growing in the Royal
		Botanical Gardens,
		1888 and <i>Handbook</i>
		to the Flora of Zeylon,
		1898-1900
		(Pethiyagoda, p. 77)
Publish	Extensiv	Pethiyagoda p. 103
ed	е	for discussion of the
descrip		lack of research on
	1	

tions of fauna		this topic and biographical details of several zoologists,		
Paintin gs of plant and animal species	2000 + specime ns	pp. 109-224 Harman de Alwis' drawings – 2000 species drawn, 45 watercolours in the NHM, followed by his sons William and George illustrate Beddome's Flora sylvatica and Icones plantarum Indiae orientalis, (1869-74) and grandson Albert. (Pethiyagoda, pp. 63- 73, Sivasundaram chapter). Thomas Bainbridge Fletcher's drawings of insects in Entomological library, NHM. Other visual sources include plants in temple and rock paintings.	Harman de Alwis, Thomas Bainbrid ge and others	Natural History Museum library, London. Various locations In Sri Lanka.
Sri Lankan palm leaf manusc ripts	Extensiv e	Environmental information from palm leaf manuscripts: including chronicles and histories, medical and astrological works containing information about weather conditions and seasons for planting crops and well as works specifically listing plant species (Śrī Vāsudevanighaṇṭu and other works discussed by Liyanaratne, Buddhism and	Various authors	Various locations. Especially: National Museum Library, Sri Lanka; Royal Asiatic Society of Sri Lanka; Peradeniya University Library; Bandaranaike Ayurvedic Research Institute; Institute of Indigenous Medicine, University of Colombo; British Library; Wellcome Trust; Bodleian Library.

	Traditional Medicine,		
	ch. 12).		
MET	Pressure data,	MET	MET office, Sri Lanka
office	temperate, rainfall.	office,	
weathe	Temperature and	Sri	
r data	rainfall records are	Lanka	
	digitally available	and	
	upon payment.	sources	
	Pressure data still		
	needs digitalising.		
Climate	Materials relating to	Henry	Libraries in India, UK
data in	India containing	Blanford	
textual	information about Sri	, John	
sources	Lanka, e.g. Henry F.	Elliot	
on	Blanford <i>Indian</i>		
India	Meteorological		
	Memoirs, 7 vols.,		
	Calcutta, 1882 –		
	including vol. 2, 'An		
	account of the W.		
	Monsoon Storm of the		
	18 th -24 th September		
	1878 in the N. of the		
	Bay of Bengal' – makes		
	use of data from Sri		
	Lanka including		
	barometer readings,		
	wind and some rainfall		
	data for Tricomalee,		
	Negapatnam, Colombo		
	and Galle. Similar data		
	is in John Elliot,		
	Cyclonic storms in the		
	Bay of Bengal, Calcutta,		
	1890.		

Penny Brook, British Library, London - British Library records

Format (N.B. documents, met. tables, paintings etc)	Quantity	Content	Creators	Location
Official	Total collection	India Office	East India	The British
archives -	occupies 9	Records	Company,	Library,
include mainly	miles of	Principal	Board of	London

	T	T		
text, some	shelving.	sources are	Control, India	
tables, and a	Material	listed in	Office,	
modest	relating to	Richard Axelby	Government	
quantity of	science and	and Savithri	of India	
illustrative	the	Preetha Nair	(Proceedings),	
material	environment is	Science and the	Burma Office	
	a sub-set of	changing		
	this. It has not	environment in		
	been	India, 1780-		
	quantified.	1920: a guide		
	'	to sources in		
		the India Office		
		Records (The		
		British Library,		
		2010)		
		2010)		
		Chapters:		
		Plants and		
		botanic		
		gardens,		
		agriculture,		
		forests and		
		forestry,		
		animals and		
		animal		
		husbandry,		
		geology,		
		meteorology,		
		health and		
		disease,		
		irrigation and		
		water control,		
		communication		
		and the built		
		environment,		
		ethnography,		
		landscape and		
		topography		
Private	Over 5,000	India Office	Private	The British
archives -	collections	Private	individuals	Library,
include mainly	ranging in size	Papers/Mss		London
text, some	from one	Eur		
tables, and a	document to	Not yet		
modest	many boxes.	surveyed to		
quantity of	Material	discover the		
illustrative	relating to	content		
material	science and	relating to		
	1 - 5 55 4.14	1 . 0.0.0	<u> </u>	I

