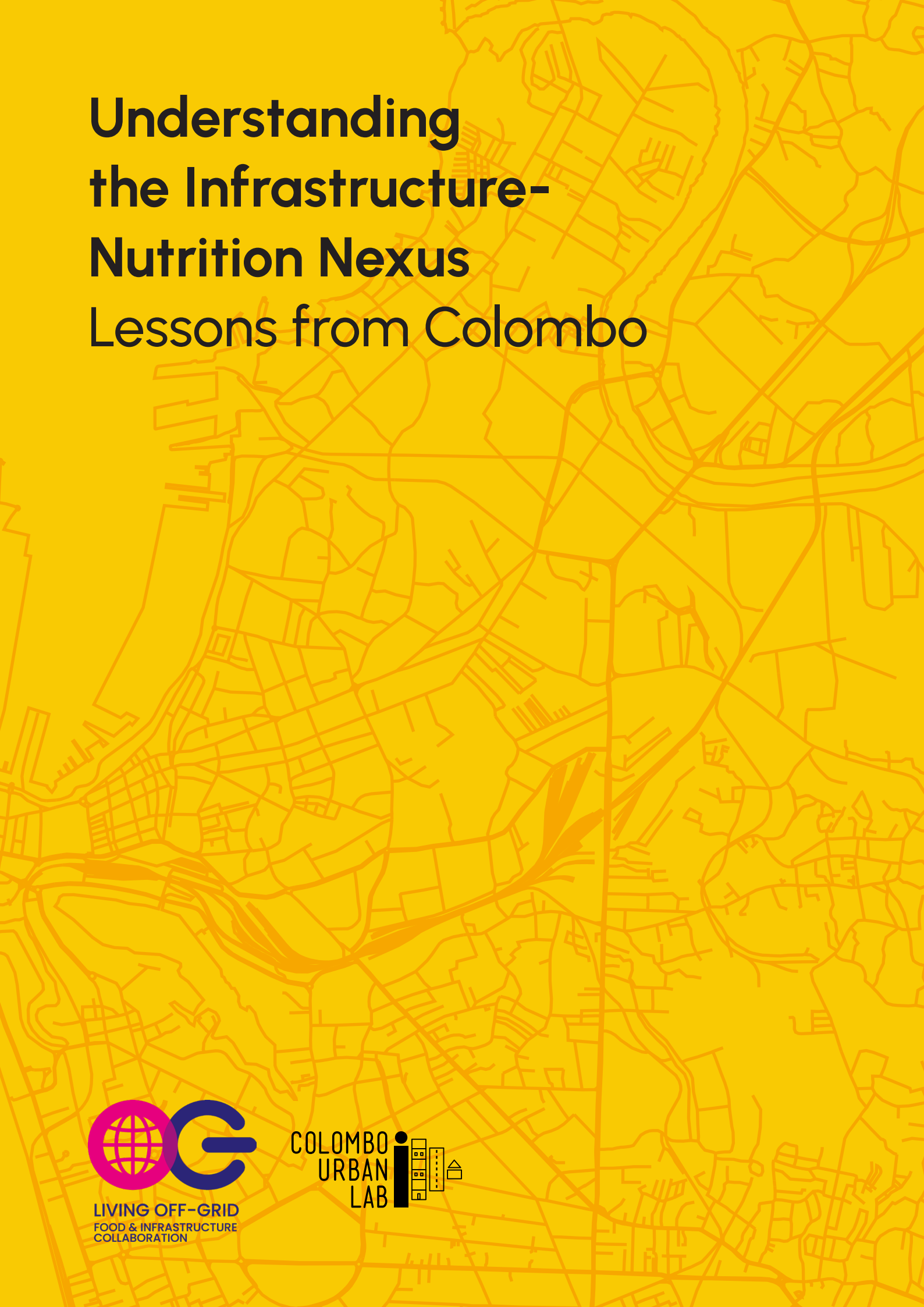
Understanding the Infrastructure-Nutrition Nexus

Lessons from Colombo



LIVING OFF-GRID
FOOD & INFRASTRUCTURE COLLABORATION

COLOMBO URBAN LAB

Introduction

The Living Off-Grid Food & Infrastructure Collaboration (LOGIC) is a collaboration between the Institute of Development Studies; the African Centre for Cities, University of Cape Town; the Indian Institute of Human Settlements, Bangalore; Colombo Urban Lab and the University of Ghana, Accra. The project seeks to understand how marginalised people's food and nutrition security is shaped by urban infrastructure assemblages in a variety of 'off-grid' settings in five cities in Asia and Africa.

Colombo Urban Lab conducted fieldwork from November 2021 to April 2023. This included qualitative interviews with households from two sites in Wanathamulla, a watte or settlement and a high-rise building complex housing relocated urban poor households. Household preference helped select vendors in both sites who were interviewed for the second stage of fieldwork. Finally, the sourcing patterns of retail vendors selling fish and vegetables determined the final two sites of fieldwork with wholesale vendors - Peliyagoda Fish Market Complex and New Manning Market. By tracing vegetables and fish up the supply chain, the study was able to provide a holistic understanding of how the infrastructure-food nexus plays out at different scales and determines the food plates of the urban poor.

Key Findings

When we look at the food plate of a working-class poor family in Colombo, the items on the plate are not a reflection of only the cost of the products or preference of family members alone. It is a reflection of which cooking energy they used to cook, the amount of time the person cooking the meals had that day, whether children attending school receives a school meal or whether it has to be sent from home, whether their utility usage needed to be cut back and therefore produce that require a lot of washing or longer cooking time would not be an option, how much money they earned the day before, whether they experience an unexpected expense that month, whether there was a fuel increase that increased the price of transport which in turn increased the price of the produce - the list is endless. Some of the connections this research has revealed about these variables and how it impacts the food plate include grid access and affordability, external changes and impacts across other aspects of infrastructure - from housing to transport, competing expenses at a household level, social protection and women's care work.

Families we worked with for this research collaboration revealed that before 2020, they were able to eat three meals a day and that they cooked mostly using gas cylinders. They were able to maintain some dietary diversity and included proteins such as fish or eggs, vegetables and fruits in their weekly meals. Low-income communities in Colombo also have a high level of grid access - over 90% of households have formal electricity and water connections.

The food consumption of working-class poor families changed dramatically due to crises and shocks starting from 2020. Initially, COVID-19 lockdowns cut incomes of daily wage earners, forcing families to rely on savings and reduced their ability to buy fresh food. As Sri Lanka's economic crisis in 2022 deepened, even eggs became scarce in daily diets, leading to a less diverse food plate. Infrastructure shocks further impacted families, as rising electricity tariffs forced them to unplug appliances like fridges and washing machines. Families began cooking with multiple fuels like kerosene or wood, often preparing meals in rice cookers due to the high cost of gas. Women bore the brunt of these changes, taking on more manual labor like hand-washing clothes and spending extra hours cooking with slower fuels.

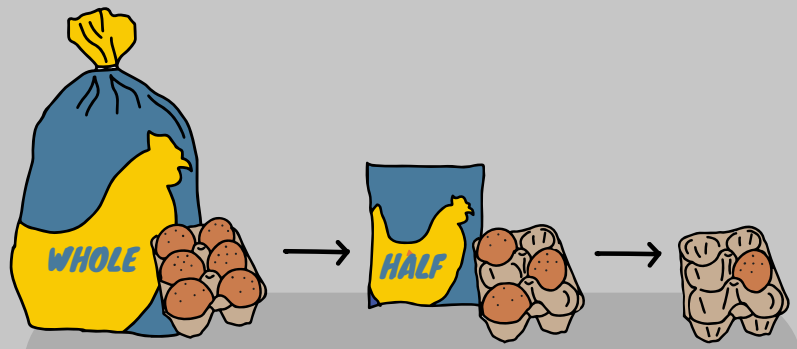
Infrastructure provisioning such as electricity and water did not greatly influence the selection of goods that retail vendors sourced. However, increasing transport costs due to rising fuel prices did lead to increase in overheads which ultimately influenced price points of food available to and consumed by working-class poor households.

The shift of the two main wholesale markets, Peliyagoda Central Fish Market (PCFM) and Manning Market (MM) from Pettah to Peliyagoda aimed to reduce traffic congestion and improve market facilities. However, vendors reported a decrease in business as customers now need private transportation to access the markets, leading to reduced foot traffic. Both markets face challenges with underutilised retail spaces, high rents, and inadequate infrastructure, such as cold storage. Vendors face difficulties in maintaining their stalls, with sales dropping by as much as 50% in some cases.

