Workshop

Climate, Food & Famine in History

Friday 14th April 2023

https://i1.sndcdn.com/artworks-000129810658-qik9f8-t500x500.jpg

The poorest nations, already beset by man-made disasters, have been threatened by a natural one: the possibility of climatic changes in the monsoon belt and perhaps throughout the world. The implications for global food and population policies are ominous.

Henry Kissinger, World Food Conference, 1974

Hosted by

Centre for the History of Science, Technology and Medicine, University of Manchester

Contents

Maps and Links

Campus Map (interactive): https://www.manchester.ac.uk/discover/maps/interactive-map/

Campus Map (PDF): http://documents.manchester.ac.uk/display.aspx?DocID=6507

City Map (PDF): https://documents.manchester.ac.uk/display.aspx?DocID=6506

University Travel Information: https://www.manchester.ac.uk/discover/maps/

Getting Here

Train

We are located close to both Piccadilly main line station (about two and a half hours from London) and Oxford Road train station, with Victoria train station a little further away.

For details of timetables, tickets and other rail information, please ring National Rail Enquiries on 08457 48 49 50 (+44 (0) 20 7278 5240 from overseas) or visit:

National Rail Enquiries website

Please note that railways services are currently often affected by industrial action. Rail operators will usually provide replacement bus services in this event, but this is not guaranteed.

The Oxford Road link bus (number 147) runs from Piccadilly Rail Station across the campus stopping at 14 locations and finishing at Grafton Street. This service runs on weekdays between 7.15am and 6.45pm, at ten-minute intervals, and can be caught from the Fairfield Street entrance to Piccadilly Station.

A taxi from Piccadilly Station to the Oxford Road area of the campus will cost you about £7.50.

To get to the Oxford Road area of the campus, go down the station approach to Oxford Road and turn right. The campus is a 10- to 15-minute walk. Alternatively, buses stop outside the Palace Hotel.

Car

The multi-storey car parks at both Booth Street West and Charles Street offer paid public parking and are convenient and safe.

Free parking can be found on surrounding residential streets but this is unreliable.

Air

Manchester Airport is one of the largest and busiest in the country. It is located about 10 miles (16km) south of the city centre, about 30 minutes from the University.

The airport has a number of transport links to the city:

Train – The airport's two terminals are linked directly to the city centre by a fast, frequent 24-hour train link to both Piccadilly and Oxford Road stations.

Taxi – A taxi from the airport to the University will cost approximately £30.

Bus – Local buses also run to the Oxford Road and Sackville Street areas of the campus.

Most major airlines fly to and from Manchester. For more information, please visit the Manchester Airport website.

Coach

Megabus is generally the cheapest intercity transport option with coach services from Manchester to destinations throughout the UK plus some international services.

Megabus coaches drop off at Shudehill Interchange in Manchester city centre just north of the Arndale Centre. The no. 18 bus will then take you straight to the venue.

Bus

Oxford road is one of the busiest bus routes in Europe. The 147 links Manchester Piccadilly station with the University of Manchester. Details for services can be accessed via google maps. For live bus times, please visit the Transport for Greater Manchester website.

Useful Workshop Information

The workshop will take place in room 2.57 on the second floor of the Simon Building at the University of Manchester Oxford Road Campus. The building is wheelchair accessible.

This accessible toilet is located ahead on entering the building via the side entrance {the large glass doors surrounded by a blue copper façade}. There are also accessible toilets on floors 4, 5, and 6, the accessible toilet on floor 6 has a push pad automated door.

Gender-neutral toilets are located on the ground floor, opposite the side entrance on the left.

Registration

Please register for this event via the Eventbrite shared with you.

Catering

Drinks, snacks and lunch will be provided. There is a kitchen in the annexe to room 2.57 (including a microwave and a fridge) if you require use of kitchen facilities. Please let us know of any dietary requirements or allergies through the registration process. Please feel free to email us if your dietary requirements have changed.

Dinner

We are planning to make a reservation at a nearby restaurant to follow the workshop. All are welcome. Please indicate that you would like to attend via the registration form on Eventbrite.

