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HUNGRY CITIES PARTNERSHIP: INFORMALITY, INCLUSIVE GROWTH, AND FOOD SECURITY IN CITIES OF THE GLOBAL SOUTH. FINAL PROJECT REPORT: PERIOD MAY 2015 - AUGUST 2020

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Hungry Cities Partnership: Informality, inclusive growth, and food security in cities of the global South.
Final Project Report: Period May 2015 - August 2020

IDRC Grant number: 107775-001

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Executive summary

In the original project proposal, it was argued that food provided an ideal lens to understand the city. In the case of the cities within the Hungry Cities Partnership, this statement is most certainly true. This has become increasingly evident, with a food lens enabling insights into the state of urban development, under-development, marginalization, inclusivity and exclusion in the Hungry Cities Partnership partner cities. These different, and at times intersecting everyday urban conditions, have been amplified during the recent COVID-19 pandemic outbreak.

This final report covers the entire project cycle, from the inception of the project in May 2015 until the final close, following a no-cost extension, in August 2020. This report follows the first and second technical reports and the IDRC/SSHRC combined mid-term report.

The results of the project have made considerable contributions to a number of the combined SSHRC and IDRC (IPaSS) objectives. First, the project is advancing knowledge by building new methods and fields of enquiry. By conducting research simultaneously in originally seven, and then eight, different countries, and planning that research collaboratively, the project ensured comparability and highlighted differences across the South. The use of tablet technology for survey administration has also proven extremely cost-effective and facilitated early access to data for analysis.

The project reports at the city scale. Given the spread and size of the cities under review, the project directly considers detailed demographic, food security, informal economy and consumption behaviour for a sample of over 10,000 households, slightly less than 8000 (7977) "informal" enterprises and 3700 informal youth enterprises, effectively covering a combined urban population of 55 million people.

This report details the outcomes of the research. The report details the outputs and how these relate to project deliverables.

Given that this report covers the entire span of the project, this report pays particular focus to three key aspects. The first is the outputs from the project, the second is the new debates, findings and emergent shifts in policy and urban food governance (as a broad term) emerging from the work. Finally, the report discusses the policy engagements and how this work has fed back into policy and governance arrangements, but at the same time, given the novel nature of this work, the report provides insights into the limitations and areas of future research and policy engagement. It was somewhat opportune that the project was granted a no-cost extension until August 2020. Should the formal end of the project have occurred in early 2020, the impact and role that the HCP research has played in framing responses to and engagements pertaining to COVID-19 would not have been reported. These are included in this report but in limited detail.

The Hungry Cities Partnership findings, it is argued in this report, are making a significant contribution to the generation of new academic and policy-related knowledge. Key areas of emerging knowledge, areas that are challenging existing views of the urban food system within the broad ambit of academic knowledge, include perspectives on informality, food deserts, the supermarket revolution, and questions of food and nutrition at the urban scale. An overarching finding, one that speaks to questions that have remained largely unanswered since earlier AFSUN work, is what we are referring to as the "normalisation of food poverty". This assessment of urban food challenges in part justifies the reasons behind significantly high levels of identified food

insecurity but little civic protest or unrest in this regard. This finding also raises questions about commonly applied concepts - such as the nutrition transition. Additional new findings emerging from this work, with significant relevance to policy, governance and food systems thinking relate to how the foods accessed, and later consumed, intersect with urban functioning, form, planning and design. The research asks questions about the broad generalisation of these and other academic concepts. This work highlights how new thinking about space, urban form and food access is essential if urban populations are to attain optimal health and wellbeing. These approaches further acknowledge a wider collection of urban food system actors and food access points.

Central to the findings of this project is the clear intersection between the urban system and the food system. These intersections demand a policy shift away from urban scale food projects, or the state withdrawing from food governance and leaving urban food provision to the private sector, to a far more integrated and systemic approach to urban food governance.

Over and above the specific findings, the project also raised important questions about the generalisation of the use of "the Global South" and "Southern" as broad catch phrases used to represent a large and growing population within the global community. Our research finds significant variation and complexity. Also, in trying to identify the drivers of this diversity in the cities under review, it is argued that context matters, but history is equally if not more important, both in terms of the findings from our research, and so-called Southern theory. This finding also has implications for policies and the functioning of the food system. While others have challenged the generalisation of the "South", this has not been a particular practice in urban food studies, and arguably in urban studies where a more regional framing is often applied. These framings, we argue, require careful consideration.

The report further highlights the significant importance of the HCP research to emerging global reporting processes. The SDGs were agreed subsequent to the project being awarded, but HCP researchers have played an active role in questioning the scale of analysis of the SDGs, and specifically, the implications for cities, the urban poor and urban growth. This is a particular concern when only national measurement processes are applied in reporting to global systems. Further SDG (and other global agreement processes) concerns reiterate to the silo-ed nature of these agreements and processes. Our work calls for far greater integration of the SDGs and argues that aspirations of inclusive growth will be undermined if the current approaches remain. In the last year of the project there was increased attention to "localizing the SDGs" but these processes remain contested, dominated by developed world positions and perspectives, and often re-enforce the silo-ed nature of the SDGs.

One of the more profound policy related findings reported in this report relates to how food and the urban food question is governed in Southern cities. This report details how the HCP research is starting to question earlier approaches to urban food, calling for a far more encompassing approach. Most earlier calls pertaining to urban food engaged the question from two dominant entry points. The first being an approach broadly described as alternative and collaborative governance (or pluralistic governance). The other generally sought to apply a more territorial approach, "cutting and pasting" a rural model to the urban context, with a focus on production and distribution. The approach advocated here, as a result of our findings, suggests that these may have relevance but would be best applied if food is not seen as a further area of focus, another silo (a ministry of food). Rather the approach required is one where food is proactively integrated into *all* urban governance functions.

These findings offer useful and path breaking insights into the urban food question, affirming the importance of this project, but also the utility of using food as lens to understand the challenges faced in various Southern cities.

It is perhaps useful to offer a short disclaimer here at the introduction to this report. Part of the work within the Hungry Cities Partnership was trying to frame and argue how Southern cities and urban communities are described and understood. Our emerging work challenges broad generalizations and travelling concepts such as "Southern cities" and "the South". The key challenge is one of language and what replaces these terms and concepts. From a utilitarian point of view, we describe processes and concepts within this report using the very same concepts that our work challenges. This is largely due to the fact that this remains a work in progress. Alternative (and arguably more appropriate) terms and concepts for what is described in the report remain elusive. As a note to the reader, the terms to be used as alternatives are yet to be identified. These terms still have utility despite requiring deliberate and targeted questioning of their use. These terms are known and understood and as such, assist in the interpretation of the arguments made in the report.

This report documents the work carried out by the IDRC-funded Low and Middle Income Country partners. It is important to stress that as part of the IPaSS program, this project was co-funded through the SSHRC. The Canadian based SSHRC team provided significant input into this program, both in terms of direct leadership but also in terms of valuable research support. By way of an example, research was carried out in an innovative manner. Here the tablets used to enable the transition to paperless research, as well as the full training and development costs of all LMIC research teams was funded through the SSHRC component of this work. This was a mutually beneficial and mutually driven partnership between the SSHRC and IDRC -funded teams. However, for the purpose of this report, directed at the IDRC funders, broad project related findings that combine both SSHRC and IDRC funded components are made but the focus remains that of the IDRC funded component of the Hungry Cities Partnership.

The report follows the provided reporting format but adds sections and headings where information being provided does not apply or seems misplaced in the provided format.

The report first provides a brief recap of the research partners, including the partners who, for various reported reasons, left the project, but also, the partners that joined the project. This report also provides insights into aligned grants received and how these were integrated into the work of the Hungry Cities Partnership. The report also provides information on new grants received and unsuccessful funding applications made in order to continue with this work and maintain the network.

Research partners

The Hungry Cities Partnership (HCP) is a collaborative research project including IDRC funded Southern partners and SSHRC-funded Canadian partners. The Southern or LMIC Partner cities include Mexico City, Mexico; Kingston Jamaica; Cape Town, South Africa; Maputo, Mozambique; Nairobi, Kenya; Bangalore, India; and Nanjing, China. The LMIC countries are coordinated through the African Centre for Cities at the University of Cape Town, South Africa.

The first technical report provided detail of changes to the partnership structure. The partners reported on as part of the HCP project in the 1st Technical Report remain in place. In the first technical report two Nairobi partners were reflected, the African Population and Health Research Centre (APHRC) and the University of Nairobi - with a motivation for the dual listing. Since the first technical report, the APHRC remains a listed partner but has not been involved in any active research. This remains the case with the final report, although a collegial relationship exists between the APHRC and partners in the HCP. The reason for this status was detailed in the first technical report. The second partner, the University of Nairobi has been the active partner and has engaged all HCP related research and partner-related activities. At the time of the bid proposal the M S Swaminathan Research Foundation (MSSRF) was listed as the Indian partner. As reported previously, the MSSRF elected to leave the partnership before the research activities began. One further original partner, CISAN, Centre for Research on North America, UNAM, Mexico City, chose to exit the programme, primarily because the food focus of the HCP work was beyond the scope of CISAN's work. Fortunately, all three partners were replaced by active, engaged and passionate research units, all actively pursuing research in cities of the South.

The reason for the departure, or discontinuation of active engagement, of both the APHRC and MSSRF from the Hungry Cities Partnership project was largely linked to the funding model applied in the HCP project. Both the APHRC and MSSRF are funded through grant funds only, with very little core funds derived from endowments or associations with public institutions, such as universities. The model applied in the HCP, one where research and the associated activities (such as literature reviews, report writing, statistical analysis, sampling calculations, interviews and meetings) were the only funded components of this work. Only one salary at UCT was provided for in the original bid budget, attached to the initial proposal. While the budgeting approach can be discussed, this was applied for three main reasons. Firstly, earlier funded work, specifically the AFSUN project, had followed this approach. Secondly, given that the project was co-funded, by the SSHRC, an aligned approach to allowable and non-allowable expenses was applied by the funders. Thirdly and for more pragmatic delivery related reasons, the funding envelope was too small to support a partnership of this global scope. There is no reason in principle why we couldn't have had a salaried person/project manager at each institution. But it would have eroded the budget, drawing important funds away from research activities. Regardless of the context and historical experiences which informed the budgeting approach, it is believed that more progressive approach to fixed partners and contracted partners should be applied. This has been discussed and agreed with the IDRC project managers but is mentioned here as it has been an interesting learning experience.

In the period following the last report (2nd technical report), the seven partners; Universidad Autónoma Metropolitana Mexico City (Metropolitan Autonomous University), University of the West Indies, University of Cape Town, Universidade Eduardo Mondlane (Eduardo Mondlane University), the University of Nairobi, the Indian Institute for Human Settlements, and Nanjing University, have continued to engage and actively participated in the research activities of the Hungry Cities Partnership. One further partner joined the HCP network, the University of Namibia

(UNAM) in Windhoek. The UNAM partners had received separate funding from the Open Societies Foundation (OSF) to conduct work on similar components of the food system in Windhoek (food security, informal and formal food retail). For this reason, it was agreed that a small amount of the exchange rate gains would be allocated to UNAM to complete a vendor survey that aligned with the HCP sampling, thus expanding the network to eight cities, four in Africa, two in Latin America and the Caribbean and two in Asia. The HCP partners, with their associated Canadian partnered institutions are detailed in Table 1.

These core HCP partners remain, but thanks to additional funding from IDRC, SSHRC, Rideau Hall and Universities Canada, in the form of the Queen Elizabeth Advanced Scholars (QES-AS) grant, research into urban food systems has expanded into a broader network of cities. These additional cities are not part of the HCP project but findings from this work does deepen the knowledge being generated. The additional cities include Harare, Zimbabwe; Mzuzu, Malawi; Dschang, Cameroon, and Oshakati, Namibia.

Funding was also awarded to the African Centre for Cities (ACC) for an additional IDRC funded collaboration. Here through the Nourishing Spaces project (See: https://www.africancentreforcities.net/nourishing-spaces-launched/), two of the HCP partners, Cape Town and Nairobi, have been included in the Africa specific IDRC funded project. A third partner in the Nourishing Space project, the City of Windhoek and their academic partner, the University of Namibia, were formally included as Hungry Cities Partners following the initial completion of their OSF funded research.

Table 1: Hungry Cities Partnership Research Partners

Southern Partners (IDRC)			**Canadian Partners (SSHRC)****	
City	**Institution**	**Lead partner**	**Institution**	**Partner**
Cape Town	University of Cape Town	Prof Edgar Pieterse (Co-Director)	Balsillie School of International Affairs (BISA)/ Wilfrid Laurier University	Prof Jonathan Crush (Co-Director)
Mexico City	Universidad Autónoma Metropolitana - Azcapotzalco	Guénola Capron	SEED, University of Waterloo	Bruce Frayne, Cameron McCordic Steffanie Scott
Kingston	University of West Indies	Elizabeth Thomas Hope	Carleton University	Jill Wigle
Maputo	Eduardo Mondlane University	Ines Raimundo	Western University	Tony Weiss
Nairobi	University of Nairobi	Samuel Owuor	Wilfrid Laurier University	Andrea Brown
Bangalore	Indian Institute for Human Settlements	Aromar Revi	University of Manitoba	Balfour Spence
Nanjing	Nanjing University	Taiyang Zhong	University of Waterloo	Zhenzhong Si
Cape Town	University of Cape Town	Gareth Haysom***	Balsillie School of International Affairs (BISA)	Maria Salamone***
Windhoek*	University of Namibia	Ndeyapo Nickanor	Balsillie School of International Affairs (BISA)	Jonathan Crush

* This "partner" is detailed here and the inclusion will be motivated later in this report. This partner's collaboration with the HCP project has been enabled through funding from elsewhere.

** This is an abbreviated list *** Project managers per funded stream

The details of the contracted Hungry Cities Partnership partner institutions are detailed up front in this technical report so as to facilitate ease of reference when specific cities or research activities are discussed.

The research problem

The original project proposal argued that rapid urbanization and the challenge of building sustainable and food secure cities has been called *the* critical development issue of the 21st Century. The United Nations predicts that by 2030, the urban population of developing countries will exceed 50% for the first time. Over the next 30 years, virtually all of the anticipated 3 billion increase in the human population will occur in cities of the South. These cities will absorb 95% of urban growth in the next two decades, and by 2030, will be home to almost 4 billion people, or 80% of the world's urban population. The current international food security agenda, with its focus on smallholder agriculture, and the linked city regionalism perspective, ignores the reality of rapid urbanization, growing informality and urban food insecurity. The critical relationship between inclusive growth and food security remains framed as an issue of agricultural production and employment.

The Hungry Cities Partnership broadly focuses on the growing crisis of urban food insecurity in the South. At the time of the drafting of the proposal, it was argued that with the exception of an important body of IDRC-funded work on urban agriculture and the FAO's Food for the Cities Program, urban food insecurity in the Global South has been largely ignored for the last decade. While a number of additional research projects have started to emerge, this critique of the state of knowledge about urban food systems in the Global South remains valid and a very necessary area of research – as this report will show.

The premise of the proposed Partnership network is that the Global South faces an increasingly urban future and that food insecurity is becoming an increasingly urban problem.

The converging and mutually reinforcing challenges associated with urbanisation, food insecurity and uneven economic growth thus formed the key entry point for the research within the Hungry Cities Partnership project.

The Hungry Cities Partnership sought to engage these intersecting challenges through the following areas of enquiry:

I. Rapid Urbanization, Food Insecurity and Inclusive Growth
II. Reshaping Informal Food Systems through Inclusive Growth
III. Youth Entrepreneurship in the Informal Food Economy
IV. Competition and Inclusive Growth in the Urban Food Economy
V. Gender as Cross-Cutting Theme

Methodologically, the enquiry into these different thematic areas required specific thematic foci. It is acknowledged, however, that in the context of urbanisation, food security and wider urban food economies in cities of the South, as with the cross-cutting issue of gender, these are all areas of enquiry that intersect one another.

The overall goals and specific objectives of the research project were as follows:

1. To examine the levels and determinants of all four dimensions of food security (availability, access, utilization and stability) in a range of large cities across the Global South and the relationship between food insecurity, income generation and unemployment.
2. To generate a significant body of comparative, inter-disciplinary knowledge on the organization, structure and potential for inclusive growth in the informal food economy and implications for food security in cities of the Global South.
3. To examine the implications of formal food sector competition for entrepreneurship, innovation, job creation and inclusive growth in the urban informal food economy.
4. To critically assess opportunities for women and youth to be incorporated into urban food systems as entrepreneurs and employees with decent jobs.
5. To assess national, regional and municipal policies that enable or constrain enterprise development, entrepreneurship and innovation in the informal economy.
6. To build the institutional capacity of research organisations and networks in the South to conduct collaborative, policy-oriented research on inclusive growth and urban food systems; and
7. To mentor and train graduate students and post-doctoral researchers in Canada and in partner countries to conduct rigorous, high impact research on urban food security and inclusive growth.

These goals have not changed and we argue have been achieved, but with richer and more contextually informed positions and perspectives.

As was reported in earlier technical reports, an area of additional focus was the transition from the Millennium Development Goals to the Sustainable Development Goals (SDGs) and the implications for the inclusion of three specific SDGs that aligned to the work of the Hungry Cities Partnership. These goals included the Hunger Goal (SDG 2), the so-called Urban Goal (SDG 11) and indirectly the Poverty Goal (SDG 1). Other goals also intersect with the HCP work, expressly goals 3 (Good Health and Well-Being for People), 5 (Gender Equality), 8 (Decent Work and Economic Growth), 10 (Reducing Inequalities) and 12 (Responsible Consumption and Production). The HCP research is providing direct evidence to the SDG processes – but more importantly, it is highlighting some of the shortfalls in the SDGs processes. These shortfalls relate primarily to the original conceptualisation of the goals, specifically their evolution out of the MDG process, where the silo-ed nature of the current SDGs are being exposed by the HCP work which demonstrates the need for significant integration between goals. The HCP Principal Investigator, Jonathan Crush, has gone on record stating that "SDG 2 (the hunger goal) imagines a hungry world with no cities and SDG 11 (the urban goal) imagines and urban world in which no-one eats".[1]

A further outcome and an area which presents policy and research opportunities emerged as a result of the New Urban Agenda agreement of Habitat III in Quito. One of the agreements emanating from the Habitat III process was a commitment for national governments to develop national urban plans. As has been discussed in a number of earlier urban food projects (particularly the African Food Security Urban Network – AFSUN and the Growing Informal Cities – GIC) the absence of engagement with urban food issues was highlighted as a critical issue.[2] Generating evidence from primary cities in a number countries provides a useful entry point to inserting the urban food question into these processes.[3]

[1] Crush, J. (2017). Hungry Cities in the Global South. Presentation delivered at Consuming Urban Poverty working meeting, Bellagio, Italy (14 March, 2017)
[2] See: Crush, J., & Frayne, B. (2010). The invisible crisis: Urban food security in Southern Africa, University of Cape Town and Queens University, Unity Press, Cape Town; and Growing Informal Cities: Mobile Entrepreneurs and Inclusive Growth in South Africa, Mozambique and Zimbabwe, https://www.jstor.org/stable/j.ctvh8r08d
[3] See: Crush, J., Frayne,. B. and Haysom, G. (eds) (2020). Handbook on Urban Food Security in the Global South. Edward Elgar, Cheltenham

Progress towards milestones

The City partners who have been active in the project since the outset have to a large extent remained on track with the overall project milestones. However, the three late entrants have constantly attempted to catch up with the other cities. For various reasons, this has not always been possible. Further, delays in two of the late entrant cities occurred as a result of factors outside their control. Nairobi experience significant post-election violence and civic protest resulting in significant distrust within communities. This meant that any form of survey would subject the enumerators to situations where their safety could not be guaranteed. As a result, processes were delayed and the time that had been caught up was lost again. Despite this, the Nairobi partner made full use of the fact that the university was closed and completed all reports required, effectively leapfrogging other city reports. In Mexico City, a small window of opportunity existed between university vacations and the beginning of the next academic year. Students were engaged and a support organisation was approached to assist in data collection in "difficult" neighbourhoods. These plans were however scuppered as a result of the earthquake which meant that all university resources and assistance were directed to the wider needs of the Mexico City community.

Despite these challenges, the research teams caught up with all deliverables and all research has been completed as planned. Where necessary QES-AS Scholars were allocated to cities to support them in their data analysis and report-writing.

Regardless of these delays, all deliverables and milestones have been reached. Due to the similar nature of the surveys for the informal traders and youth, the youth component of the research was rescheduled and placed ahead of the formal food sector research.

A final project conference was held in Maputo, Mozambique in July 2019 and took place in the same week as the Commonwealth Geographical Bureau (CGB) meeting, enabling wider dissemination of HCP results at the CGB meeting. Three of the HCP partners hold executive positions, representing their regions at the CGB and this enables wider engagement in the HCP work.

Table 2 provides detail on the various different research activities and their status. The table also lists select publications and outputs.

Table 2: Milestone status (extracted and updated from mid-term report with status)

1.0 Urbanization, Urban Food Security and Informality in Global South	1.1 Hungry Cities in the Global South	Review and revise 2014 Special Issue of *Urban Forum* on urban food deserts for publication as book	Book to be published by Springer (contract agreed) with aid of publication grant from BSIA	Book published in 2016: J. Crush and J. Battersby (eds), *Rapid Urbanization, Urban Food Deserts and Food Security in Africa* (New York: Springer, 2016) with contributions by 8 project co-investigators and collaborators, 5 post-doctoral fellows and 1 doctoral student.
		Commission chapters from project researchers and outside experts for edited book covering range of urbanization and food issues at global scale	Chapters published as HCP Discussion Papers prior to inclusion in book *International Handbook on Global Urban Food Security in the Global South* (eds. J. Crush, B. Frayne, G. Haysom contract with Edward Elgar)	Chapters published on project website in Discussion Papers Series. Total published : 8. Proofs of l book manuscript received with publication end 2020 Book completed and published in late 2017
		Commission chapters from project researchers for edited book on urban food security in Southern Africa	Chapters published in book *Food and Nutrition Security in Southern African Cities* (eds. B. Frayne, J. Crush, C.McCordic contract with Routledge and Earthscan)	Special Issue of *International Migration* published in 2017
		Invite contributions from project researchers and others for special journal issue on urban food security and international migration	Special Issue of refereed journal *International Migration* on international migration and food security (eds. J.Crush, M.Caesar)	Publication of 6 edited books by

	1.2 Global Urbanization/ Informality/Food Security	Project co-investigators edit and contribute to books addressing contextual issues and global debates	Project contributions to global and regional debates include: *Africa's Urban Revolution* (eds. S.Parnell, E. Pieterse, Zed Books, 2014); *Routledge Handbook on Cities of the Global South* (ed. S. Parnell, Routledge, 2015); *Mean Streets* (eds. J. Crush, A. Chikanda, C. Skinner, IDRC, 2015); A*frican Cities Reader Vol. III* (ed. E.Pieterse, Chimurenga Press, 2015); C*ritical Perspectives on Food Sovereignty* (ed. T. Weiss et al, Routledge, 2015); Urban Food Systems Governance and Poverty in African Cities (eds.. Battersby & V. Watson; Routledge 2019).	project co-investigators Two public engagement sessions and all working papers published in CoE-PLAAS Series at University of Western Cape in 2015-16. Selected working papers (x 2) re-published in the HCP Discussion Paper Series
	1.3 Food Value Chains and Livelihoods in South Africa	Commission working papers from project researchers and others in collaboration with NRF Centre for Excellence in Food Security	Fourteen working papers commissioned and delivered (ed. G. Haysom)	
2.0 Rapid Urbanization, Food Insecurity and Inclusive Growth (2015/16)	2.1 Urban Food System Audits	Review and synthesize existing information/data and prepare reports according to template developed by PCC	Urban food system audit conducted in each city for posting on website in HCP Reports Series	Draft audits completed for all 7 partner cities. Audits for all cities published on website as HCP Reports 1-7.
	2.2 Household Food Security Baseline Surveys in 7 Cities	Develop common survey instrument and sampling strategy	Survey methodology collaboratively planned by partners	Survey instrument developed, passed by ethics review boards at Wilfrid Laurier University and University of

				Cape Town and uploaded to tablets
		Train research teams	Research teams recruited in each city and trained in use of tablets	Two-day training workshops completed in each city by Canadian data manager
		City-wide representative surveys using tablet survey technology (ODK Collect Platform)	Goal to interview 1,000 randomly-selected households in each city	Surveys successfully completed in all 7 cities covering 9,500 households (representing combined total urban population of 50 million)
		Backchecking, cleaning and secure storage of data	Data sets encrypted and securely stored	Seven data sets available to partners for analysis and report writing
		Prepare city survey reports according to template developed by PCC	Report template and individual city reports	Reports completed for all cities. Reports published in HCP Reports Series 1-7
		Present findings at conference in partnership with Commonwealth Geographical Bureau in Jamaica	Papers edited and published in book	Book published E. Thomas-Hope (ed), *Climate Change and Food Security: Africa and the Caribbean* (Routledge, 2017)
		Include research findings in special journal issue on China's Changing Food System	Special issue of *Canadian Journal of Development Studies* (ed. Z. Si, S. Scott)	Special issue of *Canadian Journal of Development Studies* (ed. Z. Si, S. Scott) on China's Changing Food System

		Present and discuss findings at conferences, workshops, in journal articles and book chapters	Presentations at HCP and other conferences and workshops plus preparation of papers for publication	HCP co-investigators, collaborators, PDFs and PhDs have made 177 presentations, and published 55 journal articles and 67 book chapters Of this IDRC linked researchers have made 71 presentations, and published 50 journal articles and 57 book chapters
3.0 Reshaping Food Systems Through Inclusive Growth (2016-17)	3.1 Informal Food System Vendor Surveys in 7 Cities	Develop common survey instrument and sampling methodology	Survey methodology collaboratively developed at partner planning meetings	Survey instrument and sampling strategy developed at planning meetings in Cape Town and Waterloo. Approved by ethics review boards at Wilfrid Laurier University and University of Cape Town.
		Train research teams and implement city-wide randomized survey	Research teams recruited in each city and trained in use of tablet survey technology	Two-day training workshops completed from February to June 2017
		Partners implement city-wife representative surveys using tablet		Survey successfully completed in all 7 HCP cities plus Windhoek in 2017-2018Seven data sets available to partners for

		survey technology (ODK Collect) Creation of city data sets Prepare city survey reports according to template	Aim to interview 500-700 informal food vendors in each city Data sets encrypted and securely stored Report template and individual city reports	analysis and report writing Reports published in HCP Reports Series 9-17
	3.2 Informal Food Economy Regulatory Environment	Develop template for city reports on informal food economy governance Audit of city laws and regulations governing informal food economy	Template developed and agreed by partners Conduct audit and prepare reports for all seven cities	Template collaboratively developed by partners at partner planning meetings in Cape Town and Waterloo Audits completed
4.0 Youth Employment and Entrepreneurial Activity in the Informal Economy (2017-19)	4.1 Youth Entrepreneurship Survey	Survey instrument and methodology agreed Survey implemented	Partner planning meeting scheduled for July 2017	Partners oversampled youth vendors in each city during informal vendor survey (3.0) to produce sub-set of 500 youth vendors in each city iei 3500 in total

5.0 Competition and Inclusive Growth in the Urban Food Economy (2018-19	City specific methodology agreed Research conducted	Partner planning meeting July 2018 Crush, J. & Young, G. (eds) (2019). Africa's Urban Informal Food Sector in Comparative Perspective (Special Issue). Urban Forum, 30, 4, 377-515. Crush, J. & Si, Z. (2019). "Urban Food Deserts: Perspectives from the Global South" (Special Issue). Sustainability, 11, 1.	Engagements with private sector actors continues from July 2018 until end 2019. All cities completed work by end 2019. Drafting of reports and outputs carried out following completion of the work in each city.
6.0 City specific policy forums and policy engagement	City specific approach adopted in accordance with the politics and relationships, and approachability of policy makers in each city. Policy forums conducted	Ongoing from imitation of the project but reiterated and final processes agreed at the partner planning meeting July 2017.	Each city assessed their own policy and governance landscape and engaged policy makers and for a in ways that aligned with these dynamics. Given the absent urban food mandate in many cities, different audiences, different policy actors and different policy processes were engaged. Each city drafted a final report specific to their own processes.
7.0 Global policy engagement (Request aligned to exchange rate gains)	Global scale policy engagement planned originally for May 2020 in accordance with Africa France Summit. COVID-19 disrupted these plans	Partnerships with international organisations arranged and meeting scheduled for 9 and 10 November 2020.	

Methodology

The project partnership structure has informed the research strategies and subsequent methodologies applied in achieving the research related objectives of this project. The project engaged in four (4) primary research activities, and two (2) process activities, over the duration of the project. Each research activity formed part of the wider HCP project but built on and connected

to earlier work. Figure 1 demonstrates this flow, in a systematic manner, using specific themes and findings from each research component as an example to demonstrate these interlinkages and the iterative and reflective approach applied in the research process.

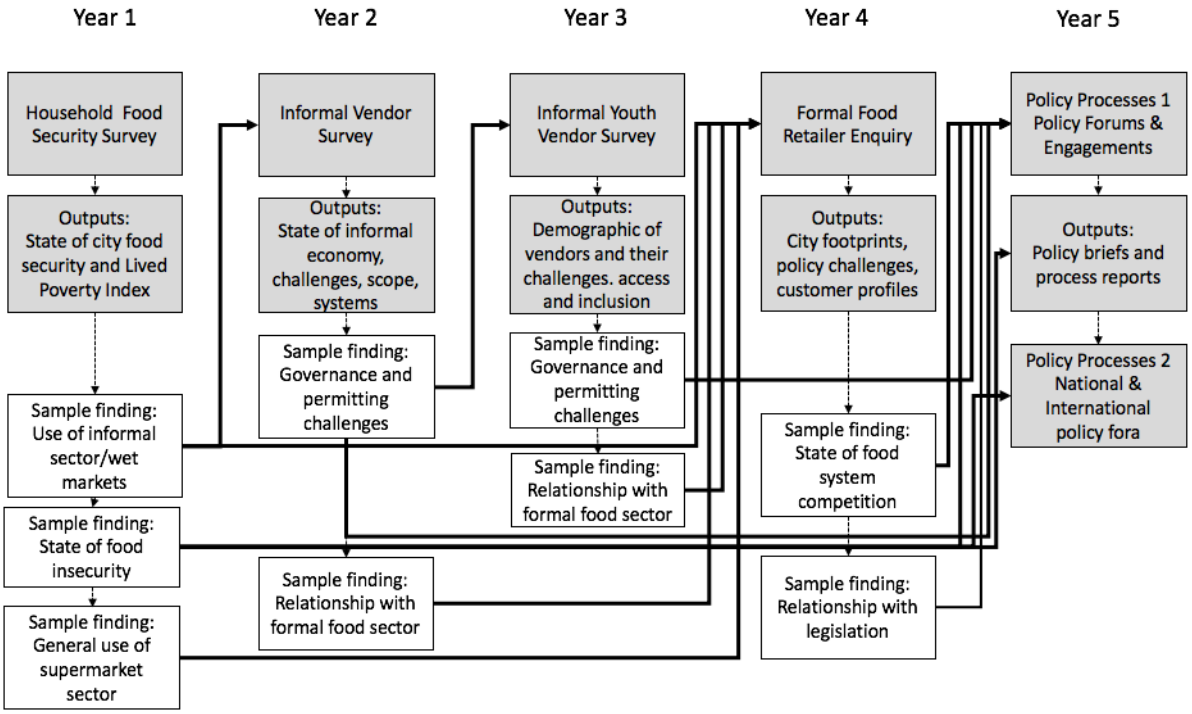

Figure 1: Research flow demonstrating inter-linkages and connections to preceding research.

Collaborative research design, planning and budgeting

Before engaging the specific research activities, a core component of the methodological approach applied in this project was that of a collaborative research design approach. The Partnership Coordination Committee (PCC) (one representative from each partner) met regularly to formulate the research plan and methodology for each phase of the research.[4]

Two core principles were applied in this collaborative design process. The first being that given the comparative nature of this project, globally recognised survey approaches would be applied. The household food security survey (Survey 1) demonstrates the nuances of our processes well. The USAid FANTA food security measurement tools were identified as the most applicable for our survey. Also, these had been successfully used in the preceding AFSUN work and this allowed for a measure of longitudinal comparison. A second internationally recognised research tool, a multi-dimensional poverty index (MPI), the Lived Poverty Index, was also included in the household survey. This allowed research to connect, directly through their analysis, issues of poverty, and exclusion or inequality (as a means to measure inclusivity or the absence thereof), with food security outcomes. It was important to the project that the integrity of the FANTA tools and the LPI be maintained, but that contextual relevance and specificities were also ensured.

[4] All partners participated in the annual PCC meetings, if not the lead partners, then representatives. If for specific reasons, partners were unable to attend or send a representative, minutes and outcomes of the meetings were communicated to these partners.

In order to achieve this, research partners were convened in a weeklong research planning meeting. Here the foundations of the research tool were presented, debated, contested and actively worked through, with project leaders providing motivation for the inclusion of the above tools, and project partners debating these. Once agreed, partners then interrogated the phrasings, terms and specifics of the tools and integrated local or contextual aspects into these. These included the addition of local foods in the appropriate location in the HDDS tables, clear description of household typologies, often applying local terms in conjunction with the project-wide comparative terms, as examples. Where partners wanted to investigate a city-specific question, one that was outside the broad scope of the planned research, partners were encouraged to do so but in a manner that did not compromised the comparative need. This resulted in additional modules being added to surveys, designed by the city partners but optional for the wider partnership team. An example of this was a food safety module included in the Nanjing Household Survey.

During this collaborative design process, the sampling strategies and sample sizes were also agreed and specific approaches discussed and refined (for example, how to deal with an identified but non-responsive respondent). At the end of these meetings, partners left with a clear understanding of expectations, timeframes and specific requirements. This enabled the partners to deliver on two pre-survey requirements.

The first was a survey budget, aligned to city specific costs and approaches to research, and institution-specific needs. This was a deliberate approach. From the outset the HCP PCC elected to avoid allocating a set budget amount per city. Instead the city-scaled and contextually informed budget was developed by the city partners and referred to the project Principal Investigators (PIs) for review. Those seeking to include additional modules needed to budget for the core survey and the extra modules separately so as to ensure an equitable allocation for the core research activity before additional funds were allocated from the overall budgeted allocation for the entire project-wide research activity. In reality no partner was refused the requested budget. Some partners were in fact asked to increase certain aspects, such as pre-survey literature and/or contextual reviews, as examples. Once the survey budget was approved, invoices for the survey were sent to the ACC and funds were paid to the partners. Partners were generally paid in two tranches, 60% up front and an additional 40% on completion of the survey. If partners could not co-fund the 40% alternative arrangements were made and monitored accordingly. The core objective was to ensure that at no time was research halted as a result of funding issues.

The second benefit of these detailed research planning meetings was that partners left with a detailed understanding of the research process, the instruments being used and the specific objectives and linked conditions of the research. This meant that partners were able to draft city context specific research ethics applications, to be forwarded to their country or institutional research oversight bodies. No research was permitted to commence unless research ethics approval had been acquired. In countries where no research ethics processes were in effect, the African Centre for Cities (as the LMIC lead) research ethics application conditions and mandates would apply equally to the partners, but with due recognition, and mention in the ACC application, of specific country needs. The absence of institution-specific ethics processes were evident in the case of both Nairobi and Maputo. Here national research permits were applied for on an annual basis, but specific institutional, and research activity application, processes were not required. Research ethics extended beyond just the survey processes and additional considerations were included in the overarching ACC ethics application. By way of an example, in China it is deemed rude, essentially unethical, if a gift is not provided following a research interview. The offering of gifts was not permitted in terms of the wider ACC research ethics conditions. The research planning

meetings birthed conversations on these country-specific conditions, but also enabled strategies to defend these requests in the overarching ACC ethics application process, ensuring that the research was able to proceed with minimal delays.

The project planning meetings were an integral part of the methodological approach and served as the backbone of the research activities, reinforcing the partnership approach, ensuring co-learning, deepening of processes and enabling collaborative research planning.

Not only was research planned at these meetings, lessons from previous research activities were drawn on and integrated in the forthcoming research, as demonstrated in Figure 1.

Research activities and aligned methods

The preceding discussion has focused primarily on the survey processes. These were not the only research processes applied in the project. Each research activity was preceded by a detailed contextual review, drawing on literatures, policies and previous research. These processes enriched the survey instruments but equally served as material for inclusion in the write up of the research outputs. This also served as a useful foundation for the preparation of policy related responses and inputs.