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	he	science and the		
	environment is	environment,		
	sub-set of	but some well-		
th	his. It has not	known		
b	een	collections		
q	uantified.	relating to		
		early surveys,		
		e.g. Buchanan-		
		Hamilton. The		
		index to the		
		printed		
		catalogue		
		includes		
		entries for		
		agriculture,		
		•		
		botany,		
		climate,		
		animals and		
		livestock,		
		forests and		
		forestry,		
		geography and		
		geology, health		
		and disease,		
		irrigation,		
		rivers, soil		
		conservation,		
		floods, public		
		works, civil		
		engineering,		
		military		
		engineering,		
		railroads,		
		roads, city		
		planning,		
		ethnography.		
Lithograph O	Over 700,000	Collection		The British
	orinted books /	spans earliest		
1 '	•	•		Library, London
	50,000 serials	lithographs and		LUTIUUTI
	ind	printed		
	newspapers in	material		
	South Asian	(particularly		
	egional	strong from		
	anguages	18th-20th		
1	classical &	century) to		
	nodern) and	research-level		
W	Vestern	publications of		

languages
(mainly
English).
Potentially rich
source for
research
relating to
science and
environment,
as yet
unquantified.

the currentday. These offer a relatively untapped source for researchers of science and environment, with areas of potential interest including early studies of weather patterns, recorded data in newspapers, observations in biographies and diaries, climate-related folk-tales and idioms, and reflections of weather in poetry and fictional literature. Recent publications in South Asian languages and most Englishlanguage publications can be found on BL's Explore catalogue, under Library of Congress subject headings, e.g. 'meteorology', 'environment', or via key

words. 18th- 20th century South Asian language collections are mainly searchable via printed and card slip catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages Over 50,000 manuscripts (lithograph and printed) for the regional languages (classical & modern). Number regional languages (classical & researchers of science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an		T	T	T	
South Asian language collections are mainly searchable via printed and card slip catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages Manuscripts of content languages of interest to (classical & researchers of modern). Number regional languages of interest to science and environment as yet unquantified. Manuscripts over 50,000 See above (lithograph and printed) for the type of content of interest to science and environment. Specific science and environment. Specific science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an					
Ianguage collections are mainly searchable via printed and card slip catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages Manuscripts in South Asian languages Over 50,000 in Soe above (lithograph and printed) for the type of content languages of interest to (classical & modern). Number regional languages of interest to condennent science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an			•		
Collections are mainly searchable via printed and card slip catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages South Asian regional languages (classical & modern). Number (classical & modern). Number relating to science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an					
mainly searchable via printed and card slip catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages (classical & modern). Number regional tanguages of interest to (classical & modern). Number environment. relating to science and environment as yet unquantified. Manuscripts in South Asian regional type of content of interest to researchers of science and environment. relating to science and environment as yet unquantified. Manuscripts in South Asian regional type of content of interest to researchers of science and environment. Relating to science and environment. The printed provided in the provided in th					
searchable via printed and card slip catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian regional languages (classical & modern). Number relating to science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an					
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Card slip catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages South Asian regional languages (classical & researchers of modern). Number relating to science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an			searchable via		
catalogues (see specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages In South Asian languages (classical & regional type of content languages of interest to researchers of modern). Number environment. relating to science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an			printed and		
specific language webpages on BL website for details, plus digital availability). Printed catalogues contain basic subject indices, e.g. 'Agriculture and botany', 'Sciences', 'Fiction'. Manuscripts in South Asian languages Manuscripts in South Asian regional languages (classical & modern). Number environment. Relating to science and environment as yet unquantified. Meghamala on meteorological observations and astrological predictions (IO Sanskrit 1681a), an			card slip		
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		on climate and agriculture (Or 2031), and a verse in Dakhani on floods in Mewar, Ajmer and Gujarat in 1795 (Mss Urdu 161). See specific language pages on BL website for details relating to manuscript catalogues / digital availability (currently mainly searchable only in person / via curators, although efforts are being made to address this.) Catalogues include basic		
Visual materials: prints, drawings photographs	Paintings and drawings by British artists in India and the East and by Indian artists made for the East India Company, plus Persian and Indian miniatures (overall about 30,000 items). The large number of	subject indices. For guide to natural history drawings, see Mildred Archer, Natural History Drawings in the India Office Library (London, 1962).		The British Library, London