Programme

Registration from 9am

Introduction, welcome by CHSTM Director Carsten Timmermann, housekeeping: 9:30am

Panel 1: Climate and the Causes of Hunger and Malnutrition: 10:00am–11:40am

Emma Wordsworth, Heli Huhtamaa, Tolulope Esther Fadeyi, Richard Warren

Lunch: 11:40am–12:40pm

Panel 2: Changing Agriculture, Changing Tastes: 12:40pm–2:20pm

Theo Tomking, Bryan Kauma, Julia McClure, Anaïs Mansouri

Teabreak: 2:20pm–2:40pm

Panel 3: Moral and Political Perspectives on Climate and Food: 2:40pm–4:20pm

Doreen Müller, Semih Çelik, Baihui Duan

Roundtable Discussion: 4:30pm–5pm

Finish: 5pm

Dinner (optional): 6pm onwards

Workshop Contacts and Team

Conference email: mailto:climate.food.famine@gmail.com

Conference organisers: Robert Naylor, Eleanor Shaw, and Yixuan Li

Robert Naylor

Phone: +447754523633

Email: robert.naylor@manchester.ac.uk

Eleanor Shaw

Email: eleanor.shaw@manchester.ac.uk

Yixuan Li

Email: mailto:yixuan.li-9@postgrad.manchester.ac.uk

UK Emergency Phone Number: 999

Campus Security: 0161 306 9966

Book of Abstracts

All panels will be held in room 2.57 of the Simon Building.

Panel 1: Climate and the Causes of Hunger and Malnutrition

1. **Emma Wordsworth** (University of Cambridge, England)

Famine Causation in Historical Perspective: British Theories of Climate, Civilisational Development, and Famine Prevention in India, China, and Asia Minor, 1873–1879

The 1870s was a decade of famine, exacerbated by the consolidation of the global market economy, environmental degradation, and climatic extremes. This paper compares British state and non-state actors' debates about the causes of, and potential relief measures for, four famines in the 1870s: namely, the Bengal and Anatolian famines of 1873–1875 and the El Niño Southern Oscillation mega-drought famines in Madras and North China from 1876–1879. In all four cases, famine emerged in the wake of serious and protracted drought. However, such environmental considerations were catalysts for, rather than the root causes of, these famines. Indeed, drought-induced crop shortages in the 1870s developed into severe famines as a result of political decision-making, a lack of preventative measures, and the agricultural precarity created by colonial exploitation and the extractive imperatives of the global capitalist economy in the late-nineteenth century. In each case, a range of British interest groups—including philanthropists, politicians, colonial officials, missionaries, intellectuals, and businessmen—mobilised famine relief by drawing on specific discourses about climatic determinism, industrial development, and famine prevention. This paper explores how such discourses functioned to justify British humanitarian intervention and 'civilisational development' programs in India, China, and the Ottoman Empire in the 1870s. In the process, I discuss how Victorian theories about famine's causes, whether 'natural' or 'manmade', directly informed their decision-making about famine relief measures and famine prevention in different contexts. By situating these discourses in a comparative historical perspective, I aim to contextualise the contingencies and ideologies that informed British famine relief in different geographical spaces.

2. **Heli Huhtamaa** (University of Bern, Switzerland)

Just weather? Spatial patterns of harvest failures and famine mortality in pre-industrial Finland

Pre-industrial Finland has some of the gloomiest records in European famine history. For example, when most of the Europe had already "escaped from hunger", almost one-third of the Finnish population perished from malnutrition and related diseases during the 1690s famine. Moreover, the last "naturally caused" subsistence crisis in Western Europe took place as late as in the 1860s in Finland. In the contemporary accounts, one explanation dominates the reasoning of the hardships: weather. Harvest-time frost in particular. This is hardly surprising, as Finland is located on the northern limit of crop cultivation and hence harvest success is extremely sensitive to weather variations. Consequently, weather and/or climate extremes are seen as the main cause of Finnish

famines in historical research. However, although meteorological anomalies undeniably play a significant role in *triggering* subsistence crises in pre-industrial Finland, how much these anomalies can explain spatial variations in food insecurity or famine deaths? Not so much, I would argue. By combining materials from contemporary accounts on crop failures, detailed population data, and state-of-the-art climate reanalysis, I aim to demonstrate that understanding food (in)security and hunger mortality requires far more complex approach than "just weather" explanation.