The operations of wholesale markets like Manning Market (MM) and the Peliyagoda Central Fish Market (PCFM) are critical to food availability and affordability in Colombo. Any disruption, such as relocation or rent increases, impacts vendors who buy from these markets, resulting in higher prices for consumers. For the working-class poor, who form the majority of the households in this study, food price hikes are particularly harmful, because they come coupled with other shocks across the grid - electricity, water, energy and transport - which stress the household budget. The first and the easiest adjustments are to quality of food, quantity of food and number of meals - with differences in consumption across age and gender in a household, but with lasting nutrition impacts.

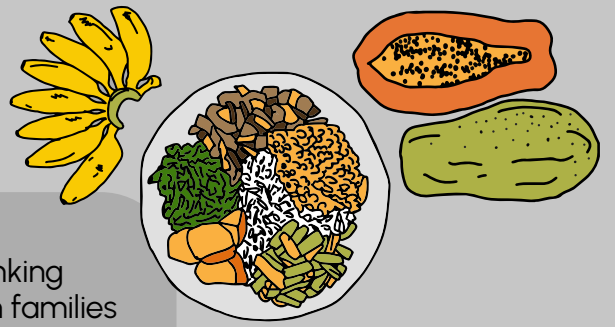
CHANGE IN THE FOOD PLATE AS A RESPONSE TO THE CRISIS

The food plate of working class poor families was one of the first things to change with the onset of COVID-19 and the economic crisis.

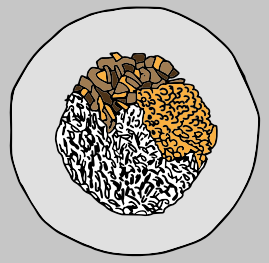


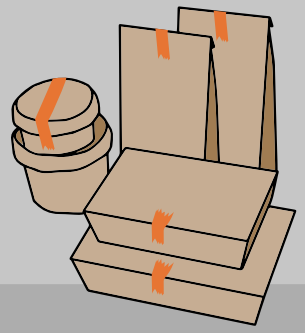
Families who used to eat meat reduced their consumption owing to the **high prices and unaffordability of meat.**

They also started cutting back on eggs, and only feeding an egg to their children - if at all.



Overall, we see a shrinking of the food plate, with families eating a **less diverse diet.**





Families would **buy food "from out"** such as pizza, kottu, fried rice, dosa and string hoppers prior to the crisis. However, families note that they can no longer afford to do this anymore.

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CHANGE IN THE FOOD PLATE AS A RESPONSE TO INFRASTRUCTURE SHOCKS + ITS IMPACT ON WOMEN

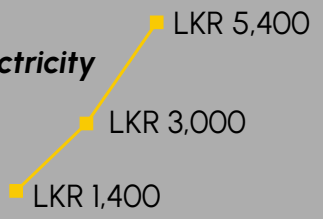
The broad range of strategies used by families to cope disproportionately affected women more than men, as they already undertook so much of the care work including washing clothes, cooking, cleaning, looking after the children and buying groceries.

With gas cylinders exploding and the price of LP Gas increasing, families switched to **alternative fuels** which meant **women were spending double the time to cook.**

Some families switched to kerosene. During the kerosene shortage it was usually **women that had to queue for hours in the hot sun to procure kerosene** for their cooking.

Families also started **cooking full meals in the rice cooker,** and this impacted what food was being made for the family, as families prioritised food that was easier to cook in a rice cooker.

Kamala's monthly electricity bill increase



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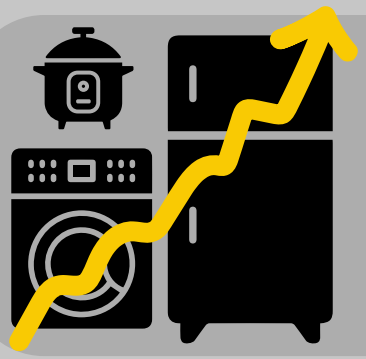

The **rising electricity tariff hikes** meant that families could no longer afford to keep using a range of electrical appliances.

Many families reported **unplugging the fridge,** and having to change what they purchased.

Unplugging washing machines meant that **women had to wash clothes by hand.**

Families moved away from rice cookers, and ultimately chose to cook with the **wood-fire stove,** despite often **lacking the space and ventilation*** needed for this cooking method.

In May 2022, a fire broke out at a 10th floor apartment of the Sahaspura Housing Complex, due to the use of a wood-fire stove.

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COPING WITH UTILITY ARREARS AND DISRUPTION TO THE GRID

Disruption to work and income meant that many working class poor families did not have cash in hand to pay utility bills during COVID-19. Some families reported having **arrears as high as LKR 70,000** on their electricity bill, with no way to pay it back.

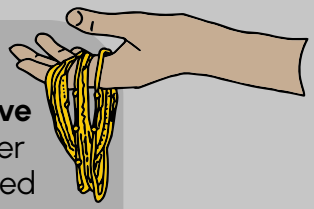
For those in the highrise, **the UDA issues water bills along with the invoice for the monthly rental payment,** which residents are expected to pay. Families have noted that if they do not pay this bill issued by the UDA, **their water connection is usually disconnected.**

50-65 unit cost increase

LKR 4,000

LKR 700

Arrears coupled with the **rising electricity and water tariffs** left many families facing bills they were unable to pay. For electricity consumption, households mentioned that whilst the units of consumption have remained the same, the **bills have doubled or tripled for the same number of units.**



Given that families have **no alternative ways of collecting water** if their water connection is disrupted, they are forced to find a way to pay the bills - often **pawning jewellery** as a way of getting cash in hand.

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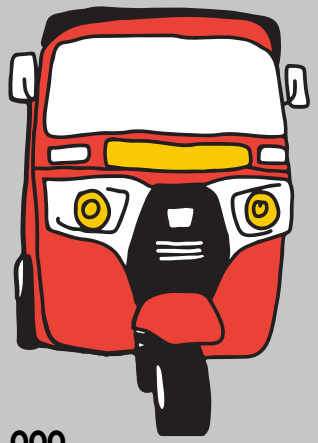
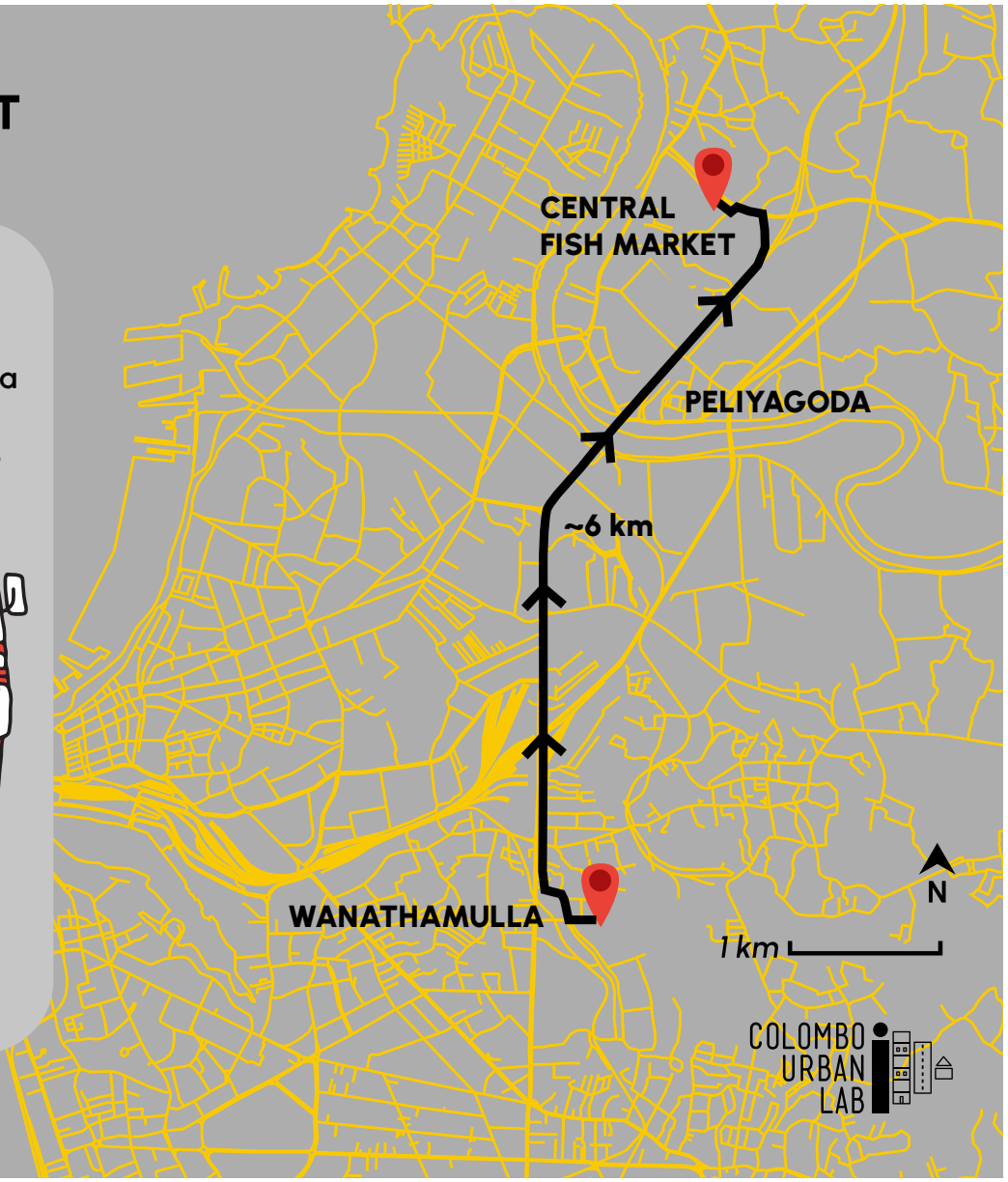
INCREASING COST OF TRANSPORT FOR RETAIL VENDORS