A further methodological approach was to identify the most appropriate research approach for the specific research activity. The initial household survey sought to understand the entire city as a sample and to inform the levels of food insecurity, but also how this differed across different income groups and locations across the city. For this a quantitative survey approach was deemed most suitable. For the informal vendor and youth vendor survey, the entire city population was again deemed to be the necessary "population" and as a result, a city-wide quantitative survey was also used for the vendor survey and the supplemental youth vendor survey. For all these surveys research approaches which at the time were deemed to be novel, were applied. This entailed the use of hand-held tablets supported by a tablet-based application (Open Data Kit – ODK) that integrated with the survey instrument and could be uploaded to a central data hosting facility (Kobotoolbox) in real time or daily on return from the field.
The use of the handheld tablets entailed significant capacity building, not just from the enumerators but also for the research leaders in each of the cities. These processes will be addressed later in this report but formed part of a wider collaborative and developmental approach to methodology and wider research.

Given the different levels of diffusion of supermarkets into the landscapes of the different partner cities, a more contextually informed approach was applied for the formal food system component of the research. This differentiated approach was further necessitated by the operational strategies of the formal food sector in the different cities. For all but the Nanjing case, supermarkets were deeply sceptical of research and declined to answer questions citing confidentiality and concerns around perceived anti-competitive risks. For this reason, a qualitative research strategy was applied, entailing a purposive sampling approach where key informants (those willing and with the authority to engage) were interviewed through key informant interviews. This work was supported by mapping of the formal food sector and interrogating the responses pertaining to the formal food sector within the household and vendor surveys.

For the policy engagement processes a more nuanced methodological approach was also needed. Different cities in the partnership engaged questions of food differently. In some cities urban governments and managers had no perceived authority over food system issues or food security. In

others there were partial mandates and in still others, mandates were unclear but the day-today practices of governance enabled different approaches. For this reason, each city was tasked with assessing their own city specific "politics of food governance and action". Informed by these processes each city approached the policy engagements differently, convening different processes and engaging policy makers in different ways. These contextual situational readings were also fluid with leadership changes resulting in different approaches to food governance. By way of an example, Nanjing city managers had explicit food system responsibilities, coupled with existing engagement processes. As a result, convening a policy forum was possible and the ideal platform to engage policy makers. In Nairobi, food and nutrition actions are enacted at a district and even neighbourhood scale. Engaging senior officials elevated the discussions to a deeply political space. For this reason, the Nairobi partner chose to engage local civics and community health and nutrition workers and their principles as these were the key implementers of food and nutrition interventions, but they are also the actors whose inputs feed up to the political principals. In Cape Town, the food question was deeply political and contested as a result of a specific political economy at the time. For this reason, city officials were explicitly forbidden from engaging in urban food issues. Given this landscape a more nuanced, supportive, relational approach to policy engagement was required. However, despite these differences, partners needed to be sensitive to different policy cycles, flows, opportunities and events. The policy landscape in all cities was fluid and as a result, partners actively sought to build relationships and networks into which their work could be fed, if required. This became essential during the COVID-19 crisis.

The next section provides a brief overview of the specific methodological sampling approaches applied in the three survey exercises of this project:

City-Wide Household Food Security Survey: For this survey, given the size and diversity of the partner cities, partners applied a phased stratified sampling (proportionate allocation) approach, identifying key districts or urban areas, eventually refining the focus on specific communities. Different conditions also needed to be responded to. In some cities, gatekeepers required payment or oversight of survey processes. As this was not deemed acceptable practice, new neighbourhoods had to be identified. In addition, at times safety in the pre-identified neighbourhood was deemed to be too greater a risk and this also required the re-identification of an alternative neighbourhood. Efforts were made to ensure as random approaches as possible when starting surveys. Here random number generators on the tablets were used to determine entry streets and starting points. The sampling procedure used in this household survey was thus informed by representative sampling methods and logistical constraints. A key factor governing the survey process was that every neighbourhood had an equal chance of being included in the survey (over and above the discussed limitations) and at the community scale, ensuring that every household in the designated community had an equal chance of being surveyed.

Food vendor surveys (main survey and youth vendor survey): For these surveys a strategy of maximum variation sampling was used to ensure that the sample was as representative as possible. This method was used successfully by Williams and Gurtoo (2012) in their study of street entrepreneurship in Bangalore, India. First, different types of land use area in the city were identified, for example, commercial, formal residential, informal residential, mixed formal and informal residential, and industrial. Within each of these contrasting types, geographically-separated research sites were selected and informed by the size of the overall proportional land-use size in the different cities, the number of sample areas in each land use typology was identified. From there, the survey areas were randomly selected in accordance with the number of sites identified in each land use typology.

Formal sector surveys: As part of the household surveys completed in each of the cities, and the informal retail surveys significant data on the formal sector operations were collected. These data were then assessed and evaluated. The HCP partners met in February 2018 to develop the research strategy for the fourth research activity; to examine the implications of formal food sector competition for entrepreneurship, innovation, job creation and inclusive growth in the urban informal food economy. Given the different levels and types of supermarket penetration and activity, each city was given greater scope to develop their own approach to this work. Also, given the reluctance of many private sector actors to engage in large surveys (and the ability to engage key knowledge holders responsible for entire operations) the plan was always for this component of the work to rely on publicly available data and to interrogate specific aspects of this through a qualitative research approach. This research is complimented by quantitative aspects such as in-depth interviews, mapping and case study surveys.

Policy Forums: The policy forum work required detailed assessment of the state of food, nutrition, health across scales in each country and later city in the partnership. This entailed an assessment of national, regional and municipal policies that enable or constrain enterprise development, entrepreneurship and innovation in the informal economy, reviewed in relation to each component of the research, but with a specific objective of ensuring the documentation of the policies to inform policy engagement processes.

The combined research activities and sample sizes are detailed in Table 3 with dates and further details included.

Table 3: Overview of research activities per city.

City	Partner Institution	City population	Enumerator trained	HH Survey Date	Survey sample	Informal retail	Survey sample	Informal Youth	Survey sample	Formal Retail	Survey sample
Cape Town	African Centre for Cities	4 618 000 (2019)	20	Oct 2014	1200	Dec 2017	1018	Dec 2017	506	Nov 2019	11
Maputo	Eduardo Mondlane University	1 110 000 (2019)	26	Oct 2014	2105	Nov 2017	1024	Nov 2017	501	Nov 2019	16
Mexico City	Autonomous Metropolitan University	21,750 000 (2019)	20	Jan 2016	1210	Nov 2018	1000	Nov 2018	500	Jan 2019	21
Nairobi	University of Nairobi	4 735 000 (2020)	26	Apr 2016	1414	Oct 2018	1267	Oct 2018	521	Jan 2019	
Nanjing	Nanjing University	8 847 000 (2020)	25	July 2015	1210	Sept 2017	1285	Sept 2017	516	Nov 2019	20
Kingston	University of the West Indies	1 250 000 (2019)	22	June 2015	673	Nov 2017	875	Nov 2017	405	Oct 2018	15
Bangalore	Indian Institute of Human Settlements	12 327 000 (2020)	20	May 2016	1623	Mar 2018	1000	Mar 2018	500	Feb 2019	15
Windhoek	University of Namibia	417 000 (2019)	18	Aug 2017	875/36	Dec 2018	508	Dec 2018	252	Sept 2017	45

Deepening the research and methodological processes

An overriding consideration running through the research process was that of building institutional research capacity, supporting aligned research organisations and networks in the South and with Canada, through a deliberate strategy of collaborative, policy-oriented research on inclusive growth and urban food systems. This process sees the building of a robust network of urban-focused researchers in the global South, an essential part of the overarching philosophical positioning of the project. This process was significantly enriched by the inclusion and alignment to a number of other IDRC supported research grants. Three require mention here as these also deepened and expanded the methodological elements of this work.

Queen Elizabeth Diamond Jubilee Advanced Scholars (QES-AS) programme: The partnering with the QES-AS process enabled the inclusion of a far broader collection of early career academics into this process. The original process of mentorship and development of students and post-doctoral researchers was largely located in the Canadian partner institutions, with SSHRC funding.. There was a small allocation for a post-doctoral research fellow and three post graduate students in the IDRC funding envelope in the original HCP proposal. The Queen Elizabeth Advanced Scholars process has enabled the inclusion of early career researchers, doctoral and post-doctoral students from the South in this process. For many of these participants, exchange visits to highly ranked Canadian institutions and the meeting of fellow students and researchers at these institutions has significantly enriched their own development (and the same enrichment processes apply to the Canadian scholars). For many career academics who, due to the nature of academic work in the South, completing PhDs has been a challenge. The QES-AS programme assisted these faculty, those who were already working on their PhDs, to spend time away from their jobs and concentrate on their degrees. For the early career academics in the South, having the time to consolidate their work, deepen their theoretical and positions and just have time to publish has also been a significant benefit. In all instances there exists a very clear and direct link to the Hungry Cities research, the data, evidence and theory that is being developed. A more detailed report on the QES2 outputs will be provided in a separate section of this report.

The IDRC Open Data Project: The IDRC put out a call for grant partners to apply to participate in a data management and publication exercise. The HCP partners from the four African cities applied and were successful. This saw a collaborative learning process, where researchers from Nairobi, Windhoek, Maputo and Cape Town worked first on the drafting of a data management plan, and then following a set of on-line tutorials, developed a data article. Two key factors motivated the focus on African partners. The first being that access to data in Africa is highly constrained and the belief that the data collected from the HCP African partners would support far deeper, and wider, research outcomes across the continent. Being able to drive African researchers to use these data in an open data format was deemed highly productive. Secondly, given the similar developmental and contextual challenges in the different cities, despite their scales, aligning these data in a single article was deemed productive. For this work, the HCP partnered with DataFirst, an internationally-certified African data repository, accredited by Springer Scientific Data as a registered repository. The article is complete but the data is being uploaded at the DataFirst repository to ensure correctness and alignment with the descriptions and details in the article. This article will be published as an HCP output. HCP city partners and two DataFirst data analysists are listed as co-authors of the article. Methodologically, the process of making data open, of directing others to these data and of ensuring effective data descriptor framings has been a significant learning curve and a first for all partners in this process.

Nourishing Spaces: A third IDRC funded research grant was awarded to a consortium of researchers from Cape Town, Nairobi and Windhoek. This work included three secondary towns/cities in the respective countries but added further to the deepening of research and methodological approaches. The Nourishing Spaces work focused on specific communities in the partner cities, many of these originally identified as key areas of need through the HCP work. This work focused on food security outcomes but also sought to understand the nature of the wider food system, through engagement with food vendors. The key differentiator between the HCP work and this work was that the Nourishing Spaces research was qualitative in nature, consisting of in-depth interviews and focus group processes.

Synthesis of research results and development outcomes

The results from on-going work have been, and continue to be, reported in the Hungry Cities Report Series (see Annexure 2). This will continue following the closure of the IDRC component of the HCP project, through the SSHRC component of the work (extended until end 2021) and the HCP QES-AS project (also extended to end-2021) because of COVID-19. As each city completed a specific survey activity, the results were compiled and a city-specific HCP Report was produced based on that specific research survey. Currently 21 city survey reports have been published. Seven of these reports provide a background to each city, detailing the pre-existing state of knowledge about the urban food system. A "state of the urban food system" report was loaded to the Hungry Cities website for each partner city. The results from the household food security survey were provided in the form of a series of State of Food Security reports. Seven of these reports have been loaded. A combined background, food vending report and food security report for Windhoek was produced in a slightly longer and combined form (in accordance with the deliverables requested from their separate funder, the Open Society Foundation). This report is HCP 8. A further 7 reports on inclusive growth have also been produced. The final inclusive growth report for Mexico City is currently in the process of publication A further 6 reports on informal youth vending have been submitted in draft form and will be published during the SSHRC extension in 2021. The Maputo report was formally published as a journal article in Urban Forum.[5]

In addition to these, a separate series of Hungry Cities Discussion Papers have been produced. Currently there are 45 reports on the HCP website but we anticipate the final number will be closer to 60 once all QES-AS scholarships are complete. These reports speak to a variety of project related issues including social protection, food safety, urban food governance, gender and food in cities, food deserts in specific HCP cities, methodology, hybrid provisioning, food banking, and other topics. These working paper-type publications also allowed QES-AS scholars and those with limited publishing experience a chance to write, go through an (internal) review process and then publish positions that could assist in refining and building specific arguments.

The Hungry Cities Partnership research process has generated new knowledge of considerable significance and importance. for both policy (across scales) and theorisation on urban food issues. It is worth reiterating that at the date of the HCP project being awarded, the Sustainable Development Goals had yet to be agreed. Additionally, the UN-Habitat conference defining the urban development agenda for the forthcoming 20 years was only in the planning phase. Significant changes have taken place over the past five years, both in terms of the descaling of food systems thinking, but also in terms of nuancing the discourses of the pre-2015 period. Unfortunately, rural-focused discourses remain dominant and all partners can also attest to the challenges of trying to engage urban governance actors on the importance of an urban food position beyond production and urban agriculture projects. The production orientation of the dominant food security discourse may be the key driver of this stuckness, but international donor funding, the current governance infrastructures and fiscal allocations, and a variety of other historical legacies have proved to be very stubborn in retaining an agrarian and project-based approach to food security and food

[5] McCordic, C., & Raimundo, I. (2019, December). The Inclusion of Young Entrepreneurs in the City of Maputo's Food Markets. In *Urban Forum* (Vol. 30, No. 4, pp. 461-475). Springer Netherlands.

systems considerations at the urban scale.[6] Two aligned factors have recently started to precipitate a shift in these stuck positions. Both are embedded in health considerations.

The dramatic rise in non-communicable diseases in almost all HCP countries has prompted significant reflection on not just hunger, but also the functioning of the food system.[7] That the rises in NCDs is taking place in urban areas is no surprise to the HCP researchers.[8] While specific nutrition transition related discourse may offer some insight into these shifts, our work points to a far wider set of reasons, reasons beyond the oft-cited changes in diet constitution, increased consumption of high fat items and reduced mobility. The key drivers, we argue, are in fact informed by how the food system and the urban system intersect, and the absent governance processes linked to these intersections.[9] The realisation of these trends is evidenced in the IDCR call that promoted the award of the Nourishing Spaces project grant. However, recently these "new" questions and increased interest in the intersection between NCDs, the urban system and the food system, were brought into glaringly sharp focus as a result of the rapid spread of COVID-19, and specifically the impacts of the disease on urban residents with co-morbidities, often associated to NCDs. It is no understatement to say that food is finally firmly on the urban governance agenda, particularly the intersection between food systems and urban systems. This will be expanded on in greater detail later in this report.

As the individual city reports provide detailed information on the state of food security and the nature and form of the informal retail environment, we have chosen to focus here on new and impactful information emerging from this research. What follows is detail on the most noteworthy findings emerging from the HCP project.

Emerging findings and innovations from Hungry Cities Partnership Research

The findings from the HCP project challenge a number of positions pertaining to food security, urban food systems, economic growth processes, urbanisation and development more broadly.

These findings can be categorised into four broad themes. One set of findings challenge existing knowledge and broader academic discourses pertaining to the transitions taking place in the food system. Currently existing food related academic work (and knowledge positions) feed certain policy debates and these inform how approaches to the urban food system are formulated. Our work asks questions about the universality of these knowledge positions, perhaps even expanding and nuancing positions and accepted views.[10] A second set of findings challenges broad development generalisations pertaining to the so-called global South.[11] The third theme questions

[6] Crush, J., & Riley, L. (2018). Rural bias and urban food security. In Battersby and Watson (Eds). *Urban food systems governance and poverty in African cities*, Oxon, Routledge, 42 – 55; Jonathan Crush & Liam Riley (2017). Urban Food Security, Rural Bias and the Global Development Agenda, HCP Discussion Paper No. 11: Balsillie School of International Affairs.
[7] Hawkes, C., & Fanzo, J. (2017). Nourishing the SDGs: Global nutrition report 2017.
[8] Ruel, M. T., Garrett, J., Yosef, S., & Olivier, M. (2017). Urbanization, food security and nutrition. In *Nutrition and Health in a Developing World* (pp. 705-735). Humana Press, Cham.
[9] Haysom, G., Battersby, J. &. Park-Ross, R.(2020). Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?. Food Security SA *Working Paper Series*. Working Paper 007.
[10] Crush, J., & Riley, L. (2018). Rural bias and urban food security. In Battersby and Watson (Eds). *Urban food systems governance and poverty in African cities*, Oxon, Routledge, 42 – 55; Jonathan Crush & Liam Riley (2017). Urban Food Security, Rural Bias and the Global Development Agenda, HCP Discussion Paper No. 11: Balsillie School of International Affairs; Frayne, B., & McCordic, C. (2015). Planning for food secure cities: Measuring the influence of infrastructure and income on household food security in Southern African cities. *Geoforum*, *65*, 1-11.; Frayne, B., & McCordic, C. (2018). Food Swamps and Poor Dietary Diversity: Longwave Development Implications in Southern African Cities. *Sustainability*, *10*(12), 4425.; Frayne, B., McCordic, C. & Shilomboleni, H. (2014). Growing Out of Poverty: Does Urban Agriculture Contribute to Household Food Security in Southern African Cities?. *Urban Forum* 25, 177–189
[11] See for example, Jonathan Crush, Ndeyapo Nickanor, Lawrence N. Kazembe, Jeremy Wagner (2018). Revisiting Africa's Supermarket Revolution, HCP Discussion Paper No. 17, Balsillie School of International Affairs; and Mary Caesar & Jonathan Crush (2016). Urban Food Deserts and Climate Change in African Cities, HCP Discussion Paper No. 3, Balsillie School of International Affairs.

certain global development approaches and provides useful insights into the limitations of certain global governance processes, particularly the Sustainable Development Goals.[12] Finally, informed by urban food governance approaches in the global North, and linked to the first theme, most urban food policy discourses attempt to raise the profile of urban food at the urban scale. These approaches implicitly call on cities to adopt urban food governance systems, often through empowered and funded urban food governance structures.[13] The HCP research posits a new perspective on this, one that argues that as a cross cutting issue, food needs to be part of a far broader set of urban governance and policy activities in Southern cities.[14]

Importantly and aligned to the overarching theme of this funded project, that of inclusive growth, the use of a food, and food system, lens has allowed for a nuanced and context specific consideration of inclusive growth.[15] The high levels of food insecurity identified in most cities demonstrates significant inequality, particularly in how the intersections between the food system, growth, development and governance, particularly at the urban scale, re-enforce, even amplify, this inequality.[16] Current development and policy processes, as well as many academic positions, do not adequately respond to these challenges. Cities that have adopted a food specific approach were found to offer a far more equitable and inclusive food system, with the state playing an active governance role.[17] Additionally, the food system was far more diverse, offering greater opportunity for employment and enterprise, across the urban space, and not confined to the food system alone, while simultaneously delivering far more equitable food system outcomes, when measured in terms of food security.[18] Where urban food governance was largely absent, inequalities, and stark differences in food security outcomes, were most severe.[19] These general comments are borne out in the more context specific discussions below.

It is also important to note that the COVID-19 pandemic broke during the final close out of this project. Most cities had already conducted their policy forums and finalised engagements with different city actors. However, significant new learnings emerged as a result of the COVID-19 induced lockdowns, amplifying the vulnerabilities identified during the initial HCP research phases. The COVID-19 impacts cast a direct focus on some of the partner city food system work and thinking, deepening engagement with policy and wider food system actors. The COVID-19 crises serve as a testbed to accelerate academic and policy approaches to the urban food question. This has resulted in a deepening of a number of positions, driving innovations and learning. This will be addressed under a separate heading later in this report. While the Hungry Cities was able to secure funding to examine the impact of COVID-19 on the food system of Nanjing, China, its proposal to scale up this work to 6 partner cities in Africa and LAC has not been successful to date.

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[12] Crush, J., & Riley, L. (2018). Rural bias and urban food security. In Battersby and Watson (Eds). *Urban food systems governance and poverty in African cities*, Oxon, Routledge, 42 – 55; Jonathan Crush & Liam Riley (2017). Urban Food Security, Rural Bias and the Global Development Agenda, HCP Discussion Paper No. 11: Balsillie School of International Affairs.

[13] Haysom, G. (2020). Urban Food Governance Perspectives in Changing African and Southern Cities HCP Discussion Paper No. 39, Waterloo and Cape Town; and Haysom, G. (2018). Food insecurity and alternative food networks in cities of the Global South. Hungry Cities Partnership Discussion Paper #19.December 2018. African Centre for Cities, University of Cape Town, South Africa, and Wilfrid Laurier University/Balsillie School of International Affairs, Waterloo, Canada.

[14] Cameron McCordic, Bruce Frayne and James Sgro (2020).The Role of Infrastructure Access in Urban Household Vulnerability to Food Insecurity in Southern Cities, HCP Discussion Paper No. 42, Balsillie School of International Affairs; and Liam Riley and Belinda Dodson (2019). The Interface Between Urbanization, Gender and Food in the Global South, HCP Discussion Paper No. 36, Balsillie School of International Affairs.

[15] See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/

[16] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/

[17] See Rocha, C., & Lessa, I. (2009). Urban governance for food security: The alternative food system in Belo Horizonte, Brazil. *International planning studies*, *14*(4), 389-400.

[18] *Ibid*

[19] Micha, R., Mannar, V., Afshin, A., Allemandi, L., Baker, P., Battersby, J., ... & Dolan, C. (2020). 2020 Global nutrition report: action on equity to end malnutrition.

Academic discourses

Food systems

The sustainability of food production systems has been a subject of considerable academic and policy interest since at least the time of Malthus. A food system is an "interconnected web of activities, resources, and people that extends across all domains involved in providing human nourishment and sustaining health, including production, processing, packaging, distribution, marketing, consumption, and disposal of food".[20] Food systems are made up of individual food value chains which interact with each other through shared infrastructure. They are influenced by various environmental, economic, cultural, social, health, and political factors and therefore also encompass issues of food availability, access, and utilization.[21]

There has been significant focus on the impact of the production component of the food system on land, water, soil, greenhouse gas emissions, and territorial biodiversity.[22] Given the framing of Sustainable Development Goal (SDG) 2 as "End hunger, achieve food security and improved nutrition, and promote *sustainable agriculture*," not *sustainable food systems*, it is likely that the production component of the food system will remain a key area of research and policy focus. However, there are a number of post-harvest practices that impact food system sustainability and food security, such as food transportation, market structure, and food safety.[23]

In the context of rapid urbanisation, there is increasing focus on urban food security and the impact of urbanisation on food systems. Little research has been done on entire food systems and associated impacts beyond food production and accessibility.[24] Understanding urban food systems in cities of the so-called South, in all their complexity and difference, is an essential area of enquiry, one that is currently lost in the current framings and associated discourses of the New Urban Agenda, the SDGs and the production paradigm.

The HCP work found flawed, even failing food systems in most of the cities studied. Food was available in most cities but the distribution of this food was in no way equal with many experiencing not only server to moderate food insecurity, but those that were able to access food reported diets lacking in diversity and months of unstable food access.[25]

This points to a theme running through this work where measures of calorific sufficiency are used at a national scale to argue national food security, but in the urban areas under review, this veneer of food security was found to be deeply flawed, demonstrating a food system that is not delivering on the developmental or inclusivity dogmas claimed in the discourses on food system transformation, efficiency and modernisation. While some cities were found to be performing far better than others, notably Nanjing, what is clear in most of the other HCP cities is that the failures of the food system are being transferred to other systems, impacting public health, gender parity,

[20] Chase, L., & Grubinger, V. (2014). *Food, farms, and community: Exploring food systems*. University of New Hampshire Press, p1
[21] Ericksen, P. (2008). Conceptualizing food systems for global environmental change research. *Global Environmental Change*. Vol. 18 (1): pp. 234–245.
[22] Westhoek, H., Ingram, J., Berkum, S. Van Hajer, M. (2016): Food systems and natural resources. *Nairobi: United Nations Environment Programme*.
[23] Battersby, J., & Watson, V. (Eds.). (2018). *Urban Food Systems Governance and Poverty in African Cities*. Routledge.
[24] *Ibid*
[25] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/; The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/ ; Abel Chikanda, Jonathan Crush and Godfrey Tawodzera (2020). Migration and Food Security in Cities of the Global South, HCP Discussion Paper No. 41, Balsillie School of International Affairs; Jodi Koberinski, Zhenzhong Si and Steffanie Scott (2019). The Food Safety and Food Security Nexus in the Urbanizing Global South, HCP Discussion Paper No. 35, Balsillie School of International Affairs; Graeme Young and Jonathan Crush (2019). Governing the Informal Food Sector in Cities of the Global South, HCP Discussion Paper No. 30, Balsillie School of International Affairs.

the economy, to name but a few, and disproportionately benefiting some, often at the expense of others.[26]

Understanding the inclusive growth, development and economic wellbeing through a food systems lens, particularly at the urban scale, asks important questions about these processes and the policy requirements needed to support the urban transition in the global South.[27]

Food insecurity

One of the greatest challenges facing the world's rapidly-growing urban population is how to access sufficient, affordable and nutritious food. In 1996, the Rome World Food Summit Plan of Action offered a definition of food security that has become embedded in policy discourse: "Food security [is] a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life".[28] This definition has endured because it highlights the fact that food security is a human right, but also that its absence comes with wider developmental, social and economic costs. The framing of food security in this manner moves beyond the idea that food security is simply a matter of increasing food production. In the urban context, where households have to rely on food purchase, the FAO definition is particularly germane because food security "depends to a large extent on individual household circumstances as the household operates within this purchasing environment".[29]

The 1996 (and later 2001) FAO definition suggests that food security has four inter-linked dimensions: food availability, food access, food utilization and food stability.[30] The FANTA (Food and Nutrition Technical Assistance) project[31] methodology was used in a 2008-2009 baseline survey of low-income neighbourhoods in 11 cities in Southern Africa by the African Food Security Urban Network (AFSUN).[32] The components of the FANTA surveys align directly with the dimensions in the FAO definition. The AFSUN survey revealed a stark picture of food insecurity in poor urban neighbourhoods across the region. Only 17% of the 6,453 households surveyed were food secure on the FANTA HFIAS scale. As many as 57% were severely food insecure and another 19% were moderately food insecure.[33]

In cities in crisis, such as Harare (Zimbabwe) and Manzini (Swaziland), food security rates were less than seven percent and severe food insecurity levels were over 70%. Other findings included consistently low dietary diversity, severe fluctuations in levels of food insecurity during the year and particular vulnerability to food insecurity on the part of female-headed households.[34]

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[26] See the HCP reports: State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/;
[27] See: Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar; and Bruce Frayne, Jonathan Crush, Cameron McCordic (2017). Food and Nutrition Security in Southern African Cities, Oxon, Routledge.
[28] Food and Agriculture Organization of the United Nations (FAO).(2001). FAO's state of food insecurity 2001. Rome: FAO.
[29] Teng, P., & Escaler, M. (2010). *The case for urban food security: A Singapore perspective*. Centre for Non-Traditional Security Studies, S. Rajaratnam School of International Studies, p2
[30] Crush, J. (2016). Hungry cities of the Global South. *Waterloo, Ontario: Hungry Cities Partnership Discussion, Paper*, (1).
[31] Swindale, A., & Bilinsky, P. (2006). Household dietary diversity score (HDDS) for measurement of household food access: indicator guide. *Washington, DC: Food and Nutrition Technical Assistance Project, Academy for Educational Development*.
[32] Crush, J., Frayne, B., & Pendleton, W. (2012). The crisis of food insecurity in African cities. *Journal of Hunger & Environmental Nutrition*, *7*(2-3), 271-292.
[33] Crush, J. (2016). Hungry cities of the Global South. *Waterloo, Ontario: Hungry Cities Partnership Discussion, Paper*, (1).
[34] Crush, J. (2016). Hungry cities of the Global South. *Waterloo, Ontario: Hungry Cities Partnership Discussion, Paper*, (1).

Popkin and Gordon-Larsen[35] noted that "there has been increasing evidence that the structure of dietary intakes and the prevalence of obesity around the developing world have been changing at an increasingly rapid pace." Urban food insecurity is therefore increasingly viewed as a problem of both undernutrition (insufficient good quality food) and overnutrition (too much of the wrong kinds of food).[36] [37]

The Hungry Cities Partnership is located at the confluence of four transformative processes in the cities of the global South. First, the South is undergoing a rapid urban transition fuelled by natural internal urban population increase and migration.[38] The urban millennium poses many daunting challenges, not the least of which is how hungry cities and city-regions will actually be fed. Second, the cities of the South have witnessed major changes in the ways in which their food supply is organized.[39] In the vanguard of this transformation are national and international supermarket companies that are vertically integrating all aspects of the food value chain and incorporating cities into global food supply chains.[40] Third, there is a major upsurge in levels and trends of food insecurity in the cities of the South.[41] Rates of both undernutrition and obesity are soaring, dietary diversity is declining and constant hunger is the lot of millions.[42] Most cities are awash with food; the key issue is not how to grow more food but how to improve access to the food that is grown and available.[43] Fourth, economic growth in many countries is far from inclusive with high unemployment rates, precarious employment and informality the new norm.[44] The informal food economy has become a critical livelihood source for many who operate micro-enterprises in markets, on the streets and around transportation hubs, as well as a critical food source for low-income consumers.[45]

The earlier AFSUN work laid the foundation for a far more urban and food system-centred discussion on the nature, drivers and complexities of food security. The AFSUN work focused predominantly on poor neighbourhoods in Africa.[46] The AFSUN work stimulated interest in food security theory and policy making but it was difficult to shed the "yes but …" perceptions when attempts were made to scale this out to a broader position on urban food security across other

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[35] Popkin, B. M., & Gordon-Larsen, P. (2004). The nutrition transition: worldwide obesity dynamics and their determinants. *International journal of obesity*, *28*(S3), S2.
[36] Popkin, B. M. (2014). Nutrition, agriculture and the global food system in low and middle income countries. *Food policy*, *47*, 91-96.
[37] Popkin, B. M., Adair, L. S., & Ng, S. W. (2012). Global nutrition transition and the pandemic of obesity in developing countries. *Nutrition reviews*, *70*(1), 3-21.
[38] Crush, J. S., & Frayne, G. B. (2011). Urban food insecurity and the new international food security agenda. *Development Southern Africa*, *28*(4), 527-544.; and Abel Chikanda, Jonathan Crush and Godfrey Tawodzera (2020). Migration and Food Security in Cities of the Global South, HCP Discussion Paper No. 41, Balsillie School of International Affairs;
[39] See: Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar.
[40] See: Mary Caesar & Jonathan Crush (2016). Urban Food Deserts and Climate Change in African Cities, HCP Discussion Paper No. 3, Balsillie School of International Affairs; Jonathan Crush, Ndeyapo Nickanor, Lawrence N. Kazembe, Jeremy Wagner (2018). Revisiting Africa's Supermarket Revolution, HCP Discussion Paper No. 17, Balsillie School of International Affairs; Crush, J., & Young, G. (2019). Resituating Africa's Urban Informal Food Sector. In *Urban Forum*; Battersby, J., & Crush, J. (2014). Africa's urban food deserts. In *Urban Forum*, 25(2), 143-151.
[41] Micha, R., Mannar, V., Afshin, A., Allemandi, L., Baker, P., Battersby, J., ... & Dolan, C. (2020). 2020 Global nutrition report: action on equity to end malnutrition.
[42] *Ibid*
[43] Battersby, J., & Crush, J. (2014). Africa's urban food deserts. In *Urban Forum*; Frayne, B., & McCordic, C. (2018). Food Swamps and Poor Dietary Diversity: Longwave Development Implications in Southern African Cities. *Sustainability*, *10*(12), 4425.
[44] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/; See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/
[45] See; Crush, J. (2016). Hungry cities of the Global South. *Waterloo, Ontario: Hungry Cities Partnership Discussion, Paper*, (1).; Crush, J., & Young, G. (2019). Resituating Africa's Urban Informal Food Sector. In *Urban Forum* (Vol. 30, No. 4, pp. 377-384).; Graeme Young and Jonathan Crush (2019). Governing the Informal Food Sector in Cities of the Global South, HCP Discussion Paper No. 30, Balsillie School of International Affairs; Kinlocke, R., & Thomas-Hope, E. (2019). Characterisation, Challenges and Resilience of Small-Scale Food Retailers in Kingston, Jamaica. In *Urban Forum* (Vol. 30, No. 4, pp. 477-498).; McCordic, C., & Raimundo, I. (2019). The Inclusion of Young Entrepreneurs in the City of Maputo's Food Markets. In *Urban Forum* (Vol. 30, No. 4, pp. 461-475).; Nickanor, N., Crush, J., & Kazembe, L. (2019). The Informal Food Sector and Cohabitation with Supermarkets in Windhoek, Namibia. In *Urban Forum* (Vol. 30, No. 4, pp. 425-442).
[46] Frayne, B. et al. (2010). The State of Urban Food Insecurity in Southern Africa (rep., pp. 1-54). Kingston, ON and Cape Town: African Food Security Urban Network. Urban Food Security Series No. 2; Crush, J., & Frayne, B. (2010). The invisible crisis: Urban food security in Southern Africa, University of Cape Town and Queens University, Unity Press, Cape Town; http://www.afsun.org.

regions in the South, and even in certain Northern contexts. A second challenge was also faced, where another response was 'yes but you only focused on poor areas of the cities'. Hence the HCP focus on city-wide surveys which shed light on food security inequality. The believed links between food insecurity and poverty remained firmly entrenched. Efforts to engage a wider policy and academic audience on the AFSUN findings (and other urban food security work conducted by members of the partnership) were met with responses that generally proposed economic interventions ranging from industrial development plans to increase incomes to social protection. Direct links between food insecurity and the functioning of the urban system, and not just the economy, were frequently dismissed or discounted. The pro-poor focus of the AFSUN work precipitated mostly responses framed around development and projects, rather than the required enquiry into the deeper systemic drivers of food insecurity linked to how the food system, urban system and other systems intersected. The Hungry Cities Partnership work enabled this deeper and more robust enquiry.

The HCP Food security work served as a first large survey conducted across all partner cities. Windhoek conducted the same survey but at the time this survey was separate to the HCP work. However, the findings from these surveys highlight a number of urban food system related challenges, but also highlight the differences across the partner cities. All surveys sought to be representative of the entire city, across all income categories. Table 4 offers a sense of the diversity in food security outcomes across the cities, but also points to the importance of context specific enquiries.

Table 4: Hungry Cities Partnership Food Security findings using HFIAP measure across partner cities

HCP partner city	Food secure	Mildly food secure	Moderately food insecure	Severely food insecure	HFIAP food insecure
Nanjing	79%	14%	5%	2%	7%
Maputo	29%	11%	22%	38%	60%
Nairobi	29%	13%	33%	25%	58%
Cape Town	45%	6%	13%	36%	49%
Mexico City	49%	12%	12%	27%	39%
Bangalore	83%	2%	2%	13%	15%
Kingston	26%	9%	28%	37%	65%
Windhoek	6%	5%	5%	84%	89%

When reporting on food insecurity using the HFIAP scale, moderately food insecure and severely food insecure scores are combined. Such a practice often misses some of those respondents on the margins (such as those reporting to be mildly food insecure) and as such reporting on the combined HFIAP is not a general practice within the HCP reporting. However, these combined figures are used here to offer a sense of the diversity in reported food insecurity across the partner cities. Table 4 gives a sense of this diversity with cities such as Windhoek, Kingston, Maputo and Nairobi with as much as 40% of residents food insecure. However, Bangalore and Nanjing reflect less than 20% of residents being food insecure. This diversity clearly speaks to the development status of the country, but also, the respective wealth of the city. Food insecurity is however more than just the measured levels of poor or limited food access. Food insecurity also denotes poor diets, inconsistent food supply and a number of other factors that impact development and growth outcomes, over extended periods of time. Most importantly, these food insecurity figures highlight the fact that urban food insecurity is a real and persistent challenge, one that requires immediate attention, across the sphere (or scales) of government. In addition, the discourse on food security needs to shift, from the predominant produce more, agrarian position, to one of focusing on food

access. Here even somewhat radical positions, such as the food sovereignty movements, miss the urban challenge, instead focusing on controlling the means of production, rather than focusing on or controlling the means of access, as Hall and Schafran (2017) suggest.[47] Food access was found to be an essential consideration in how communities who were food insecure, responded to food insecurity, often using diverse and different food access points, in different ways and at different times. In many of the cities with high levels of food insecurity, informal food vendors provided an essential level of resilience to food insecure households. These food vendors are, however, often subject to adverse policing and municipal controls, further entrenching food insecurity, rather than acting in the interests of many urban residents.

Inclusive growth – a market, developmental or governance imperative

Interest in inclusive growth as a viable development strategy is growing rapidly as new research and policy agendas are continually seeking to address the paradox of high rates of economic growth and deepening poverty. The urban food economy represents a "laboratory" for examining whether and how inclusive growth strategies can have a positive impact in encouraging entrepreneurship, raising incomes, alleviating poverty and mitigating the crisis of food insecurity. An inclusive growth perspective on the urban food sector is at the forefront of research in an area that is likely to assume ever-greater importance in the future.