Maps: manuscript and printed	original photographs (over 250,000) is notable for examples of the work of nineteenth-century photographers. Material relating to the history of the environment and climate is not quantified. India Office Maps: over 70,000 items produced	East India Company, Government of India;	The British Library, London
maps, atlases, journals and reports	between c.1700 and 1947. Scientific and environmental data not quantified. General map collections: specific datasets are listed in printed map catalogue of 1967	various	

<u>Priya Rangan (Monash University) - Sources for Pre-European Colonial</u> <u>plant transfers around the Indian Ocean</u>

Format (N.B.	Quantity	Content	Creators	Location
documents,				
met. tables,				

paintings etc)				
Compendia of plants	Varied	Plant dictionaries, encyclopaedia, plant taxonomies, descriptions of putative origins of plant, uses, cultural practices etc. Some compilations of plant inventories centre on economic importance (agriculture, commercial forestry, medicinal and poisonous plants, crop protection/weeds etc.	George Watt (India) H.M. Burkill (West Africa) J. Harlan (Africa), Watt and Breyer- Brandwyk (Eastern and Southern Africa) National Research Council (Washington DC, USA), I.H. Burkill (Southeast Asia), C.O. Sauer (Americas).	Various places: libraries, online databases
Codices of early European colonial accounts of the New World	Varied	The Florentine Codex, which was prepared by Frey Bernardino de Sahagún (a Franciscan friar) In the first half of the 1500s, with descriptions, sketches, paintings and illustrations of plants from Central America; provides earliest ethnographies and comprehensive descriptions of numerous food and other useful plants; 12 Volumes in 13 books	Bernardino de Sahagún (original, in Spanish and Nahuatl (Aztec); C.E. Dibble and AJO Anderson translation from Nahuatl to English.	Hard copy in libraries in USA, Spain in rare book collections; the World Digital Library offers high resolution scans of all volumes at The Florentine Codex. Also available in 16 DVDs; Tempe Arizona, Bilingual Press.

Early colonial accounts of India	Varied	Os Colóquios dos simples e drogas e coisas medicinais da Índia	Garcia da Orta, original in Portuguese; Spanish version by Cristobál Acosta; English translation of Garcia da Orta by Clements Markham.	Coloquios dos Simples e Drogas da India. Band 1 . Imprensa nacional, Lisboa 1891 Digital edition
Geniza documents, 10th to 13th centuries	Varied	Six volumes on early Mediterranean and Indian ocean mercantile activity by Jewish merchants;	Most comprehensive version compiled and translated by SD Goitein, with a special volume devoted to the India trade. Popular version by Amitav Ghosh, 'In an Antique Land'.	Original papers in various collections in Cambridge, Oxford, Manchester, Princeton, Pennsylvania etc.
Early Muslim navigator and travellers accounts, 10th to 15th centuries	Varied	Ibn Batuta's travels across Africa, India, southeast Asia, and China Early Arab navigation across the Indian Ocean Archaeology of seafaring in Indian Ocean	Translations in English by HAR Gibbs, 4 volumes. Translation by G. Tibbetts of Ahmad Ibn Majid's navigation maps and records. Periplus of the Erythraean Sea; Archaeological studies by HP Ray	Various Libraries

Palaeo- and	Varied	Palynological,	Research	libraries,
Archaeo-		archaeological studies of	papers	open access
botany,		pollen, archaeobotanical	published in	
genetics,		remains, climate,	relevant	
biogeography		agriculture, genetic	journals	
		analysis, biogeographic		
		distributions, landscape		
		modifications around		
		Indian Ocean region		
Historical and	Varied	Linguistic analysis of	Research	Libraries,
cultural		plant names,	papers	open access
Linguistics;		wordforms, loanwords,	published in	
folktales		synonyms, and cultural	relevant	
		references in languages	journals	
		of Indian Ocean region		
		Folktales that may refer		
		to plants exchanged	Folktale	
		around the Indian Ocean	compilations,	
			anthologies;	
			story	
			recordings,	
			ethnographies	
Architectural	Varied	Plant illustrations, motifs	Research	Libraries,
and art		in sculpture, carvings,	papers	open access.
history		textiles, etc. of plants,	published In	
		trees c	relevant	
			journals.	