Retail vendors were particularly affected by fuel shortages and **subsequent increases in the cost of transport.** This was because vendors in Wanathamulla had to travel to Peliyagoda to source both fresh fish and vegetables, following the relocation of wholesale markets.



As the **markets are not easily accessible by public transport**, vendors often have to hire three-wheelers everyday, sometimes spending **LKR 1,500-2,000** on transport at the height of the fuel crisis.



THE SHIFT FROM PETTAH TO PELIYAGODA

The Peliyagoda Central Fish Market (formerly known as St. John's Fish Market) and the New Manning Market are important nodes in Colombo's food system. The Old Manning Market and St. John's Fish Market in Pettah were historically important public spaces located in the heart of Colombo.

The Peliyagoda Central Fish Market sells fish (both wholesale and retail)

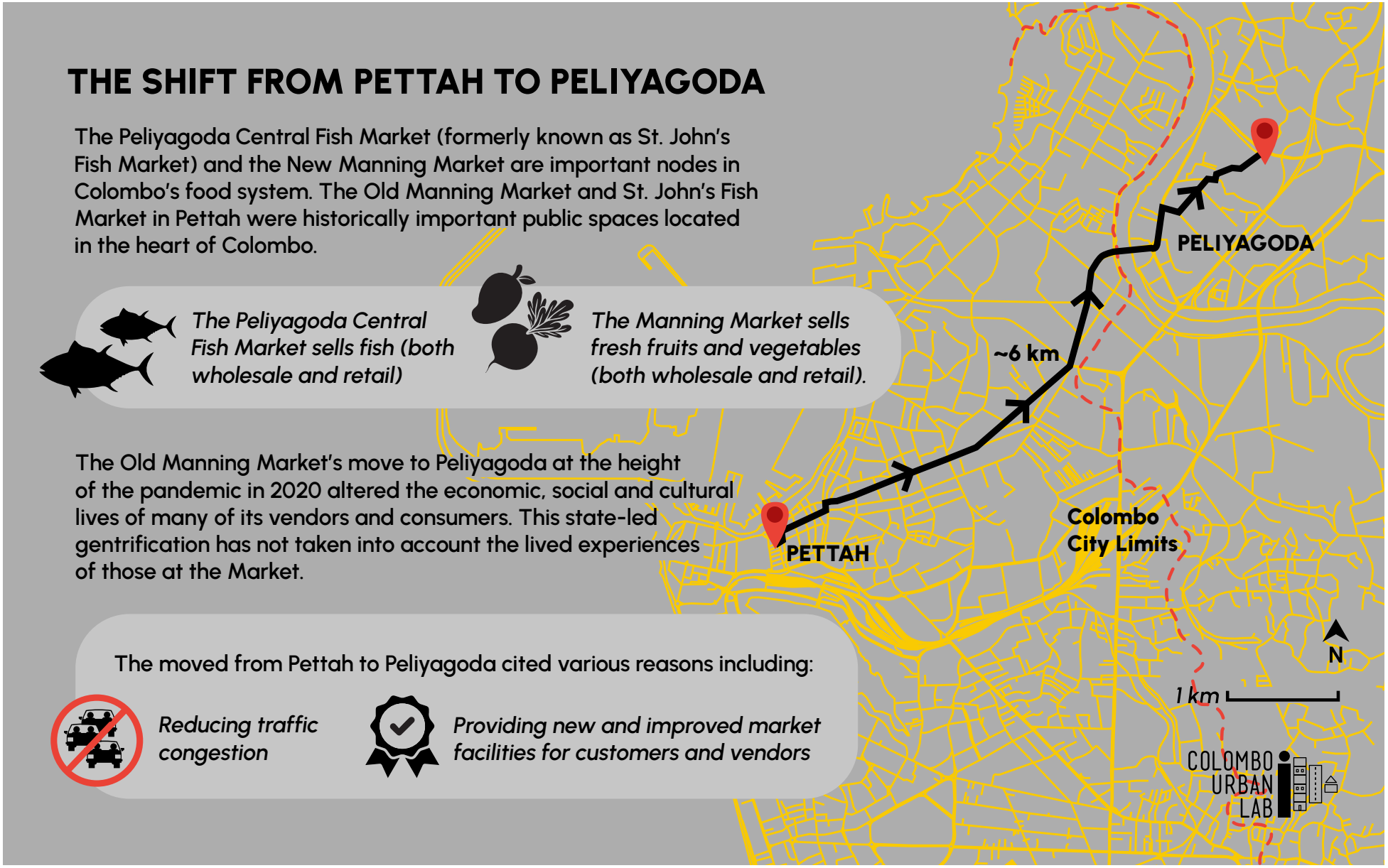
The Manning Market sells fresh fruits and vegetables (both wholesale and retail).

The Old Manning Market's move to Peliyagoda at the height of the pandemic in 2020 altered the economic, social and cultural lives of many of its vendors and consumers. This state-led gentrification has not taken into account the lived experiences of those at the Market.

The moved from Pettah to Peliyagoda cited various reasons including:

Reducing traffic congestion

Providing new and improved market facilities for customers and vendors



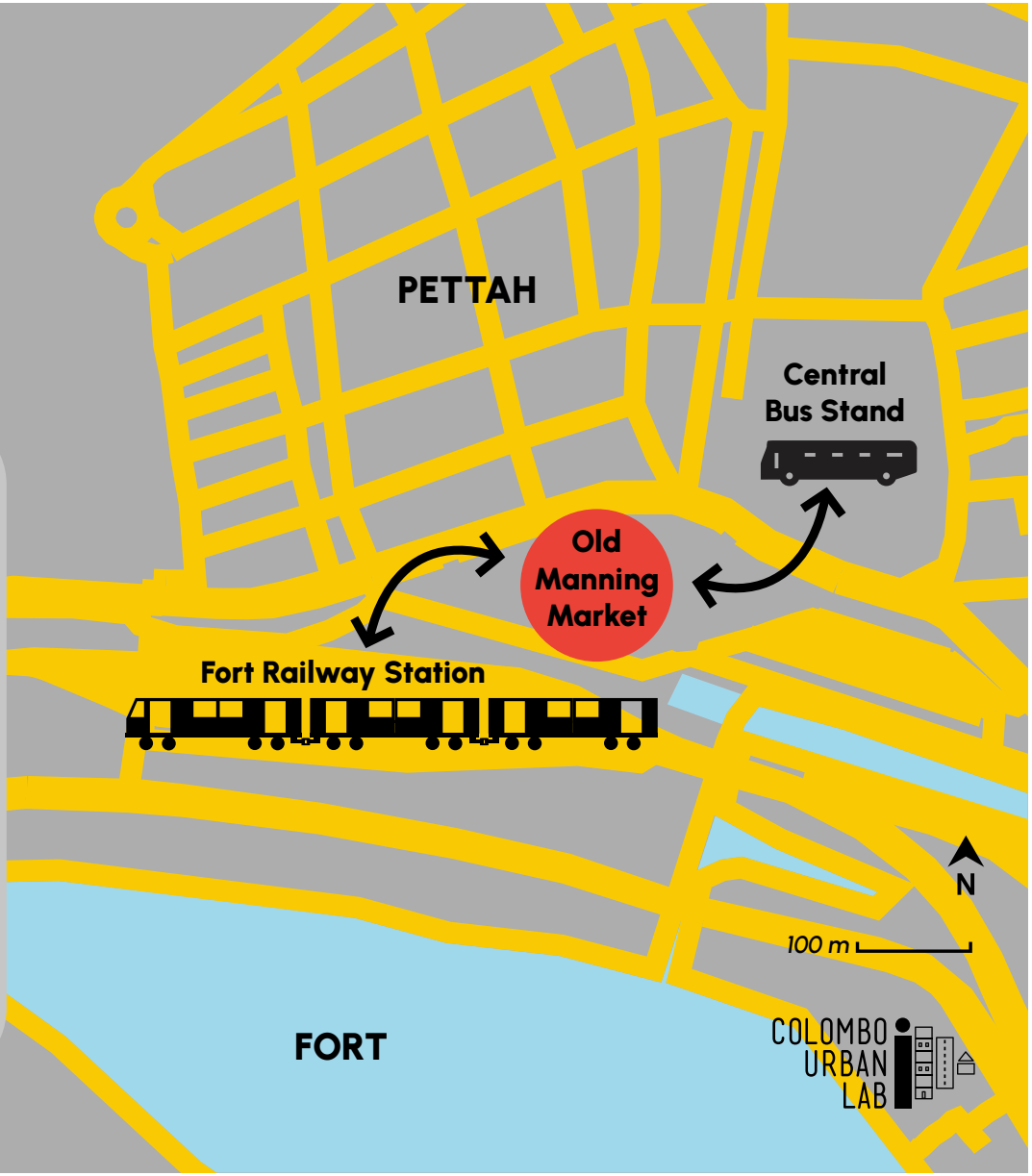
OLD MANNING MARKET

The Old Manning Market was located on two acres in the midst of the Fort railway station and the central bus stand. Accessing the Market via public transport was convenient even without a personal vehicle at one's disposal.

The Urban Development Authority (UDA) did little to maintain the Old Manning Market.

Despite the dilapidated state of the building at the time, it was full of business activity, as it was the norm for people to stop by on their way home after work to grab a few essentials for the upcoming week.

This neglect of the Market made it easier for justifying a shift from Pettah to Peliyagoda, claiming that this prime land was being under-utilised.



MARKET INFRASTRUCTURE

Vendors at **The Peliyagoda Central Fish Market** prefer to pack remaining fish in styrofoam boxes with ice and store them in parked trucks that are used to transport fish as opposed to using facilities at the market which are more costly.

PELIYAGODA

Peliyagoda Central Fish Market

New Manning Market Complex

At **The Manning Market,** vendors were originally to be provided 12 x 12 foot stalls – but this has reduced in size today, which means that some vendors do not even have access to their own electricity plug point.

For fruit vendors, a lack of cold storage and storage space has resulted in vendors having to use smoke room (usually intended as a means of expediting the ripening process of bananas) to store their fruits, or build cages around their stalls to store their fruits overnight.

N

100 m

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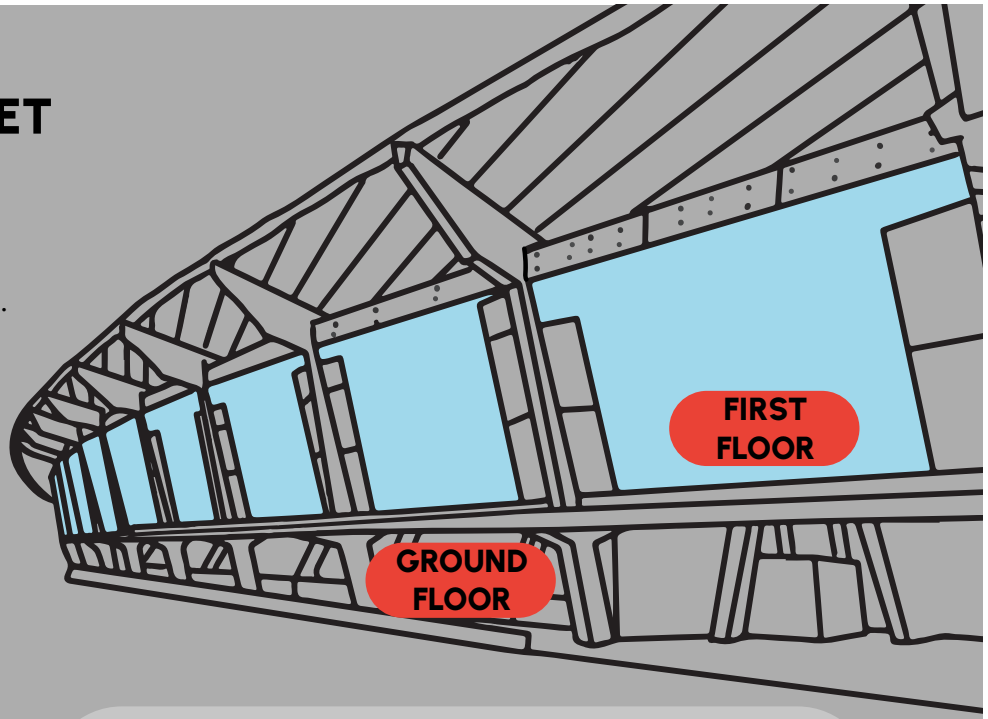
OPERATIONS: NEW MANNING MARKET

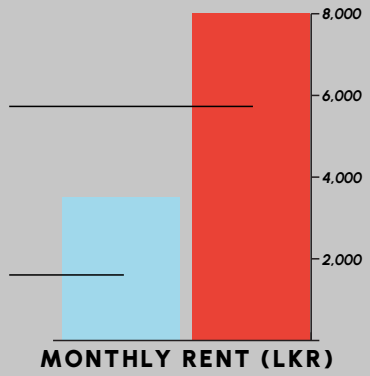
The New Manning Market has two main floors. The monthly rent to the UDA includes access to infrastructure such as electricity, water, sanitation, and waste collection. There are also vendors who have sublet their stalls, and stalls acquired this way cost a lot more.



The wholesale and retail vegetable vendors are located on the ground floor

Wholesale and retail vegetable vendors pay a monthly rent amount between LKR 7,000-9,000 for their stall space

Wholesale and retail fruit vendors pay a monthly rent amount between LKR 3,000-4,000 for their stall space



The wholesale and retail fruit vendors are located on the first floor. There are a number of vacant stalls on the first floor, as some of those vendors have moved their operations to the ground floor.

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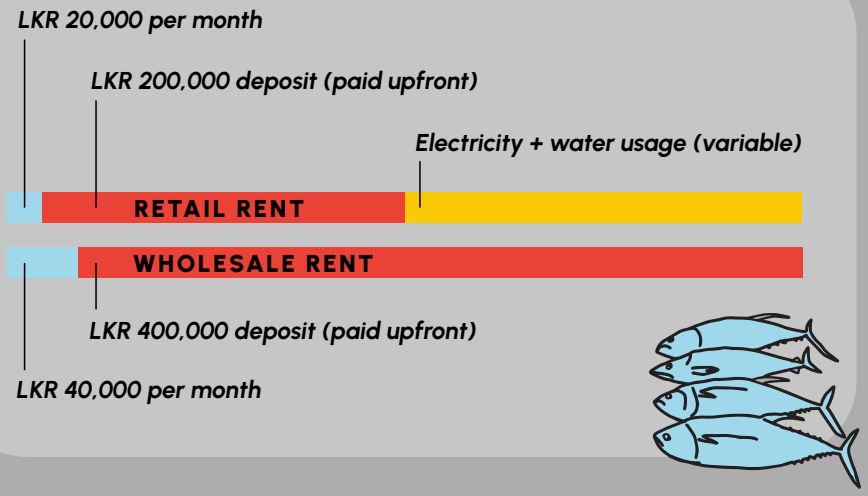
OPERATIONS: CENTRAL FISH MARKET

The Peliyagoda Central Fish Market has two buildings in which fish is sold–one intended for wholesale, and the other for retail operations. However, most of the sales take place in the wholesale building.