The UNDP called for "inclusive growth and people-centred approaches to food security."[48] Unfortunately, this connection is largely framed as an agricultural issue, focusing on rural development agendas.[49;50;51] The HCP project explicitly sought to build a policy-oriented knowledge platform designed to understand the regulatory environment towards entrepreneurship in the informal food economy in the partner cities, as well as influence the emerging global development agendas on urbanization, food security and inclusive growth. These contributions manifest in the following ways: (a) by foregrounding the global challenge of feeding hungry cities and making recommendations for the reformulation of the development policy agenda around food security[52]; (b) by generating new knowledge on the nature and contribution to inclusive growth of the informal food economy and the obstacles to greater participation and entrepreneurship by women and youth; (c) by examining the linkages and competition between formal and informal urban food systems and the relationship of both to inclusive growth; (d) by providing the evidence-base through which international, national and municipal policy-makers can craft an enabling and supportive policy environment for inclusive growth in the informal food economy in cities of the global South; and (e) but demonstrating, in a productive manner the policy limitations of current development agendas at the local scale, and at the global scale, by providing nuance and contextual specificities to deepen and broaden these economic paradigms.

However, most of these questions rely principally on economics as the metrics for measurement and fail to fully capture other important considerations.[53] These include the important urban food

[47] Hall, S. and Schafran, A. (2017). "From Foundational Economics and the Grounded City to Foundational Urban Systems" Foundational Economy Working Paper No. 3, Faculty of the Environment, University of Leeds, Leeds.
[48] UNDP. (2012). *Africa human development report 2012: Towards a food secure future*. New York: UNDP.
[49] Thakur, A. K., & Dev, M. (Eds.). (2010). *Education, Growth, and Development*. Deep and Deep Publications.
[50] Spoor, M., Robbins, M. J., Schutter, O. D., Toulmin, C., Woodhouse, P., Cleaver, K., ... & Ploeg, J. D. V. D. (2012). Agriculture, food security and inclusive growth.
[51] Hanson, C. (2013). Food security, inclusive growth, sustainability, and the post-2015 development agenda. *Background Research Paper, High Level Panel on the Post-2015, Development Agenda, World Resources Institute*.
[52] Crush, J. S., & Frayne, G. B. (2011). Urban food insecurity and the new international food security agenda. *Development Southern Africa*, *28*(4), 527-544.
[53] See: Haysom, G., & Tawodzera, G. (2018). "Measurement drives diagnosis and response": Gaps in transferring food security assessment to the urban scale. *Food Policy*, *74*, 117-125.

questions of how inclusive growth also works towards sustainable, healthy food pathways (i.e. this isn't just economics and profitability). Research also needs to remain cognisant of the fact that a focus on growth alone may not always deliver the wider development outcomes imagined through certain economic thinking. The growth related questions need to balance the integrated challenges faced in many Southern communities including human development needs, ecological sustainability and particularly exposure to emerging threats of climate change and resource depletion, but also understanding how these factors all intersect to deliver overall societal wellness and human wellbeing (a schematic of our conceptual framing around growth is detailed in Figure 2). The overarching objective of this broader approach to inclusive growth is that it focuses on more than just the economic considerations and in so doing, enables inclusive growth, but at the same time ensures resilient growth and live-ability. It is this conceptual framing that was applied, in general terms, in the reviews of work conducted in both the formal and informal food sectors.

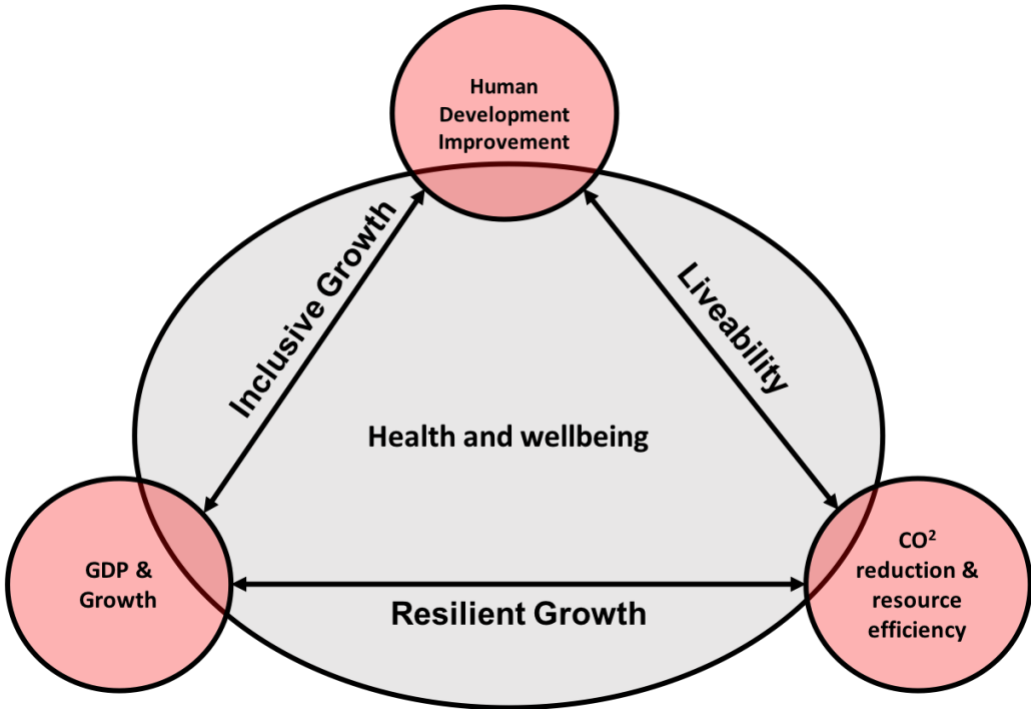

Figure 2: Locating health and wellness within an inclusive growth paradigm (Source: Adapted from: Pieterse, et al. 2015)[54]

The persistent challenge identified in most of the HCP work was that in almost all the cities within the partnership, there was a disproportionate weighting in one or other area of focus. A particular case in point is the formal food sector, a sector that drove a particular growth agenda, often at the expense of societal interests. Immediate evidence of this was observed in the South African case where corporate entities actively sought to disrupt state and civil society efforts to reduce the sugar content in sugar sweetened beverages, undermining liveability and resilient growth aspirations.[55;56]

[54] Pieterse, E., Parnell, S. & Haysom. G.(2015). *Towards an African Urban Agenda*. UN-Habitat, Nairobi.
[55] Hofman,, K., Thow, A.M., Erzse, A., Tugendhaft, A. & Stacey, N. (2016). The political economy of Sugar-Sweetened Beverage Taxation in South Africa: lessons for policy making. Online: https://pmac2019.com/uploads/poster/A183-AGNESERZSE-3da6.pdf
[56] Mialon, M., Crosbie, E. & Sacks , G. (2020). Mapping of food industry strategies to influence public health policy, research and practice in South Africa. *International Journal of Public Health* https://doi.org/10.1007/s00038-020-01407-1

A somewhat controversial theme emerging from the work speaks to the viability of the private sector to deliver on an inclusive growth agenda. The above South African example demonstrates the tensions that exist between responding to shareholder demands and the public good.[57] In Nanjing, by contrast, the state plays a far greater developmental role in facilitating inclusivity.[58] While some actions may be deemed overly controlling by some, the food security outcomes demonstrate a very different balance between the inclusive growth, liveability and resilience arms of the HCP conceptual frame.[59] Bangalore on the other hand reported similar development levels, but within the context of a very different role played by the state.[60] These examples raise essential questions about the role of the state in facilitating inclusive growth, while at the same time, moderating their role and the power exerted in the governance of the growth aspirations, but also the roles played by culture and history in how society as a whole responds to the actions of different actors facilitating inclusive growth. These questions are particularly evident in the context of the informal food vending sector.

Before expanding on findings emerging from the food vendor work carried out in this programme, it is worth highlighting the fact that what was abundantly clear from both the household surveys and the vendor surveys was that the contemporary views of inclusive growth were noted and identified, but our work identified a far broader and extensive set of growth activators or inhibitors, requiring a far more expansive position than the limited economic focused views of growth.

Informality

Much academic literature frames the informal sector as secondary to the formal sector. A broad generalisation of the debate is as follows: the so-called informal sector that requires migration from a "self-help" or subaltern state to a formalised, competitive and "compliant" position. The HCP Food Systems research found that a number of assumptions about the nature and importance of the informal economy are misplaced. As with much of the HCP Food Systems work, it was found that context often played a critical role in how the wider food economy, and food system, functioned, what was deemed legitimate, and which actors added value.[61] In all partnership cities the informal economy was not only a source of livelihoods, it was first and foremost a key food access point, often enhancing food security, providing a very different type of service to society, and generally, far more embedded in local communities and contexts.[62] The informal food vendors provided an essential resilience service to poor communities, offering them a variety of options. Often their embeddedness enabled other key services, such as the offering of short term credit, extended

[57] See also: Jodi Koberinski, Zhenzhong Si and Steffanie Scott (2019). The Food Safety and Food Security Nexus in the Urbanizing Global South, HCP Discussion Paper No. 35, Balsillie School of International Affairs; Haysom, G. (2020). Urban Food Governance Perspectives in Changing African and Southern Cities HCP Discussion Paper No. 39, Waterloo and Cape Town;

[58] Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., ... & Zhang, X. (2018). The impact of proximity to wet markets and supermarkets on household dietary diversity in Nanjing City, China. *Sustainability*, *10*(5), 1465.

[59] Zhenzhong Si and Taiyang Zhong (2018). The State of Household Food Security in Nanjing, China, HCP Report No. 9: Balsillie School of International Affairs.

[60] Aditi Surie & Neha Sami (2017). The Urban Food System of Bangalore, India, HCP Report No. 5, Balsillie School of International Affairs; Kailas Shankar Honasoge, Keerthana Jagadeesh, Veneet J. Kalloor and Shriya Anand (2020). Inclusive Growth and the Informal Food Sector in Bangalore, India, HCP Report No. 20, Balsillie School of International Affairs.

[61] See: Zhenzhong Si and Taiyang Zhong (2018). The State of Household Food Security in Nanjing, China, HCP Report No. 9: Balsillie School of International Affairs; Aditi Surie & Neha Sami (2017). The Urban Food System of Bangalore, India, HCP Report No. 5, Balsillie School of International Affairs; Kailas Shankar Honasoge, Keerthana Jagadeesh, Veneet J. Kalloor and Shriya Anand (2020). Inclusive Growth and the Informal Food Sector in Bangalore, India, HCP Report No. 20, Balsillie School of International Affairs; Tawodzera, G. (2019). The Nature and Operations of Informal Food Vendors in Cape Town. In *Urban Forum*, 30(4), 443-459; Graeme Young and Jonathan Crush (2019). Governing the Informal Food Sector in Cities of the Global South, HCP Discussion Paper No. 30, Balsillie School of International Affairs.

[62] See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/

operating hours, bulk breaking, etc. All these services responding directly to the needs of poor consumers.[63]

Findings from the vendor surveys, both the larger survey and the youth survey, and responses from the household surveys, show how important the sector is to food security, specifically to the lower income sectors of society.[64] An overarching finding from the surveys indicates a definite desire by the traders to comply with legislation, to hold the requisite permits, and to pay taxes and duties to the relevant authorities.[65] This response counters both generally held policy actor views (confirmed in various city stakeholder fora) and some of the more robust academic discourses on informality, particularly those of the so-called "legalist school".[66;67] Registration and compliance was argued to bring a level of legitimacy, and therefore bargaining power. This level of compliance is not about formalisation, but rather about operating across the food retail continuum, and being highly strategic about engaging with policy actors and compliance enforcement.[68]

The HCP work within the informal sector shows differences, but also similarities, across the countries and cities. In all countries the informal traders faced challenges from authorities, ranging from benign neglect for this essential food system component, to punitive actions that included evictions, confiscation of stock, and at times even arrest, despite traders generally holding the necessary permits and authorisations.[69] India and China offered different insights on the governance of informality.[70] In countries with Anglophone and Lusophone colonial histories, colonial planning and governance legacies still dominate many policy positions.[71]

Importantly the informal sector was found to be growing as formal jobs are shed and formal economies are not creating new employment. Despite these situations, opportunities for training and enterprise support are limited. Funding sources are limited and access to capital is constrained, constantly restraining this vital and growing economy.[72] When support is considered, this is often driven by externally funded projects, often motivated by actors and perspectives external to the contextual realities in specific cities.[73] Here local government actors in some sites were influenced by global development and funding organisations to formalise the informal, often with significant donor funding support, corralling traders into so-called trader malls, and in so doing undermining the critical vibrancy and place-based services offered to many communities. The attempts to "supermarketize" informality is an emerging development that draws on logics and imaginations of control, space and policy simplicity.[74]

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[63] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/; The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/
[64] *Ibid*; Graeme Young and Jonathan Crush (2019). Governing the Informal Food Sector in Cities of the Global South, HCP Discussion Paper No. 30, Balsillie School of International Affairs; Crush, J., & Young, G. (2019). Resituating Africa's Urban Informal Food Sector. In *Urban Forum* (Vol. 30, No. 4, pp. 377-384).
[65] Crush, J., & Young, G. (2019). Resituating Africa's Urban Informal Food Sector. In *Urban Forum* (Vol. 30, No. 4, pp. 377-384).
[66] See Chen, M. A. (2012). *The informal economy: Definitions, theories and policies* (Vol. 1, No. 26, pp. 90141-4). WIEGO working Paper.
[67] de Soto, H. 2000. The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else. New York: Basic Books. and de Soto, H, 1989. The Other Path: The Economic Answer to Terrorism. New York: HarperCollins.
[68] *Ibid*; See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/
[69] Caroline Skinner & Gareth Haysom (2017). The Informal Sector's Role in Food Security: A Missing Link in Policy Debates, HCP Discussion Paper No. 6, Balsillie School of International Affairs.
[70] Kailas Shankar Honasoge, Keerthana Jagadeesh, Veneet J. Kalloor and Shriya Anand (2020). Inclusive Growth and the Informal Food Sector in Bangalore, India, HCP Report No. 20, Balsillie School of International Affairs; Wang, R. Y., Si, Z., Ng, C. N., & Scott, S. (2015). The transformation of trust in China's alternative food networks: disruption, reconstruction, and development. *Ecology and Society*, *20*(2).; Zhenzhong Si and Taiyang Zhong (2019). Inclusive Growth and Small-Scale Food Vending in Nanjing, China, HCP Report No. 17, Balsillie School of International Affairs.
[71] Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar.
[72] Crush, J., & Young, G. (2019). Resituating Africa's Urban Informal Food Sector. In *Urban Forum* (Vol. 30, No. 4, pp. 377-384).
[73] See for example: Young, G. (2019). The state and the origins of informal economic activity: Insights from Kampala. In *Urban Forum*, 30(4), 407-423.
[74] Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar.

When the lived poverty index for the different partner countries was considered, the food insecure often reported very poor lived poverty scores. This meant that their access to key infrastructures such as water, energy and fuel (and food) were severely constrained.[75] In the context of these constraints, the informal sector effectively becomes the kitchen, the refrigerator and the stove for these households. Viewing the informal economy as an extension of the kitchen and the place of food preparation has been advocated by some, but this was reinforced by the HCP work in most cities and communities. This view further reinforces an emerging theme from this work, a view that locates food system issues squarely as a responsibility of local government.[76]

The need to consider the informal sector's food system in planning and urban design activities -- a function that is generally a specific mandate of local governments -- was amplified, first, by the evident expansion of this sector, and second, how in cities such as Nanjing where informal wet markets were effectively managed, the risks associated with informality are significantly reduced.[77] Vendors across the HCP cities reported that when they had access to effective infrastructure (energy and transport, as examples), sanitation facilities (toilets and access to water), and wider safety considerations, the risks and costs carried by customers and vendors were significantly reduced.

To summarize, the informal food sector is an essential urban food system sector, one that moderates food prices and is best suited to serve the needs of the poor. The informal sector is more than just an area of livelihood generation, it is also a key urban food security and resilience enabler.

Climate change

Global climatic change has resulted in new and unpredictable patterns of precipitation and temperature changes, the increased frequency of extreme weather events and rising sea levels. These changes impact all four *original dimensions* of food security – availability, accessibility, stability of supply, and utilisation, appropriate nourishment – as well as the entire food system – food production, marketing, processing, distribution and prices as our book on the issue clearly shows.[78] Importantly while climatic change is global, the impacts on the poor at the urban scale in the global South have received far less attention.[79] While the connections between food security and climate change have been extensively examined at the national and regional scales, the urban scale has been largely neglected in both food security and climate change research and policy considerations, as have the connections between the two.[80]

[75] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/
[76] See: Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.
[77] Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., ... & Zhang, X. (2018). The impact of proximity to wet markets and supermarkets on household dietary diversity in Nanjing City, China. *Sustainability*, *10*(5), 1465.; Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., Tang, S. & Zhang, X. (2018). The Impact of Proximity to Wet Markets and Supermarkets on Household Dietary Diversity in Nanjing City, China. *Hungry Cities Partnership Discussion Paper No. 14*. Waterloo, Canada.
[78] Thomas-Hope, E. (2016). Introduction: the interface of climate change and food security. In *Climate Change and Food Security* (pp. 17-28). Routledge.
[79] Carrie L. Mitchell, Joanne Fitzgibbons, Kristen Regier and Siya Agrawal (2019). The Climate Change-Food Security Nexus: Intergovernmental Frameworks and Hyper-Experimentation in Cities, HCP Discussion Paper No. 25, Balsillie School of International Affairs.
[80] Carrie L. Mitchell, Joanne Fitzgibbons, Kristen Regier and Siya Agrawal (2019). The Climate Change-Food Security Nexus: Intergovernmental Frameworks and Hyper-Experimentation in Cities, HCP Discussion Paper No. 25, Balsillie School of International Affairs.; Battersby, J. (2012). Urban food security and climate change: A system of flows. *Climate Change, Assets and Food Security in Southern African Cities [Frayne, B., C. Moser, and G. Ziervogel (eds.)]. Earthscan, Abingdon, UK and New York, NY, USA*, 35-56.

From a food systems perspective, food systems models and their intersection with climate change are frequently generalised [81] and applied across contexts. These are useful conceptual frames but run the risk of re-enforcing, or locking in, certain perspectives and views on the most appropriate response. Required is a more robust engagement with issues of food security and climate change at the spatial and temporal scales appropriate to the processes connecting the two. In doing so, acknowledgement is given to the fact that food insecurity is affected by events that may be far from the urban area itself. Urban food security needs to be viewed as being impacted by climate change in multiple locations and at various scales, not simply in situ.[82] Globally promoted models and governance interventions, informed by an extrapolation to possible impacts at the local scale require serious and critical examination. Contemporary views that see localised food systems as optimal also requires considered reflection, as these assumed benefits were contradicted in a number of the research sites, notably Cape Town, Maputo and Nairobi. For almost the full duration of the study, Cape Town experienced a protracted period of drought, one argued to be the "worst in living memory". Local food systems were placed under significant strain, strain amplified by the strategic decision to restrict water supply to agriculture to ensure adequate household supply. Many local food growing schemes failed as a result. The offtake from those that remained necessitated significant increases in sales prices. In Maputo, the situation was different, but Mozambique as a whole was subjected to climatic events of a scale never previously seen. This changed how food was accessed via national supply chains, disrupting supply, even from some regional sources in Zimbabwe and Malawi, resulting in a need to source food from diverse international markets. A key learning that emerged from both these cases is the need for diverse supply options. This diversity ensures a measure of resilience, a key strategy needed as the scale and intensity of climatic events differs from event to event.

At a more local scale, from a food access perspective, evidence from the HCP urban food system research points to the fact that a blend of formal and informal food systems within a city may bring resilience to food access for urban populations. However, this blend itself may not be sustainable. Cities need to consider the value of the informal sector for urban residents in future development planning. Informality is an important source of insurance for the poor against hunger, while simultaneously providing an opportunity for the enhancement of localised food systems that acts in parallel with the more commercially viable linear food systems operated by supermarkets.[83]

This raises questions about the generalisation of concepts such as City Region Food Systems. To enhance food security, greater understanding is required of the connections between urban food security and climate change which views food security as a series of flows to and within cities. These flows go way beyond the limited metabolic flows approach but include flows such as food, cash, people and social networks.[84] Acknowledging these multiple flows as a means of retaining and enhancing resilience is an important food security and climate change policy consideration, one that is absent from most of the climate adaptation and mitigation responses in the food and urban debates.

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[81] See the use of Ericksen, P. (2008). Conceptualizing food systems for global environmental change research. *Global Environmental Change*. Vol. 18 (1): pp. 234–245

[82] Battersby, J. (2012). Urban food security and climate change: A system of flows. *Climate Change, Assets and Food Security in Southern African Cities [Frayne, B., C. Moser, and G. Ziervogel (eds.)]. Earthscan, Abingdon, UK and New York, NY, USA*, 35-56; Mary Caesar & Jonathan Crush (2016). Urban Food Deserts and Climate Change in African Cities, HCP Discussion Paper No. 3, Balsillie School of International Affairs; Mary Caesar and Jonathan Crush (2018). Urban food deserts in Cape Town: Food security, food access and climate change, in Elizabeth Thomas Hope (ed). Climate Change and Food Security: Africa and the Caribbean, Oxon, Routledge, 156 – 171; Haysom, G. (2017). Climate change, food and the city: Agency and urban scale food system networks, in Thomas-Hope, E. (ed). *Climate Change and Food Security: Africa and the Caribbean*, Routledge, London. 145-155.

[83] Battersby, J. (2012). Urban food security and climate change: A system of flows. *Climate Change, Assets and Food Security in Southern African Cities [Frayne, B., C. Moser, and G. Ziervogel (eds.)]. Earthscan, Abingdon, UK and New York, NY, USA*, 35-56

[84] Battersby, J. (2012). Urban food security and climate change: A system of flows. *Climate Change, Assets and Food Security in Southern African Cities [Frayne, B., C. Moser, and G. Ziervogel (eds.)]. Earthscan, Abingdon, UK and New York, NY, USA*, 35-56.

During the period of the HCP research, a number of different climate related events were encountered across the research sites. While some argue that these are directly attributable to climate change, others have suggested increased climate volatility or variability. Some say that these variations are climate changed induced. The point here is not to take a position on the binary between climate change or climate variability. The fact is that significant variations in climatic conditions, with extreme events well beyond traditional variations, were encountered in many of the research sites. The variations all had negative impacts on the food system, public health outcomes, economic activities, and growth prospects. For reference some of these events included:

- The prolonged drought and water rationing in Cape Town running from 2015 - 2019[85]
- Jamaica experienced a number of weather events with tropical storms being more severe and increasingly frequent.
- Shifts in the monsoons and changes in supply of key foods in India
- After a period of reduced rainfall, floods were experienced across different regions in Kenya, impacting food supply and distribution networks.[86]
- During the research period, the impact of a "double strike" of high category tropical cyclones hitting Mozambique was devastating. While these (Cyclone Idai[87] and later Cyclone Kenneth[88]) were encountered in the central and northern regions of the country, the impact on the food supply and the wider economy was severe.[89]
- Towards the end of the research cycle extreme floods were experienced in China.
- The clearest demonstration of climate impacts having far reaching, and dispersed impacts comes from the locust outbreak encountered in Kenya. This event was driven by tropical cyclone Mekunu causing significant increases in precipitation in the Arabian Peninsula, offering the perfect breeding ground for the desert locusts that later ravaged much of East Africa[90]

Food deserts

The question of food deserts informs a great deal of academic and policy opinion. As a concept that originated from Northern cities in the UK[91] it was picked up politically and academically in the US. The concept has travelled to other developed countries and informs urban food discourse across disciplines, from sociology to human geography, from planning to design, even within economics. The concept has been used to highlight spatial inequities in food retail, raising questions of access.[92]

The theorisation and policy approaches that originate from the food deserts argument are in part linked to, or compliment, academic and policy work on the "Supermarket Revolution".[93] These

[85] See: https://www.weforum.org/agenda/2019/08/cape-town-was-90-days-away-from-running-out-of-water-heres-how-it-averted-the-crisis/
[86] See: https://www.aljazeera.com/news/2020/05/kenya-floods-kill-194-people-displace-tens-thousands-200506133348867.html
[87] See: https://www.nytimes.com/2019/04/20/world/africa/mozambique-cyclone.html
[88] See: https://www.theguardian.com/world/2019/apr/25/cyclone-kenneth-mozambique-hit-by-strongest-storm-ever
[89] See: https://www.nytimes.com/2019/04/25/world/africa/cyclone-kenneth-mozambique.html
[90] Salih, A. A., Baraibar, M., Mwangi, K. K., & Artan, G. (2020). Author Correction: Climate change and locust outbreak in East Africa. *Nature Climate Change*, 1-1. Online: https://www.nature.com/articles/s41558-020-0835-8.pdf
[91] See: Beaumont, J , Lang, T., Leather, S. and Mucklow, C. (1995) *Report from the Policy Sub-group to the Nutrition Task Force: Low Income Project Team*. Watford: Institute of Grocery Distribution. And Wrigley, N. (2002). 'Food deserts' in British cities: policy context and research priorities. *Urban studies*, *39*(11), 2029-2040.
[92] Battersby, J., & Crush, J. (2014). Africa's urban food deserts. In *Urban Forum*, 25(2), 143-151.; Crush, J., & Battersby, J. (Eds.). (2016). *Rapid urbanisation, urban food deserts and food security in Africa*. Cham, Switzerland: Springer; Battersby, J. (2012). Beyond the food desert: Finding ways to speak about urban food security in South Africa. *Geografiska Annaler: Series B, Human Geography*, *94*(2), 141-159.
[93] See: Reardon, T., Timmer, C. P., Barrett, C. B., and Berdegue, J. (2003). The rise of supermarkets in Africa, Asia, and Latin America. *American journal of agricultural economics*, *85*(5), 1140-1146.

combined perspectives suggest that in places where supermarkets are absent, food deserts exist. Food deserts are sites where fresh and nutritious food is hard to come by. This is not to say that there is no food in these areas, on the contrary, food desert-derived arguments stress that these areas often have food, but of a type and quality that does not enable healthy diets or healthy food types are priced to exclude many in society.

In all the HCP and AFSUN surveyed cities, supermarkets and other forms of formal food retail existed in some way. In some cities supermarkets and formal retailers dominated the food retail space. In the HCP cases, in cities like Bangalore, the role of supermarkets was less important.[94] However, in cities such as Kingston, Nairobi, Maputo and Cape Town supermarkets were present, albeit at different levels of penetration, with interesting factors influencing this penetration.[95] However, research in poor neighbourhoods in sub-Saharan African cities (and other Southern cities) shows high levels of household food insecurity, despite the presence of supermarkets, argued to be enablers of affordable, safe and nutritious food access. It also shows the important role of informal food traders in meeting the food security needs of poor urban households. [96]

Income can limit food access but households' decisions on food depend also on the cost of meeting other basic needs and family priorities. Households' ability to meet their food security needs is also constrained by limited access to adequate clean water, sanitation, energy and safe storage.[97]

The well-documented transition in Southern cities from communicable to non-communicable diseases, such as obesity and diabetes, has been linked to changing diets dependent on cheaper processed and 'fast food'. Hence the 'triple burden of malnutrition' — undernourishment, micronutrient deficiency and obesity — is a manifestation of the intersection of food insecurity with the changes in the food systems.[98] However, to assume that this same proliferation of fast foods is synonymous to the informal sector is flawed. Equally, to assume that the absence of supermarkets equates to the absence of healthy alternatives is also a flawed assumption.

Across much of the Global South, where urbanisation is rapid and levels of poverty are high, household food insecurity and the functioning of the whole food system are becoming increasingly central issues for policymakers concerned with the future development of urban areas.[99]

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[94] Aditi Surie & Neha Sami (2017). The Urban Food System of Bangalore, India, HCP Report No. 5, Balsillie School of International Affairs; Kailas Shankar Honasoge, Keerthana Jagadeesh, Veneet J. Kalloor and Shriya Anand (2020). Inclusive Growth and the Informal Food Sector in Bangalore, India, HCP Report No. 20, Balsillie School of International Affairs.

[95] See the Urban Food System reports from HCP partner cities here: https://hungrycities.net/publication-category/hungry-cities-reports/page/2/

[96] Frayne, B., & McCordic, C. (2018). Food Swamps and Poor Dietary Diversity: Longwave Development Implications in Southern African Cities. *Sustainability*, *10*(12), 4425.; Battersby, J., & Crush, J. (2014). Africa's urban food deserts. In *Urban Forum*, 25(2), 143-151.; Crush, J. (2017). Hungry Cities in the Global South. Presentation delivered at Consuming Urban Poverty working meeting, Bellagio, Italy (14 March, 2017).; Crush, J., & Battersby, J. (Eds.). (2016). *Rapid urbanisation, urban food deserts and food security in Africa*. Cham, Switzerland: Springer; Crush, J. S., & Frayne, G. B. (2011). Urban food insecurity and the new international food security agenda. *Development Southern Africa*, *28*(4), 527-544; Crush, J., & Frayne, B. (2010). The invisible crisis: Urban food security in Southern Africa, University of Cape Town and Queens University, Unity Press, Cape Town; Mary Caesar & Jonathan Crush (2016). Urban Food Deserts and Climate Change in African Cities, HCP Discussion Paper No. 3, Balsillie School of International Affairs; Mary Caesar and Jonathan Crush (2018). Urban food deserts in Cape Town: Food security, food access and climate change, in Elizabeth Thomas Hope (ed). Climate Change and Food Security: Africa and the Caribbean, Oxon, Routledge, 156 – 171; Battersby, J., & Watson, V. (2018). Addressing food security in African cities. *Nature Sustainability*, *1*(4), 153.

[97] *Ibid*

[98] Bruce Frayne, Jonathan Crush, Cameron McCordic (2017). Food and Nutrition Security in Southern African Cities, Oxon, Routledge; Crush, J., & Battersby, J. (Eds.). (2016). *Rapid urbanisation, urban food deserts and food security in Africa*. Cham, Switzerland: Springer; Frayne, B., & McCordic, C. (2018). Food Swamps and Poor Dietary Diversity: Longwave Development Implications in Southern African Cities. *Sustainability*, *10*(12), 4425; Bruce Frayne, Jonathan Crush, Milla McLachlan (2018). Nutrition, Disease and Development: Long-wave Impacts of Urban Food Insecurity, in B. Frayne, J. Crush, and C. McCordic (eds.), *Food and nutrition security in Southern African cities*. London: Routledge and Earthscan, 118 – 134.

[99] Micha, R., Mannar, V., Afshin, A., Allemandi, L., Baker, P., Battersby, J., ... & Dolan, C. (2020). 2020 Global nutrition report: action on equity to end malnutrition.; Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar.

How poor urban households access food supplies is a critical issue. The majority of households buy food from food retailers and little is self-grown or obtained from urban agricultural production. Informal retailers are the households' main sources of food in most cities However, the structure and pattern of the food retail market is changing rapidly as supermarkets expand into urban Africa and the global South more broadly, and diffuse their products from wealthy to food-insecure households.[100] [101]

Although supermarkets may be having a number of negative impacts, the complexity of the relationship between them and informal food retailers needs to be better understood. HCP research shows that the expansion of supermarkets does not necessarily reduce the importance of informal food retailers in supporting urban food security.[102] [103] In the food retailer research (formal and informal) food deserts were far less significant than the literature made these out to be.

Despite the presence of supermarkets, informal retail remains an important source of food for many urbanites in the South who can choose between formal and informal sources in ways that suggest complex food security strategies.[104]

Given the importance of the market as a source of food for urban poor and the rapid supermarketization of the food system in many areas of the global South, it is useful to consider geographies of food retail through an alternative framing.[105]

In spaces where there was no supermarket reach, there were other food retail options, many selling food that was equal in quality and affordability to the supermarket offerings.[106] Yes, processed foods, including sugared drinks, crisps and sweets were on sale in the informal stores, but foods deemed to add nutritional value was also on sale. Supermarkets in poor area of Maputo, Nairobi and Cape Town were found to stock significantly less healthy food and the supermarkets in wealthier areas of these cities, further challenging the positions argued in much of the food desert literature. This is precisely why we argue in the HCP derived publications for a new definition of food deserts that breaks with the supermarket-centric approach from the North.[107]

Recognition of the complexity of food systems, and of achieving food security, implies recognizing the need for cross-cutting food policy measures in local and national government.[108] Urban

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[100] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/; Battersby, J. (2017) *Built Environ.* 43, 417–430.
[101] Crush, J. (2016) *Hungry Cities of the Global South* Hungry Cities Partnership Discussion Paper No. 1
[102] Skinner, C. & Haysom, G. *The Informal Sector's Role in Food Security: A Missing Link in Policy Debates?* Hungry Cities Partnership Discussion Paper No. 6 (HCP, 2017); http:// hungrycities.net/wp-content/uploads/2017/03/HCP6.pdf
[103] Anku, E. K., & Ahorbo, G. K. *Int. J. Bus. Soc. Res.* **7**, 1–17 (2017
[104] Battersby, J., & Watson, V. (2018). Addressing food security in African cities. *Nature Sustainability*, *1*(4), 153.
[105] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/; Kinlocke, R., & Thomas-Hope, E. (2019). Characterisation, Challenges and Resilience of Small-Scale Food Retailers in Kingston, Jamaica. In *Urban Forum* (Vol. 30, No. 4, pp. 477-498).; Ndeyapo Nickanor, Lawrence Kazembe and Jonathan Crush (2019). Urban Informal Food Deserts in Windhoek, Namibia, HCP Discussion Paper No. 21, Balsillie School of International Affairs; Wang, R. Y., Si, Z., Ng, C. N., & Scott, S. (2015). The transformation of trust in China's alternative food networks: disruption, reconstruction, and development. *Ecology and Society*, *20*(2).
[106] Nickanor, N., Crush, J., & Kazembe, L. (2019). The Informal Food Sector and Cohabitation with Supermarkets in Windhoek, Namibia. In *Urban Forum* (Vol. 30, No. 4, pp. 425-442).; Crush, J., & Young, G. (2019). Resituating Africa's Urban Informal Food Sector. In *Urban Forum* (Vol. 30, No. 4, pp. 377-384).

[107] Battersby, J., & Crush, J. (2014). Africa's urban food deserts. In *Urban Forum*, 25(2), 143-151.; Crush, J., & Battersby, J. (Eds.). (2016). *Rapid urbanisation, urban food deserts and food security in Africa*. Cham, Switzerland: Springer.; see: https://link.springer.com/article/10.1007/s12132-014-9225-5
[108] Bruce Frayne, Jonathan Crush, Cameron McCordic (eds) (2017). Food and Nutrition Security in Southern African Cities, Oxon, Routledge; Crush, J., & Riley, L. (2018). Rural bias and urban food security. In Battersby and Watson (Eds). *Urban food systems governance and poverty in African cities*, Oxon, Routledge, 42 – 55; Jonathan Crush & Liam Riley (2017). Urban Food Security, Rural Bias and the Global Development Agenda, HCP Discussion Paper No. 11: Balsillie School of International Affairs; Wagner, J., Hinton, L., McCordic, C., Owuor, S., Capron, G., & Arellano, S. G. (2019). Do urban food deserts exist in the global south? An analysis of Nairobi and Mexico City. *Sustainability*, *11*(7), 1963.

governance, spatial planning and regulation have a key role to play in shaping access to food as well as other aspects of food security. Regulations and planning norms based on the expectation that formalised food retail will be beneficial are leading to the erosion of informal food retail with potentially deleterious effects for the urban poor and food-system diversity.[109]

Supermarket revolution

The "supermarket revolution" discourse, originally coined by Thomas Reardon (a regular contributor to HCP Food Systems events ad publications), cannot be divorced from questions of urban food. As the locus of where the supermarket revolution encounters the food insecure public, cities and supermarkets are inter-connected. The expansion of supermarkets in the HCP partner cities differs greatly. Emerging research indicates a possible slowing of the charge of this "revolution". There has been real resistance to the establishment of formal supermarket-type operations in Bangalore. In Nairobi, an earlier site of rapid supermarket footprint expansion, this expansion has slowed, and a number of supermarket chains have down-scaled their operations, and some have consolidated operations, even closing or selling to smaller chains. Maputo, unlike other countries that share boarders with South Africa, has not seen the same levels of expansion as other neighbouring countries such as Namibia[110] and Zambia. This is perhaps due to the Lusophone food culture, but regardless, expansion is not as significant. In Cape Town expansion was rapid but does appear to be changing, with certain industry experts arguing that a saturation point has been reached. In Cape Town indications are that the nature of the expansion is changing to a point where the expansion is less about food sales, and more about real estate capture and the development of property malls.[111] The longitudinal mapping carried out in Cape Town shows a distinct bias in the expansion, where higher income areas were and remain the preferred sites of expansion (see Figure 3).[112] A second trend identified in the Cape Town mapping exercise is the connection to key transport routes, highlighting the emerging evidence of direct connections between the food system and space (and planning processes). These trends were noted in Maputo and Nairobi. In Kingston, the role of supermarkets is important but given the existing food system, and the distribution of more traditional wet markets, supermarkets patrons are overwhelmingly middle class and not the poor. In Nanjing, the role played by the local state is significant in retaining a diversity of food retail outlets, ranging from wet markets required by legislation when urban growth takes place to support for alternative food retail options.[113] Windhoek presented fascinating insights given that Namibia purportedly has the highest per capita square meterage of supermarket floor space globally. In Namibia, all the major South African supermarket chains have a presence where most

[109] Tony Weis, Marylynn Steckley, Bruce Frayne (2018). Cheap Industrial Food and the Urban Margins, HCP Discussion Paper No. 16, Balsillie School of International Affairs.; Cameron McCordic, Bruce Frayne and James Sgro (2020).The Role of Infrastructure Access in Urban Household Vulnerability to Food Insecurity in Southern Cities, HCP Discussion Paper No. 42, Balsillie School of International Affairs; Crush, J. S., & Frayne, G. B. (2011). Urban food insecurity and the new international food security agenda. *Development Southern Africa*, *28*(4), 527-544.; Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series*. Working Paper 007; Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar.