3. **Tolulope Esther Fadeyi** (University of Basel, Switzerland)

   Filthy Neglect or Climate Change?: Rethinking Maternity Care in the Urban Slum of Iwaya, Lagos, Nigeria

Substantial scholarship on climate change projects the resultant effects of greenhouse gas emissions to cause approximately 250 000 additional deaths per year from malnutrition, malaria, diarrhea, and heat stress between 2030 and 2050. Despite the challenges of climate change on the ecosystem, there is little literature on poor government policies on urbanisation and prioritisation of agriculture in marginalised urban informal settlements in Africa, leading to food insecurity, low agricultural produce, lack of healthcare facilities, and the adverse impact of environmental degradation on the health of urban poor pregnant women. This paper shows how disadvantaged pregnant women became more vulnerable to malnutrition and maternal diseases occasioned by poor governance and limited responses of institutions to the consequences of climate variability and extremes. Through close analysis of in-depth oral sources and historical contextualization of existing literature, this paper assesses maternity care among women residing in the Iwaya slum of Lagos. I argue that climate change is not sufficient to provide explanations for poor maternal outcomes in the Iwaya slum, rather focus should be on the lack of government commitment to safeguarding the health of the poor and marginalised people. In this paper, I historicise transformations in British colonial policies in Lagos which informed contemporary spatial segregation, reflected by massive environmental hazards in Iwaya. I adopt the organisation change theory, to explore why Iwaya remained distinctly segregated and vulnerable to food insecurity and environmental degradation. Through narratives on pregnant women's experiences, I aim to demonstrate that understanding of modes of urbanisation occasioned by poor governance is needed to understand maternal health in Iwaya slum, beyond explanations centered on climate change.

4. **Richard Warren** (University of Bern, Switzerland)

   From Fire to Famine?: The climate and human impacts of the 1831 and 1835 volcanic eruptions in India

In 1831 and 1835, two massive eruptions sent vast plumes of sulphur into the atmosphere, forming a layer of aerosols that reached around the globe. In the following years, India experienced terrible famines, leading to reported deaths of over a million people. This study summarises the links between eruptions and the Indian monsoon and attempts to reconstruct the climate impact of the 1831 and 1835 eruptions. It then charts the progress of the subsequent famines through historical sources—how the populace and the authorities reacted and how this produced feedback mechanisms that worsened an already dire climatological situation. It concludes with a causality analysis of the various factors contributing to the Indian famines, ranging from the ideals of free market economics, the failings of British colonialism, to the consequences of a joint-stock company given the power to decide the fate of an entire subcontinent.

Panel 2: Changing Agriculture, Changing Tastes

1. **Theo Tomking** (University of York, England)

Soil mapping and the 'laterite paradigm': climatological attributions in representations of tropical soils, 1920–1970

Maps are powerful forms of representation which can shape our ideas about the natural world. During the early-twentieth century, some of the first soil maps of regions in the tropics were created, contributing to a growing scientific discourse on tropical soils—what was then seen as a bourgeoning frontier of science. Maps such as A Provisional Soil Map of East Africa (1936) showcased the diversity of soils in the tropics, as well as the prestige of the experts who were able to classify them into seemingly distinct categories. Such soil maps carried with them rich spatial and temporal stories. By the mid-1960s much discourse on soils in the tropics had been reduced to the trope of them as infertile and fragile. In particular, lateritic soils came to be seen as the epitome of soils in the tropics. Their infertility was attributed to high temperatures and heavy rainfall leaching their organic matter, as well as their propensity to form hardpan layers known as laterite, making them difficult to cultivate. Climatic conditions thus became a widely accepted explanation for the challenge of producing food in the developing world. The red lateritic soil was a symbol of tropical fragility. This paper uses these two case studies (the 1936 soil map of East Africa and the 'laterite paradigm' in the mid-1960s) to contextualise the constitutive climatological attributions in representations of soils in the tropics from 1920–1970. In doing so, this paper seeks to complicate ideas of linear scientific progress by showing how the complexity and nuance in representations of soils in the tropics was obfuscated over time. This paper argues that to understand these changes requires situating soils expertise within its political and economic context.

2. **Bryan Kauma** (University of Durham, England)