The retail section has been consistently underutilised since the inception of the Market. The wholesale vendors are also allocated a room upstairs in the same building, for which they are required to cover the cost of electricity usage for the room.

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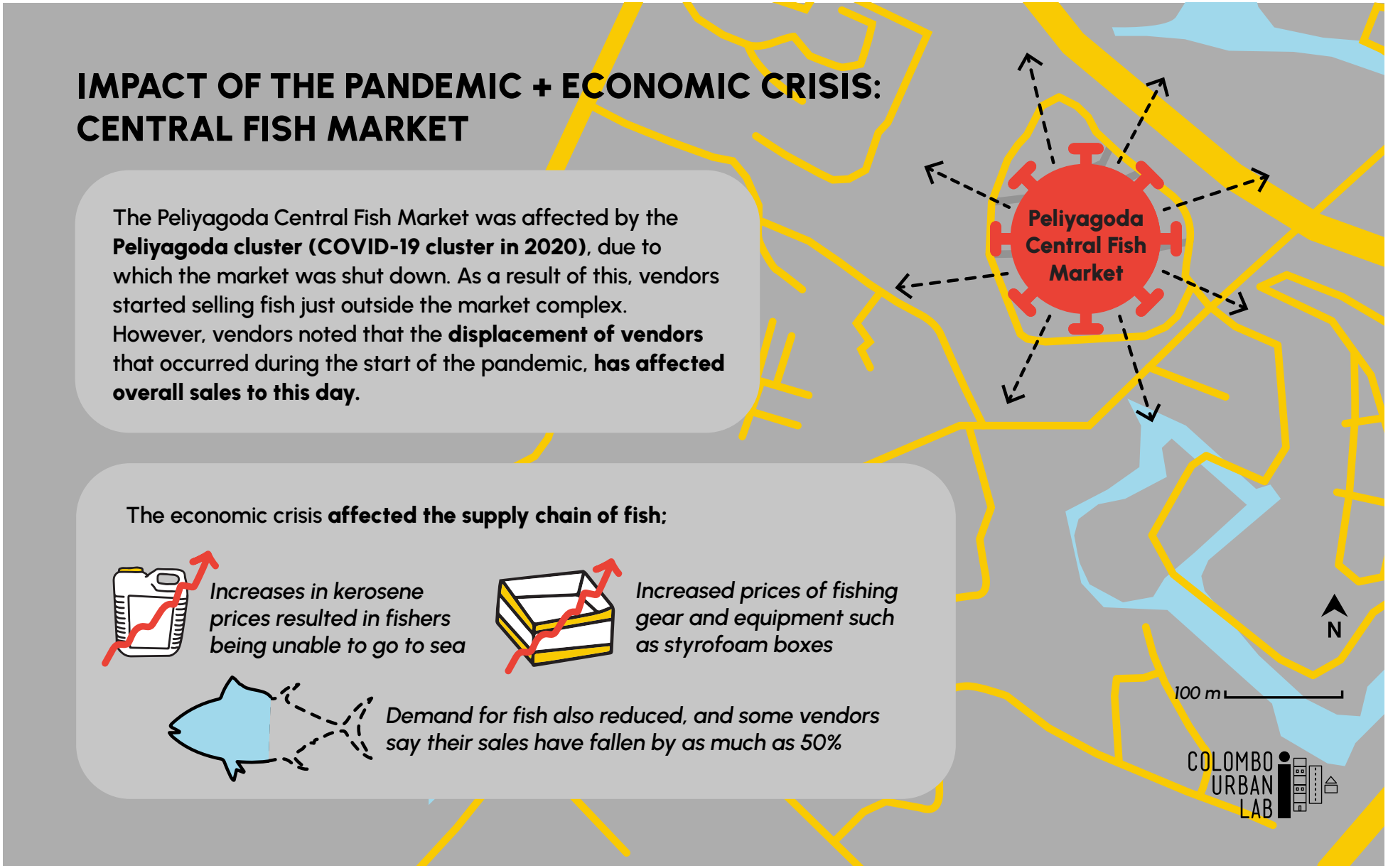
IMPACT OF THE PANDEMIC + ECONOMIC CRISIS: CENTRAL FISH MARKET

The Peliyagoda Central Fish Market was affected by the **Peliyagoda cluster (COVID-19 cluster in 2020)**, due to which the market was shut down. As a result of this, vendors started selling fish just outside the market complex. However, vendors noted that the **displacement of vendors** that occurred during the start of the pandemic, **has affected overall sales to this day.**



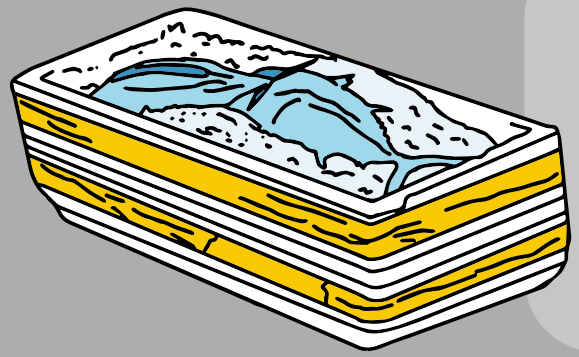
The economic crisis **affected the supply chain of fish;**

Increases in kerosene prices resulted in fishers being unable to go to sea

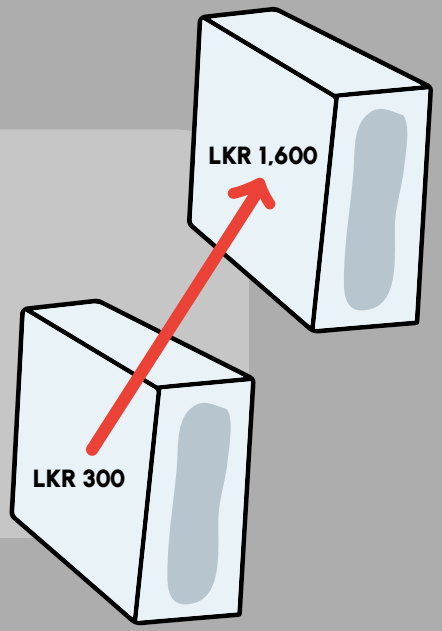
Increased prices of fishing gear and equipment such as styrofoam boxes

Demand for fish also reduced, and some vendors say their sales have fallen by as much as 50%

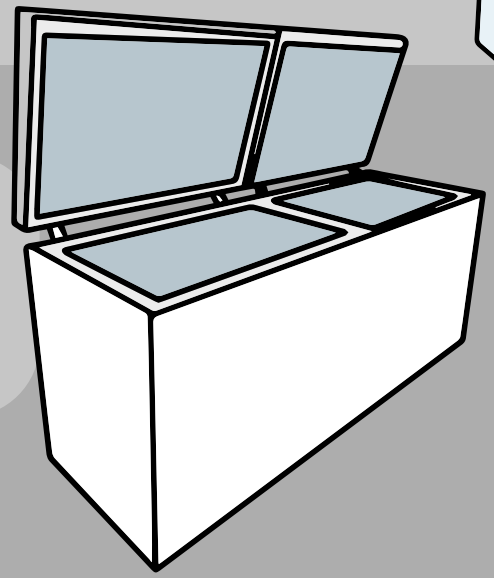
INCREASING STORAGE COSTS DUE TO ELECTRICITY TARIFF HIKES



Increases in utility bills have led to spikes in the price of ice, which is necessary for vendors to keep their fish fresh. During the economic crisis, **the price of ice increased by 433% per block.**



Retail vendors who run deep freezers have also seen a steep increase in their electricity bills which has **increased their overall operating costs.**



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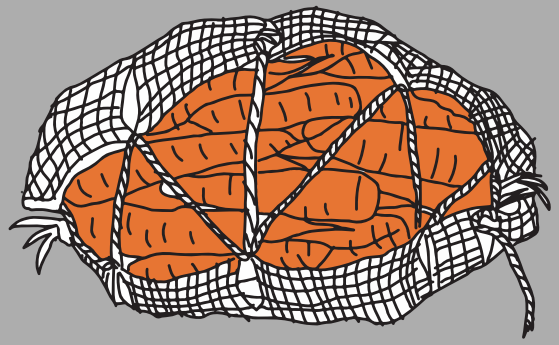
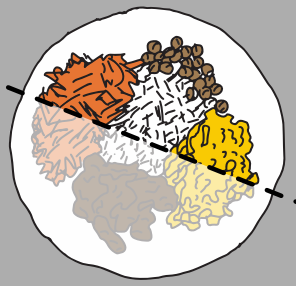
IMPACT OF THE WHOLESALE MARKET ON THE FOOD PLATE



The operations of the wholesale market cannot be viewed in isolation, given its **downstream impacts on the food plate.** Disruptions in the Manning and Peliyagoda Markets affect the **availability and affordability** of produce, **impacting vendors** who source almost exclusively from them.