[110] Jonathan Crush, Ndeyapo Nickanor, Lawrence N. Kazembe, Jeremy Wagner (2018). Revisiting Africa's Supermarket Revolution, HCP Discussion Paper No. 17, Balsillie School of International Affairs

[111] Battersby, J. (2017). Food system transformation in the absence of food system planning: The case of supermarket and shopping mall retail expansion in Cape Town, South Africa. *Built Environment*, *43*(3), 417-430; Teppo, A., & Houssay-Holzschuch, M. (2013). Gugulethu™: revolution for neoliberalism in a South African township. *Canadian Journal of African Studies/La Revue canadienne des études africaines*, *47*(1), 51-74.

[112] Battersby, J. (2017). Food system transformation in the absence of food system planning: The case of supermarket and shopping mall retail expansion in Cape Town, South Africa. *Built Environment*, *43*(3), 417-430; Battersby, J., Marshak, M. & Mngqibisa N. (2018). Mapping the Informal Food Economy in Cape Town, South Africa, HCP Discussion Paper No. 5, Balsillie School of International Affairs; Warshawsky, D.N. (2018). The Growth of Food Banking in Cities of the Global South, HCP Discussion Paper No. 13, Balsillie School of International Affairs.

[113] Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., ... & Zhang, X. (2018). The impact of proximity to wet markets and supermarkets on household dietary diversity in Nanjing City, China. *Sustainability*, *10*(5), 1465.; Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., Tang, S. & Zhang, X. (2018). The Impact of Proximity to Wet Markets and Supermarkets on Household Dietary Diversity in Nanjing City, China. *Hungry Cities Partnership Discussion Paper No. 14*. Waterloo, Canada. ; Zhenzhong Si and Taiyang Zhong (2018). The State of Household Food Security in Nanjing, China, HCP Report No. 9: Balsillie School of International Affairs.

chains represent growth, some more than others, but where one local chain has seen significant growth. Most supermarkets in Windhoek remain located in upper-income neighbourhoods.[114]

The findings from the formal food system review indicate that supermarkets have had a profound impact on the urban food system but that the scale and type of impact differs by city.[115] Also, it appears that the "charge", or intensity, of the so-called revolution is slowing and challenges the continued use of this term to describe the state of food retail in developing world cities. What is clear is that in broad terms is that in cities that have robust and trusted food distribution systems, the pace and scale of supermarket expansion appears to be both slower, and far less profitable for the supermarket operators.

An additional trend was noted in China and Bangalore. These shifts are slightly different but there appears to be a leapfrogging taking place.[116] This trend appears to be by-passing the formal supermarket option, moving from wither informal or land based food provision to direct sales to the customer. This transition has been enabled by a robust online retail environment supported by the necessary technology development spaces, infrastructure and bandwidth. This leapfrogging has accelerated as a result of COVID-19, specifically as a result of lockdowns and concerns for frequenting crowded public areas.

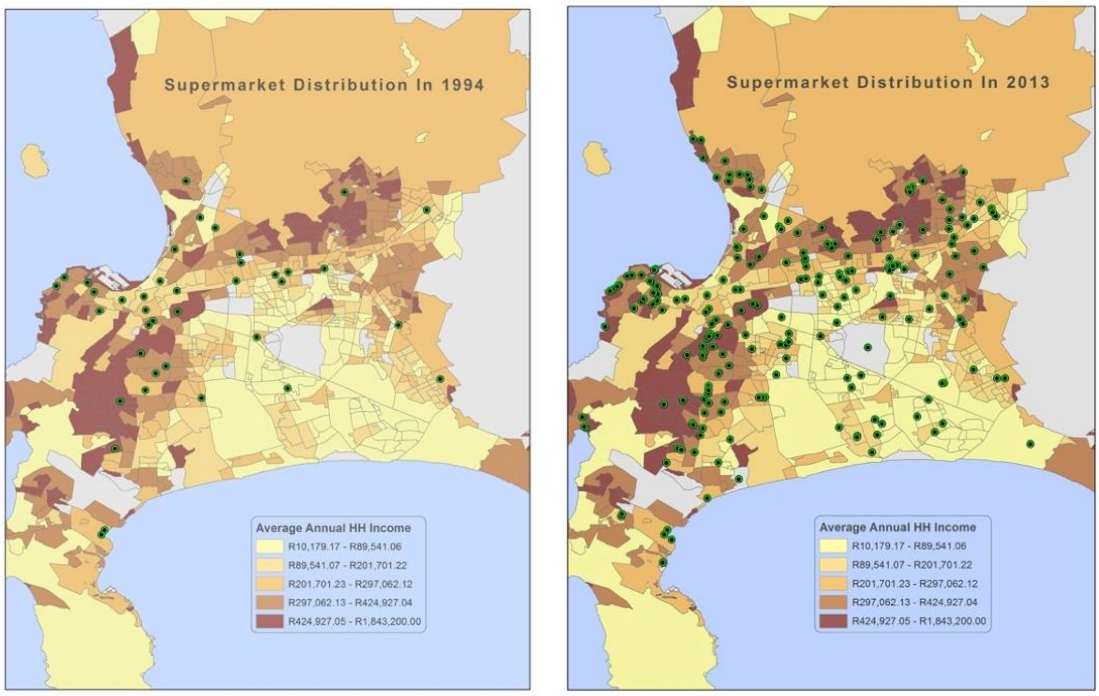

Figure 3: Longitudinal reflection of supermarket expansion in Cape Town 1994 and 2013 (Income information represents 2011 Census data).[117]

[114] Ndeyapo Nickanor, Lawrence Kazembe, Jonathan Crush and Jeremy Wagner (2018). The Urban Food System of Windhoek, Namibia, HCP Discussion Paper No. 8, Balsillie School of International Affairs.
[115] Ibid
[116] Kailas Shankar Honasoge, Keerthana Jagadeesh, Veneet J. Kalloor and Shriya Anand (2020). Inclusive Growth and the Informal Food Sector in Bangalore, India, HCP Report No. 20, Balsillie School of International Affairs.; Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., Tang, S. & Zhang, X. (2018). The Impact of Proximity to Wet Markets and Supermarkets on Household Dietary Diversity in Nanjing City, China. *Hungry Cities Partnership Discussion Paper No. 14*. Waterloo, Canada.
[117] Battersby, J., & Peyton, S. (2014). The geography of supermarkets in Cape Town: Supermarket expansion and food access. *Urban Forum*, Vol. 25(2), pp. 153-164

The nature of the food system often relates the expansion of supermarkets, both in terms of their retail footprint, and the downstream consolidation and related processes that take place, as being a key site of consolidation and globalisation of the food system. Evidence of this was found in a number of countries where expansion was taking place, arguably constraining inclusive growth. The leapfrogging processes noted in India and China offer interesting alternatives where more local and inclusive, and arguably more equitable, food systems processes can emerge.[118]

The nutrition transition

Much like the supermarket revolution, food and nutrition at the urban scale have prompted much discussion with a number of academic and policy positions being argued. First suggested in the early 1990s, is the nutrition transition. The line of argument is that as the population urbanises, diets change, with specific factors precipitating that change.[119] The nutrition transition suggests different reasons for the changes. Some of the core reasons include limited time and changes in gendered roles, resulting in the consumption of more processed and ready-made meals. Another component is that increased incomes result in increases in the intake of both processed foods and protein, particularly meat products. A further factor is that urban existence results in more sedentary lifestyles. These factors all contribute to the nutrition transition, a transition that is directly linked to the urban condition. This perspective plays out at the city scale but has impacts through urban society.

Following this there was a shift in food security focus from ensuring adequate amounts of food were produced[120] to a view proposed by Amartya Sen, arguing that entitlements enabled greater food access.[121] Programming and the focus of food security shifted from the national scale to the household scale, focusing on the interaction between the household and its entitlements as a determinant of the food security outcomes. In an effort to understand this de-scaling, but with appreciation for the impact that other scales have on food systems outcomes, UNICEF developed a useful framework that is instructive in the HCP engagements in issues of food system learning and governance.

The foundational framework developed by UNICEF detailing the different scales of nutrition engagement remains useful in re-enforcing the importance of a multiscale perspective (see Figure 4). What has been absent in this perspective is not the roles of health providers (read as the intervention actors in the UNICEF framework) but the role that urban governance actors need to play in this framework. The rural productionist paradigm has resulted in a blind spot in the urban governance domain. Given the state of urbanisation, and how the urbanisation trends in many countries of the South intersect with the food system, far greater consideration of governance is required, specifically in terms of nutrition.[122] The state of affairs is dire. Many urban areas are facing increasing levels of overweight and obesity, which presents a significant development challenge requiring different approaches and development interventions (see Table 5). However, at the same time, other nutrition challenges are evident. In a number of the research sites, it was not uncommon for children in a household to experience issues of wasting and stunting – as a result of

[118] Zhenzhong Si and Taiyang Zhong (2019). Inclusive Growth and Small-Scale Food Vending in Nanjing, China, HCP Report No. 17, Balsillie School of International Affairs.
[119] Popkin, B. M. (1994). The nutrition transition in low-income countries: an emerging crisis. *Nutrition reviews*, *52*(9), 285-298, and Drewnowski, A., & Popkin, B. M. (1997). The nutrition transition: new trends in the global diet. *Nutrition reviews*, *55*(2), 31-43 and Popkin, B. M. (1998). The nutrition transition and its health implications in lower-income countries. *Public health nutrition*, *1*(1), 5-21.
[120] United Nations. (1975). Report of the World Food Conference, Rome 5-16 November 1974. New York.
[121] Sen, A. (1981). *Poverty and famines: an essay on entitlement and deprivation*. Oxford University Press.
[122] Bruce Frayne, Jonathan Crush, Milla McLachlan (2018). Nutrition, Disease and Development: Long-wave Impacts of Urban Food Insecurity, in B. Frayne, J. Crush, and C. McCordic (eds.), *Food and nutrition security in Southern African cities*. London: Routledge and Earthscan, 118 – 134.

under nutrition, but adults are overweight, also as a result of under nutrition, but neither as a result of absent food access (or hunger).[123]

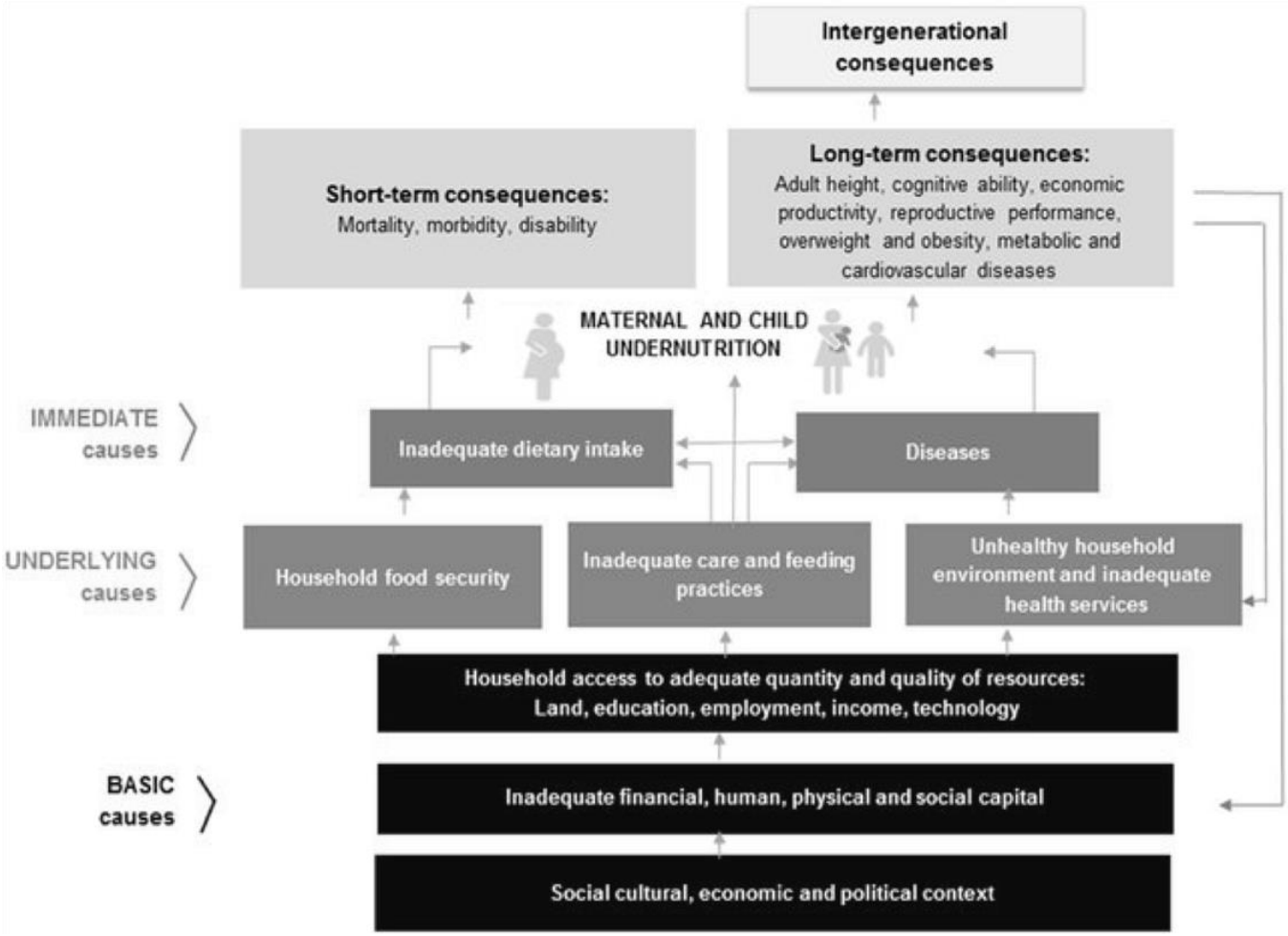

Figure 4: UNICEF Conceptual Frame of the drivers and scales of poor nutrition outcomes. (Source: UNICEF. Improving Child Nutrition: The achievable imperative for global progress. United Nations Children's Fund; 2013: 4)

These household contradictions require a more nuanced view of nutrition outcomes at the urban scale. This is not to disregard the nutrition transition positions, but to argue for far greater contextual specificity and to caution against broad generalisations.

[123] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/

Table 5: Country urban population and general nutrition profiles

Country	% Urban[a]	% Overweight[b]	% Obesity[b]	Type 2 Diabetes[c]
Kenya	28,0	26,0	7,0	2,4
South Africa	67,4	54,0	27,0	7,6
Mozambique	37,1	21,0	7,0	3,3
Jamaica	56,3	51,0	25,0	11,3
India	34,9	20,0	4,0	10,4
China	61,4	35,0	7,0	9,7
Mexico[d]	80,4	38,6	32,4	8,8
Namibia	52,0	43,0	19,0	5,2

(Source: [a]United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, Highlights; [b]Global Nutrition Report Country Profiles 2015; [c]World Bank data: http://data.worldbank.org/indicator/SH.STA.DIAB.ZS; [d] Mexico data: https://www.oecd.org/els/health-systems/Obesity-Update-2017.pdf and https://www.sciencedirect.com/science/article/pii/S0213911117301966)

While the HCP worked more on food security than nutrition per se, evidence for this transition exists in some of the cities, but not as much in others. More importantly, even within cities, these transitions are evident in certain residents but absent in others.[124] This raises a question about the broader framing of the nutrition transition and its direct attribution to urbanisation as the sole driver of the transition. The nutrition transition/urbanisation links thus require greater nuance in cities.[125] Nutritional change was not directly measured in the HCP surveys but the HDDS scores and HDDS 24-hour recall exercise, coupled with the food security scores, appear to indicate that in cities with high levels of food insecurity, food system transitions are being driven by a complex combination of factors, beyond just nutrition transition processes. Far greater research is required to confirm a nutrition transition along the lines of those described, linked directly to urbanisation, particularly when informing policies and related development interventions.

Also absent from much of the nutrition transition discourse is the role that the state and governance actors at different scales need to play in this arena. In the policy forums, many actors were aware of the nutrition transition but its general use was an area of great concern. What the nutrition transition articulation carried was a clear levelling of blame at individuals, primarily food providers (and mostly women), as the culprits driving this transition, with accusations of laziness and ignorance being levelled. This framing of the nutrition transition and the locating of blame at the individual and household misses the basic causes described in the UNICEF Framework (Figure 4) and releases governance actors from their responsibility to act of food system issues, specifically at the urban scale.

Prior to the policy forums in the different cities, reviews of existing policies and "food system interventions" were conducted. Many nutrition related policies still referred to diseases such as type-2 diabetes, hypertension and other diets related diseases as "lifestyle diseases". This framing misses the systemic, spatial and inequality driven challenges faced by many household food

[124] Bruce Frayne, Jonathan Crush, Milla McLachlan (2018). Nutrition, Disease and Development: Long-wave Impacts of Urban Food Insecurity, in B. Frayne, J. Crush, and C. McCordic (eds.), *Food and nutrition security in Southern African cities*. London: Routledge and Earthscan, 118 – 134.; Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar.
[125] Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.

providers, reinforcing blame, suggesting "greater education", implying ignorance on the part of the household.

As Table 5 highlights, there is a significant nutritional outcome challenge in many of the HCP partner cities. However, again, nuance is required. The nutrition outcomes for China are very different to those of Mexico, as an example. It would be premature to argue that these are directly linked to food system outcomes and how these intersect with governance, but clearly governance across scales is essential. The urbanisation trajectory detailed in Table 5 offers some insight into the importance of a far more robust and encompassing governance position in terms of urban food and nutrition outcomes.

Remittances

An additional food access point often raised is that remittances play a significant role in food access for the urban poor and how they engage the food system, particularly recent rural-urban migrants. For the HCP (and earlier AFSUN) Food Systems work the remittance question was important - as one of the key remittances (or cycles of resources) for urban residents is argued to be food or food related.[126] The findings from the HCP household surveys found that the importance of remittances were generally negligible, whether these were received or being sent elsewhere. In general terms less than 5% of households reported receiving remittances and a similar figure sent remittances.[127] Remittances also made up less than 5% of household income on average.[128] Understanding the profile of recipients and senders is possible from the HCP data and requires further analysis. The fact that most of the HCP cities are primary cities, could impact the findings, as could the strength of the relationship between households and rural or other receiving areas. Additionally, earlier surveys, such as the AFSUN work focused explicitly on poor urban residents.[129] The HCP surveys were representative of the entire city, offering more general city-wide views of remittances.

Social Protection

A further area that attracts considerable attention is what could be termed the "urbanisation of the social protection discourse". Traditionally, social protection has been seen as a rural livelihood and/or education supporting intervention where the rural poor are supported through agricultural inputs, seeds, even livestock, in order to supplement or enhance their wellbeing.[130] As society (and poverty) urbanises, social protection in cities has become an area of focus. Generally, social protection has been provided through housing and education support, but also (and increasingly) in the form of cash grants. Certain policy makers are concerned that these grants are not effectively targeted, are used for lifestyle items, and are not used as intended. There is also an argument that despite grants being available in cities, for various reasons, the poor are unable to access such systems. Again, context matters, and different cities reflect different grant systems, types and scales of implementation. One key finding, though, was that the payment of social grants (of a variety of sorts) does not seem to guarantee food security. In the most food secure city, Nanjing, 40% of

[126] Frayne, B. (2004). Migration and urban survival strategies in Windhoek, Namibia. *Geoforum*, *35*(4), 489-505.
[127] Crush, J. S., & Caesar, M. S. (2018). Food remittances and food security: a review. *Migration and Development*, *7*(2), 180-200.
[128] Ibid
[129] Work on remittances between South Africa and Zimbabwe, shows very significant remittances from South Africa to Zimbabwe from Zimbabwean migrants impacts negatively on senders. See: Jonathan Crush & Godfrey Tawodzera (2018). International Migration and Urban Food Security in South African Cities, HCP Discussion Paper No. 8: Balsillie School of International Affairs. Online: https://hungrycities.net/wp-content/uploads/2017/03/HCP8-1.pdf
[130] See: Bastagli, F., Hagen-Zanker, J., Harman, L., Barca, V., Sturge, G., Schmidt, T. and Pellerano, L. (2016). Cash transfers: what does the evidence say? A rigorous review of programme impact and of the role of design and implementation features. Overseas Development Institute.

households reported receiving some sort of grant (generally an old age pension)[131], while in Cape Town where over 50% of the respondents were found to be food insecure, 58% of respondents reported making use of some form of grant (generally the child support grant but the old age pension was also important).[132] In Maputo, only 4% of respondents reported grants contributing to their household income coupled with high levels of food insecurity.[133] Once again, and within the social protection discourse, broad generalisations about the effectiveness of grants need to be viewed with caution. The HCP research seems to indicate that grants alone will not ensure food security. Far wider food and urban system related interventions are required for the benefits of grants to be realised.

A further consideration relating to grant payments is which food system is privileged by the introduction of such grants. In the Cape Town case, at the start of the project, and at the time of the survey, grants were dispensed and then accessed via a bank card. While the grant payment system changed from a bank card to the post office as the dispensing agent. The format remained "more formal". This means that transactions in the informal food economy are severely restricted, enabling supermarkets a significant benefit and a captured market. How the supermarkets respond to this captured market has implications for nutritional outcomes.[134] Cape Town presents an interesting case in this regard, where supermarkets and wholesalers offer specials, often containing products high in sugars, fats and processed grains.

There is no doubt that social protection offers an essential and important factor in enabling food access and the general wellbeing of society, specifically amongst marginalised members of society. The HCP findings in terms of social protection again raise issues with how certain discourses are generalised, how context and scale matter. More importantly, the intersection between food system relief, relief programming and governance need far greater consideration.

The normalisation of food poverty

One of the most profound findings from the research is a matter that remained largely unanswered since the initial AFSUN research. In the AFSUN research household food poverty was found to be extremely high in poor neighbourhoods. The HCP research found similar levels of food insecurity in poor neighbourhoods, but also clear food access concerns in middle income and even wealthier households. Admittedly, not all HCP cities experienced the same high levels of food insecurity, but in some cities, it was very high. In using the suite of Food and Technical Assistance (FANTA) tools -- namely the Household Food Insecurity Access Scale (HFIAS), the Household Food Insecurity Access Prevalence scale (HFIAP) and the Household Dietary Diversity measure (HDDS) -- high levels of food insecurity coupled with low dietary diversity were identified. These all point to high levels of food insecurity, but also significant longer-term developmental challenges - educational, health, general wellness, etc. – which are all associated with poor nutrition and general food poverty. However, when respondents were asked to detail the Months of Adequate Household Food

[131] Zhenzhong Si and Taiyang Zhong (2018). The State of Household Food Security in Nanjing, China, HCP Report No. 9: Balsillie School of International Affairs.
[132] Jonathan Crush, Mary Caesar and Gareth Haysom (2018). The State of Household Food Security in Cape Town, South Africa, HCP Report #12, Balsillie School of International Affairs;
[133] Inês Raimundo, Cameron McCordic and Abel Chikanda (2018). The State of Household Food Security in Maputo, Mozambique, HCP Report #10, Balsillie School of International Affairs;
[134] Peyton, S., Moseley, W., & Battersby, J. (2015). Implications of supermarket expansion on urban food security in Cape Town, South Africa. *African Geographical Review*, *34*(1), 36-54; Battersby, J., & Peyton, S. (2014, June). The geography of supermarkets in Cape Town: Supermarket expansion and food access. In *Urban Forum* (Vol. 25, No. 2, pp. 153-164). Springer Netherlands.

Provisioning (MAHFP), the answers reflected a far lower level of struggle with food insecurity. In Maputo for example 62% of households reported adequate household food provision over a 12-month period. In Cape Town the average inadequate levels of provisioning was just under 30%, a similar level to Nairobi.[135]

This raises methodological but also wider societal questions. Why, if measured food insecurity is so high, do households not report struggling to access food to the same extent? Why, if there are such high levels of food insecurity is there not greater social unrest and civic protest? Much has been written about food riots, particularly following the 2007/8 food price crises.[136] However, over the period of research, only one city within the HCP orbit experienced civic protest relating to food and food access, Maputo. Why is this the case and what creates the disconnect between the high food insecurity scores and lower perceived food access struggles? What process is at play to depoliticise inadequate food access, effectively suppressing agency?

Initially questions were asked as to whether these findings pointed to flaws or limitations in the food security measurement tools, particularly as we were measuring urban households?[137] - While an urban household may reflect different food security symptoms to that of a rural household (the original site of the FANTA designed tools), this does not mean that the findings are insignificant. A clue emerged in discussions in another urban food project in Zambia. In this project a respondent passed a comment that "If I have had *nsima*, I have eaten". *Nsima* is the staple maize eaten in Zambia, referred to as *ugali* in Kenya, as *xima* in Mozambique, and by other names elsewhere.

When considered in the context of historical agricultural and food security strategies[138], clues to this disconnect between measured food insecurity and reported limitations to food access begin to emerge. Certain food strategies emerged during colonial rule where food and agricultural strategies focused on the production of staple crops.[139] One perspective is that these strategies sought to pacify urban (and often industrial) labourers through the provision of cheap staples, compensating for the very low wages paid. These same crops were incorporated into post-independence self-sufficiency programmes and further reinforced through agricultural development strategies, often linked to structural adjustment policies and programmes. These were then further justified in terms of free market export driven agricultural policies.

However, work predating that of Duminy makes a different argument. Work by Crush in Swaziland shows that heavy dependence on sorghum and then maize was pre-colonial and the switch from one to the other was a function of household strategy to increase food production… much colonial policy was also focused on trying to get peasants to abandon food crops and grow cash crops.[140]

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[135] Inês Raimundo, Cameron McCordic and Abel Chikanda (2018). The State of Household Food Security in Maputo, Mozambique, HCP Report #10, Balsillie School of International Affairs; Jonathan Crush, Mary Caesar and Gareth Haysom (2018). The State of Household Food Security in Cape Town, South Africa, HCP Report #12, Balsillie School of International Affairs; Owuor, S. (2018). The State of Household Food Security in Nairobi, Kenya, HCP Report #11, Balsillie School of International Affairs;

[136] Patel, R., & McMichael, P. (2009). A political economy of the food riot. *Review*, 9-35; Hossain, N., & Scott-Villiers, P. (Eds.). (2017). *Food Riots, Food Rights and the Politics of Provisions*. Routledge; Musembi, C., & Scott-Villiers, P. (2015). Food Riots and Food Rights: The Moral and Political Economy of Accountability for Hunger in Kenya; Bush, R. (2010). Food riots: Poverty, power and protest 1. *Journal of Agrarian Change*, *10*(1), 119-129; Bohstedt, J. (2013). *The politics of provisions: Food riots, moral economy, and market transition in England, c. 1550–1850*. Ashgate Publishing, Ltd..

[137] Haysom, G., & Tawodzera, G. (2018). "Measurement drives diagnosis and response": Gaps in transferring food security assessment to the urban scale. *Food Policy*, *74*, 117-125.

[138] Duminy, J. (2017). Ecologizing regions; securing food: governing scarcity, population and territory in British East and Southern Africa. *Territory, Politics, Governance*, 1-18.

[139] Ibid.

[140] Crush, J. (1985). Landlords, tenants and colonial social engineers: the farm labour question in early colonial Swaziland. *Journal of Southern African Studies*, *11*(2), 235-257.

What both of these cases indicate, although driven by different politics, is that there has been a progressive undermining of dietary diversity. Some arguably reinforced by deliberate strategies to provide cheap staple foods to citizens, particularly urban residents who use cash to access food. The end result is that for many countries in the HCP network, particularly the least developed countries (but not exclusively the case) and those with a specific type of anglophone colonial history, an accepted meal today is one that consists of core foods derived from staples, some greens and perhaps tea and coffee with sugar. Different relationships exist with key staples in other regions. This relationship is also influenced by climatic and soil conditions and how these conditions interreact with historical and cultural practice. However, when these practices, with all the necessary contextual nuance intersect with the food regimes proposed by Friedmann and McMichael[141], a possible explanation emerges, one that suggests that certain communities have in fact been subjected to inter-generational food poverty. Food poverty and food insecurity has in fact been normalised. Having enough food to prevent hunger is now viewed as adequate and the norm for many urban residents, and not just the poor.

It is important to acknowledge that it is not just the normalisation of food poverty that prevents food riots and action on the part of citizens demanding greater food access. The work by John Bohstedt on the Politics of Provision has relevance here as citizens are clearly moderating their agency, assessing the tensions between their (assumed) desire for better food, and the risks of action.[142]

The normalisation of food poverty has a number of consequences. The first is that it challenges other debates such as that of the nutrition transition, demanding far greater enquiry into the histories of food provision and the reasons behind this. These histories play out in societal engagement in the food system today. Again, the HCP work calls for caution in terms of broad generalisation. More importantly, when food poverty is normalised, food and food security is not a political issue. It becomes political only when the costs of the key staple increases in a short period of time, and the politics of provision align, as seen after the removal of subsidies in the case of the Arab Spring. More generally, though, society does not demand changes to the food system. Politicians know this and can easily pacify the electorate by subsidising key staples, making this food less expensive. A similar case was encountered in Maputo, one of our partner cities, when wheat subsidies were removed and the price of bread skyrocketed, people were quick to riot.

The long-term development challenges of poor diets severely hinder development outcomes and for those households who are highly food insecure, the challenge becomes inter-generational. If a pregnant mother does not get the requisite nutrition, and the new-born does not get the adequate nutrition in the first 1000 days, the longer-term development prognosis for that child remains constrained. There is a real risk that the child is locked in the same cycle of poverty as its parents, through to adulthood.

In the urban food discourses, there is a trend that appreciates the limited role that city governments can play in food governance, particularly given that urban governments lack the necessary fiscal allocations, skills and mandates. Further, many developing world cities face significant other development challenges and have so-called "bigger fish to fry". One solution proffered is to draw on a wider grouping of civic actors, much like the pluralistic food governance

[141] Friedman, H., & McMichael, P. (1989). The rise and decline of national agricultures, 1870 to the present. *Sociologia Ruralis, Oxford*, *29*(2), 93-117.
[142] Bohstedt, J. (2014). Food riots and the politics of provisions in world history. *IDS Working Papers*, *2014*(444), 1-31.

structures in the UK, the US and Canada.[143] However, when food poverty is so normalised, when food is not seen as a political issue for the citizenry, the development of civic agency that drives such an issue is limited, reducing action in so called pluralistic food governance structures, or even worse, limiting these structures to a segment of society that is not directly impacted by the flaws in the food system.

The normalisation of food poverty requires a very different development response. The evidence from Nanjing points to robust economic growth as a driver of urban change, but linked to deliberate government interventions in the local food system to enable and enhance food access - but the challenge is that given the current economic climate, for other HCP cities such development will always be slow. Bangalore points to a slightly different mix of economic development coupled with far greater civic collaboration. Given the historical legacies and the inequalities that exist in Cape Town, Nairobi, Maputo and Kingston, the Bangalore model would require significant cultural and societal shifts that would take time. Without the citizen agency and sense of food system failure, the pluralistic governance structures that challenge the urban food system are unlikely to emerge. The notion of a normalisation of urban food poverty is an area requiring significant theoretical and policy consideration and perhaps one of the most profound findings from this work.

The "global South"

As argued, food provides a useful lens to understand certain urban and development processes. The Hungry Cities Partnership project found that generalisations about the global South are generally unhelpful. The Hungry Cities Partnership had at its inception a clear delineation between how the seven partner cities were classified as located in low- or middle-income countries (LMICs). However, in broader discourses, both academically and in some development literature, the dichotomy of North versus South or developed and developing still prevails. The term "North" is generally assumed to imply developed and the term "South", under-developed, or at best, developing. While the term LMICs may be more applicable, neither effectively captures the contradictions and tensions emerging between the different partner cities in the HCP research.

The HCP cities reflect a diversity of country classifications with one low income country (Mozambique)[144], two low-middle income countries (Kenya and India) and four upper middle-income countries (South Africa, China, Jamaica and Mexico). The cities in the HCP are very different with different levels of food insecurity and poverty (across the multi-dimensional scale), being measured. For example, despite being ranked as middle-income countries more broadly, Bangalore and Nanjing reflected low levels of food insecurity but in Cape Town was very high (at over 50%).

When specifically viewed through a food or food system lens, development-related challenges blur such binaries. Countries in which some of the partner cities are termed low income, such as Maputo, others, such as Cape Town and Kingston, while classified as upper middle income, reflect similar levels of food insecurity. All cities face similar food system challenges with similar food system transitions evident across the study, particularly the scale of formal food system activity. What differs is not the presence of a different food system, but the scale and intensity of either the formal or informal food system. What is more interesting is that despite the modernisation of the

[143] See: https://ccednet-rcdec.ca/sites/ccednet-rcdec.ca/files/ccednet/pdfs/municipal_food_policy_entrepreneurs_a_preliminary_analysis_of_how_canadian_cities_and_regional_districts_are_involved_in_food_systems_change.pdf

[144] As per the World Bank country classification of July 2018. See: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

food system, in each city, informality still exists, even in Nanjing, albeit at a lower and perhaps more regulated scale.

The findings from the HCP work clearly show how different regions and cities reflect different development trajectories, and that levels of food security are not directly related to their country status classification informed by per capita GDP, thus masking levels of inequality and other determinants. These factors require far greater analysis and investigation, particularly when considered within the context of current development agendas and targets, such as the Sustainable Development Goals and the New Urban Agenda.

Intersecting academic and policy considerations

Context matters

Arguments suggesting that context matters and that contextual differences will always impact broad generalisations are perhaps obvious, but when it comes to food system discussions at an urban scale, generalisations are often applied without due recognition of contextual dynamics. Earlier work highlighted this fact. The AFSUN work showed how the practice of urban agriculture differed across cities, despite significant donor and local politician focus on this as an urban food security intervention.

In the case of the recent urban food systems research in the Hungry Cities Partnership, these generalisations remain firmly in place when discussing food systems related matters at the urban scale. One example is the broad view of supermarketization. While supermarket expansion may be the case in some cities, this is certainly not the only story and focusing on just one aspect of food system practice or change misses far wider food system changes. Here context is critical and the HCP and associated and related research has highlighted a number of detailed contextual issues. These findings have emerged from both the surveys, but also through student and QES led work supported through this HCP process. In Cape Town, the interdependence of the formal and informal food system, was clearly articulated in student research.[145] Additionally, it was found that this relationship differs significantly between different food groups or types. In Maputo, some traders were found to rely for supplies on the formal South African food system of Municipal Markets.[146] In Kingston, different levels of so-called informality were identified with terms being used to describe different stores reflecting earlier ownership patterns.[147] In Nanjing, informal green vegetable traders were found to have personal relationships with local authorities that meant that when the police visited an area, no trade was taking place.[148]

These contextual differences all impact on what data is available, the questions that are asked of the system, how a particular food governance issue is understood at the urban scale, and how the different food systems are generally understood to function.

[145] Berger, M. T. (2017). *Rethinking resilient urban food systems. Vulnerability to food insecurity as a consequence of drought–the case of Cape Town* (Master's thesis).
[146] Raimundo, I., & Chikanda, A. (2017). *Informal Entrepreneurship and Cross-Border Trade in Maputo, Mozambique* (No. 73). Southern African Migration Programme; Chikanda, A., & Raimundo, I. (2017). Informal entrepreneurship and cross-border trade between Mozambique and South Africa. *African Human Mobility Review*, *3*(2), 943-974.
[147] Kinlocke, R., & Thomas-Hope, E. (2019). Characterisation, Challenges and Resilience of Small-Scale Food Retailers in Kingston, Jamaica. In *Urban Forum* (Vol. 30, No. 4, pp. 477-498).
[148] Ning Dai and Zhenzhong Si (2020). Food Retailing Transitions and New Retail Businesses in Nanjing, China, HCP Discussion Paper No. 40, Balsillie School of International Affairs.

Borrowing concepts and ideas from other contexts -- even if deeply embedded within accepted ideological positions, such as sustainability, economy and climate change concerns -- may not necessarily serve the interests of local residents in the manner proposed.[149] Donor funded operations also miss key contextual issues and needs. A clear example of this is the funding of trader malls, and the subsequent decanting of traders into these facilities, with severe consequences for the local food system, a process that creates significant power disruptions with deeply gendered outcomes.[150]

As mentioned, while contextual differences may seem obvious, at a policy and programming level, the HCP work found many instances of uncritical adoption of concepts ill-suited to context and "cut and paste" -type development interventions.