Toxic cuisines?: When hunger discourses changed the African plate

That the world is now in the age of the Anthropocene and humanity's insatiable appetite for affordable and nutritious food is beyond debate. Yet, amid this, capitalist commodity and food monopolies continue to reign. Using the stories of selected African kitchens and peasant subsistence farmers, this paper examines the development of agro-technologies, mainly genetically modified seeds and food crops (GMOs) in South Africa and Zimbabwe over the long 20th century. Since their inception in the early 1970s, GMOs have been widely contested as a panacea to the ongoing food and hunger crisis. This paper argues how the race to control landscapes and alleviate hunger has instead in a significant way contributed to a food, ecological and climate crisis. Hunger, poverty, and toxic cuisines have become the daily bread of society. The gospel of GMOs to African farmers by big corporations has accelerated suffering by fuelling widespread food and human diseases, lower nutrition as well as unsavoury food products. This paper shows how, as droughts became more prevalent owing to the Anthropogenic slow violence of climate change, more and more governments committed millions of dollars towards agro-technologies to mitigate the impacts of drought. However, relying on oral evidence from farmers and food market operators, this paper observes how these interventions have culminated in an agrarian fallacy, offering little reprieve to African households. This reality, unfortunately, has received little attention in agrarian and food historiography. This paper shall show how increasingly, more people continue to complain over the

quality and palatability of the food crops, with many farmers finding themselves trapped in debt and discontentment over their poultry harvests. This paper also argues that while improper use of the various agro-technologies and chemicals has been a key factor in the poor outputs, the lack of socio-cultural buy-in by society to state climate policing has too shaped the texture of the African plate. While some farmers challenge climate change as a myth, others pin the food crisis on the introduction of various agro-extension services that have distorted the durability and fecundity of their local terrain and altered the landscapes of their traditional food crops. This paper reflects on the fatal agrarian dream experiences of farmers in southern Africa and revisits the social conversations on the impacts and realities of climate change and foodscapes over time.

3. **Julia McClure** (University of Glasgow, Scotland)

The colonial agriculture wars: the historic Indigenous struggles for agro-ecology in Central America and the future of the planet

Prior to European colonialism the Americas were home to an abundance of cultural, agricultural, ecological, and political diversity. Indigenous populations across urban and rural contexts were sustained by a variety of agro-ecological systems, from the itinerant agro-forestry of the milpa system in the tropical forest zones of Mayan Central America to the urban aquaculture of the chinampa in the urban centres of the Valley of Mexico. These Indigenous agro-ecological systems produced a combination of traditional crops such as maize, squash, and chili, in a way that also reproduced biodiversity and cultural heritage. Agricultural practices such as planting and sowing were embedded in cosmological belief systems that connected communities to cycles of time and meaning. Many of these Indigenous agro-ecological systems were challenged, sometimes to the point of near extinction, by the colonial imposition of European commercial agriculture. The Spanish Empire in the Americas has often been represented as driven by the pursuit of gold and silver, but these sources of precious metals were sporadic, and colonialism was sustained and extended through the imposition of European agricultural systems. These colonial agricultural systems were characterised by the monocultural production of cash crops including cattle, sugar, and wheat for profit, at the expense of the environment. The expansion of capitalist modes of agriculture and the erasure of different Indigenous epistemologies and forms of land stewardship have been one of the driving forces of climate change. This paper looks at the way the expansion of colonial-capitalist agriculture has contributed to climate change, and the ways in which Indigenous communities have used their alternate political epistemologies and agro-ecological modes of production to resist and reproduce cultural and ecological diversity amidst the ongoing crises of colonial capitalism and climate collapse.

4. **Anaïs Mansouri** (University of Geneva, Switzerland)

The World Food Programme and climate: a late-coming awareness

The World Food Crisis of the mid-1970's is often considered to be a definite shift in the international arena. Indeed, it signalled the end of a certain type of economic abundance and the start of a global awareness of climate. It also saw the concept of food security being enshrined at the World Food Conference of 1974. According to the Report of the World Food Conference, food security is described as the "availability at all times of adequate world supplies of basic foodstuffs"; as such, it did not make an explicit reference to the environment or climate in any way. One of the main actors in the field of food since the 1960's is the World Food Programme (WFP). It opened a new chapter in

the United Nations' history. Indeed, it gave multilateral food aid a big role in enabling economic development in the so-called "developing world" while selling off American agricultural surpluses at a bargain price. Alongside its mandate to help those countries, the WFP also works towards alleviating hunger and famine through emergency relief operations, regardless of the long-term causes of these disasters. Looking at the World Food Programme's (WFP) work, my paper aims to analyze the growing awareness of climate—and climate change—in the WFP's action. However, its awareness of the climatic impact on its projects came comparatively late. For a long time focused on the economic aspect of food and famine, it started to encompass a more global understanding of its work. By selecting a few case studies, I will show how the WFP managed to change its narrative on climate in the late 1980s and early 1990s.