Rising rental costs and potential relocations drive up vendor prices, which are then passed on to consumers, predominantly working-class households. This inflation has led households to reduce their purchases and consumption of produce in response to escalating food prices in Colombo.



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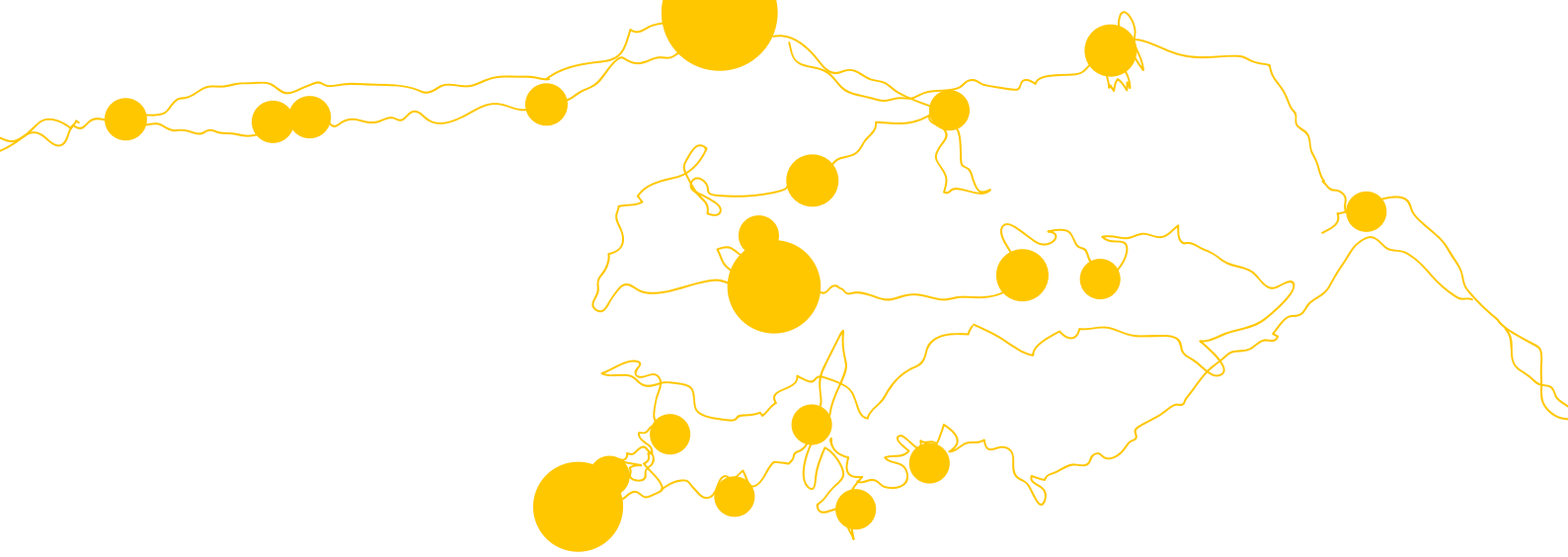


Nimal's Journey: Geographies of Livelihood

Channaka Jayasinghe and Meghal Perera

Cartographic imaginations of food systems of the global south have been traditionally under-represented. Existing depictions focus on food-systems as stationary retail typologies or supply chains where food travels across distances along frictionless impersonal pathways of delivery. This map is an attempt at critiquing these assumptions. It seeks to embed the labour and social relationships into food supply chains, by representing the daily journey of a vegetable vendor through Colombo. By focusing on the individual and their experiences, as they navigate a constellation of environmental, and social constraints we hope to illustrate how such livelihoods create a network of social relations that goes beyond mere financial transactions.

The map depicts the journey of Nimal on a specific day in December 2022, as he pushes a steel and wood cart loaded with vegetables for 9 km over 5 hours. Social interactions observed were not limited to vendor-customer relationships, but during its journey, Nimal's cart also became a venue for discussing general interests, discourse on the political and economic situation of the country, and simply just playful interactions. Nimal creates a network of care and sociality for the communities he provides for, which goes beyond a daily delivery of fresh produce.

Labour

Nimal's everyday routine is mentally and physically taxing. He wakes up at 2.30am to be at the New Manning Market in Peliyagoda market by 3.30am. He hires a three-wheeler driver known to him, paying LKR2000. He has to take a regular driver, because he leaves the vegetables in the vehicle as he picks and chooses him. He told us about how once a driver fell asleep and someone stole all the vegetables from the vehicle.

Choosing the vegetables is a matter of skill and intuition, with Nimal considering price, quantities, preferences, and what was leftover from yesterday's stock. For example, he only bought a kilo of long beans, because people will buy them over green beans as they are cheaper. Nimal has wholesale vendors he regularly patronizes and they let him choose the produce he wants because he arrives early. Sometimes he takes longer to buy produce but either way he aims to get back home by about 5.30-6.00am so he can have breakfast and head out by 7.30am. He pushes a cart weighing over 80 kilos on a road of varying quality, up and down slopes, navigating children, dogs, bicycles, traffic. He is always calling out and announcing his presence, dealing with customers, calculating prices, weighing vegetables with his scale, and when needed also engaged in tidying the goods on the cart. By 12.00pm the sun is overhead and the heat is unbearable. Nimal's route is circuitous and he finishes up around 1.00pm and makes his way back home, often collecting debts from those who have paid by credit.

Nimal's Journey:
Geographies of Livelihood

Nimal's job has taken a toll on his health. A problem with his knee prevented him from working for several days. During the hotter months he gets a severe skin rash due to constant exposure to the sun, despite the roof of the cart and wearing a long sleeved shirt and cap. He is also diabetic, and tries to manage it through diet, like his morning herbal porridge. Medicine is now unavailable at the pharmacy and he doesn't want to buy it.

Food as infrastructure and sociality

Nimal serves as a conduit for food to travel through the city, expanding food environments and providing fresh vegetables to a range of different communities. Many of Nimal's customers are daily wage earners who have to purchase vegetables everyday, or boarders and students who don't cook large quantities. Nimal enables this mode of purchasing, especially for women who are unable to leave the house for long periods of time due to care responsibilities. Nimal joked with one customer who was hesitant to buy a large quantity of carrots because they would spoil, telling him to buy a fridge in the new year. The customer responded that his electricity bill would triple and that he would stick to buying carrots everyday.

Nimal is deeply embedded in the communities along his route, he acts as a kind of connective infrastructure himself, due to his mobility. For example, a frail old lady asked Nimal to bring her two bundles of firewood the following day, and even though he doesnt stock firewood he said he would comply. Another lady asked him to find her another lodger because her current tenant was leaving. These are just some of the rich social interactions, removed from profit motivations and demands for efficiency. At many times, Nimal's mere presence was an impetus for neighbours to gather and exchange information while buying vegetables.

Nimal's journey is also undergirded by a network of 'infrastructure' well beyond the road. He is reliant on food stalls along the way, patronizing a kola kaenda (herbal porridge) stall every morning, and stopping at another stall for breakfast. While he has his breakfast he also refills the water bottle for drinking, but also for sprinkling on vegetables to keep them fresh. When confronted with rain, he relies on overhanging roofs of known customers for shelter.

In all these cases, infrastructure is not just a physical service but a function of community and sociality. As such, their nature is shaped by Nimal's subjectivities as well. For example, the Kola kaenda seller is a customer who Nimal would patiently wait for while she engages with her customers, before she can pay attention towards selecting goods from Nimal's cart. Although Jagath may be more comfortable seeking shelter under the overhanging roof of a shop, during heavier showers this does not offer enough shelter. Even though he says that during such times he is offered shelter by many people, he prefers a particular garage which not only offers offers both shelter and the ability to engage with customers, but also offers a space he is comfortable to be in.