Historical context also matters when examining different food systems. At times, there are connections between historical trends in one city and trends emerging in others. An example of this is the suggestion by policy makers in Nairobi to move street traders into designated trading structures, or "trader malls". These initiatives are often funded by global development agencies. Such policies were carried out in Mexico City a few decades ago and the model is being copied in Kenya. Examples of trader mall -type developments in Uganda[151] and Zambia have proven to be far more challenging. Immediate outcomes from these developments do not seem to live up to the apparent successes of the Mexican example. There is a likelihood that over time the losers from such development interventions get forgotten, their struggles fade into history as they exit from the retail landscape? These struggles and "losers" then reappear when the concepts are rebirthed elsewhere.

Historical legacy also plays an essential role in how the wider food system functions. In the HCP context, comparison between British (Jamaica, South Africa, Kenya and India) and Portuguese colonial legacies (Mozambique), apartheid (South Africa, Namibia), more local federal systems (India) and state-led planning (in China) show how different historical legacies impact on the urban food system, how these systems are governed, and the areas of policy intervention.

History plays a central role in the functioning of the food systems of the different cities. Assuming that history is benign, that the modern system is somewhat removed from historical trends is a flawed assumption. The impact of historical policies were found to remain as key "drivers" of the current food system functions. An example of this is the central role and impact of East African colonial food policies on how food poverty has been normalised in Nairobi.[152] Colonial and postcolonial food governance essentially created a bifurcated system – turning the vibrant vendor based street food system of the time illegal. Other historical trends in Africa include various market acts and zoning regulations, for example of milling.[153] [154] In India, and examination of the different food storage and food reserve systems, and those who were able to access to these systems played a key role in contemporary food security understanding.[155]

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[149] Haysom, G., Olsson, E.G.A., Dymitrow, M., Opiyo, P., Taylor Buck, N., Oloko, M., Spring, C., Fermskog, K., Ingelhag, K., Kotze, S. Agong', S.G. (2019). Food Systems Sustainability: An Examination of Different Viewpoints on Food System Change, *Sustainability*, 11, 1 – 17.
[150] Young, G. (2019). The state and the origins of informal economic activity: Insights from Kampala. In *Urban Forum*, 30(4), 407-423.
[151] Young, G. (2019). The state and the origins of informal economic activity: Insights from Kampala. In *Urban Forum*, 30(4), 407-423.
[152] Duminy, J. (2017). Ecologizing regions; securing food: governing scarcity, population and territory in British East and Southern Africa. *Territory, Politics, Governance*, 1-18.
[153] Smale, M., & Jayne, T. S. (2003). *Maize in Eastern and Southern Africa:" Seeds" of success in retrospect.* International Food Policy Research Institute (No. 581-2016-39425).
[154] Battersby, J., & Muwowo, F. (2019). 9 Planning and governance of food systems in Kitwe, Zambia. In Battersby and Watson (eds). *Urban food systems governance and poverty in African cities*, 128-140.
[155] See: Sen, A. (1981). *Poverty and famines: an essay on entitlement and deprivation*. Oxford University Press.

Other historical practices are embedded within the current food systems and the challenges faced. The food system impact of structural adjustment in Jamaica is still felt and forms part of many conversations about the current food system in the country.[156] South Africa's disregard for the health and wellness of large percentages of the population during apartheid resulted in a particular type of food system. In response to this the post-apartheid social welfare system after 1994, saw the ushering in a constitutional right to food and a robust social protection system[157] but the foundations of that same unequal food system remain, where social protection is unable to counter the inequities in the food system. In India in the context of the Bengal famine, the 'never again' moment that occurred at independence in 1947 rewrote the social contract between citizens and the state.[158] And forms part of how the food system operates intersecting with the findings from the Bangalore surveys.[159]

These historical events, policy actions, and the responses to them are deeply embedded in current food system functioning and practice. Any policy engagement needs to take stock of these historical processes if true and robust change is to be achieved. Ignoring this historical "DNA" that runs through the food system is arguably a reason for policy stasis, and the inability to stimulate fundamental change through policy actions.

The global development agenda – policies and praxis

Much has changed in this global governance landscape since the award of the IPaSS grant, including the agreement of the Sustainable Development Goals and the New Urban Agenda of Habitat III. Much of the HCP work speaks directly to a number of these global processes. The Hungry Cities Partnership has generated information that speaks directly to these broad development trends, both as direct evidence and in showing gaps in the current approaches to some of these global development trends.

While the SDGs hold far greater global awareness, at the urban scale, the New Urban Agenda requires that all member countries generate National Urban Plans. This is a key area of opportunity for the HCP partner cities, but the framing of, and programming derived from, both the SDGs and NUA do not necessarily resonate with the evidence emerging from the HCP work. This dissonance is a cause for concern as significant effort, resourcing and policy action is being focused on these global processes which marginalize or ignore the urban food question.[160]

An additional development in more recent years has been the change in the development landscape where donor profiles are changing, the types of funding are changing, and new donors are entering the development environment. At a national scale, notable new funders include China, certain Gulf States, and even countries like India. Resources offered are often highly strategic, not that other national development finance funds were not, but generally align more with mutual development alliances.

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[156] See: https://globalblog1.wordpress.com/2016/01/11/the-imf-and-the-destruction-of-the-jamaican-economy/
[157] Wolpe, H. (1972). Capitalism and cheap labour-power in South Africa: from segregation to apartheid. *Economy and Society*, *1*(4), 425-456; Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.
[158] De Waal, A. (2017). *Mass starvation: The history and future of famine*. John Wiley & Sons.
[159] Aditi Surie & Neha Sami (2017). The Urban Food System of Bangalore, India, HCP Report No. 5, Balsillie School of International Affairs; Kailas Shankar Honasoge, Keerthana Jagadeesh, Veneet J. Kalloor and Shriya Anand (2020). Inclusive Growth and the Informal Food Sector in Bangalore, India, HCP Report No. 20, Balsillie School of International Affairs.
[160] Battersby, J., & Watson, V. (2019). The planned 'city-region' in the New Urban Agenda: an appropriate framing for urban food security?. *Town Planning Review*, *90*(5), 497-519.

The role played by, and influence of private philanthropic donors has increased considerably. These donors are also playing and increasing role in setting development agendas, partnering with countries and influencing both the location and nature of development. In the food space, it is worth noting that some of the larger philanthropic donors retain historical positions, such as Rockefeller and their funding for more agrarian work. Newer funders, such as Gates, are very active in the food sectors. Exactly how productive these funding approach are, remains to be seen. A number of the programmes linked to philanthropic donors are highly contested.[161] As a general observation, these philanthropic donors appear to focus far more on rural development, re-enforcing the anti-urban bias in contemporary development programming.[162] It has been suggested that this is perhaps linked to the need for political legitimacy in certain developing countries, where cities are often the sites of struggle and are opposition strongholds, so aligning with National Government needs and political agendas is important.[163]

Other actors are entering the food space, through interesting coalitions and alliances. One example is the Milan Urban Food Policy Pact (MUFPP), a global network, initiated originally by the mayor of the City of Milan. MUFPP develops partnerships with city officials focusing specifically on urban food issues, but also partners with global NGOs, such as RUAF and HIVOS, and the likes of ICLEI and global governance groups such as the FAO. While the MUFPP collaborates with cities, the Pact enters this engagement with a specific food system view, focus, and agenda. While these actions are lauded for putting food on the urban map, they "arrive" with pre-determined views of what food system focus looks like, what areas of action are required, and specific questions around scale and focus. Evidence from the HCP project raises questions about the appropriateness and efficacy of this approach. If the city region/local focus promoted by MUFPP had been applied directly in Cape Town, the prolonged drought would have had even more serious implications. Despite the excellent mobilisation, and urban food system conscientization that comes with such networks, questions of power, donor influence, context and scale all require critical examination. The HCP work has played a critical role in generating city-scale evidence to empower local decision makers when engaging such global networks.[164] This is not to say that the partner cities reject these linkages, rather the key question is about providing greater nuance to programming and interventions planned through such partnerships.

Finally, a number of the partner cities within HCP have encountered an increase in private sector investment in their countries. This private sector investment often "lands" in cities and the food system is often a key site of investment. This was discussed in the context of shopping malls in the Kenyan case, but other food system and value chain investments also re-order food systems in some of the cities. This is not just in terms of physical investments in infrastructure, but in how new products and product types enter cities, and then disrupt or dislodge existing systems. A particularly powerful example is that of two-minute noodles in Kenya. These products intersect with wider development and social challenges such as unreliable energy infrastructure, congested traffic, and time poverty, as a result of gendered norms, where women are still expected to prepare

[161] In Africa, one of the largest Gates funded programs is the Alliance for the green Revolution in Africa (AGRA): https://www.dw.com/en/has-africas-green-revolution-failed/a-54581028; and https://www.grain.org/en/article/6499-false-promises-the-alliance-for-a-green-revolution-in-africa-agra

[162] See a detailed discussion on the anti-urban bias and what this means for urban food security here: https://hungrycities.net/wp-content/uploads/2016/06/Hungry-Cities-Final-Discussion-Paper-No-1.pdf

[163] Personal Conversation with Graeme Young based on observations from work in east Africa.

[164] See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/ ; and The State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/; and The Urban Food System reports from HCP partner cities here: https://hungrycities.net/publication-category/hungry-cities-reports/page/2/

the family meal. Two minute noodles offer a tasty and quick compliment to a meal, one that responds to multiple limitations faced by poor households, These limitations were all highlighted in the lived poverty index reports from the cities.[165] . This example is but one of the significant nutritional shifts resulting from private sector influence, with long term ramifications for public health and nutrition outcomes, where dietary diversity in many of the HCP cities was already found to be low, particularly for the poorest communities[166] (see Figure 5).

Figure 5. Billboard in Kenya advertising two minute noodles. Kiswahili caption *Noodies: Chakula cha kusisimua* – Noodies: exciting food (Photo credit Samantha Reinders).

SDGs - Alignment, silos and scale?

Encounters with Sustainable Development Goals (SDG) processes in a number of the HCP cities confirm that the structures put in place to measure and assess performance against the SDGs are reinforcing the disconnect between the goals, reinforcing earlier binaries between urban and rural and between food production and food access, and conflating food security with hunger. The HCP work provides real evidence of the importance of grounded context-specific work in cities and for the evidence from this work to feed into wider policy and global governance debates, including far

[165] See the State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/
[166] See HCP food security findings here: The State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/;

greater integration between the SDGs.[167] In most of the HCP cities, the household surveys confirmed that hunger is increasingly an urban phenomenon.[168] To assume the hunger does not exist in cities, or that a focus on sustainable production will reduce food insecurity in cities, means that the targets set out in SDG2 and SDG 11 will not be met thus diluting their impact.

A critical SDG implementation gap exists at the urban scale. This is particularly evident when it comes to SDG 2, the hunger goal but similar gaps exist across other goals, particularly SDG 1 (the poverty goal) and SDG 12 (responsible consumption and production). These challenges relate primarily to scale and how the measurement and operationalisation of the goals are enacted at scale. In this case, the HCP work is showing significant flaws in the SDG reporting architecture, where indicators seldom resonate with urban contexts.

In the Sub-Saharan African context, the UN Food and Agriculture Organisation (FAO) has been assisting national governments in designing their data collection processes for the Hunger Goal (SDG 2). These processes are focused on rural production and food availability (only one of 6 food security dimensions), missing other core elements of food security. The data sources are often small-scale producers. The fact that Sub-Saharan Africa is urbanising at an increasing rate raises significant questions about the how the data collected will translate into development outcomes. If measurement misses a significant proportion of the population – and given that measurement generally drives diagnosis – it is highly likely that policies put in place to address SDG2 will miss key issues. This was a critical challenge in policy engagements with the Southern African Development Community (SADC) during workshops convened by the Southern African Vulnerability Assessment Committee (SAVAC) who were planning the measurement of SDG2. HCP evidence was presented at this forum. This evidence was used by different stakeholders to call for greater nuance in the measurement approaches being planned at that time (2017).

The dominant rural and production view of hunger misses other critical questions, particularly about food access. The findings from the HCP research show diverse and complex food access approaches enacted by urban residents. Missing this integral component of the food system does not bode well for the long-term development outcomes imagined by the SDG process.

A further challenge with global governance institutions such as the FAO, UNDP, UNEP and others who are playing a direct role in the SDG processes, is that they engage countries at the national scale. This higher level engagement misses the fact that processes at urban scales may be different to the national level. Given the resource limitations of many countries, measurement systems are not in place to account for and report on the various SDG indicators at the sub-national scale. If hunger is only measured at the national scale and food access is only measured as a component of small-scale production, policies to counter emerging urban development challenges are going to be well off the mark. It is important to note that this is not the fault of the global governance bodies such as the FAO and UNEP. These organisations are being innovative and proactive, but have to work within the bureaucratic and diplomatic protocols that dictate engagement with countries. The critical question is how cities claim their space in these global, and generally national, processes?

Engagement in how cities prioritise their engagement with the SDGs and which SDGs are acted on is an emerging area of work for many research and policy organisation.[169] Some cities are already

[167] See: Battersby, J. (2017). MDGs to SDGs–new goals, same gaps: the continued absence of urban food security in the post-2015 global development agenda. *African Geographical Review*, *36*(1), 115-129.
[168] See: The State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/;
[169] See: https://www.c40.org/blog_posts/towards-the-localization-of-sdgs-10-recommendations-to-tackle-the-climate-crisis-and-inequality-in-cities; https://africa.iclei.org/localising-the-sdgs-5-tips-for-cities-and-towns-anywhere-in-the-world/;

choosing to ignore certain SDGs where indicators and targets do not relate to their needs or have little bearing on urban issues.[170] This strategic realignment needs to draw on other sources of data. Here data, and the data instruments used in the HCP, could become increasingly important to the partner cities.

A central consideration is the paucity of urban-scale data in the countries in which HCP research took place. Data, in the context of the SDGs, and at the local scale, would nuance overall knowledge and counter the SDG limitations, but also assist greatly in mediating the data gaps created as a result of the suction effect that the SDG measurement regime is creating. The findings from the HCP work are providing a useful counter to the initial SDG driven oversights in problem identification. HCP partners are starting to work to counter these issues with some policy critiques emerging. As evidence builds from the different cities and as the QES-AS scholars generate more in-depth evidence, our challenge to the existing SDG regime will increase.[171]

The New Urban Agenda – discourses and realities.

The New Urban Agenda (NUA) was developed following lengthy negotiations culminating in agreed in Quito in October 2016.[172] The NUA recognises "the correlation between good urbanisation and development"[173] and seeks to create a mutually reinforcing relationship between the two concepts . Thus, "urbanisation and development will become parallel vehicles for sustainable development".[174] Through the negotiation process a number of actors (including HCP partners, using HCP evidence) proactively lobbied for urban food and the urban food system to have greater prominence in the final agreed document. What emerged was a document in which urban food, the urban food system, urban food and nutrition security are all prominent. In contrast to SDG 11, which ignores food altogether, food is articulated in the New Urban Agenda as a "basic service"- something fundamental to urban life, similar to access to water and sanitation, infrastructure and other basic services. The elevation of food to an urban basic service has potentially profound implications. However, the day-to-day operationalisation of food-related issues for urban managers (and urban departments at national government scales) is where the real test and rating of the importance of this basic service is measured. Since 2016, this has generally been lacking, with only some tokenistic, project-related activities evident.

While the NUA remains an important document for the urban policy agenda over the next 20 years, its real impact will depend more on country-level engagement than how forcefully the overall governing UN body (UN-Habitat) will be able to achieve compliance. Given the current funding impasse for the UN and the current state of politics around global governance, the non-binding obligations and responsibilities imposed by the NUA means that uptake and alignment to the key principles of the NUA are currently lacking. One responsibility for all signatories to the NUA is the development of National Urban Policies (NUP).[175] Most NUP to date contain little or no consideration of urban food. Discussions and actions pertaining to the Plans still offer an opportunity for HCP researchers. For general information, most partner cities have developed

https://talkofthecities.iclei.org/localization-of-the-sdg-process/; https://www.local2030.org/library/473/Localizing-the-SDGs-Regional-Governments-Paving-the-Way.pdf

[170] Personal communication (online) with Nachi Majoe | Manager: Strategic Partnerships ICLEI Africa 15 August 2020.

[171] See for detail on the conversations in this regard: https://www.youtube.com/watch?v=1K8nAgPihRs&feature=youtu.be and https://www.youtube.com/watch?v=QY-DQxqbdP0&feature=youtu.be

[172] UN-Habitat, (2017). *New Urban Agenda*. Quito: United Nations. Available at: http://habitat3.org/wp-content/uploads/NUA-English.pdf [Accessed 21 Feb. 2018].

[173] UN-Habitat, 2016: iv

[174] See: Citiscope at http://citiscope .org/habitatIII/explainer/2015/06/what-new-urban-agenda

[175] See: https://unhabitat.org/sites/default/files/2020/07/national-urban-policies-driving-public-space-led-urban-development.pdf

National Urban Policies. While these are in development it is only Jamaica and Namibia whose policies are yet to be finalised.[176] As the HCP evidence has emerged, and the wider food system understanding has been nuanced, , a broader food systems view is emerging. The intersections between the urban food system, urban health and the impacts of COVID-19 have reiterated a need to revisit the National Urban Plans and to pay far greater attention to the intersections between food, cities and health.

Some of the HCP partners (Cape Town and Bangalore)provided input into the national processes of developing National Urban Policies, but these inputs were later edited down. Given the current (pre COVID-19) absence of an urban food agenda, or policy space, in our partner cities, or from their national governments, partners have expressed the need to be innovative in how they approach such engagements. Lessons from initial attempts to engage urban issues more broadly (and not just food and urban food systems issues), have seen strategies shift to a strategic process aimed at supporting other actors whose voice may carry greater political weight, such as civil society groupings, and donor bodies.

This section has discussed how food, urban food system questions and global governance and policy agreements intersect, demonstrating the existence of fault lines between articulated and/or imagined impacts and the on-the-ground limitations of such processes. However, at the local government level, some new and emerging networks are forming, curating an environment in which an urban food policy agenda may emerge. This offers some additional insights into possible pathways for future work, research and policy engagement.

Local urban food policy lessons

In all eight of the Hungry Cities Partnership cities, governance of the food system is not the mandate of local government. In Nanjing, China, the local authority has some responsibility to ensure adequate food supply, linked directly to the so-called "crawling peg" policy.[177] In this policy, when urban expansion takes place, the local government is mandated to ensure adequate access to wet markets, thus facilitating easier access to food. Nothing similar exists in other HCP city governance agendas and urban food considerations remain an "unfunded mandate".[178] As a result, urban food system and urban food security issues fall into the management 101 trap where "if no one wakes up and worries about an issue, no-one takes responsibility for addressing the issue". This challenge is most evident in large under-resourced cities, where government officials have challenging choices about where resources and time is directed.

In many of the cities, officials focus on aspects of the food system, but seldom on the system as a whole. Perhaps one of the most evident areas where attention is in regulating markets and the informal economy. This remains a bureaucratic control process where constraints and conditions of operation are imposed. These are then policed for compliance.[179] These urban food related activities and food access points are not viewed as essential for urban food security. The governance focus is on control and compliance, not development. This operational style of most bureaucrats needs to be replaced by a far more developmental and strategic planning approach to urban food questions, and to the intersection between urban food issues and other urban

[176] See: https://www.citiesalliance.org/sites/default/files/National%20Urban%20Policies.pdf
[177] Zhong, T., Si, Z., Crush, J., Scott, S., & Huang, X. (2019). Achieving urban food security through a hybrid public-private food provisioning system: the case of Nanjing, China. *Food Security*, *11*(5), 1071-1086. https://hungrycities.net/wp-content/uploads/2019/04/HCP24.pdf
[178] This term was articulated directly by the executive mayor of City of Cape Town official in the Cape Town policy dialogue processes.
[179] See: https://hungrycities.net/wp-content/uploads/2020/01/DP38.pdf and https://hungrycities.net/wp-content/uploads/2019/04/DP30.pdf

functions.[180] The HCP work clearly demonstrated the need to connect food systems work with wider planning and urban design considerations in the Lived Poverty Index (LPI) components of the initial household surveys.[181] Through the LPI it is possible to observe how households negotiate limited access to energy, fuel, food and cash. These aspects intersect and influence decision making. If a household has limited access to cooking fuel, this has a direct impact on food choices and consequently on wellness outcomes, as an example. The absence of strategic planning is further seen in the absence of strategic support for integrated food system related planning and even management, evident in how no city besides Nanjing has clear records of the precise locations and throughput of the informal food system actors.

These examples speak directly to questions of governance and urban food policy approaches for local government and how other levels of government see food at the urban scale and the mandates that may flow from food policies across scales. There have been calls for discrete urban food governance structures, effectively ministries of food, in some countries. There is also a longstanding history in the global North, mostly from the North American context, of pluralistic governance structures.[182] However, as our understandings of urban governance systems and societal responses to food issues became more nuanced, Northern food policy councils[183] or city-level governance interventions[184] seem somewhat naïve and inappropriate in the context of HCP cities. Development interventions such as urban agriculture initiatives[185], food banks[186], the promotion of supermarkets[187], all serve a food need but remain project-focused, missing the wider systemic questions and issues that need to be addressed in Southern cities.

Food as a cross-cutting issue

Given the challenges faced by many developing world cities, food is generally low down the priority list. As noted above in the discussion on the normalisation of food poverty, food only becomes a political issue when there is an immediate threat of, or actual, hunger, thus de-politicising the urban food question. Food is therefore seldom something the local governments are "forced" to engage with. In the daily crises that urban managers face in their efforts to govern and manage rapidly growing and changing Southern cities, food is unlikely to be something that will cost them their job or their position in a particular political party. This view may appear cynical, but it is a lesson learnt through earlier urban food work in AFSUN and reinforced in the HCP engagement to date with city officials and politicians. For this reason, Northern trends of pluralistic governance, through food policy councils or similar versions thereof, are unlikely to emerge.[188] The absence of a 'politics of food' means that it is difficult to convene stakeholder groups who agitate

[180] See: Haysom (in press). Integrating Food Sensitive Planning and Urban Design into urban governance actions, *Urban Forum*, Springer.; Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series*. Working Paper 007

[181] See: https://hungrycities.net/wp-content/uploads/2020/01/DP39.pdf and https://hungrycities.net/wp-content/uploads/2018/12/HCP18.pdf and https://hungrycities.net/wp-content/uploads/2019/04/HCP22.pdf

[182] MacRae, R., & Donahue, K. (2013). *Municipal food policy entrepreneurs: A preliminary analysis of how Canadian cities and regional districts are involved in food system change*. Toronto Food Policy Council.

[183] Harper, A., Shattuck, A., Holt-Giménez, E., Alkon, A., & Lambrick, F. (2009). *Food policy councils: Lessons learned*. Oakland, CA: Food First/Institute for Food and Development Policy.

[184] Rocha, C., & Lessa, I. (2009). Urban governance for food security: The alternative food system in Belo Horizonte, Brazil. *International planning studies*, *14*(4), 389-400.

[185] See: https://www.routledge.com/Food-and-Nutrition-Security-in-Southern-African-Cities/Frayne-Crush McCordic/p/book/9780415786782 ; Frayne, B., & McCordic, C. (2018). Food Swamps and Poor Dietary Diversity: Longwave Development Implications in Southern African Cities. *Sustainability*, *10*(12), 4425.; Frayne, B., McCordic, C. & Shilomboleni, H. (2014). Growing Out of Poverty: Does Urban Agriculture Contribute to Household Food Security in Southern African Cities?. *Urban Forum* 25, 177–189

[186] See: https://hungrycities.net/wp-content/uploads/2018/01/HCP13-1.pdf

[187] See: https://hungrycities.net/wp-content/uploads/2018/11/HCP17.pdf

[188] Haysom, G. (2020). Urban Food Governance Perspectives in Changing African and Southern Cities HCP Discussion Paper No. 39, Waterloo and Cape Town;

and work towards more locally governed food systems. Further, the rural production paradigm remains dominant in how food security is understood by traditional global development agencies and emergent philanthropic development interventions. This re-affirms the centrally governed and production-oriented approach to food security, ignoring the realities of urban food system governance by drawing resources, mandates and even policy positions away from the urban to more centralised governance spaces, specifically the national government sphere.

The result is that urban food questions are mostly confined to isolated projects, rather than being integrated into strategic planning and engagement. The project paradigm actually serves political entities well. Here, grumbling and emerging disquiet around hunger can be deflected through the development of project-related responses with discrete funding and responsibility envelopes. Perhaps the most evident example are urban agriculture projects. Poor urban consumers are offered land, resources, equipment and motivated to proactively work to resolve their own hunger issues, through their own labour and energies. When projects fail, it is then easy to blame the poor, the hungry, for their lack of determination. As one city official in Cape Town observed, "we gave them more than what they needed to ensure that they got access to healthy, local food".[189] Such notions of the "deserving poor" and those who do not show initiative as "feckless and lazy" have deep historical roots.[190] [191]

The work of the Hungry Cities Partnership has enabled the development of a more nuanced view of how food and the urban system may be governed. At the start of the HCP, ideas of pluralistic governance[192] and "Belo Horizonte -type"[193] governance interventions (a ministry of food at the urban scale) informed much of our thinking. These views evolved over time as we increasingly came to see food as something that links multiple other urban functions.[194] The notion that food is a lens on wider urban development questions is an increasingly powerful tool when engaging urban policy makers, and was a central proposition in the original Hungry Cities Partnership bid submission. The emerging argument runs as follows: food intersects with a number of urban processes and as such, rather than be a specific area of action, food needs to be seen as a transversal issue, intersecting with numerous other urban processes. This aligns to emerging work, mostly in the global North about Food Sensitive Planning and Urban Design[195], a concept that views the city as a foodshed, one that envisages food connecting to multiple urban functions and needs (Figure 6).[196] Evidence from the HCP project has played a significant role in affirming this position and facilitating processes to embed what were originally Northern concepts, in cities of the South.

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[189] This was a specific articulation voiced as part of the Community of Practice sessions held in the Western Cape, articulated by a city official in response to questions from urban farmers for more support (19 September 2019), available here: https://drive.google.com/drive/folders/1wRocC3UNF8nQ7UMSjf9EvcXoC0R4f6CJ

[190] Will, J. A. (1993). The dimensions of poverty: Public perceptions of the deserving poor. *Social Science Research*, *22*(3), 312-332.

[191] Tierney, B. (1959). The Decretists and the" Deserving Poor". *Comparative studies in society and history*, *1*(4), 360-373. and Tihelková, A. (2019). Victims of Austerity or Feckless Freeloaders? The Stereotypes of the Deserving and Undeserving Poor in the Debate on Britain's Food Bank Users.

[192] Koc, M. & Bas, JA. (2012). The Interactions between Civil Society and the State to Advance Food Security in Canada. In MacRae, R. and Abergel, E. *Health and Sustainability in the Canadian Food System*: *Advocacy and Opportunity for Civil Society*. Toronto: University of British Columbia Press, 173-205.

[193] Rocha, C., & Lessa, I. (2009). Urban governance for food security: The alternative food system in Belo Horizonte, Brazil. *International Planning Studies*, *14*(4), 389-400.

[194] See for example the progression here: Haysom, G. (2015, September). Food and the city: Urban scale food system governance. In *Urban Forum* 26, 3, pp. 263-281; then Battersby, J., & Haysom, G. (2018). Linking urban food security, urban food systems, poverty, and urbanisation, in Battersby, J., Watson, V., (Eds). *Urban Food Systems Governance and Poverty in African Cities,*, 56-67; and Haysom, G. (2017). Alternative food networks in the Global South. *Food and Nutrition Security in Southern African Cities*, HCP Discussion Paper No 19, Waterloo and Cape Town; and Haysom, G. (2020). *Urban Food Governance Perspectives in Changing African and Southern Cities* HCP Discussion Paper No. 39, Waterloo and Cape Town.

[195] Stamoulis, K., Lartey, A., & Morrison, J. (2018). Foreword. In Cabannes Y. & Marocchino C. (Eds.), *Integrating Food into Urban Planning* (pp. V-Viii). London: UCL Press. Online: http://www.jstor.org/stable/j.ctv513dv1.2 and, Donovan, J., Larsen, K. and McWhinnie, J. (2011). Food-sensitive planning and urban design: A conceptual framework for achieving a sustainable and healthy food system. Melbourne: Report commissioned by the National Heart Foundation of Australia -Victorian Division.

[196] See: Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.

The argument that food is linked to various pre-existing urban mandates opens up space for a far more engaged level of discussion on the role that food can and should play in urban governance and questions of inclusive growth. This approach is far more important than is often imagined as it allows officials with a specific mandate, for example public health, to actively engage in urban food issues. It also gives them the space to actively participate in processes and discussions and even to pro-actively suggest specific policy and governance approaches. When the engagement is framed simply as an urban food issue, where officials are blamed for not being proactive, it is easy for them to retreat into their "mandate silos". More importantly, given the hierarchies and politics of local government, and how the authorising environment functions, expecting an official to go beyond their authority is potentially also career limiting. Engaging officials in a manner that speaks directly to their own specific mandate and authority areas facilitates far more engaged and proactive discussions. However, this approach does require a very detailed understanding of local government departmental mandates, existing policies, existing resource allocations, local politics and legal obligations.[197] [198] [199] This strategy was a key approach adopted in the HCP partner policy engagements at the different governance scales.

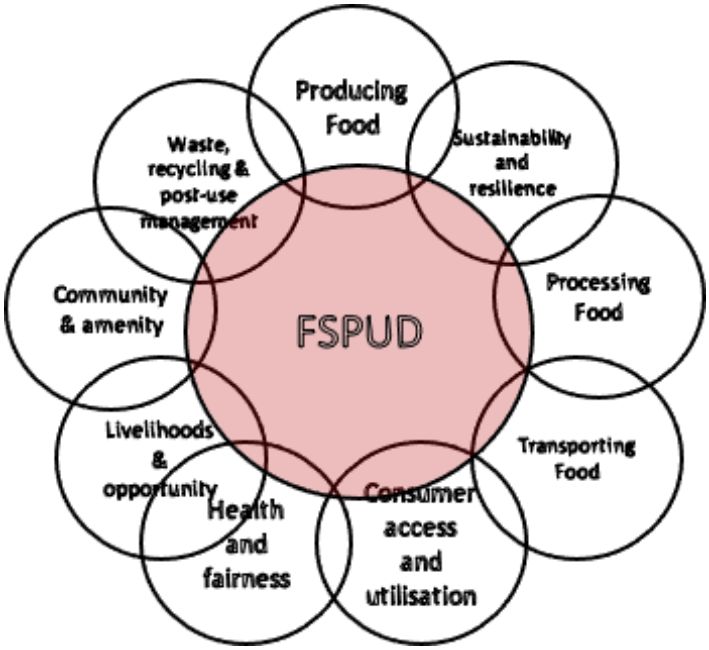


Figure 6: Intersections between multiple urban functions and food sensitive planning and urban design[200]

An approach that sees food as connected to different urban management mandates meant that the task of engagement with city officials, particularly for the HCP partners, demanded that researchers identify how their research could support the work of urban managers. This involved locating food questions in areas currently not seen as the responsibility of specific officials or civic actors.[201] By

[197] see Olver, C. (2019), A House Divided: The Feud that Took Cape Town to the Brink, Jonathan Ball Publishers (pages 65 - 110)
[198] De Visser, J. 2019), Multilevel Government, Municipalities and Food Security, *Food Security SA Working Paper Series No. 005.* DST-NRF Centre of Excellence in Food Security, South Africa.
[199] Battersby, J., Haysom, G., Tawodzera, G., McLachlan, M., & Crush, J. (2014). Food system and food security study for the City of Cape Town.
[200] Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.
[201] This was particularly evident in the policy dialogue processes carried out in Nairobi and Mexico City.

doing this, the intention was not to counter the position that a discrete urban food space, but to demonstrate more broadly how this space spanned multiple urban governance positions and roles, as a transversal issue. We identified several areas where food intersects with urban management and official roles:

- Planning – particularly food sensitive planning and urban design
- Public Health – particularly the nutritional challenges and their drivers in urban areas
- Economic development – particularly the roles of other economic actors like the informal economy
- Infrastructure – various infrastructure forms, such as transport, energy, storage facilities, ports, etc. impact on and drive much of the food system processes, both in the city and en-route to the city.

One way in which the cross cutting nature of the urban food system is embedded within all urban governance activities, is through the concept of food sensitive planning (Figure 7). Ilieva's conceptualisation of Food Sensitive Planning and Urban Design is particularly useful because it encompasses a far broader concept of design. The need for initial conceptual framings, follows by and aligned to essential analytical work, both embedded within a detailed understanding of the organisational processes and re-design (if necessary) that all then feed into the design phases, demonstrates the systematic and knowledge driven nature of the FSPUD process.

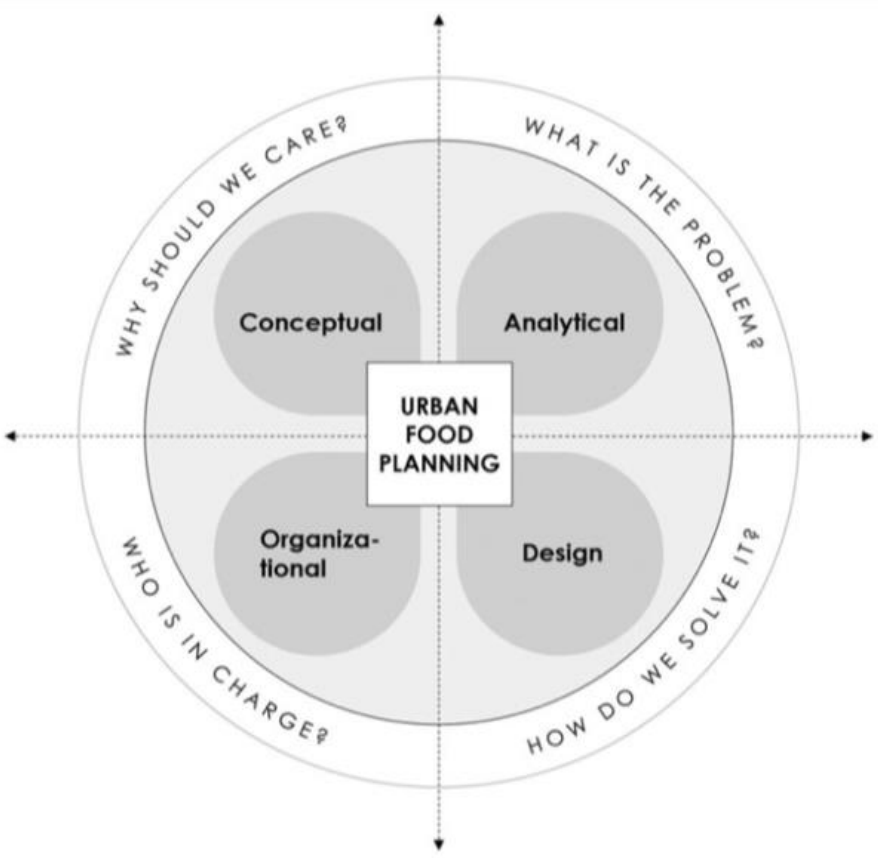
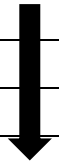


Figure 7: Urban food planning as a field of conceptual, analytical, design, and organizational practices (Source: Ilieva, 2016: 16)[202]

[202] Ilieva, R. T. (2016). *Urban food planning: Seeds of transition in the global North*. Routledge.

The wider concept of Food Sensitive Planning and Urban Design (FSPUD) holds great potential but has yet to be effectively tested in Southern cities. The need for testing is evident when one compares very different planning and design regimes, a formal process where design, analysis and then development processes ultimately lead to occupation and use. This borrows from formal planning and design concepts. However, cities of the South are constantly being built and re-built. Processes often start with occupation and use and then slowly, and only if strategic, move towards formalisation. The tension between the logics and politics and planning approaches of formal and informal planning spread to wider governance questions and notions of what Southern cities need to look like. The current FSPUD approach has emerged from work in Northern cities and while it holds potential, does require significant grounding in the realities of planning and design in Southern cities. See Table 6 for a graphic representation of this planning and governance challenge.

Table 6: Formal versus informal planning trajectories and processes[203] or conflicting rationalities[204]

'Formal' processes	Planning/development stages	'Informal' processes
	**Planning**	
	Servicing	
	Construction	
	Occupancy	

The task for the urban food systems researchers going forward is to clearly articulate how food and food related aspects – a food lens – will, or could, enable better attainment of wider urban system and development needs.