George Adamson (Kings College London) - Sources for the historical climatology of western India

Format (N.B. documents, met. tables, paintings etc)	Quantity	Content	Creators	Location
Personal diaries and correspondence	Extensive	A variety of qualitative climate information for colonial India with occasional instrumental data and weather diaries.	Various	British Library
Personal diaries and correspondence	6	A variety of qualitative climate information for colonial India with occasional instrumental data and weather	Hugh Halkett, Charles Malcolm, William	National Library of Scotland

		diaries.	Erksine, Isabella	
			Bremner, Alexander Walker	
English- language newspapers	Extensive	Regular references to extreme climatic conditions (i.e. droughts, storms, floods), reports of the onset of the monsoon, regular references to 'ordinary' conditions where other news is thin, monthly instrumental meteorological tables, fortnightly reports of rainfall and affects on crops during the monsoon season (from ~1830)	Various publications: western India publications include Bombay Courier, Bombay Gazette, Bombay Times, Bombay Standard.	British Library Newspaper Collections, Colindale
Document (diary)	4	Generally reports on the status of patients in McGrigor's hospital in Bombay. Also summaries of the weather. 1799-1803	James McGrigor	Online through Aberdeen Medico- Chirurgical Society archives
Meteorological Tables	1	Diary of rainfall at Bombay from 1780- 1787, weather diary at Bombay for 1788 containing temperature observations	Unknown, submitted to the Royal Society	Royal Society Centre for History of Science
Government reports	Extensive	Report of major climatic events in western India; detailed fortnightly descriptions of meteorological conditions around the Bombay Presidency from 1832	Government of Bombay (various)	Government of Maharashtra, Department of Archives, Bombay
Government reports	Extensive	Summaries of reports of major events sent to the Court of Directors of the East India	Government of Bombay (various)	British Library India Office Records

		Company		
Meteorological	1	Qualitative "Journal of	Alexander	National
Tables		the weather" for Thane	Walker	Library of
		from June-October		Scotland
		1789		

<u>Kate Showers (University of Sussex) - Sources for the historical climatology of Southern Africa, primarily South Africa</u>

Format (N.B. documents, met. tables, paintings etc)	Quantity	Content	Creators	Location
Documents	Several	Descriptions of Natal Botanic Gardens - imports & exchanges (including from Australia and India), plant growing conditions	Botanists; Natal Herbarium, Durban Botanic Society	Killie Campbell Africana Library, University of Kwa-Zulu Natal, Durban, South Africa
Documents	Several	Tree growth and imports	Superintendent of Woods and Forests	Pietermaritzburg Archives and Repository, Pietermaritzburg, Natal, South Africa
Documents	Several	Reports of botanic gardens; forests and forest potential, irrigation matters, etc Cape Colony, South Africa	Colonial Botanists	National Library of South Africa, John Croumbie Brown Collection, Cape Town
Documents	Several	Reports on forestry, irrigation, plant imports (Including correspondence with India and Australia), etc,	Various colonial officers	Western Cape Archives and Records Service, Cape Town, South Africa

		Cape Colony,		
		South Africa		
Documents,	several,	Primarily	Various	Morija Museum
photographs,	including	mission-based,	missionaries	and Archives,
diaries	photographs	but reports on		Morija, Lesotho
	on glass	landscape as		
		travel through		
		southern Africa -		
		more interior		
		than Natal coast		

<u>Fiona Williamson, UEA, UKM (Malaysia) - Sources for the historical climatology south East Asia</u>

Format (N.B. documents, met. tables, paintings etc)	Quantity	Content	Creators	Location
Thermograph logbooks (images) Records of botanical research, progress reports, forest		hourly temperature data from 1929 Documents pertaining to Malayan forest history from 1880-1920, also documents for other British colonies.	Meteorological Service Singapore	National archive of Singapore Forest research Institute Malaysia
administration Criminal proceedings;		Records of 'illegal' harvesting of forest products		National Archives of Malaysia
Botanical and agrciultural research		Transfer of seeds and information across colonies, experiments in growing tobacco, gutta percha, coconut etc. clearing of land and environmental impact of such.		National Archives of Malaysia
Administrative records		relating to forests and botanic gardens, annual reports etc. Management of 'native' and migrant labour: schemes to employ convicts in botanic gardens; working		National Archives of Malaysia

	conditions for coolies etc.	
Records of weather	acounts of bad weather/flooding and its impact on local agriculture and villages e.g. severe floods (and droughts) devastated rural areas in 1891,6,7,8, 1901, 1926.	National Archives of Malaysia
personal papers, 49 volumes, 3 photographic albums, 52 folders	Personal papers of Henry Ridley Director of Gardens and Forests for the Straits Settlements from 1888; information on key developments in forestry in Malaysia, founding of botanic gardens in Penang, Kuala Lumpur and Singapore	Kew, London.