It must be noted that during the part of the journey, he is forced to travel along a main road, which he explained was specifically an area which he is vulnerable to the rain. Rain also floods a watte he supplies vegetables to. Therefore, at times of rain Nimal needs to make calculated decisions about the costs and benefits of staying put, or pushing forward, or cutting his losses and turning back.

Colombo's changing built environment

Nimal described how he feels that the demand for his services are linked to the income bracket of the places he travels through. For he said that he had to change the route he used to take because the class characteristics of the neighbourhood changed. He explained this by using the debit/credit card as a metaphor ("they are the type of people to pay by card"). However, he still does have a few clientele like this on his route, including lawyers and doctors. These customers provide a list ahead of time and he buys the items they need from the market and delivers it in packed bags. It is also important to note that Colombo's urban development paradigm could also impact him due to its interest in freeing up the lands which wattes like the one he visits for more profitable ventures by forcefully evicting the residents who have history living here.

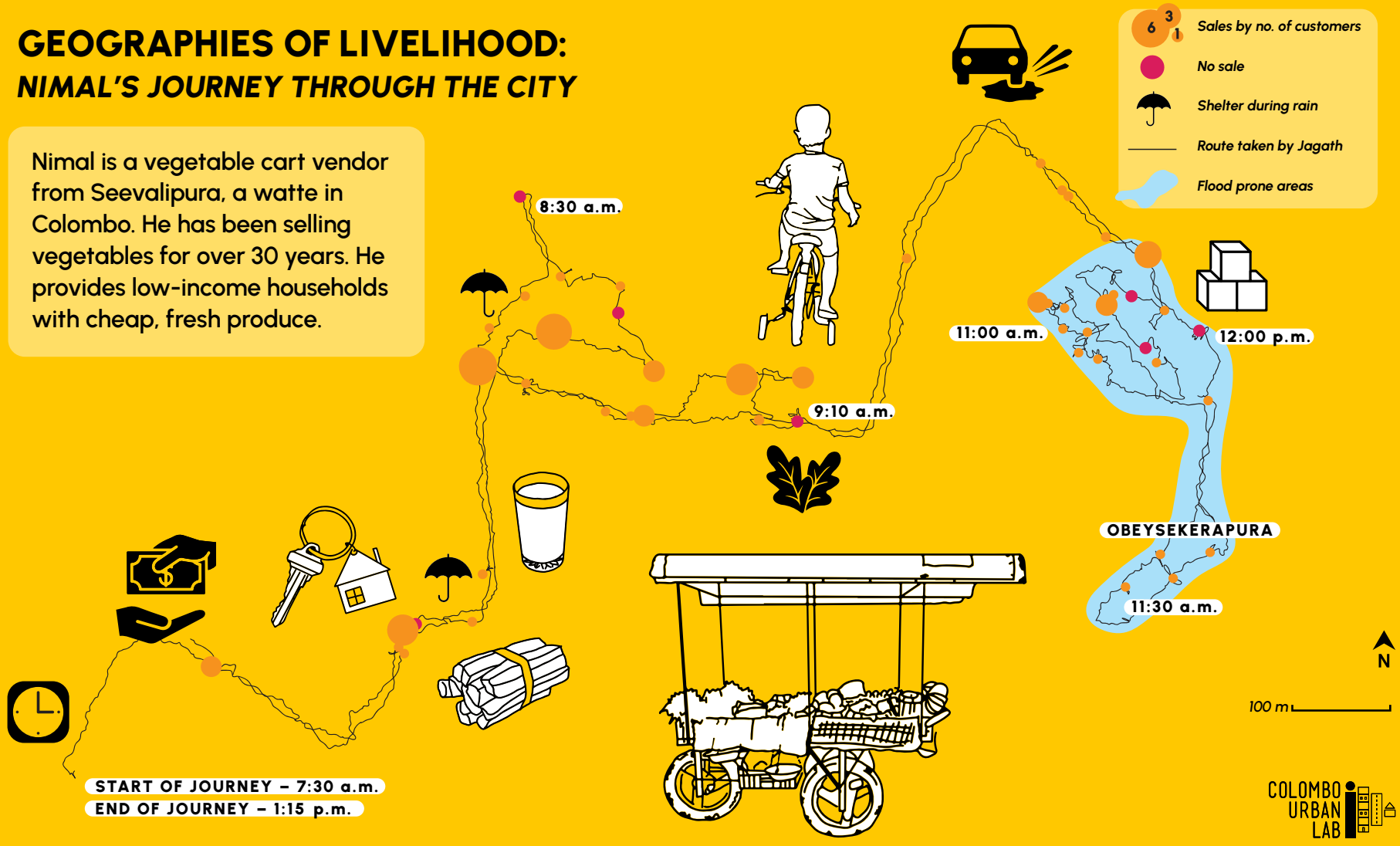
Nimal's Journey:
Geographies of Livelihood

The idea of different socio-economic groups being in close proximity to each other is also waning, as the rich move to luxury apartments and gated communities, while the poor are relocated to UDA-run high-rises. Nimal is unusual in that respect, but most of his business comes from the watte.

Nimal's livelihood may well be a thing of the past as more and more of his customers from all ends of the income bracket move to high-rise apartments, some forcibly evicted from their homes. He told us that he changed his route once before, as he felt the neighbourhood changed and now households preferred to make their purchases by card rather than cash. He still has a few clientele like this on his route, including lawyers and doctors. These customers provide a list ahead of time and he buys the items they need from the market and delivers it in packed bags. The idea of different socio-economic groups being in close proximity to each other is also waning, as the rich move to luxury apartments and gated communities, while the poor are relocated to UDA-run high-rises. Nimal is unusual in that respect, but most of his business comes from the watte.

GEOGRAPHIES OF LIVELIHOOD:
NIMAL'S JOURNEY THROUGH THE CITY

Nimal is a vegetable cart vendor from Seevalipura, a watte in Colombo. He has been selling vegetables for over 30 years. He provides low-income households with cheap, fresh produce.



GEOGRAPHIES OF LIVELIHOOD:
NIMAL'S JOURNEY THROUGH THE CITY

Nimal begins his day at 3:00 a.m. He buys his produce at a wholesale market, and heads back home by 6:30 a.m. to stock up his cart.

Nimal makes his first stop for the day. These are his most affluent customers and he mentions that they helped him during COVID-19 lockdowns.

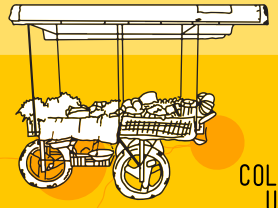
A scheme behind this stop ensures many customers. One customer asks Nimal to find her a new tenant for her boarding house.

An elderly woman calls out to Nimal and asks him to bring her two bundles of firewood the next day. He assures her that he will even though it is not part of his usual stock.

He stops at a stall that sells breakfast items and has a *kola kaenda* (herbal porridge). He waits for the stall owner, Kumari, to finish with her customers before selling her vegetables.

The three-way junction is a popular spot for Nimal, with many customers. He shelters under the overhanging roof of a nearby shop when it rains.

He stops for a breakfast of stringhoppers at a shop. He takes this chance to fill up his bottle of water - he sprinkles water on the leafy greens to keep them fresh as the day grows hotter.



COLOMBO URBAN LAB

GEOGRAPHIES OF LIVELIHOOD:
NIMAL'S JOURNEY THROUGH THE CITY

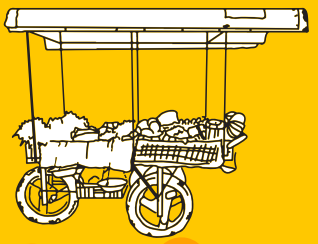
A small child on a tricycle accompanies Nimal's cart, yelling "vegetables" with him.

A garage which is open to the street offers shelter during times of rain. Although many people do offer to provide Nimal shelter during times of rain, he says he isn't comfortable accepting these offers. This is the only private property he uses. Here, he says, he can engage with customers as well.

OBEYSEKERAPURA is a watte which is a densely populated area where working class poor people live in. Although many sales take place here, the area is flood prone. Therefore during times of rain and when the cart is en route, a decision needs to be made on whether to wait till the rains subside of to turn back and accept a loss.

When Nimal traverses the main road, the cart is pushed on the road rather than the pavement. There is no place for shelter during rains, and speeding vehicles splash his cart. Although the cart has a roof and polythene sheets, the wind and the fact that the roof has deteriorated puts the vegetables on the cart at risk. He tries not to get caught to heavy rains while passing through this area.