Combined, the research agendas into which the HCP work folds, coupled with the policy work across scales, provided the HCP project partners with new language, new positions, and new arguments for engagement in global and local food system discourses. However, there is still a distinct stuckness in how food at the urban scale is engaged, understood and embedded within policy. Considerable work still needs to be done to develop a robust and generally applicable urban food systems perspective that clearly articulates the diversity of urban food system needs of the South. The need to counter the current stuckness is evidenced by the following: :

- Despite significant evidence to the contrary, from a general policy perspective in all partner countries, food security is still largely seen as being about producing more food. This results in food security issues being framed in policy as the domain of national, rather than, local governments. When local governments do engage in the urban food question, the production framing remains, generally that of urban agriculture.[205]
- Northern academic framings dominate how issues are conceptualised and engaged.[206]

[203] From Battersby, J. (2019). Malls, Markets, and Malnutrition: Food In/Sensitive Planning in African Cities. Presentation, University of Buffalo, School of architecture and Planning. 24 April, 2019.
[204] Watson, V. (2003). Conflicting rationalities: Implications for planning theory and ethics. *Planning theory & practice*, *4*(4), 395-407. and De Satgé, R., & Watson, V. (2018). *Urban planning in the Global South: Conflicting rationalities in contested urban space*. Springer.
[205] See: Frayne, B., McCordic, C. & Shilomboleni, H. (2014). Growing Out of Poverty: Does Urban Agriculture Contribute to Household Food Security in Southern African Cities?. *Urban Forum* 25, 177–189
[206] See Crush, J., & Battersby, J. (Eds.). (2016). *Rapid urbanisation, urban food deserts and food security in Africa*. Cham, Switzerland: Springer.

- Concepts driven by donors, global governance institutions and new emerging areas of global urban governance (Milan Urban Food Policy Pact; C40 Cities, UCLG/Metropolis, etc.) as well as more traditional governance actors, now focusing more specifically on cities (World Bank, the Food and Agricultural Organisation,) all intersect and drive specific urban food agendas, that do not necessarily align with the needs and issues faced in cities of the South.[207]

In response, and building on the approach suggested in Figure 2, the HCP project has developed a broad conceptual frame that attempts to locate the intersecting needs and development challenges of cities at the centre of urban policy framings (Figure 8).

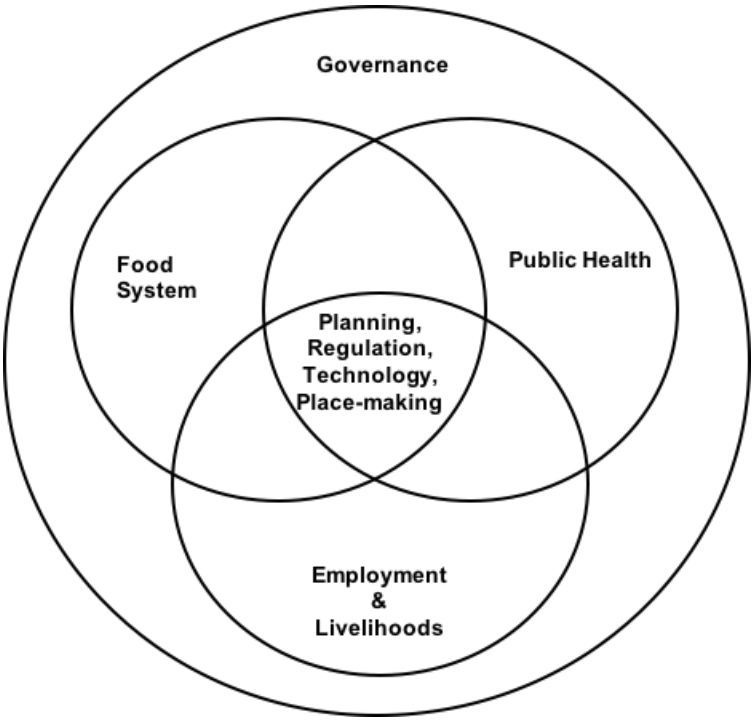


Figure 8: The intersections between food and other urban systems within a revised and "urban world" governance environment

Food research and the wider connected network of HCP

Links to associated projects

The Hungry Cities Partnership has not worked in a food systems research vacuum. The various different partners have engaged other food system related work, at times partnering with one another in new bids, or working on projects aligned to or complimentary to the HCP work. Aligned projects include the Consuming Urban Poverty (CUP) project, a UK funded DFID/ESRC project that used similar research methods, household and retail surveys, but focused explicitly on secondary African cities in Zimbabwe, Zambia and Kenya, with a focus on poverty, rather than inclusive

[207] See: Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar. Where the chapter by Tefft and Jonasova in our book suggests that there are elements in the WB that take a more holistic systems approach but it remains to be seen whether this will dislodge the Bank's actual practices

growth.[208] A second secondary African city project has also been active, the AFSUN Food, Urbanization, Environment and Livelihoods (FUEL) project, a Canadian SSHRC-funded initiative project focusing on Namibia, Malawi and Cameroon.[209] Integrating the learning from these cities, sharing findings and engaging on wider food system issues at HCP meetings has been a constructive process that has deepened thinking and broadened policy arguments.

Other aligned grants included the Nourishing Spaces (NS) project[210], an IDRC funded initiative considering the broad theme of Urban Food Systems Governance for NCD Prevention in Africa.[211] This project linked HCP research partners, Cape Town, Nairobi and Windhoek, with the CUP and FUEL secondary research cities in Kenya and Namibia (Kisumu (CUP) and Oshakati (FUEL), as well as Kimberley in South Africa.

Three further projects, referred to here as "embedded projects" also contributed significantly to the broader learning and the nature and type of engagement of HCP. Here, the IDRC and the wider Canadian funder community, have been instrumental in offering valued support:

- The Queen Elizabeth Advanced Scholars (QES-AS) program funded by IDRC, SSHRC and Rideau Hall. [212]
- The IDRC funded Open Data Research learning initiative (ODP-A).[213]
- The Canadian 2019 Novel Coronavirus (COVID-19) Rapid Research Funding Opportunity funded project Assessing and Mitigating the Food Security Consequences of COVID-19 in China project (COVID19-C) funded by SSHRC

The QES-AS award on Building Capacity in Urban Food System Governance in the Global South has played a significant role in assisting the HCP work and building partner expertise. By supporting the research skills, leadership abilities and professional experience of Southern researchers, the QES-AS filled a gap in the overarching HCP project. By providing QES-AS scholars with the resources and time to mine the data sets collected by the HCP city partners, the range of HCP outputs and impacts on Southern institutions was considerably enhanced.

The paucity of data on urban food system related issues means that the data generated from the HCP project has always been understood as being of particular importance. The ODP-A grant, with its specific application in the African context allowed the HCP researcher an opportunity to engage questions of data management, storage and data distribution. This also allowed HCP researchers an opportunity to learn how best to direct users to the stored data, but at the same time demonstrates how HCP research and reporting could complement their work. A final data article is complete and awaiting finalisation and cleaning of data in the data repository before being submitted to the targeted journal for review.

The COVID19-China grant has allowed the HCP China and Canada-based researchers the opportunity to engage the COVID-19 pandemic through the lens of urban food, broadening findings and demonstrating the central importance of an urban food perspective in pandemics and other public health crises such as this.

[208] See details of the Consuming Urban Poverty project here: https://consumingurbanpoverty.wordpress.com
[209] See details of the FUEL project here: https://www.afsun.org/fuel-project/
[210] See details on the Nourishing Spaces Project here: https://www.africancentreforcities.net/programme/nourishing-spaces/
[211] See detail on the wider IDRC funded project here: https://www.idrc.ca/en/project/urban-food-systems-governance-ncd-prevention-africa
[212] See detail on the QES-AS project here: https://hungrycities.net/qes-scholars/hcp-project/
[213] See detail no the IDRC Open Research Data Initiative here: https://www.idrc.ca/en/funding/open-research-data-initiative

Many of the lessons from these projects intersected with findings derived from the HCP work and these are detailed in the following section.

Food and the Hungry Cities Partnership research focus

There are many lessons emerging from the findings of this research, specifically in the context of the overarching research question of inclusive growth.

As detailed above, broad generalisations are problematic as different cities, and by extension different countries, respond to the urban food challenge in different ways. Two key strands are emerging through the work. First, the fact that no one type of food retail dominates, and no typology of food retail is necessarily better than the other, rather a food retail continuum exists in cities, used in strategic and careful ways by food purchasers. Secondly, city governments have far more "tools" in their governance "toolbox" than imagined when engaging the intersecting challenges of inclusive growth, multidimensional poverty and urban governance.

The role played by supermarkets in the food system may drive a measure of exclusion rather than inclusivity. Findings from the HCP research indicate that policies are skewed towards the formal food system, with the informal sector subject to significant policy and even governance constraints, often informed by legislation that seems to ignore the different country and city food system realities. Restrictive policies are not confined to food system-related governance. Many decisions that shape the food system, such as planning, transport and development, are made with limited or no consideration of their food system impact. Counter examples to this phenomenon can be found in some of the cities in which research took place, Nanjing being one example. While Nanjing's policies are not necessarily replicable, the positive focus on wet markets and the role that these markets play in moderating the price of fresh and health-benefiting foods offers insights into what a more equitable and fair food system might resemble.[214]

HCP research demonstrates that in every city so-called informal food system actors are essential to the food system, particularly for the poor. Research findings show that despite punitive policies and constraints placed on this sector, it plays a key economic role in many of the HCP and wider research group cities. However, the findings show generally low levels of profitability within the informal sector. Contributing challenges include insecure tenure at places of trade, frequent extortionary approaches from officials and inadequate infrastructure.[215]

In a number of the city surveys, stock purchases, and transport related costs were a significant operating expense.[216] This is in part due to the absence of adequate storage and refrigeration. Traders are forced to re-stock on a daily basis, buying in smaller quantities as a result. These

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[214] Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., ... & Zhang, X. (2018). The impact of proximity to wet markets and supermarkets on household dietary diversity in Nanjing City, China. *Sustainability*, *10*(5), 1465.; Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., Tang, S. & Zhang, X. (2018). The Impact of Proximity to Wet Markets and Supermarkets on Household Dietary Diversity in Nanjing City, China. *Hungry Cities Partnership Discussion Paper No. 14*. Waterloo, Canada. ; Zhenzhong Si and Taiyang Zhong (2018). The State of Household Food Security in Nanjing, China, HCP Report No. 9: Balsillie School of International Affairs.; Zhenzhong Si and Taiyang Zhong (2019). Inclusive Growth and Small-Scale Food Vending in Nanjing, China, HCP Report No. 17, Balsillie School of International Affairs.

[215] Battersby, J., Marshak, M. & Mngqibisa N. (2018). Mapping the Informal Food Economy in Cape Town, South Africa, HCP Discussion Paper No. 5, Balsillie School of International Affairs; Caroline Skinner & Gareth Haysom (2017). The Informal Sector's Role in Food Security: A Missing Link in Policy Debates, HCP Discussion Paper No. 6, Balsillie School of International Affairs; Crush, J., & Battersby, J. (Eds.). (2016). *Rapid urbanisation, urban food deserts and food security in Africa*. Cham, Switzerland: Springer; Crush, J., & Young, G. (2019). Resituating Africa's Urban Informal Food Sector. In *Urban Forum* (Vol. 30, No. 4, pp. 377-384).; Graeme Young and Jonathan Crush (2019). Governing the Informal Food Sector in Cities of the Global South, HCP Discussion Paper No. 30, Balsillie School of International Affairs; See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/

[216] See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/

operating practices, informed by circumstance and not choice, mean that stock comes at a premium.[217] When the informal retailer's income status is considered, the ability to absorb these costs is limited. Margins are thus always small. A further important finding is that the business is supporting the household so that finance and food are diverted away from the enterprise and there is less to reinvest. City governments need to recognise the informal sector as a primary actor in the urban food system and offer the necessary infrastructure and facilities – as they do for the formal sector (e.g. wet market infrastructure, trading facilities, abattoirs, health facilities, etc.) but at a scale and in a manner that suits different types of informal vendor.

When questions of inclusive growth and multi-dimensional poverty are considered through a food lens, city governments have a large number of options at their disposal. However, far greater attention is required on the central role that food plays in the urban system.[218] Additionally, food and food security can no longer be viewed as the responsibility of national ministries or departments alone. Equally, food and food security can no longer be viewed as the responsibility of agricultural departments alone. Addressing food security and poverty cannot be left to the formal sector as the playing field is currently uneven, and increasingly tilted in favour of the formal sector. Cities have four central roles that they can play in the food system:

1. They need to recognise the diversity of food system processes at play in the city by planning and managing the food system through the needs of the most food insecure. The food system that enables food access to the poor and food insecure requires the greatest policy attention and governance support.[219]
2. Cities need to understand their own food systems in far greater detail. Assuming that processes and systems that worked in another context are applicable in their own context will potentially lead to further inequality. The development of food system knowledge and the continual refinement of that knowledge is something that was a central theme in the HCP policy engagements with city officials. The HCP has laid the foundation but these findings need to serve as the starting point for iterative policy and governance processes going forward.
3. Because most cities avoid designating officials to be responsible for governing the urban food system, the most important priority is to ensure food is embedded in the processes and practices of every city department. How this works in practice, given the challenges faced in managing complex and often rapidly changing urban systems requires far greater analysis, and contextual insights. However, food is an issue in which every urban resident has a stake and if it is not adequately addressed at the urban scale, development opportunities will be retarded into the future.[220]
4. Cities should avoid establishing "ministries of food" or similar governance structures, but rather see food as a transversal issue, one that touches all urban operations and governance domains. This is of particular importance given the changing nature of governance in the rapidly urbanising and growing cities of the global South. The HCP research has demonstrated the centrality of food in urban governance, and how food intersects with almost all urban governance and management activities.

[217] See: http://www.tomatoesandtaxiranks.org.za; Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.
[218] See: Jonathan Crush, Bruce Frayne and Gareth Haysom (eds) (2020). Handbook on Urban Food Security in the Global South, Edward Elgar; Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.
[219] See: Haysom, G. (2020). Urban Food Governance Perspectives in Changing African and Southern Cities HCP Discussion Paper No. 39, Waterloo and Cape Town;
[220] Haysom, G., Battersby, J. &. Park-Ross, R., "Food Sensitive Planning and Urban Design – A Blueprint for a Future South African City?" (October 2020). Food Security SA *Working Paper Series.* Working Paper 007.

The role of food in urban governance has also been captured through the aligned HCP urban food research projects. Prior to the COVID-19 outbreak, members of the HCP team, along with members from the other research groups, met with a collection of global food system thinkers and governance actors to discuss and engage the roles and responsibilities of a new food systems governance regime, across scales. This work has been supported by a significant number of global actors including global governance institutions such as UN-Habitat, the World Health Organisation, and the World Food Programme; regional governance actors such as the Economic Commission for Africa; and civil society organisations such as the RUAF Foundation. The output from this combined project work offers a useful starting point to engage urban food system issues, but also points to the foundation of an entirely new and emerging area of study.[221]

From a research perspective, time is of the essence. COVID-19 has demonstrated the veneer of food security and food access for many residents in cities of the South. The illusion of food systems adequacy and equality in most of the HCP cities was exposed by the HCP research.[222] This provided a useful foundation to reiterate and amplify the calls for a new urban food research agenda that responds to the multiple food system issues already discussed. COVID-19 has given added urgency to this matter.

Scientific, research or knowledge innovations

As was argued in the initial proposal, food provides an ideal lens to understand or interrogate a wide set of urban related questions, not just urban food. We argue that the evidence from our research supports this assertion. This has been further amplified in the centrality of a food systems view in the various challenges faced by cities during the COVID-19 outbreak. The innovative and collaborative research activities of HCP have added significant depth and understanding to the emerging field of urban food security and urban food system studies in Southern, or LMIC, countries. How this knowledge now engages wider global debates is of critical importance. As with all project-based funding, HCP itself is not in a position to pursue this objective but we hope that it will be taken up by others.

An important methodological innovation within this project remains the migration from paper-based surveys to tablet-based surveys, and the associated data management platforms that are used. Conducting city-wide representative surveys have highlighted inter- and intra-city inequalities. The development of innovative metrics in the urban context, including food sourcing strategies (the HCFPM matrix for example), comparative GIS mapping of supermarkets and food outlets and household food security, used to great effect in the Nairobi and Mexico city paper in the journal Sustainability.[223]

The IDRC funded Open Data research project (ODP-A) provided added value by supporting African partners in drafting a data article which is in its final stages. The data deposit in an approved

[221] See: https://www.africancentreforcities.net/wp-content/uploads/2017/04/Bellagio-Communique-Harnessing-urban-food-systems-for-sustainable-development-and-human-well-being.pdf)

[222] See: The Inclusive Growth and Informal Food Vending Reports from HCP cities here: https://hungrycities.net/publication-category/hungry-cities-reports/ ; The State of Food Security Reports from the HCP partners here: https://hungrycities.net/publication-category/hungry-cities-reports/; The Urban Food System reports from HCP partner cities here: https://hungrycities.net/publication-category/hungry-cities-reports/page/2/

[223] Wagner, J., Hinton, L., McCordic, C., Owuor, S., Capron, G., & Arellano, S. G. (2019). Do urban food deserts exist in the global south? An analysis of Nairobi and Mexico City. *Sustainability*, *11*(7), 1963.

Springer Nature repository (DataFirst) is currently being finalised. An important lesson from this process is that small in-country changes to questions, working and even some codes can delay data finalisation in significant ways.

The relationship between HCP data collection and wider debates on the importance of data going forward is further confirmed by the forthcoming World Bank World Development Report (WDR) with its explicit focus on "data for development". Thanks to the lessons learnt through the HCP project from a scientific and methodological perspective, the HCP partner team were able to offer direct input into the WDR, during the consultative phase, arguing that a key data constituency had been overlooked in the initial draft of the report, that of research institutions. In the draft only two data actors were central to the conceptualisation of data sources, or collection bodies, and in the articulation of their theory of change: i.e. public and private data holders. The HCP team interjected, arguing that research entities, particularly universities in the global South, play a central role in data collection, are governed in ways that are different to the public and private data entities, and that need needed far greater consideration in the WDR report.

In terms of shifting disciplinary and governance practice. where food is seen as connected to a variety of other urban systems and is governed as a transversal issue, significantly more opportunities for inclusive growth were evident, as in Nanjing and Bangalore case. Where food was not governed, or governed in a silo-ed, or project focused manner, market capture, unfair competition and exclusionary growth were evident.

Changes in behaviour – researchers

The process of building the capacity of a cohort of Southern researchers to conduct rigorous and scientifically relevant research is a key element of the partnership. Many of the researchers who led city scale research projects are experienced researchers, some of whom holding senior academic positions. However, while many had worked on components of the food system, they were not necessarily food systems researchers. Most researchers also had distinct urban research skills. City partners and their research teams came from diverse disciplinary entry points, including environmental studies, human geography, economic geography, sociology, anthropology, economics, statistics and urban planning. Convening this diverse collection of disciplinary specialists around the subject of urban food in a project that was inter-disciplinary in nature, and spoke to a subject that was trans-disciplinary, required significant adjustments by the city level lead researchers, and the research management team of the HCP project. Further, these inter-disciplinary lessons cascaded down to the departments and research teams constructed by the city specific research units to undertake this research. This is evident from emerging research projects, post graduate work and new networks. One example is the inclusion of HCP partners in a recent Urban Transitions Massive Online Course (MOOC) offered by the Mexico City Partner, Universidad Autónoma Metropolitana, Mexico City.[224]

A central philosophy in the research approach involved the collaborative research planning process. This process saw the lead researchers from each city meeting to plan and discuss the forthcoming research activities. These meetings served two purposes. First, they involved a recap of the activities from the previous year, with detailed discussion and debate around benefits, lessons learnt and areas of tension. Second, these lessons fed into the planning of the research activity for

[224] See: https://europe.uam.mx/blog/curso-mooc-internacional-a-distancia/ and https://www.youtube.com/watch?v=oaCd71Xtrcc; https://www.youtube.com/watch?v=XLOx_vLG9kg&feature=youtu.be

the forthcoming year. While a general research concept was initially presented by the LMIC and SSHRC PIs, partners then refined these, inserted contextual specificities and challenged certain broad assumptions. This collaborative research design evolved through the different meetings. The initial meetings were more contested around resource allocations and also ideological positions around urban food. As lessons from the research emerged, partners were far more vocal about deepening the research activities, expanding the remit, and aligning the wider research plan to their own city specific needs.

One example of this relates specifically to the approaches applied in the policy engagement component of the research. Politics in India and South Africa over the period of the project meant that there were evident tensions between local government and central government activities. In Mexico City, the civil society grouping was particularly strong but in cities such as Maputo and Windhoek the state was strong, with great legitimacy (in Windhoek specifically). This meant that while the overall policy engagement took place across all cities, the focus and approach was directly aligned with local needs. These needs were clearly articulated by the city research leads in a collaborative, co-learning environment., a significant addition to the initial partnership processes.

When viewed across the overall project, the first three research activities continued with the tablet-based tools and refined these processes. These research methods provided significant data and served to inform the more qualitative processes associated with the formal food retail survey and the policy engagement processes.

Initial scepticism around the use of the tablets has retreated and the likelihood of partners using paper-based surveys in the future is unlikely. As argued in the first technical report, requests from students and other researchers in the department or faculties of the HCP partner researchers to use the tablets continue. The original protocols for this use outside the formal project remain in place and are seen as being part of the wider mandate of developing a cohort of Southern researchers.[225]

Perhaps the greatest benefit of the project has been the development of a cohort of Southern urban food system researchers. Thanks to the HCP project, all partners are actively pursuing wider urban food system research activities. This was certainly not the case following the AFSUN work, but has emerged as a significant trend following the HCP work. Examples include:

a. The inclusion of food system work by the Maputo partner as part of a Leading Integrated Research for Agenda 2030 in Africa (LIRA) grant.
b. The ACC and IIHS have been included in an UK ESRC grant, the Off Grid City, led by the UK based Institute for Development Studies (IDS), a project that uses food as a lens to understand how communities engage different infrastructure grids.
c. The ACC, University of Nairobi and the University of Namibia have collaborated on a separate IDRC grant, the Nourishing Spaces project.
d. Nanjing and partners at the Balsillie School of International Affairs (BISA) have collaborated on a COVID-19 related food security study (the Assessing and Mitigating the Food Security Consequences of Covid-19 in China).
e. More informal networks are active between the Maputo partner and partners from Kingston, Jamaica.
f. An active partnership between the HCP and the Commonwealth Geographical Bureau (CGB), where HCP and CGB partnered in two of the CGB biannual conferences.

[225] A tablet use protocol has been developed and when such permission in granted, the data is shared between the researcher and the HCP. Further, the HCP partner is required to guarantee the tablets used and should any be lost or damaged, the partner is required to replace these. The principle is that they remain the property of the HCP (and SSHRC who funded their purchase).

g. The collaboration between the ACC and UAM is emerging also, with the above mentioned MOOC being one of a number of activities under discussion.

The emergence of a cohort of leading Southern researchers and research institutions, who are now all including food in their research activities, demonstrates a significant change in research activity, amplified by the fact that at the start of the project most researchers would not have identified themselves as food system researchers.

Changes in behaviour – research users

Engagement with new research end-users is also emerging. In some cities urban food questions are an active part of the process going forward.[226] Nanjing, for example, has an ongoing process of engagement between researchers, other academics and city and wider state-linked officials. Researchers in Maputo engage city officials on the research findings on a regular basis. In Nairobi, a wider networks of civics and lower level neighbourhood scale officials have accessed the HCP findings and integrated these into programming activities. In Bangalore, a variety of data sharing activities have taken place, including the transformation of data into different media, specifically a public exhibition - The IIHS Exhibition on Food and Street Vending (*Oota Aytha?*).[227]

Linked to the points made earlier on the normalisation of food poverty, researchers are playing a cautious role in how engagement takes place. Despite limited civic engagement on the issues, politics remains an ever-present question and research findings can have negative political consequences. For this reason, a more curated form of policy engagement was implemented in some cities. The process (discussed in detailed below and linked to feedback from the mid-term report) is for facilitated policy engagement meetings with key (and selected) government officials.

City partners have also been engaging at scales and in policy processes beyond the city, particularly relating to the SDGs and the NUA. These engagements are impacting on how wider policies are understood, although whether they will ultimately create a shift in these processes is an open question. Some of the behaviour change initiated through these processes may only emerge after the project is complete.

The HCP research has been actively used by global urban organisations and wider governance institutions. Organisations such as ICLEI have invited HCP partners to participate in urban food specific discourses and events.[228] The current High Level Panel of Experts of the Food and Agriculture Organisation (HLPE FAO) is using HCP related research in their framings of COVID-19 related food system planning as the COVID-19 pandemic lockdowns recede.

The cautious approach to policy engagement proved to be an appropriate strategy. Applying nuance to the policy engagement process meant that enduring connections and networks were built, as opposed to simply forwarding policy briefs on to different government officials. The network building processes have meant that many research users have drawn on the HCP work,

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[226] See: https://resource.capetown.gov.za/documentcentre/Documents/City%20strategies%2C%20plans%20and%20frameworks/Resilience_Strategy.pdf ; https://hungrycities.net/wp-content/uploads/2018/03/HCP14-1.pdf ; Zhong, T., Si, Z., Crush, J., Xu, Z., Huang, X., Scott, S., ... & Zhang, X. (2018). The impact of proximity to wet markets and supermarkets on household dietary diversity in Nanjing City, China. *Sustainability*, *10*(5), 1465.

[227] see: https://www.youtube.com/watch?v=YKQzvuXY4Ys

[228] https://www.youtube.com/watch?v=2N29hBYZzH4&feature=emb_logo; https://www.youtube.com/watch?v=i0cQ7PIg-A4&feature=emb_logo; https://www.youtube.com/watch?v=Ja3DNckuNQg&feature=emb_logo

citing specific research reports and academic articles, but policy makers have become key allies. This was particularly important when the COVID-19 crisis hit.

Perhaps the most profound change has been the fact that while our urban food research was always seen as important, research end-users are increasingly using HCP as a key informant on a particular position. The HLPE FAO example above is a case in point. In terms of official use of the HCP information, there has been a shift from a response of appreciation for evidence to calls for more evidence and further research, and inclusion in different policy fora. This has increased significantly over the past two years, with COVID-19 leading to a dramatic acceleration of such requests.

The shift from research as a component of a wider set of research and policy outputs, to being a key informant in research and policy processes demonstrates a real change in research use.

Policy influence

The policy dialogues and engagement processes hosted by each HCP city partner have proven to be productive spaces, building relationships and introducing officials to the work of the HCP. This work is ongoing and as further urban food work evolves, these networks will be thickened and it is expected that change will occur, While COVID-19 has brought the realisation that urban food issues require direct and urgent attention, the city-level policy machinery derived from the allocation of mandates and linked resources is still particularly slow. Shifts are evident but this will take time. Claiming direct links to immediate policy actions and outcomes would be overreach for the HCP project. However, it is argued that a robust foundation has been laid, and processes have the potential to accelerate, as a result of COVID-19.

At a wider project scale, the subject of urban food in "Southern cities" is increasing with global governance bodies and research organisations actively approaching the HCP project staff. These include the World Bank, the International Food Policy Research Institute, the Food and Agriculture Organisation, and the Global Panel on Agriculture and Food Systems for Nutrition.[229] It is at the global scale that the inclusion of HCP related work in key policy and strategy documents is where some of the key impacts are emerging. While others had initiated the idea that food security requires an urban dimension, HCP researchers have actively applied such a position in their work and framing of food security considerations. To see agency emerging as one of two new proposed dimensions of food security in a recent report by the HLPE FAO[230; 231] indicates that the HCP approaches have been correctly aligned to emerging trends and thinking on issues of food security. Perhaps most importantly, the HCP work is legitimised by its assertion of the importance of agency and sustainability (the other new dimension) in food security positioning. The HCP work thus aligns with, and forms part of, a new collection of perspectives on food security, specifically in the global South, and specifically in urban contexts.

From a continental perspective, the LMIC principal investigator led the Cape Town team in preparing an African position for the deliberations for the New Urban Agenda meeting in Quito in 2016.[232]

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[229] Gareth Haysom provided direct research and opinion input to the authors of this report - See; https://www.glopan.org/wp-content/uploads/2019/06/GlobalPanelUrbanizationPolicyBrief.pdf

[230] See: http://www.afsun.org/wp-content/uploads/2016/08/Final-Food-System-Study-Report_Corrected-_WITH-COUNCIL-REPORT.pdf

[231] See: http://www.fao.org/fileadmin/user_upload/hlpe/2020._Global_Narrative/HLPE_15__2020_._Global_Narrative_2030.pdf

[232] See: https://issuu.com/unhabitat/docs/towards_an_africa_urban_agenda_with

Perhaps the greatest policy impact has been at the global and not the local scale.

As alluded to above, COVID-19 has seen the networks built around the urban food question being activated to support cities in their approaches and strategies in responding to the pandemic. This was particularly evident in Cape Town, where the Western Cape Province and Cape Town in particular saw far higher levels of COVID-19 infections than in most other cities. South Africa has one of the highest levels of infections globally, with South Africa in 10th position globally in terms of the number of cases (672 572 cases as at 30 September) and 31st globally in terms of the rate of infection per million members of the population (11 340/1 000 000).[233] Responding to both the COVID-19 health outcomes and the effects of lockdown meant that HCP researchers were actively pursued by city and provincial officials to support them in their planning and relief activities. Access to HCP data was of particular importance given that this provided insight into the levels of food insecurity, but also the distribution and nature of food retail in the city. These relevant data were not held by any government agency and information provided by national government was found to be woefully inaccurate and based largely on misguided assumptions.[234]

Engagement with urban officials in Nanjing begun and has then accelerated as a result of the COVID-19 pandemic.

A Cape Town researcher also played an active role in the commissions relating to the development of the SDG 2 processes for South Africa and Southern Africa, consulting with national government departments (Social Development, Health, Agriculture, Monitoring and Evaluation, and Statistics South Africa) along with global governance organisations such as the Food and Agriculture Organisation, UNICEF, the World Food Programme and the United Nations Development Programme.

Technology development

The first three research surveys were conducted with tablet-based tools, providing significant and timely data and serving to inform the more qualitative processes associated with the formal food retail survey and the policy engagement processes. Initial scepticism around the use of the tablets retreated in the face of the obvious advantages and the likelihood of partners using paper-based surveys in the future is very low. As argued in the first technical report, requests from students and other researchers in the department or faculties of the HCP partner researchers to use the tablets continue. The original protocols for use outside the formal project remain in place and are seen as being part of the wider mandate of developing a cohort of Southern researchers.[235]

The use of tablet technology and associated storage platforms has resulted in technology adoption in the different partner cities. The development of innovative metrics in the urban context, including food sourcing strategies (the HCFPM matrix for example), comparative GIS mapping of supermarkets and food outlets and household food security, used to great effect in the Nairobi and Mexico city paper in the journal Sustainability.[236] Perhaps not technological development, but of

[233] See: https://mediahack.co.za/datastories/coronavirus/global/
[234] See: Battersby, J. (2020). South Africa's lockdown regulations and the reinforcement of anti-informality bias. *Agriculture and Human Values*, 1. here: https://link.springer.com/article/10.1007/s10460-020-10078-w
[235] A tablet use protocol has been developed and when such permission in granted, the data is shared between the researcher and the HCP. Further, the HCP partner is required to guarantee the tablets used and should any be lost or damaged, the partner is required to replace these. The principle is that they remain the property of the HCP and the partner.
[236] Wagner, J., Hinton, L., McCordic, C., Owuor, S., Capron, G., & Arellano, S. G. (2019). Do urban food deserts exist in the global south? An analysis of Nairobi and Mexico City. *Sustainability*, *11*(7), 1963.

importance in the use of technology, the development of survey protocols and associated survey instruments to engage the informal food retail sector, while not a new research area, is new in terms of the questions that were asked in the HCP survey. In far too often in surveys of the informal sector, detail of the vendor typologies is not clear, with vendors of a wide typological variation being described as an amorphous group. The integration of the various different definitions of the informal sector into the survey means that interview responses can be assessed in relation to these definitions, testing the utility and actual application of existing framing of the so-called informal economy.[237]

A number of researchers have approached the HCP project for access to the digital survey instruments. Vital in the approval of use is an agreement on the sampling strategy to be applied. The reason for this is to ensure that claims made are representative and defendable. We feel that there is a risk that if the HCP instrument is used without the same rigour in terms of sampling, this could undermine the validity of all research based on our instrument. Most approaches, to date, have been for case study work and not city-wide surveys so consent has been less of a challenge.

Linked to the used of handheld tablets and the uploading of data to off-site storage facilities has been a far more robust approach to data use. Central to this has been to think deeply about how the data can be used beyond the life of the project and the opening of access to the data. The aligned award of the IDRC funded Open Data Research learning initiative (ODP-A) assisted greatly in this technological learning process.

Conditional changes

We are still unable to claim conditional changes, evidence of the growing interest in the urban food question points to various conditional changes, facilitated, in part, by the HCP work. The emergence of other bodies of work, all indicates a growing recognition of the importance of the urban food "question" provides further evidence of a shift, facilitated, in part by the HCP work, but in no way led by HCP.[238] The fact that large global bodies are now increasingly approaching the HCP for information and advice, confirms the importance of the work in changing assessments of the importance of urban food related enquiry.[239]

In the past 10 years, when presenting on the urban food question at academic conferences in the South, we have often found ourselves in a session that is a mix of obscure research subjects, often unrelated other than an assumed urban greening thread. Sessions were also often scheduled on the last day of the conference. This has changed where the invitations extended to wider HCP members to participate in regional, global south and even global research activities demonstrates specific conditional changes. The question of food as a lens to understand urban dynamics in the Global South is increasing in prominence. Perhaps the key indicator of change was that Dr Jane Battersby (a HCP lead researcher) was invited to give a keynote address at the recent "3rd" International Conference on Food Security in December 2017.[240] While this may seem an irrelevant claim and one informed perhaps by the stature of the presenter, in the past, the perceived unimportance of urban food work in academic circles has been a challenge that we have sought to address. The fact that

[237] See: Chen, M. A. (2012). *The informal economy: Definitions, theories and policies* (Vol. 1, No. 26, pp. 90141-4). WIEGO working Paper.
[238] See: https://www.researchgate.net/publication/338719825_Good_Agricultural_Practice_for_Urban_Agriculture_CAPE_TOWN_EDITION_on_vegetables/figures?lo=1;
[239] https://globalnutritionreport.org/reports/2020-global-nutrition-report/; http://www.fao.org/fcit/fcit-home/en/;
[240] See: https://www.youtube.com/watch?v=gci3uvfEc94 – starting at 28:00

there is now a marked change does indicate the start of conditional changes, in the academic community, at least.

As discussed, COVID-19 and the hierarchical diffusion of the illness, through cities and then into wider society, and then intersecting with high co-morbidities, directly aligned to food system outcomes, specifically overweight, obesity and type-2 diabetes, has meant that city managers are increasingly aware that urban food issues present a very real threat to urban wellbeing. In South Africa, high level urban bureaucrats have started to engage these issues, and this presents further evidence of conditional change. However, this change has been driven more as a result of the crises presented by COVID-19 and less as a result of our policy engagement work. The fact that these officials are engaging the HCP teams on this is however a clear demonstration of conditional changes.

Design lessons

The first technical report noted that significant lessons had been learnt through the HCP research process related principally to the use of technology and how this impacted the data collection process. This remains the case and lessons have continued to be learnt through the research process. The paucity of data on food in Southern cities remains a challenge, particularly as regards the informal sector. Developing representative samples and survey strategies proved particularly challenging as no cities held official census data on informal traders. Questions of survey design and sampling were further complicated by the nature and location of a number of the informal trade sites. Informal traders operating in formal city locations, such as downtown areas, make up only a small component of the overall trader population. In a number of cities, enumerators needed to enter neighbourhoods governed by a range of local "gatekeepers" whose permission to enter areas had to be obtained. At times, payment was demanded but had to be declined as any form of payment was inconsistent with ethical and research protocols. As a result, permission was refused. A further challenge was that these areas are often politically contested. In one instance, violence broke out between local informal transport operators while our team was in the area. The gatekeepers who had agreed to the survey advised the research team and the team left the area safely. While this is part and parcel of research in some Southern cities, it does have research design implications. Samples need to be fluid, ethics need to be known and firmly set, and one does need to use certain gatekeepers, all while maintaining the integrity and rigour of the research.

Other design related approaches require mention. In Nanjing, some enumerators were assumed to be Communist Party agents by respondents who treated them with suspicion. In other cities, too, there was scepticism because of the assumption that enumerators are working for the state. Two strategies were developed in the design process to counter these challenges. First, there were robust enumerator training workshops. Second, where needed, enumerators were provided with clothing that reflected university and project affiliation (See Figure 9 for Nairobi).