Panel 3: Moral and Political Perspectives on Climate and Food

1. **Doreen Müller** (Leiden University, Netherlands)

Shifting Moral Perspectives on Famine in the Visual Culture of Early Modern Japan

Crop failures caused by inclement weather were a fact of life in early modern Japan. In the eighteenth and nineteenth centuries, recurring spells of cold and rainy summers interfered with the planting and the growth of rice seedlings in the fifth lunar month (July), causing bad harvests and famine. In early modern Japan, rice was rationalised as a moral and material link between people and the environment. When rice was abundant, it was thematised in the form of prosperous landscapes in which water, land, and people interacted harmoniously and within the bounds of stable seasonal rhythms of producing, harvesting, and storing rice. By contrast, when rice was scarce, the environment including unseasonal rains and cold weather appear to have receded into the background as narratives on the prevention of famine emphasised the moral duty of the government to release rice stores to the suffering population in times of need. However, this apparent disinterest in the climatic components of the moral economy of rice changed during the time of the Tenpō Era Famine (1833–39). For the first time, visual and textual narratives commemorating famine traced climate events and their relation to the human world in unprecedented detail. Particularly in the old capital city of Kyoto, then called Miyako, the moral transaction of redistributing rice to the needy was shown to have been performed largely by ordinary townspeople rather than the government. This paper explores how the scope of commemorating famine was expanded in the nineteenth century from moral perspectives focusing on the mutual bonds of duty between the people and the government to incorporating interactions with the climate. This will show the role that the climate played in renegotiating the nature of rice as a moral transaction in times of famine in nineteenth century Japan.

2. **Semih Çelik** (University of Exeter, England)

"What do you mean by hunger?": Making sense of climate, famine, and hunger in the Ottoman World during the Hungry Forties

Historians have closely investigated the "Hungry Forties" that devastated many societies across western and northern Europe, UK, and Ireland on varying levels. An episode of the devastating famine waves, which has not yet received the attention it deserves, took place in the Anatolian territories of the Ottoman Empire. The extreme climatic events starting in 1845 and making a peak in 1847 with high temperatures unheard of for over five centuries according to local inhabitants, resulted with dearth and famine that decimated human and animal populations in various parts of Anatolia, and caused thousands to migrate. Subjects of the reforming Ottoman sultan had to make

sense of the famine conditions under which they tried to survive. For the Ottoman officials in Istanbul and in the provinces the cries of famine and hunger did not make sense. Questioning local bread rioters in a central Anatolian town local judges asked: "What do you mean by hunger?" This talk will trace answers given to this question by Ottoman subjects who suffered from the famine that lasted for more than three years in some parts of the empire. Examining petitions submitted by peasants, artisans, and local governors, as well as newspaper articles, and Ottoman official correspondence this paper aims to locate Ottoman Hungry Forties in the larger context of European history, and to offer a critical historical lens to understand current debates on the relationship between climate change, famines, and hunger.

3. **Baihui Duan** (University of Oxford, England)

Beyond the 'Little Ice Age': Social effects of climate and political discourses of famine relief in the seventeenth-century Korea

The seventeenth-century crisis or 'Little Ice Age' theory has been well accepted in Asian contexts and historians have been using it to explain the causes of natural disasters or famines that occurred in the seventeenth century. Utilizing pure scientific analysis to explain history, nonetheless, shadows its humanistic side. This paper reflects upon the existing literature on the phenomena of the 'Little Ice Age' and examines how people from different social classes perceived climate change, and managed the abnormality during the seventeenth century. Pre-modern Korean people recorded daily weather in their diaries and official documents, indicating their awareness of abnormal weather conditions and the correlation between long-term drought or precipitation and poor harvests or even famines. Local farmers observed the climate changes for more practical reasons while climate concerns of the upper class were more interconnected to their governance and dominance in case of anyone blamed disasters on kings directly or even revolted due to a lack of food. In Confucian cultures, natural disasters were widely believed to be a kind of punishment from heaven and if kings, as the son of heaven, did not perform virtuously, continuous disasters would take place. Restricted by such political discourses of climate, kings and ministers had to reflect more on how to respond to the 'punishment from heaven' and 'to save people's lives'. In many pre-modern Korean examples, Kings would reduce the amount of rice they consumed, which was more akin to a political strategy rather than solving the real problem. Looking at some official relief measures after the outbreak of disasters in the seventeenth century, this paper aims to discuss their efficiency and underlying political discourses of benevolence so that we can discover what the 'Little Ice Age' fails to tell us.