A further design lesson was one of contextual nuance in relation to the wrap-up policy fora and the need to curate specific policy engagement processes that aligned with contextual politics, traditions and ways of interacting with the state. The initial plan was to host a series of formal policy workshops aligned to a set agenda and process. This was possible, as planned, in Nanjing, Windhoek, Kingston and Maputo. In Cape Town and Bangalore, a more nuanced, networking process was applied often working through other organisations. In the Cape Town case, two organisations were working with different government structures to facilitate dialogue between different food system actors. These included the Centre of Excellence Community of Practice and

the Economic Development Partnership[241], both are neutral bodies through which HCP research was fed, in facilitated ways. In Bangalore, the team worked through a variety of community level networks and organisations as these organisations had an existing track record and trust within communities. In Mexico City and Nairobi, engagement with civil society and neighbourhood scale governance structures proved most effective. The need for such contextual nuance meant the partners were not compromised, that the most respectful and contextually relevant approach was applied, and that messaging was owned by the HCP researchers.

Figure 9: Enumerator in Nairobi conducting household survey – note the HCP branded clothing.

Contribution to outcomes

Outcomes from this research have been discussed at length above. Many of these are discussed in the section detailing the emerging research findings from the Hungry Cities Partnership. Also discussed has been the emerging shifts in the global urban food discourse, particularly from a Southern perspective. The policy engagements with city officials demonstrated the need for further such engagements.

Research ethics considerations

At all times our research complied with the ethical standards required, and set by our governing institutions. As discussed in the first technical report, the nature of the informal economy is such

[241] See: https://wcedp.co.za and https://foodsecurity.ac.za/news/communities-of-practice-can-help-create-knowledge-democracy-in-south-africa/

that our work could run counter to certain official stances on this practice, particularly as in some local government circles such trade is deemed illegal. The partnerships developed with organisations that have a track record of work in this sector, such as Women in Informal Employment: Globalizing and Organizing (WIEGO), represented by HCP researcher Caroline Skinner, proved beneficial and in Mexico City, for example, the policy forum was co-hosted with WIEGO, providing added profile and legitimacy to the engagement with officials and traders associations.

Research with the formal food sector raised further ethical issues, albeit from the perspective of how to engage and how to access data. For example, privacy issues and company policies meant that supermarket managers could not share inventories of their products. One proposed alternative was to take cellphone photographs of the products on the shelves including prices and sources of produce. This novel approach was successfully implemented in three supermarkets in one pilot city, Windhoek, but not before permission was obtained from supermarket managers who readily consented to the presence of students with cameras photographing their shelves. In other cities, confidentiality concerns and even regulations pertaining to competitive behaviour prohibited similar approaches being applied. Minor research ethics related issues were dealt with on a case by case basis, often at the city scale. No city partner was permitted to engage research if they had not obtained research approval via the channels appropriate and applicable to their institution. Delays were an ongoing a factor in Kingston with research ethics approval needing to go through the biomedical ethics review process. Advanced planning and understanding of the time delays was later integrated into the research planning. In Kenya, research approval is provided via a national body. In Mexico City and Bangalore ethics approval was provided at the institutional scale. However, in all cities, the University of Cape Town ethics approval remained the guiding instrument (an example of this application documentation was included in an earlier technical report). The Cape Town ethical approval documents did not serve as ethical authorization in other countries, but served as a guide in terms of research principles, practice and detailed research considerations. The participation of Canadian researchers and students in research planning and implementation was conditional on ethics approval by Wilfrid Laurier University and where required, local, in-country ethical approval. This posed an interesting dilemma when survey questions (for example, around police misconduct towards food traders) were deemed unethical by the Canadian institution but completely acceptable by the Southern institution.

Role of other organizations or donors

As the project has evolved, we have been able to attract other donor organisations (or projects) to support this work, including support from other IDRC programmes such as the Queen Elizabeth Advanced Scholars (QES-AS) project, Nourishing Spaces grant and the Open Data Research Learning Initiative, all discussed above. Additional donor funding was received via the Centre of Excellence in Food Security, located in South Africa ,who funded a number of South African research activities, but also convened a Community of Practice which enabled engagement with often-elusive government officials, and the Open Society Foundation of South Africa (OSFSA) who supported work aligned to the Hungry Cities Partnership approach in Windhoek. The award of the ESRC/DFID grant to the African Centre for Cities for research into "Governing Food Systems to Alleviate Poverty in Secondary Cities in Africa" or Consuming Urban Poverty (CUP) was an additional related urban food research project, but one that focused on secondary African cities.

It was through the relationships developed by HCP and CUP that the core team for the IDRC funded Nourishing Spaces project emerged, with the HCP-based Nairobi partner linking with the CUP-

based Kisumu partner to form the Kenyan core. The OSFSA and HCP partner formed the Namibian core. Cape Town, the HCP hub, is a further city in the Nourishing Spaces research. The Nourishing Spaces research follows a very different methodological and food system focus to the HCP work, but both research projects considerably deepen the urban food research agenda.

The QES-AS award played a significant role in assisting the HCP work. The initial project architecture meant that much of the data collection and general reporting was carried out by IDRC funded partners in the South, and SSHRC funded researchers in Canada were funded to collaborate with the partners in research design, fieldwork including training of enumerators in the use of tablets, data analysis and report co-authorship. Workload, institutional resource constraints and time limitations of Southern partners meant that the ability to draw out the policy implications of the research was limited. Project funding specifically for times away from the day-to-day schedules for deeper in-depth reflection and research was not possible. For many academics and post-doctoral students in the South, teaching loads meant that building a publication record was not possible. The QES-AS grant unlocked many of these limitations, allowing researchers time away from their home institutions to write, allowing for in-depth analysis of data and the subsequent write up and publication of work, as well as experience in translating research into policy recommendations through placements with thinktanks (such as CIGI), governments and NGOs, all adding to both the reputation and reach of the HCP project.

As discussed, the urban food question has seen a considerable increase in interest since the award of this grant. As a result, a number of organisations have approached the HCP on issues pertaining to the urban food question. In some instances, HCP partners have collaborated on new grant proposals with other institutions. The process has been one of relationship building, growing an evolving network that holds great potential for both the project and the research processes going forward. Organisations engaged include:

- The International Institute for Environment and Development (IIED)
- The Food and Agricultural Organisation – Food for Cities initiative (FAO)
- The Southern African Food Lab (SAFL)
- UN-Habitat
- The South African Cities Network (SACN) – some funding received
- The World Food Programme (WFP)
- The Global Panel on Agriculture and Food Systems for Nutrition
- The World Bank
- The International Food Policy Research Institute (IFPRI)
- The Worldwide Fund for Nature (WWF)
- MISTRA Urban Futures – some funding received through MISTRA and SIDA
- The Institute for Development Studies – some funding received through ESRC
- South African Centre of Excellence in Food Security – some funding received
- Leading Integrated Research for Agenda 2030 in Africa – some funding received
- ICLEI – Africa
- Rise Africa
- URBAL – some funding received
- Centre for the Study of Governance Innovation – trained QES-AS scholars
- Toronto Food Policy Council – trained QES-AS scholars
- Western Cape Provincial Government - – trained QES-AS scholars
- MILAN Urban Food Policy Pact
- Centre for Sustainable Food Systems

- Mennonite Economic Development Associates (MEDA) – trained QES-AS scholars
- International Metropolis
- Sustainable Development Solutions Network (SDSN)

Project implementation and management

General project management and implementation

As mentioned, the Hungry Cities Partnership project is a dual-funded project under the IPaSS cooperation program between two Canadian agencies. One tranche of funds was awarded by IDRC to the lead LMIC partner, the University of Cape Town and the African Centre for Cities. A second tranche of funding was awarded to a Canadian institution, Wilfrid Laurier University and the Balsillie School of International Affairs by SSHRC. As a result, project management was combined and collaboratively managed in terms of a general MOU between all Southern and Canadian partners and specific sub-agreements between UCT and partner institutions in the South. The sub-grantee agreements (SGA) discussed and agreed in the first partnership meeting remained in place and serve as the core governance relationship between partners, defining the operational activities and relationship between the ACC and the Southern partners.

All matters relating to funding and reporting were aligned to the two different funder's specifications although these were not the same for both funders. For example, this report is aligned to the IDRC requirement for a final Technical Report which is not required by SSHRC. In addition, while both funders agreed to no-cost extensions, this had to be motivated for with IDRC whereas it was automatic with SSHRC. SSHRC has also approved a further extension because of the COVID-19 pandemic which means that project reports (whose production is funded by SSHRC) can and will continue to be produced until the end of 2021.In managing the IDRC allocated funds, the ACC has led the process from both a governance and a reporting perspective. The following section speaks to the governance processes which remained essential to the partnership. This is followed by a discussion on the financial and reporting process.

In most instances, the SGAs remained in force for the full duration of the project and addenda relating to additional phases of the research were agreed at the project planning meetings and amended. In at least one case, Nanjing University, the SGA changed with each new phase of the research. At the time of the first technical report, the University of Nairobi was a new partner. In order to initiate the work, the research leader from that institution was sub-contracted by the ACC to conduct the research while University of Nairobi contracting process were resolved. The University of Nairobi signed the SGA before the second phase of research commenced. However, specific funding limitations experienced by certain partner institutions meant that at times funds paid to partners were not disbursed to the HCP researchers in a timeous manner. When institutional challenges were expected, the ACC team engaged the lead researcher from a specific institution in order to expedite payment so as to facilitate research. This engagement took the form of sub-contracting the lead researcher from the specific city. At all times due authorization for this approach was obtained from the UCT administrators and appropriate governance and control measures put in place to ensure delivery and the appropriate use of funds. Payments were made to the lead researchers through sub-contracts, with the full weight of compliance and reporting associated with these agreements. This was necessary to maintain the research activities when delays and constraints were anticipated, or tight windows of opportunity emerged within which the research could take place.

Project management was a process requiring continual adaptation. This has nothing to do with partners but was linked to the wider political economy in the partner cities. Research scheduled in two cities had to be delayed due to extraneous factors. In Mexico City, research plans were delayed due to the earthquake experienced in the region, and then further delayed due to elections. In Nairobi, research was also delayed as a result of post-election tensions and the disputed election outcome which precipitated an environment in which the safety of researchers could not be guaranteed.

A further critical challenge is something specific to Southern academics. This point is raised not to assign fault to either the project design or funder processes but to perhaps assist in other project awards. Many Southern academics, particularly those at senior academic levels have inordinately high teaching and supervision obligations. Further, many of these academics sit on committees and university structures that take considerable time. This means that research activities often need to take place over vacations or over periods where the academic has a gap in their schedule. Teaching remains seen as a priority with research being secondary. As an example, in the CUP project, some senior academics were instructed to take personal leave in order to participate in research. The implications of this is that the research is scheduled at times that suit the academic programs of the HCP partners but analysis and write up of the research takes far longer than originally planned. This is where the QES-AS scholars have proved helpful. The QES-AS program did however increase the workload of those of us (in Canada and South) who mentored and supervised them. From an institutional perspective, being able to retain some overhead for this supervision time would have been strategic, particularly when the supervision time is reported on at the host institutions. Managing these time lags has required understanding and the provision of support through additional capacity. It is also here that the relationship with the SSHRC-funded scholars has been most useful. Building collaborations between Canada-based and Southern partner researchers was engaged and discussed on an on-going basis, and became increasingly relevant as more QES-AS Scholars from both sides came on board. A central ethic of the research partnership has been to ensure that the Southern partners remain partners and are not simply enumerators.

Research planning and programming

As part of the project management process, once the survey process was agreed, the methodology clear and the sampling approach clarified, partners submitted a research and sampling strategy to the Partnership Coordination Committee and its designates. These budgets and research strategies were then interrogated and, where necessary, discussed and refined by the partners. The budget review ensured that funds were correctly aligned and that no non-allowable expenses were included (such as overheads, salaries, etc.). Once the survey strategy and budgets were agreed, partners invoiced the University of Cape Town, and payment was processed. For the initial research phases, payments were made in two tranches: 60% upfront and 40% on completion. This holdback created implementation challenges and partners therefore claimed the full amount upfront. These challenges included, firstly, bureaucratic and institutional governance processes at both UCT and the receiving university which meant that there are often delays in receiving the second tranche of funding. This led to unacceptable delays in the payment of enumerators and other operational costs. Secondly, the partner relationships evolved to a point where partners effectively accounted for funds disbursed and the risk of non-delivery was no longer a consideration. Finally, as the project neared conclusion, getting the requisite funds to the partners in order to enable effective completion of all tasks, within the project cycle was essential.

Managing funding requirements across countries and as a result of specific foreign exchange rules required further diligence and attention and a large proportion of the time of the UCT administrative team was taken up in facilitating and working with partners to ensure the effective transfer of funds. For financial and other reporting linked to the IDRC grant, UCT and the ACC assigned a finance administrator to work on assisting with all payments and other finance-related project management aspects. Having a direct link to a finance staff member assisted the process. The reason for highlighting the benefit of this administrative staff member is that UCT rules preclude any financial management byon the part of researchers or academics.

The award of the LMIC grant to a single institution, as opposed to all partners is fully understood but given the partnership model of this project, it did mean that one Southern partner led others. The governance and reporting issues for the IDRC are fully understood and respected. However, as the LMIC funded lead, at times the ACC team felt more managerial than partnering.

Partnerships with Canadians or other researchers

As discussed earlier, the close and highly collaborative relationship between the Canadian and LMIC partners was a hallmark of this project. The leadership role played by the SSHRC PI, Prof Jonathan Crush, who drew in most if his Southern networks, was of significant importance to this project. This significance cannot be understated and Professor Crush's work to secure funding for the Windhoek work and in particular the QES-AS grants has contributed greatly to the project. Professor Crush's recent Wilfrid Laurier University Research Professor award and the fact that HCP was a finalist in the 2018 SSHRC Partnership Grants Award competition in 2018 (and its re-nomination in 2020) add significantly to the weight and reputation of the overall HCP project. Other members of the Canadian team, from administrators, faculty and post-docs funded by SSHRC supported all aspects of this research process and facilitated delivery in the partnership with the LMIC partners.

The disciplinary orientation of the project

This project drew on researchers and interests from a wide range of disciplinary backgrounds including geographers, demographers, statisticians, sociologists, environmental scientists, planners, urbanists, political scientists, and economists. These different researchers also bring different theoretical and practical skills sets to the project. The multi-disciplinary approach demonstrated how researchers from very different disciplinary backgrounds could collaborate in broader knowledge building in this project. The urban food lens assisted in leveling the disciplinary playing field but key perspectives and methodological tools from specific disciplines added to the robustness of the research process.

That said, the project remained principally focused on the intersection between food security, Southern urbanism, development, poverty, political economy and inclusive growth.

Involvement of research users or ultimate beneficiaries

One of the questions raised in the combined IDRC/SSHRC mid-term report was how stakeholder engagement was being managed and the proposed plans for the dissemination of project driven knowledge. Reviewers felt that it was necessary to plan and initiate a far more robust engagement process. The response to these questions was forwarded to the relevant authorities and approved.

Plans were then initiated and pilot policy engagement meetings were held in Cape Town, to test methodologies and process, and then applied in Nanjing. Through separate funding, Namibian colleagues also ran a stakeholder engagement process from which valuable lessons were also learnt. Each HCP partner then developed a stakeholder engagement plan. At the last HCP partner meeting held in Maputo in in July 2019, partners presented their city-specific outcomes from these processes while others refined their plans for later in 2019 and early 2020. These were all completed in the timeframe of the no-cost extension.

At the wider project level, a number of in-person engagements have sought to bring research findings from the HCP project to a wider global audience through our own annual project conferences and participation in other platforms. Processes here see the research findings being shared and as part of the process, statements of principle are agreed by participants. Examples include the 2017 Global Nutrition Conference[242] and the Bellagio Communique, Italy, later in 2017.[243]

A global policy forum was originally scheduled for May 2020, aligned with the Africa France Summit, hosted by the French government. Regrettably, COVID-19 meant that this meeting could not take place. A further meeting is scheduled to take place virtually in partnership with ICLEI with a specific focus on "Localizing the SDGs through a food lens" (See the program in Annexure 1). All costs for this meeting have been paid and given the virtual nature of the event, costs have been kept to a minimum. The benefit of partnering with ICLEI is that they bring their international networks to the meeting ensuring maximum reach and a wider audience of participants.

A full report of the Close Out Policy meeting will be submitted to the IDRC following the November meeting.[244]

Features addressing gender issues

As a central overarching theme, gender issues were a key area of focus of this project. A number of research partners were initially recruited to address this as this aligned to their core areas of work. These partners were drawn from both the SSHRC and LMIC partnership teams.

As a cross cutting issue these questions were dealt with in the city level research reports. Specific gender related questions were included in each of the surveys and sample strategies were explicitly designed to ensure that adequate cross-tabulations could be made to identify specific gender related issues.

As part of the Hungry Cities Discussion Paper series, papers, drawing on gender-related evidence and themes were drafted. These include a paper from Maputo and Nanjing, has been published. See: http://hungrycities.net/wp-content/uploads/2017/04/HCP9.pdf. A further paper on Gender Inequality, Poverty and Urban Household Food Security in Cape Town. See: https://hungrycities.net/wp-content/uploads/2018/12/HCP18.pdf. A further discussion paper dealt with the Interface Between Urbanization, Gender and Food in the Global South. See: https://hungrycities.net/wp-content/uploads/2019/10/HCP36.pdf . and a further paper looking

[242] See http://www.afsun.org/wp-content/uploads/2016/09/African-urbanisation-WNCT2016-1.pdf for the Global Nutrition Conference
[243] See: https://www.africancentreforcities.net/wp-content/uploads/2017/04/Bellagio-Communique-Harnessing-urban-food-systems-for-sustainable-development-and-human-well-being.pdf for the Bellagio communique.
[244] For a review of the proceedings of this conference please see: https://www.youtube.com/watch?v=1K8nAgPihRs&feature=youtu.be and https://www.youtube.com/watch?v=QY-DQxqbdP0&feature=youtu.be

at vulnerability in Southern Cities. See: https://hungrycities.net/wp-content/uploads/2020/09/DP42.pdf. Questions of food security, household structure and informal trade, to name but a few are actively dealt with in the specific city reports. Further outputs were included in book chapters and other related publications.[245]

Administrative reporting

Each research organization leaves the project with a team of co-investigators and collaborators to build on the considerable momentum generated by the project.

At the ACC, Dr Gareth Haysom served as LMIC project manager from the outset of the project. Marlene Joubert was the ACC appointed administration manager and has been associated with the project since 2014. Ithra Najaar was and remains the administrative manager responsible for the final approval of all research fund requests and all financial reporting to the IDRC. All activities fell under the authority of the HCP LMIC PI Professor Edgar Pieterse.

Research outputs

The project has produced an impressive range and volume of research outputs and will continue to generate outputs until the end of 2021. The project strategy was to generate online reports and working paper-type outputs first to ensure rapid availability of results in the public domain, and before they disappeared behind journal and book publishers' paywalls. Early publication was followed by later conversion of these into book chapters or journal articles. That said, we made an effort to publish in open access formats and while this has been possible for some journal articles and special issues, it has proved more challenging for the books. Two books are now open access, one fully, and a second partially open access (some institutions can access the book but others not).

The current outputs are detailed in Table 8 below. These figures reflect only outputs generated by Southern partners or the core HCP partners, those that form the project planning committee.

Open data repository use

A key consideration, one that has been actively supported by the IDRC has been to not only publish articles as open access, but to also view the data generated through the project as something that needs to be published in a manner that enables open access, unrestricted use and in so doing responds to issues of data opacity[246], particularly in Africa, but also specifically in terms of urban food system related issues.

Thanks to exchange rate gains, the HCP was able to re-assess the publication of data midway through the project and engage an open data repository to host the data. Given the LMIC foundation of this project, it was also deemed a principled position to support a LMIC based open data repository. For this reason, DataFirst, hosted by the University of Cape Town, was selected.

The process of collating and then curating HCP project data was, however, somewhat more complicated. Different cities have used the same survey instruments but wanted to add modules ,

[245] For example, see Liam Riley and Belinda Dodson (2020). The gender-urban-food interface in the Global South, in Crush, J., Frayne,. B. and Haysom, G. (eds). Handbook on Urban Food Security in the Global South. Edward Elgar, Cheltenham, 218 – 232.
[246] Acuto, M., Parnell, S., & Seto, K. C. (2018). Building a global urban science. *Nature Sustainability*, *1*(1), 2-4.

such as on food safety in China. Also, food groups and traditional and local foods differ across countries. This process of partner adaptation to local priorities was actively encouraged. The result was that different cities used survey instruments with slightly different components.

The original MOU between partners contains very specific details on data use, processes for use of data from other cities, and the embargoed period of HCP data before sharing more widely. These MOUs were signed by legal offices at the partner institutions. Negotiating adjustments to the positions took time and careful engagement. While the partners were generally in favour with an open data approach, institutions were more reluctant.

These issues were resolved and Data First is currently cleaning and curating the HCP data. The site will come live towards the end of 2020.

Traditional publications

A number of research outputs have been generated. These span diverse media and publication platforms.

Table 8: Research outputs detailing those loaded to IDRC reporting portal and those pending copyright clearance and negotiation

Activity/Output	Final Technical Report	Copyright for open access
Publications		
Books	13	2
Special Journal Issues	3	1
Journal Articles	50	23
Book Chapters	57	10
Reports	23	20
Working papers	59	59
Discussion papers	21	21
Presentations		
Conference and Workshop Papers	72	
Media		
Popular Articles	6	6
Blogs	23	23
Internet Videos/Interviews (e.g. YouTube)	13	13
Radio Interviews	4	4

The books that are open access include the following:

These are listed here for ease of access:
Battersby, J. and Watson, V. (eds) (2019): Urban food systems governance and poverty in African cities: https://www.taylorfrancis.com/books/e/9781351751353

Frayne, B., Crush, J. & McCordic, C. (eds)(2018). Food and Nutrition Security in Southern African Cities. Routledge, Oxon: https://www.taylorfrancis.com/books/e/9781351850780

Other books with partial access include:

Thomas-Hope, E. (ed) (2017). *Climate Change and Food Security: Africa and the Caribbean*, Routledge, London: https://www.taylorfrancis.com/books/e/9781315469737
Crush, J, and Battersby, J. (eds) (2018). Rapid Urbanisation, Urban Food Deserts and Food Security in Africa. Springer: https://www.springer.com/gp/book/9783319435664

Books without Access:

Crush, J., Frayne,. B. and Haysom, G. (eds) (2020). Handbook on Urban Food Security in the Global South. Edward Elgar, Cheltenham

As is evident in Table 8 the outputs include areas of information sharing and dissemination. It is perhaps worth noting that certain articles listed above as pending are currently loaded to open source websites (ResearchGate, etc.) but confirmation from publishers for open access publication has proved somewhat challenging, with a real reluctance of give such permission. The presentations category in Table 8 reflects only those HCP specific presentations and those that draw on information and/or theories and questions emerging from the project.

Capacity-building

The budget allocation to the Southern partners via the IDRC does provide specific finding for post-graduate students to participate in a module, as part of wider degree studies, in Urban Food Security. This course has been successfully delivered since 2014. In 2014 Dr Tawodzera led the course and in 2015, 2016 and 2017 Dr Battersby and Dr Haysom led the course. The course was led by Dr Battersby in 2018. 2019 and again in 2020. The course outline and students are lodged in the IDRC reporting web portal. Given the emerging information generated in the research and the growing interest in urban food questions, our urban food security course at UCT was constantly updated and reworked, often drawing directly from the HCP research. New approaches to teaching were also introduced to enable growing number of undergraduate and postgraduate researchers to engage in urban food system studies. Table 9 details the graduate level throughput of the project. It is worth noting that the HCP related funding for the postgraduate course ended in 2018 but the attendance is reported on here as the course continued under the auspices of the EGS department at the University of Cape Town, a sign of ongoing sustainability.

A wide range of students that are associated with the Hungry Cities Partnership project have completed postgraduate studies, and many Canadian graduates and post-graduates have also benefitted from involvement. However, as these students have not been directly funded in whole or part by IDRC they are not reported on here

However, for ease of reference, Table 9 details the students who have completed the post graduate course in urban food security over the past 5 years.

Table 9: Post Graduate students who have completed UCT Urban Food Security Course and Masters degrees (* denotes 1 students awaiting confirmation of graduation – dissertation has been submitted for examination).

Year	Urban Food Security PG Course Students	Masters degrees graduated (UCT)
2014	12	1
2015	13	1
2016	18	2
2017	13	2
2018	12	5
2019	13	2
2020	12	2*
Total	93	15

A total of 100 undergraduate students, 131 Masters students and 9 doctoral students and 7 post-doctoral students were directly involved in the survey activities carried out as port of the HCP research but are not included in Table 9.

The award of the Queen Elizabeth Advanced Scholars project (QES-AS) has added greatly to the project. As was reported, the foundational period of this research project has played a significant capacity building role amongst active city partners.

Figure 10: Participants at the 2018 International Conference on Urbanization, Food Systems and Sustainability in the Global South (held at Balsillie School of International Affairs in July 2018) – here international experts and HCP partners presented alongside QES-2 scholars.

However, all partners identified promising students and prospective young academics who were included in the project in order to build their capacity. These students and early career academics played an important part in the research activities in the partner cities and where possible and

budget permitting, attended some of the HCP events (See Figures 10 and 11). However, the QES-AS alignment to the HCP project meant that a number of academics were afforded valuable time to complete degrees. Others were able to conduct fieldwork and deepen their research skills. The surveys remain an area where capacity has been built and the survey supervisors trained as part of the first survey (and reported on in the first technical report) were able to refine skills and learn alternative forms of survey and sampling as the surveys continued.

The advantage of the QES-AS scholar placements is that students and "young" academics are expected to spend 30% of their time in a non-academic environment. Southern researchers visiting Canada have been able to engage other food system and food security actors. Many have worked with the CIGI think tank, while others were placed with the Toronto Food Policy Council, gathering valuable insights into alternative forms of urban food systems governance, and the Mennonite Economic Development Associates, acquiring new skills in development project management

Figure 11: Commonwealth Geographical Bureau and HCP members at the 2019 Maputo Conference where again, HCP and international presenters presented alongside local students and researchers.

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Impact

As argued throughout this report, there is now significant and growing interest in the subject of urban food security, urban food systems and urban food in general. There is a now clear global desire to engage HCP partners and research on this matter. This is reflected in the growing number of invitations to HCP researchers to feed into the developing global processes. Additionally, invitations to national processes have begun and while the "voice" of the HCP research may not be clearly evident in the outcomes of these national processes, there is change. HCP affiliated researchers are also receiving international awards and recognition. Dr Jane Battersby, for example, was awarded the 2017 Laureate of the Premio Daniel Carasso[247] –as well as being nominated to the review panel of the 2019 and 2020 Global Nutrition Report.

Problems and challenges

The delays in the finalisation of project partners and the late entry of some meant that a group of partners were always slightly behind in the research process as the project has progressed. These delays meant that reporting along originally proposed budget lines was difficult. This challenge has been compounded by the fact, as mentioned, that the Southern researchers have significant teaching and administrative responsibilities. In some of the partner institutions there can be institutional (or more specifically departmental) reluctance to fully embrace research as part of their work. This has been managed well by the partners and the QES-AS scholars have assisted greatly in this process. It is mentioned here as it does speak in some way to the structuring of the project, the growing number of and interest in Southern researchers based at universities as partners (as opposed to the more conventional research "consultancies") in countries with growing research capacity and need.

Recommendations

There are no substantive recommendations. All immediate questions and challenges were resolved directly through the IDRC project managers and the administrative staff. The support and assistance provided has been extremely useful, empathetic and collegial, enabling an effective and smooth running project process.

[247] See: http://www.fondationcarasso.org/en/dr-jane-battersby-laureate-2017-premio-daniel-carasso-0

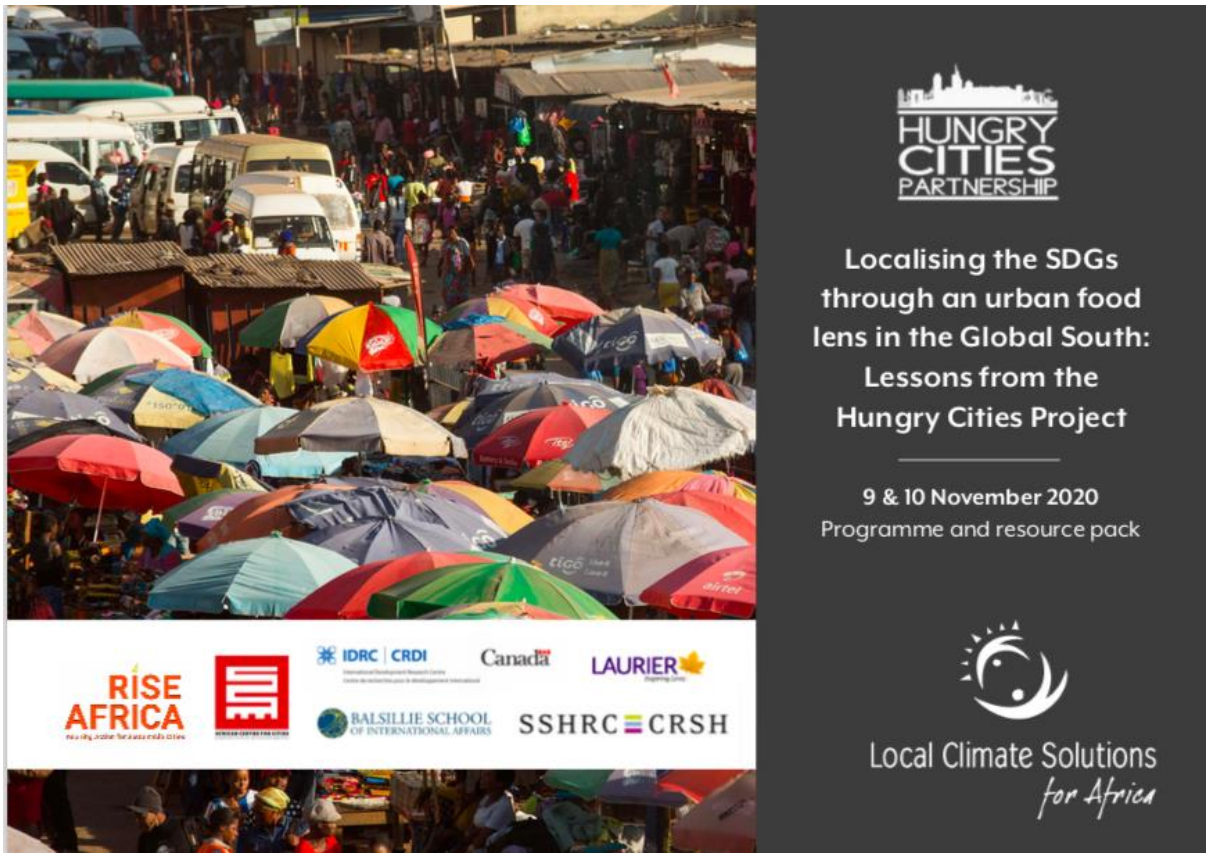
Annexure 1:

Localising the SDGs through an urban food lens in the Global South: Lessons from the Hungry Cities Project

Please find a direct link to the Program and Resource Pack for this event here: https://www.africancentreforcities.net/wp-content/uploads/2020/11/LOCS_HCP_Programme-Pack_0411.pdf

And further event details here: https://www.africancentreforcities.net/event/localising-the-sdgs-through-an-urban-food-lens-in-the-global-south-lessons-from-the-hungry-cities-project/

Full event detail and for ease of reference, a copy of the program is detail below:



Local Climate Solutions for Africa partners

Event convening partners

Hungry Cities Partnership Project partners

Local Climate Solutions for Africa (LoCS4Africa) 2020
Online | 3 - 12 November 2020

Co-hosted by ICLEI Africa, the City of Kigali and the Government of Rwanda
In partnership with the Covenant of Mayors in Sub-Saharan Africa, UCLGA, C40, GIZ, DBSA, CEMR, NDC Partnership, RISEAfrica and others to be confirmed
Sponsored by the European Union, BMZ, AECID, SwedBio, IDRC

presents

Localising the SDGs through an urban food lens in the Global South: lessons from the Hungry Cities Project

An African Centre for Cities(ACC), Balsillie School of International Affairs & ICLEI Africa Side Event, as part of RISE Africa

Monday, 9 November 2020
14:30 to 17:00 Central African Time
Tuesday, 10 November 2020
14:30 to 17:30 Central African Time

The event is a partnership between the ACC and ICLEI Africa, co-hosting a two-day event designed to stimulate discussion and reflect on policy and action processes associated with the post COVID/SDG alignment questions at the urban scale. Two aligned but discrete sessions will be presented. The session on day 1 takes the form of a discussion, engaging global actors in the urban SDG space, asking them to comment on their specific areas of interest, but prompted by a presentation of the findings from the Hungry Cities Partnership (HCP) work. The session on the day 2 will dive deeper into the various HCP city findings, with key inputs from the different HCP cities.

Local Climate Solutions *for Africa*

Urban development challenges and opportunities – localising the SDGs through an urban food lens:

Over the past 12 years, the African Centre for Cities at the University of Cape Town, has sought to interrogate and understand multiple urban encounters in African, and more broadly, Southern, cities. The subjects have generally been inter-connected and span scales and areas of governance. Many of the research areas feed directly into issues aligned to meeting the Sustainable Development Goals, specifically when seeking tools to localise the SDGs at the urban scale.

The absence of robust and critical engagement in the urban food questions has been a long-standing challenge. Urban food security, urban food systems and questions of urban food governance have been largely absent from urban governance debates. If these questions have been engaged, they have been linked to dated and ineffective "twin track approaches of produce more - and for those who cannot access this produce, support is offered through social protection". The experiences of COVID-19 has highlighted the flaws in the governance oversight in ignoring urban food system questions, across urban types and scales, but most acutely for the urban poor.

There is value in an urban food systems perspective as it brings the interactions between multiple urban systems and resource needs into sharp relief. Food and cities are closely connected but these connections are generally absent in policy and development debates. However, as Wayne Roberts argued almost 20 years ago,

more than with any other of our biological needs, the choices we make around food affect the shape, style, pulse, smell, look, feel, health, economy, street life and infrastructure of the city.

The High-level political forum (HLPF) on sustainable development session on bolstering local action to accelerate implementation in early July 2020 offered a unique opportunity to broaden the debate about how the urban food questions, the SDGs are engaged at the local scale. This opportunity was missed and food was reduced to the above binary of grow more/social protection, with some nuance added through a more regional perspective.

Urban food systems provide a useful lens through which current urbanisation and urban development processes can be interrogated, feeding into global policy actions and engagements. Urban food challenges and the urban food system provides a particularly useful lens to interrogate the challenges faced in developing cities. Urban food and the food system are a uniquely transversal issue, as Roberts described, touching many urban functions, and many SDG goals and targets.

As the world, and particularly developing world cities, come to grips with the challenges presented by COVID-19, and their planning towards localising the SDGs scales up, now is a unique time to interrogate, through an urban food lens, what this localisation of global development goals may mean, or resemble.

The Hungry Cities Partnership (HCP) , co-led by the African Centre for Cities, has recently completed a seven year research project on urban food systems. This body of work provides a useful point through which to engage civics, and other actors contributing to these emergent discussions to reflect on priorities and the inter-connected nature of urban food systems and the SDGs at the urban scale.

Registration

Registration is free of charge. You can either register for the individual days of this side event or for the LoCS4Africa Virtual Congress which will give you access to the complete congress and this event on the respective days.

Register for Day 1:
https://us02web.zoom.us/j/84830147451?pwd=djVzQ1lIMEJtWUdmcXRaekp2T1g2QT09

Register for Day 2:
https://us02web.zoom.us/j/86467389708?pwd=blIKUU15UWhCaXdDK3dTZ3hGRzVRQT09

Register for LoCS4Africa Virtual Congress:
https://www.locs4africa2020.org/

Time zone table

The event is scheduled to start at 14:30 and end at 17:00 (Central African Time) each day

Time Zone	Start	End
Central African Time	14:30	17:00
East African Time (Nairobi)	15:30	18:00
West African Time (Lagos, Accra)	13:30	16:00
Indian Standard Time (Bangalore)	18:00	20:30
China Standard Time (Nanjing)	20:30	23:00
Eastern Standard Time (Kingston)	07:30	10:00
Eastern Daylight Time (Ottawa, New York)*	07:30	10:00
Central European Standard Time (Toulouse, Rome)	13:30	16:00
Greenwich Mean Time (London, Edinburgh)	12:30	15:00

*Daylight saving ends on 01 November 2020 – the above time is adjusted for this

REGISTER DAY 1

REGISTER DAY 2

REGISTER LOCS4AFRICA CONGRESS

Local Climate Solutions *for Africa*

Day 1: Exploring our assumptions about urban food & achieving the SDGs

Time	Activity	Objectives	Speaker & Comments
14:30 - 14:35	Opening & Logistics		Opening by Paul Currie, ICLEI Africa
14:35 - 15:00	Stating global sustainability imperative & positioning food and urban as two key levers Exploring the assumptions of food and the SDGs through a Hungry Cities Lens Key insights and high level findings from the Hungry Cities Partnership project Inputs from ICLEI's work on localising the SDGs	Food and the urban agenda To highlight 2 problematics of food: - resilience & localism? - why no mobilisation on food poverty (politics of provision)? To explore the SDGs as aspiration and reporting requirement; how are we (as ICLEI) localising the SDGs to support reporting & approaching integrated Sustainability	Welcome & Context setting - Edgar Pieterse (5mins) African Centre for Cities - Jonathan Crush (5 mins) Hungry Cities Partnership - Nachi Major (5 Mins) Manager: Strategic Partnerships ICLEI Africa Facilitator: Paul Currie
15:00 - 15:15	Global perspectives Global Nutrition Report and aligned insights into the SDGs	Linking perspectives from the GNR process but arguing these in the context of food equity and the SDGs Tracking a UN body (who looks a child and maternal health) and their views on this.	- Jane Battersby African Centre for Cities - Jo Jewell UNICEF Food and the developmental legacy Facilitator: Gareth Haysom
15:15 - 15:30	Reflections Open Q&A with audience		Facilitator: Gareth Haysom
15:30 - 16:00	Roundtable – reflections and inputs Facilitator: Edgar Pieterse	Perspectives on the SDGs Planning Key Priorities for Food in Entebbe How do you support cities to engage with SDGs Developing a city index for the SDGs in Canada Locating informal trade and women within the SDGs and cities SDG 11 as a placeholder to recognise cities in the first place - where from here?	Euginie Birch – Penn State City and Regional Planning Mayor Kayanja - Entebbe City Billy Cobbett - Cities Alliance Bruce Frayne - University of Waterloo WIEGO representative Aromar Revi – Indian Institute for Human Settlements
16:00 - 16:30	Reflections Open Q&A with audience		Facilitator: Edgar Pieterse
16:30 - 16:50	Closing reflections by roundtable participants		Facilitator: Edgar Pieterse
16:50 - 17:00	Closing summary	Tease out key questions – across 8 Global South cities – food as transversal lens on SDGs raises. Are SDGs being scaled? What can food teach us about how to respond to SDGs at urban scale? What are the policy imperatives that emerge from this?	Jonathan Crush

Day 2: Insights from the Hungry Cities Partnership

Time	Activity	Objectives	Speaker & Comments
14:30 - 14:40	Opening & Scene setting	Overview of Hungry Cities Partnership project and discussion themes	Jonathan Crush, Hungry Cities Partnership
14:40 - 15:20	**Theme: State of food insecurity and hunger in Southern cities** Food security focus dealing with issues of poverty and spatial alienation 5 minute inputs with 10 minutes moderated Q&A	Nuanced understanding of the dynamics of food insecurity and hunger in the context of three Southern cities.	Elizabeth Thomas-Hope | Kingston, Jamaica Ines Raimundo | Maputo, Mozambique Samuel Owuor | Nairobi, Kenya Facilitator: Gareth Haysom
15:20 - 15:50	**Theme: Food retail in Southern cities** Focus on both formal and informal retail across a mix of HCP cities. 5 minute inputs with 10 minutes moderated Q&A	Gain insight into vending in Mexico City, wet markets in Nanjing and the governance of informality in Cape Town.	Salaman Gonzalez & Guenola Capron | Mexico City Zhenzhong Si and Taiyang Zhang | Nanjing Graeme Young | Cape Town Facilitator: Elizabeth Thomas-Hope
15:50 - 16:20	**Theme: Policy implications - HCP findings** 5 minute reflection on key point with 10 minute Q&A	Gain insight into differentiated governance in Windhoek. Reflections on informality and the food economy in Bangalore	Nderyapo Nickanor & Lawrence Kazembe | Windhoek Keerthana Jagadeesh & Shriya Anand | Bangalore Facilitator: Jane Battersby
16:20 - 16:45	**Theme: Food & the city** Facilitated conversation with all attendees asking key questions about the role of food in guiding local sustainability		Facilitator: Edgar Pieterse
16:45 - 17:00	Closing reflections		Jonathan Crush Edgar Pieterse
17:00 - 17:30	**Book Launch** *Handbook on Urban Food Security in the Global South* Edited by Jonathan Crush, Bruce Frayne & Gareth Haysom Published by Edward Elgar Publishing		Jonathan Crush

Speakers

Edgar Pieterse | Director, African Centre for Cities | South African Research Chair in Urban Policy

An expert on African urbanisation, Edgar Pieterse, knows what radical and rapid urban change means for a city, a country and a continent. He is deeply fascinated by the drama of cities everywhere and at different moments in time, including the future, the past and science fiction invocations. Simultaneously, he endeavours to remain grounded in the tough and messy realities of cities—invariably always on the move—working with materialist and aesthetic optics. As such he extends himself in research and teaching theoretical and applied concerns.

He is currently engaged in several interrelated research topics: Radical Social Economies; Sustainable Infrastructure; Adaptive Urban Governance; Speculative Urban Experiments; Urban Innovation Systems as well as Urban Pedagogy and Southern Urbanisms.

In his teaching practice he is currently deeply immersed in the curriculum development of a new Profession Masters degree in the Practice of Sustainable Urbanism set to launch later this year, as well as teaching into the Urban Theory module of the MPhil Southern Urbanism programme.

In his latest book *New Urban Worlds: Inhabiting Dissonant Times*, co-authored with longstanding collaborator AbdouMaliq Simone, explores the emerging epicentres of global urbanisation through the detail of people's lives.

Gareth Haysom | Researcher, African Centre for Cities

Gareth Haysom is a researcher at the African Centre for Cities at the University of Cape Town. Gareth obtained his PhD from the University of Cape Town and a MPhil from Stellenbosch University.

Gareth spend 15 years working in the private sector, holding various leadership and board positions before returning to academia in 2004 where he has held various teaching and research positions at Stellenbosch University and the University of Cape Town.

Gareth's work focuses on urban food. This approach uses food as a lens to better understand urbanisation in cities of the global South with a specific interest in African cities, working in a variety of countries and across city types. The premise motivating this work is that Africa's future will be an urban one and a narrow window exists in which to respond to the specific needs of the varied urban forms and typologies before the future is cast in concrete.

Food, food system challenges and everyday food system related questions offer a unique perspective on how African cities are changing, how urbanites navigate the urban everyday, the flaws in existing food system policies, and how food intersects directly with poverty and inequality.

Jonathan Crush | Professor, School of International Policy and Governance, Balsillie School of International Affairs

Jonathan Crush is the University Research Professor and Professor, School of International Policy and Governance, Balsillie School of International Affairs, Waterloo, ON, Canada.

Jonathan has taught at the National University of Lesotho and the University of Alberta and was a member of the Queen's faculty from 1987 to 2012. In 2008, he was awarded a Queen's Research Chair, and in 2012 he joined the Balsillie School.

Jonathan founded the Southern African Migration Programme (SAMP) and co-founded the African Food Security Urban Network (AFSUN), a research, policy and capacity-building network of Canadian and African universities, NGOs and municipal governance networks.

Since joining the Balsillie School, he established the Hungry Cities Partnership in 2014, which links colleagues from Laurier and Waterloo with partners in Mexico, Jamaica, South Africa, Mozambique, Namibia, Kenya, India and China. In 2017, Jonathan led a successful Laurier application to the Queen Elizabeth Diamond Jubilee Advanced Scholars (QES-AS) program for doctoral, post-doctoral and early career academic scholar exchanges between Canada and several countries in the South, focused on building capacity in urban food system governance

Nachi Majoe | Manager: Strategic Partnerships ICLEI Africa

Nachi Majoe has 10 years' experience in local government policy, practice, and capacity building. She holds two Master's degrees: Public Management & Governance, and International Planning & Sustainable Development specialising in urban resilience. She holds a dual role at ICLEI Africa as Manager for Strategic Alliances where she leads on the localisation of global agreements and Gender and she is also a Senior Professional Officer: Climate Change, Energy and Resilience.

Jane Battersby | Associate Professor, African Centre for Cities

Jane Battersby is an Associate Professor at the African Centre for Cities. Jane is an urban geographer with an interest in all things food related. Since 2007 Jane has led the Urban Food Research cluster at the ACC. Jane served on the Independent Advisory Group for the Global Nutrition Report from 2018 – 2020. In 2017, Jane's work in the urban and wider sustainable food systems field was recognised through the award of the Premio Daniel Carasso 2017 Laureate Award. Jane is actively engaged in international, national, provincial and local government policy process, having acted in an advisory or consultative position at these levels, and currently a member of the South African Vulnerability Assessment Committee.

Speakers

Eugenie Birch | Lawrence C. Nussdorf Chair of Urban Research and Education, Penn Institute for Urban Research

Eugenie Birch is the Lawrence C. Nussdorf Chair of Urban Research and Education. She teaches courses in global urbanization and the doctoral seminar and serves as chair, Graduate Group in City and Regional Planning, co-director, Penn Institute for Urban Research, co-editor, City in the 21st Century Series, University of Penn Press and co-editor, SSRN Urban Research e-journal.

Professor Birch has been active in the field's professional and civic organizations. She is president, General Assembly of Partners (GAP), the engagement platform for the implementation of the UN's New Urban Agenda and associated global agreements, and co-chair, Sustainable Development Solutions Network (SDSN) Thematic Group on Cities, and an Associate Editor, Journal of the American Planning Association.

Jo Jewell | Nutrition Specialist, UNICEF

Jo Jewell is Technical Officer for Nutrition, Physical Activity and Obesity at the WHO Regional Office for Europe, where he has worked since 2014. His previous experience includes roles as Policy and Public Affairs Manager at World Cancer Research Fund International, based in London, and as Policy Coordinator at the European Public Health Alliance in Brussels. He has a background in European politics and has a Masters from the London School of Hygiene and Tropical Medicine and the London School of Economics in Health Policy, Planning, and Financing. His experience and publications mainly relate to food policy, including a focus on food marketing to children, digital marketing, nutrient profiling, the use of price policies, front of pack labelling, food composition and product reformulation.Group on Cities, and an Associate Editor, Journal of the American Planning Association.

Billy Cobbett | Director, Cities Alliance

William (Billy) Cobbett, is the Director of Cities Alliance. Billy was Director General for the National Department of Housing in Nelson Mandela's Government of National Unity, overseeing the design and launch of South Africa's first non-racial housing policy under Minister Joe Slovo. While at UN-Habitat, he designed and launched the Global Campaign for Secure Tenure. Billy has been Director of the Cities Alliance since 2006.

Aromar Revi | Director, Indian Institute for Human Settlements (IIHS)

Aromar Revi is the founding Director of the Indian Institute for Human Settlements (IIHS). He is an alumnus of IIT-Delhi and the Law and Management schools of the University of Delhi. Over a decade, he has built IIHS into one of the world's leading education, research, training, advisory and implementation-support institutions, focusing on sustainable urbanisation. Aromar is a global expert on Sustainable Development; Co-Chair of the UN Sustainable Development Solutions Network (SDSN), from where he helped lead a successful global campaign for an urban Sustainable Development Goal (SDG 11) in the UN's 2030 development agenda.

Kayanja Vincent De Paul | Mayor, Entebbe Municipal Council

Hon. Mayor Kayanja Vincent De Paul is the Political Head of the Entebbe Municipal Council. His noteworthy contributions to the Entebbe Municipal Council includes the overhaul of the town's public infrastructure and the town being recognised as the leading town in Uganda for cleanliness/sanitation in 2013. Hon. Mayor Kayanja Vincent De Paul serves as Chairman for the Uganda Chapter Lake Victoria Local Authorities Cooperations (LVRLAC), alongside local governments in Uganda, Kenya and Tanzania to address Lake Victoria basin environmental challenges. He is also an Executive for ICLEI Africa's governance committee and a Board Member of the China/Africa Friendship Association.

Bruce Frayne | Professor and Director of the School of Environment, Enterprise and Development, University of Waterloo

Bruce Frayne is a Professor and Director of the School of Environment, Enterprise and Development. He is an Urban Planner and Geographer, and teaches in the International Development program. His research interests fall within the broad ambit of sustainable cities, and encompass the three related areas of human migration, urbanization and food security. In addition to leading the Sustainable Development Goals (SDG) Canadian Cities Index project, Bruce works in Sub-Saharan Africa and cities of the Global South.

Speakers

Elizabeth Thomas-Hope | Professor, University of the West Indies

Elizabeth Thomas-Hope holds a doctorate from Oxford University, MSc from Pennsylvania State University and MA from the University of Aberdeen. She is a Fellow of the Royal Geographical Society (FRGS) and currently President of the Commonwealth Geographical Bureau (CGB). She has taught at universities in the USA (City University of New York) and in the United Kingdom (University of London - Institute of Latin American Studies, and the University of Liverpool), and the University of the West Indies (UWI). At UWI, she was the first appointee to the James Seivright Mass-Solomon (Snr.) Chair of Environmental Studies, and Director of the Centre for Environmental Management. In that position she developed and directed two MSc degrees, one in Integrated Urban and Rural Environmental Management and the other in Disaster Risk Reduction; as well as two PhD degrees: in Environmental Management; and in Migration and Diaspora Studies. Her research interests are in the fields of environmental and ecological justice, food security and social policy, and migration. She was awarded the Government of Jamaica National Honor of the Order of Distinction, Commander Class (CD), for her contribution to Environmental Management and Migration Studies in the Caribbean.

Samuel Owuor | Associate Professor, University of Nairobi

Samuel Owuor is an urban geographer and Associate Professor in the Department of Geography and Environmental Studies, University of Nairobi, Kenya. He holds a PhD in Human Geography (University of Amsterdam), MA in Urban Geography (University of Nairobi/McGill University) and BA in Geography (University of Nairobi). His research interests are in the fields of urban development and governance; urban poverty and livelihoods; urban food and nutrition security; and urban-rural linkages. He coordinates the University of Nairobi postgraduate programme in Sustainable Urban Development. Prof Owuor has been involved in the design and implementation of collaborative and multi-disciplinary research projects such as IDRC-funded Nourishing Spaces Project; SSHRC/IDRC-funded Hungry Cities Partnership Project; NASAC-funded LIRA-2030 Project; EU-funded Food Metres Project; and CODESRIA/Rockefeller/IRD-funded Urban Integration Project.

Paul Currie | Manager: Urban Systems, ICLEI Africa

Paul Currie is fascinated by the multi-layered relationships that give each city its unique flavour. With a Sustainable Development MPhil and current doctoral research, Paul uses urban metabolism, resource nexus and political ecology as lenses for shaping sustainable, inclusive cities. At ICLEI Africa, he Manages the Urban Systems Unit which supports local governments to apply systems perspectives to food, water, energy, waste, mobility and nature, and facilitates the development of policies and plans appropriate to contexts of change and uncertainty.

Inês Raimundo | Associate Professor, Eduardo Mondlane University

Inês Macamo Raimundo is a Human Geographer with an interest in migration and inclusive growth, food security, climate change and forced migration in Mozambique. She holds a PhD in Forced Migration and Master in Human Geography by the University of the Witwatersrand, Johannesburg, South Africa and a Licenciatura (Bhonors) in Geography by Eduardo Mondlane University, Mozambique. Raimundo has taught at Eduardo Mondlane University for 25 years where she trained several undergraduate and postgraduate students in Human Geography, Geography of Population, Geography of Migration, Environment and Population and Development. She holds the position of Associate Professor in Human Geography & Head of Department of Academic Assurance, at Faculty of Arts and Social Sciences, Eduardo Mondlane University, Mozambique, and Associate Researcher at the Center for Policy Analysis of the Faculty of Arts and Social Sciences of Eduardo Mondlane University. Raimundo is part of international research partnership that includes both Global North and South. Her research interest is: Migration, Environmental refugees, Internally Displaced Persons, Food Security and urbanization. In 2019 she received appreciation from the Global Challenge Research Fund and UK Research and Innovation due to her contribution to UKRI International Development Peer Review College.

Zhenzhong Si | Postdoctoral Fellow, Wilfrid Laurier University

Zhenzhong Si is a human geographer with broad research interests in sustainable food systems, alternative food networks, food security, food safety and rural development initiatives. He got his PhD in Geography from University of Waterloo in 2015. He has been working on the Hungry Cities Partnership project to examine urban food security and inclusive food economy in China. He is currently Postdoctoral Fellow at Wilfrid Laurier University, Canada.

Speakers

Salomón González Arellano | UAM-Cuajimalpa in Mexico City

Salomon González, architect and PhD in Urban Planning and Regional Development, from Laval University, in Quebec, Canada. He is currently a Faculty member at the Department of Social Sciences of the UAM-Cuajimalpa in Mexico City. He is founder member of the Laboratory of Socioterritorial Analysis, and a member of the National System of Researchers since 2006. Salomon has been advisor for a master's and doctoral thesis on segregation issues, urban form, public space, mobility and recently in urban food systems. His researches deal with urban morphology, segregation, accessibility and mobility. In addition, he is a specialist in spatio-temporal representation and analysis, especially in relation to the differentiation of urban space in Mexico, and methods for decision-making from the perspective of Territorial Intelligence. He is currently director of the UAM Office in Europe, coordinator of the Urban Form Studies Network and researcher for the International Hungry Cities Consortium. Salomon is co-founder of the International Research Network "Villes du Futur" funded by CNRS-France (2020-2029) and coordinator of the research project "Cities in Transition" funded by CONACYT 2020-2023.

Guénola Capron | Professor, Autonomous Metropolitan University-Azcapotzalco

Guénola Capron is a professor-researcher at the department of Sociology of the Autonomous Metropolitan University-Azcapotzalco at Mexico City. She has a PhD. in geography from the University of Toulouse-2 le Mirail (From France). Previously, she was a researcher at the CNRS in France and at the Center for Mexican and Central American Studies in Mexico. Her research work is focused on the study of the transformation of public space and urbanity in cities like Buenos Aires and Mexico, changes in daily mobility and urban public safety. She has coordinated research projects on these topics. More recently she has been involved in the Hungry Cities Partnership on food insecurity in the global South, working on the case of Mexico City. She is the author of more than 80 articles and chapters of audited books and she is the editor and co-editor of several books.

Taiyang Zhong | Associate Professor, School of Geography and Ocean Science, Nanjing University

Taiyang Zhong received his Ph.D from Nanjing University in 2007. He is an Associate Professor in the School of Geography and Ocean Science at Nanjing University in Nanjing, China. His research interests are China's land use policy and food security. He is one of the pioneer researchers of urban food security in China. He have published more than 40 peer reviewed papers in food security and land use policy in English, more than 100 papers in Chinese, one book about farmer's land use and policy in China and one textbook about land use policy assessment. As the leading researcher of the Hungry Cities Partnership (HCP) in Nanjing, China since 2013, Taiyang Zhong facilitated five large-scale citywide digital surveys on household food security, the conditions of food vendors, youth in food businesses, consumers and supermarket managers and affordable food stores in Nanjing. He successfully organized a policy forum on urban food security and food access in Nanjing in 2017.

Keerthana Jagadeesh | Senior Associate, Indian Institute for Human Settlements

Keerthana Jagadeesh is a Senior Associate in the Urban Informatics Labs at the Indian Institute for Human Settlements. She has worked on randomized controlled trials at J-PAL in the past and continues to work and teach on primary quantitative research methods at IIHS. She has been a part of the Hungry Cities Partnership where her work focused on the informal food economy and food supply chains in Bangalore. She has a Bachelors in Economics from New York University.

Ndeyapo Nickanor | Associate Professor & Dean of the Faculty of Science, University of Namibia

Ndeyapo Nickanor is an Associate Professor in the Department of Statistics and Population Studies and Dean of the Faculty of Science University of Namibia. She holds a PhD from the University of Cape Town. My research interest are in the area of Demography, Migration but lately Urban Food Security and Livelihoods. She has been a partner of AFSUN and an affiliate of HCP.

Speakers

Shriya Anand | Indian Institute for Human Settlements

Shriya Anand is a faculty member at the Indian Institute for Human Settlements, teaching on topics related to urban economic development and quantitative research methods. She anchors the Urban Informatics Lab at IIHS, which analyses, communicates and disseminates data and information related to India's urbanization. Her research at IIHS is primarily centered on the Indian urban economy and economic geography, with a particular focus on the role of employment in urban development and poverty reduction. Recently, she has been a part of the Hungry Cities Partnership, and the KNOW and PEAK Urban research programmes supported by the Global Challenges Research Fund. Her work within Hungry Cities focused on the informal food economy in Bangalore. She has also recently been studying large industrial infrastructure projects such as the Delhi-Mumbai Industrial Corridor, their relationship with urbanization, and associated choices about development pathways. She holds a Master in Public Affairs from Princeton University, and a Master in Mathematics from Cambridge University, UK.

Graeme Young | Research Associate, Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods, University of Glasgow

Graeme Young is a research associate at the Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods at the University of Glasgow specializing in development theory and the political economy of development. He received his PhD in Politics and International Studies from the University of Cambridge in 2018.Graeme's research focuses on the political economy of informal economic activity and explores how political processes, economic institutions, legal and regulatory systems, and urban development projects shape informality in cities in the Global South; how the urban poor experience and respond to state power as they engage in the informal economy; and what the relationship between the informal economy and the state reveals about state power and the political economy of development more generally. Prior to joining the University of Glasgow, Graeme served as a Postdoctoral Fellow at the Balsillie School of International Affairs, a Visiting Researcher at the University of Cape Town, and a Scholar in Residence at the Center for Human Rights and Global Justice at the New York University School of Law.

Lawrence Kazembe | Professor, University of Namibia

Lawrence Kazembe, PhD, is a Professor in Applied Statistics and Epidemiology at the University of Namibia. He joined the University of Namibia in 2012, having served in a similar position at the University of Malawi, Chancellor College. He previously served as senior biostatistician at Malawi Liverpool Wellcome Trust Clinical Research Programme in Blantyre, Malawi, in 2010-2012; as a research fellow at Medical Research Council of South Africa, Durban in the Malaria Lead Research Programme, 2005-2007. He has worked as a consultant statistician with Malaria Alert Centre, College of Medicine, Blantyre-Malawi since 2005. He is a member of the young affiliates network of the World Academy of Sciences (TYAN-TWAS). He has published extensively, with over 100 peer-reviewed publications, in population health. He has also worked on integrating climate change and health in early warning and response system for vector-borne diseases and cholera; analysis of dietary food patterns and food insecurity.

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The Hungry Cities Partnership

The Hungry Cities Partnership (HCP) is a collaborative research project including IDRC funded Southern partners and SSHRC-funded Canadian partners, the Balsillie School of International Affairs (BISA) and Wilfrid Laurier University and their associated network. The Southern or LMIC Partner cities include the following cities: Mexico City, Mexico; Kingston Jamaica; Cape Town, South Africa; Maputo, Mozambique; Nairobi, Kenya; Bangalore, India; and Nanjing, China. The LMIC countries are coordinated through the African Centre for Cities at the University of Cape Town, South Africa.

Hungry Cities Partnership Partners

Universidad Autónoma Metropolitana (UAM)	- Mexico City, Mexico
University of the West Indies: Mona Campus	- Kingston, Jamaica
Universidade Eduardo Mondlane	- Maputo, Mozambique
University of Nairobi	- Nairobi, Kenya
Indian Institute for Human Settlements	- Bangalore, India
University of Nanjing	- Nanjing, China
University of Namibia	- Windhoek, Namibia
African Centre for Cities	- Cape Town, South Africa

And the SSHRC funded Canadian partners

Balsillie School of International Affairs (BISA)	- Waterloo, Canada
Wilfrid Laurier University	- Waterloo, Canada
University of Waterloo	- Waterloo, Canada

ICLEI Africa

ICLEI – Local Governments for Sustainability is a global network of more than 1,750 local and regional governments committed to sustainable urban development. Active in 100+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development. Our Members and team of experts work together through peer exchange, partnerships and capacity building to create systemic change for urban sustainability.

ICLEI Africa is convening RISE Africa movement as a series of activities to build momentum around Inspiring Action for Sustainable Cities.

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Hungry Cities Partnership: State of Urban Food System Reports


HCP City 1
The urban food system of Nanjing, China


HCP City 2
The urban food system of Maputo, Mozambique


HCP City 3
The urban food system of Cape Town, South Africa


HCP City 4
The urban food system of Kingston, Jamaica


HCP City 5
The urban food system of Bangalore, India


HCP City 6
The urban food system of Nairobi, Kenya


HCP City 7
The urban food system of Mexico City, Mexico


HCP City 8
The urban food system of Windhoek, Namibia

Hungry Cities Partnership: State of Household Food Security Reports

HCP City 1
The state of household food security, Nanjing, China

HCP City 2
The state of household food security, Maputo, Mozambique

HCP City 3
The state of household food security, Cape Town, South Africa

HCP City 4
The state of household food security, Kingston, Jamaica

HCP City 5
The state of household food security, Bangalore, India

HCP City 6
The state of household food security, Nairobi, Kenya

HCP City 7
The state of household food security, Mexico City, Mexico

HCP City 8
The state of household food security, Windhoek, Namibia

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Hungry Cities Partnership: State of Inclusive Growth & the Informal Food Sector

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State of Inclusive Growth & Small-scale Food Vending, Nanjing, China

HCP City 2
State of Inclusive Growth & Informal Vending, Maputo, Mozambique

HCP City 3
State of Inclusive Growth & the Informal Food Sector, Cape Town, South Africa

HCP City 4
State of Inclusive Growth & the Informal Food Sector, Kingston, Jamaica

HCP City 5
State of Inclusive Growth & the Informal Food Sector, Bangalore, India

HCP City 6
State of Inclusive Growth & the Informal Food Sector, Nairobi, Kenya

HCP City 7
State of Inclusive Growth & the Informal Food Sector, Mexico City, Mexico

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Hungry Cities Partnership: Journal Special Editions

Journal: International Migration
Special Section: Cultivating the migration-food security nexus
Guest editors: Jonathan Crush and Mary Caesar
Vol. 55 (4) - August 2017

Journal: Urban Forum
Special Issue: Africa's Urban Food Deserts
Guest editors: Jane Battersby and Jonathan Crush
Vol. 25 - 2014

Journal: Sustainability
Special Issue: Urban Food Deserts: Perspe
Editors: Jonathan Crush and Zhenzhong
Vol. 11(14) - 2019

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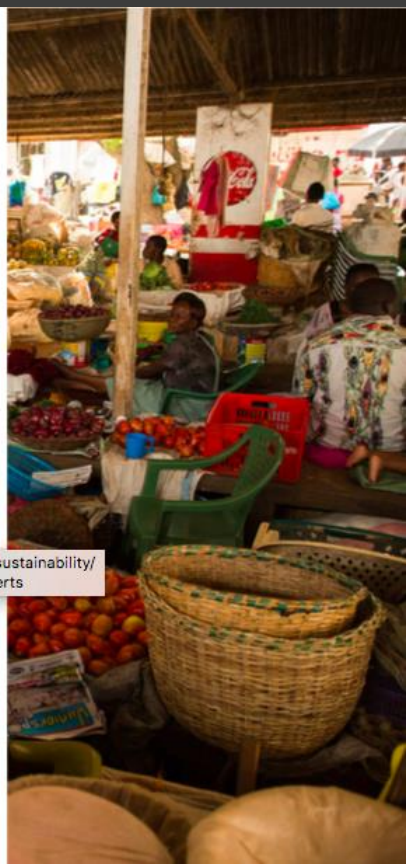
Journal: Urban Forum
Special Issue: Africa's Urban Informal Food Sector in Comparative Perspective
Guest editors: Jonathan Crush and Graeme Young
Vol. 30 - 2019



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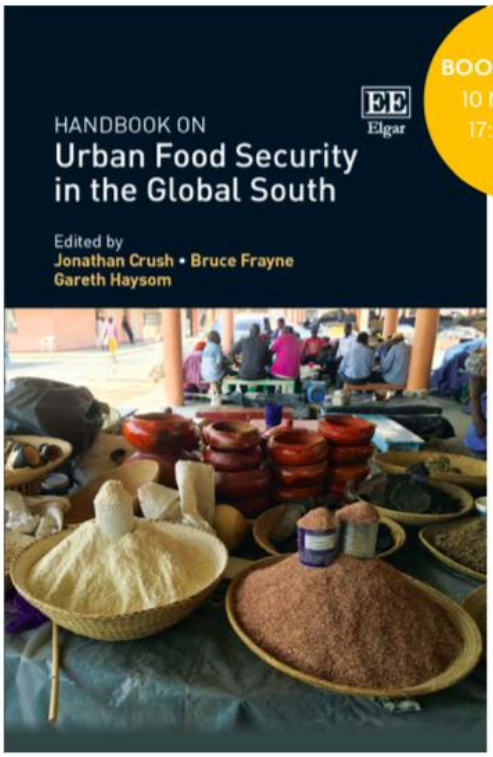

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'This book challenges conventional thinking about food security as primarily a problem of limited food production. It shows the complexity and interconnectedness of urban food security issues, and the power of the globalized industrial food systems that frame the growing food insecurity of cities of the Global South. It shows decisively that tackling urban food security demands moving beyond the search for new "green revolutions".'

Bill Adams, Emeritus Moran Professor of Conservation and Development, University of Cambridge, UK

'With global rates of food insecurity surging, now more than ever we need to better understand the critical shifts impacting food systems around the world. The Handbook explores how and why hunger and malnutrition is on the rise in cities across the Global South. This is a must read for food security policymakers, scholars and students.'

William G. Moseley, DeWitt Wallace Professor of Geography, and Director of the Program for Food, Agriculture & Society, Macalester College, USA

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Annexure 2

Deliverable	Cape Town	Windhoek	Mexico City	Kingston	Nairobi	Maputo	Bangalore	Nanjing
City Profile Report	**HCP 3**	**HCP 8**	**HCP 7**	**HCP 4**	**HCP 6**	**HCP 2**	**HCP 5**	**HCP 1**
Household Survey Report	**HCP 12**	**HCP 8**	**HCP 13**	**HCP 15**	**HCP 11**	**HCP 10**	**HCP 14**	**HCP 9**
Vendor Report	**HCP 16**	**DP 26**	**Complete**	**HCP 19**	**HCP 21**	**HCP 18**	**HCP 20**	**HCP 17**
Youth Vendor Report	2020	**DP 26**	**Complete**	Jan, 2020	**Complete**	Jun-19	Jan-20	2018
Supermarket Report	**Complete**	**HCP 8**	Feb-20	**Complete**	**Complete**	Jan-20	**Complete**	2019
Governance Report	**DP 38**	**DP 33**	**Complete**	**DP 34**	**Complete**	Jan-20	**Complete**	2019
Policy Forum	**Complete**	2018	Sep-19	Jan-20	Nov-19	Dec-19	Ongoing	2018 & 2019
Policy Forum Report	**Complete**	2018	Sep-19	**Complete**	Jan-20	Jan-20	**In Press**	2018 & 2019
Policy Brief 1	**HCP PB 4**	Pending - QES	Pending	**HCP PB 9**	Pending - QES	**Complete**	**Complete**	**HCP PB 5**
Policy Brief 2	**HCP PB 7**	N/A	Pending	**Complete**	Pending - QES	**Complete**	Pending	**HCP PB 8**
Policy Brief 3	**HCP PB 6**	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Policy Brief 4	**Draft complete**	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Policy Perspective	**DP 5 MAPPING THE INFORMAL FOOD ECONOMY OF CAPE TOWN, SA**	**DP 3 URBAN FOOD DESERTS AND CLIMATE CHANGE IN AFRICA'S HUNGRY CITIES**	**DP 28 URBAN FOOD DESERTS IN NAIROBI AND MEXICO CITY**	**DP 34 THE POLITICAL ECONOMY OF INFORMAL FOOD VENDING IN KINGSTON, JAMAICA**	**DP 3 URBAN FOOD DESERTS AND CLIMATE CHANGE IN AFRICA'S HUNGRY CITIES**	**DP 3 URBAN FOOD DESERTS AND CLIMATE CHANGE IN AFRICA'S HUNGRY CITIES**		**DP 2 APPROACHING SUSTAINABLE URBAN DEVELOPMENT IN CHINA THROUGH A FOOD SYSTEM PLANNING LENS**
	DP 3 URBAN FOOD DESERTS AND CLIMATE CHANGE IN AFRICA'S HUNGRY CITIES	**DP 17 REVISITING AFRICA'S SUPERMARKET REVOLUTION**			**DP 17 REVISITING AFRICA'S SUPERMARKET REVOLUTION**	**DP 7 HOUSEHOLD FOOD SECURITY AND ACCESS TO MEDICAL CARE IN MAPUTO, MOZ.**		
Policy Perspective	**DP 8 INTERNATIONAL MIGRATION AND URBAN FOOD SECURITY IN SOUTH AFRICAN CITIES**	**DP 21 URBAN INFORMAL FOOD DESERTS IN WINDHOEK, NAMIBIA**			**DP 28 URBAN FOOD DESERTS IN NAIROBI AND MEXICO CITY**	**DP 15 THE FOOD SECURITY IMPLICATIONS OF GENDERED ACCESS TO EDUCATION AND EMPLOYMENT IN MAPUTO**		**DP 4 SUPERMARKETS, WET MARKETS AND FOOD PATRONAGE IN NANJING, CHINA**
Policy Perspective	**DP 17 REVISITING AFRICA'S SUPERMARKET REVOLUTION**	**DP 26 SUPERMARKETS AND INFORMAL FOOD VENDORS IN WINDHOEK, NAMIBIA**				**DP 17 REVISITING AFRICA'S SUPERMARKET REVOLUTION**		**DP 14 THE IMPACT OF PROXIMITY TO WET MARKETS AND SUPERMARKETS ON HDDS IN NANJING , CHINA**

Policy Perspective	**DP 18 GENDER INEQUALITY , POVERTY AND URBAN HOUSEHOLD FOOD SECURITY IN CAPE TOWN**	**DP 33 CONTAINING THE INFORMAL FOOD SECTOR IN WINDHOEK, NAMIBIA**				**DP 22 PREDICTORS OF HOUSEHOLD FOOD INSECURITY IN MAPUTO AND MATOLA, MOZ.**		**DP 20 CROSS PLATFORM FOOD SHOPPING AND HOUSEHOLD FOOD ACCESS IN NANJING, CHINA**
Policy Perspective	**DP 23 FOOD VENDING AND THE URBAN INFORMAL SECTOR IN CAPE TOWN, SOUTH AFRICA**					**DP 31 MOTIVATIONS AND CHALLENGES OF YOUTH ENTREPRENEURS IN MAPUTO'S FOOD MARKETS**		**DP 24 ACHIEVING URBAN FOOD SECURITY THROUGH A PUBLIC-PRIVATE HYBRID FOOD PROVISIONING SYSTEM**
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Policy Perspective								**DP 32 WET MARKET VENDOR PROFITS IN NANJING, CHINA: A SPATIAL ANALYSIS**
Policy Perspective								**DP 40 FOOD RETAILING TRANSITIONS AND NEW RETAIL BUSINESSES IN NANJING, CHINA**
Policy Brief	HCP PB 3 Devising Urban Food Security Policy for African Cities	HCP PB 3 Devising Urban Food Security Policy for African Cities	HCP PB 2 An Urban Perspective on Food Security in the Global South	HCP PB 9 Enhancing Food Security through Urban Agriculture in Kingston, Jamaica	HCP PB 3 Devising Urban Food Security Policy for African Cities	HCP PB 3 Devising Urban Food Security Policy for African Cities	HCP PB 2 An Urban Perspective on Food Security in the Global South	HCP PB 8 Improving the Profitability of Wet Market Food Vendors in China
Policy Brief	HCP PB 6 Gender Inequality and Food Security Policy Responses	HCP PB 2 An Urban Perspective on Food Security in the Global South	HCP PB 1 The SDGs, Food Security and Urbanization in the Global South	HCP PB 2 An Urban Perspective on Food Security in the Global South	HCP PB 2 An Urban Perspective on Food Security in the Global South	HCP PB 2 An Urban Perspective on Food Security in the Global South	HCP PB 1 The SDGs, Food Security and Urbanization in the Global South	HCP PB 5 Food Security and the Changing Landscape of Food Retailing in Nanjing, China
Policy Brief	HCP PB 7 Demand: The Forgotten Side of Informal Economy Policy	HCP PB 1 The SDGs, Food Security and Urbanization in the Global South		HCP PB 1 The SDGs, Food Security and Urbanization in the Global South	HCP PB 1 The SDGs, Food Security and Urbanization in the Global South	HCP PB 1 The SDGs, Food Security and Urbanization in the Global South		HCP PB 2 An Urban Perspective on Food Security in the Global South
	HCP PB 4 Enabling Informal Food Vending in Urban South Africa							HCP PB 1 The SDGs, Food Security and Urbanization in the Global South
Policy Brief Global South	**HCP PB 1**		**The SDGs, Food Security and Urbanization in the Global South**					
Policy Brief Global South	**HCP PB 2**		**An Urban Perspective on Food Security in the Global South**					
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Policy Brief	**HCP PB 4**		**Enabling Informal Food Vending in Urban South Africa**					

Policy Brief	**HCP PB 5**	**Food Security and the Changing Landscape of Food Retailing in Nanjing, China**
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