Nimal has finished his business for the day. He stops at a wholesale shop and stocks up on goods for his wife's retails business which she runs from their home.



COLOMBO URBAN LAB

The following are a compilation of abstracts, presentations, articles and other outputs from the project from 2021-2024 from the Colombo team.

Debt or disconnection: CEB's tariff hikes and the urban poor

By Meghal Perera
7 August 2022

Link

Sometime in November 2021, Swarna stopped using her gas cylinder for cooking. Anxiety over exploding gas cylinders prompted the shift, but with gas queues lengthening and prices rising, she bought a second electric rice cooker to feed her family of four. Her husband's salary remitted from the Middle East used to be sufficient, but now she is struggling with the rising cost of living. From her accumulated electricity bill arrears of Rs. 90,000 during Covid-19 lockdowns, she managed to pay off half the amount, but the switch to electricity for cooking has sent her bills spiralling again. She often takes loans to purchase food, while using her husband's salary to pay utility bills and interest. Recently, she unplugged her fridge to minimise her energy consumption. The Ceylon Electricity Board (CEB) in July sought an increase in tariffs from the Public Utilities Commission of Sri Lanka (PUCSL), proposing a regressive scheme of tariffs that will see the lowest consumers burdened with the highest increases in rates. The rationale for this revision is that the CEB (excluding LECO costs) requires an 82.4% increase in revenue to meet their forecasted costs for 2022. The proposed raise is likely to increase energy poverty among a population that is already burdened by inflation with a Consumer Price Index (CPI) that is nearly at 60%. Domestic consumers who use fewer than 30 units of electricity per month will have their bills increase by 835% to Rs. 507.65 from the current Rs. 54.27. Overall, it has been identified that 50% of domestic electricity consumers in Sri Lanka – 3.14 million households who use fewer than 60 units a month – will face the greatest increase in electricity bills due to the proposed increase in tariffs. We argue that the proposed tariff revision is unjust for several reasons, with a focus on the impact on urban poor households in Colombo – it fails to account for the ground realities faced by domestic consumers, is insensitive to the financial pressures exerted on households by the economic crisis, and lacks recognition of how electricity usage was reconfigured due to the crisis. Urban households spend a greater proportion of their monthly expenditure on non-food items (DCS, 2019), including electricity bills. They tend to have higher electricity bills and more electrical appliances (Karunaratne and Athukorala, 2019). Discussions about tariff hikes need to account for differences within urban populations, including the diverse experiences and heterogeneous nature of low-income communities in Colombo. While these communities are designated as 'Underserved Settlements' (USS) (Jayaratne et al., 2002) by the Urban Development Authority (UDA), the term erases a rich history of community mobilisation towards infrastructure development and upgrading (Jayaratne et al., 2002), including electrification. A majority access electricity through metered connections, with some studies suggesting the figure is as high as 85% (CEPA, 2013). Electricity is essential for wellbeing and social mobility in urban contexts; high temperatures necessitate fans and livelihoods require mobile

phones, fridges, washing machines, rice cookers, and blenders, which save time and labour in households where incomes are uncertain and fluctuating. It is difficult to generalise when calculating how much a household spends on electricity. During our research this year with urban poor households in Colombo, we found that electricity bills ranged from Rs. 800 to as high as Rs. 17,000 per month.

Energy and nutrition nexus reshaped by economic crisis

The prevailing economic crisis is reshaping the use of electricity in households in important ways. For several months, securing an LPG cylinder became a time-consuming, unpredictable, and expensive endeavour, prompting many households to abandon their use altogether. Electricity became an important source of energy for cooking among urban households, particularly the urban poor, whose houses often lack the space and ventilation needed for wood stoves. For example, during the past eight months of researching infrastructure and food security in Colombo, we worked with Kamala (name changed), whose family of five lives in a UDA-run highrise in Wanathamulla. In March, they switched to cooking predominantly on the rice cooker, which led to their monthly electricity bill increasing from Rs. 1,400 to Rs. 3,000. Kamala and her mother now cook only once a day. Under the proposed tariff hikes, their bill will increase by roughly 70-80%, leading to a monthly bill of approximately Rs. 5,100-5,400. While other respondents reported that switching to wood stoves after electric rice cookers raised their bill, to those residing in UDA-run highrise flats, wood stoves will pose a serious fire hazard. In May, a fire broke out at a 10th floor apartment of the Sahaspura Housing Complex (Newsfirst, 2022), due to the use of a wood stove. Spiralling electricity costs may make incidents like this more common, as residences gamble on affordable cooking fuel.

Impact of Covid-19 lockdowns

The tariff hike is also blind to the cumulative effects of Covid-19 lockdowns on low-income communities as well as how the disruption of livelihoods has reshaped access to electricity. When daily wage earners in low-income communities were unable to work during lockdowns, coping strategies for the most part were directed at securing food. There were also more people at home during the day every day and new activities like online schooling meant an overall increase in electricity usage. While the Government approved a six-month grace period for domestic consumers in isolated areas in January 2021, electricity arrears were not forgiven (Ada Derana, 2021). Low-income households have accumulated massive arrears in electricity bills, some even as high as Rs. 70,000. To avoid disconnection after the grace period ended, households diverted funds from other expenses or in some instances took out loans to pay off a portion of the arrears. Any significant increase in tariffs is likely to result in more families being trapped in a cycle of debt and arrears, with the threat of disconnection looming over their heads every month. Families pawned jewellery and sold off assets like scooters or three-wheelers, televisions, etc. in order to have a cash injection at various points just to pay off at least minimum amounts across various utility bills and other expenses like tuition fees and purchasing mobile data for online schools or health-related expenses like monthly medicines. In some UDA highrises, access to the grid is weaponised, with households which have not paid their electricity bills receiving notices that threaten to disconnect their water connection if bills are not paid. Electricity bills are generated by the CEB for each apartment, while the monthly apartment payment and the water bill are generated as one bill by the UDA. Each apartment has its individual water metre next to its front door, therefore it is possible to cut off the connection easily in each flat. Over the years this was an effective way of making people pay, irrespective of which bill payment they had fallen behind on. Residents report having their water connection cut off over non-payment of electricity bills or monthly apartment payments, even though these are all separate services, but water disconnection is where people are hit the hardest and instantaneously. It's important to note that a host of strategies and cost-cutting measures have already been employed by low-income households seeking to navigate skyrocketing food inflation. The

burden of implementing these measures usually falls on women, who must juggle the complex and varied needs of their families with an income that at best is stable, but more often shrinking. Energy-saving efforts have also already taken a toll on nutrition, with households cooking fewer curries or cooking fewer times a day to save energy. Fridges are unplugged because families want to save on electricity costs and clothes are washed by hand instead. Women who already perform the majority of housework will bear the brunt of this planned price increase. The gendered impacts of energy poverty will constrain a generation of women and girls, stripping them of time and inhibiting their access to education and the workforce. In a deteriorating economy that places a massive and disproportionate burden on the urban poor, these tariff hikes represent an additional cost that will increase energy poverty and even threaten access to the grid. The tariff hikes are insensitive to the changing consumption patterns of electricity among residents in urban areas, as well as to the significant debt that many households have already fallen into. Beyond the tariff hikes, any policy recommendations regarding support to families during this crisis period must be mindful of these diverse consumption patterns. For example, a recent policy recommendation that suggested household electricity use of 60 kWh or less of electricity (or monthly expenditure of Rs. 565.30 according to the report) as a determinant for eligibility for welfare (Verite Research, 2022) may see high rates of exclusion of those most in need of support and deepening divisions between communities. It further makes the case for a universal approach rather than targeted support, given the inability to capture the household diversity through a single determinant like electricity usage.

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Debt or disconnection: Prioritising energy justice in economic recovery

By Meghal Perera and Shanil Samarakoon
14 August 2022

Link

In part one of this article, we considered the proposed electricity tariff revision from the perspective of the urban poor in Colombo, arguing that the revisions failed to account for ground realities faced by domestic consumers, both in terms of understanding the financial pressures of the economic crisis as well as how electricity usage has changed in response. In light of the approved tariff increase that averages at 75% in all categories, we take a closer look at low-consumer tariffs and offer recommendations that uphold principles of energy justice[1].

Need for transparency and public awareness around tariff revisions

While the Public Utilities Commission of Sri Lanka (PUCSL) insists that low-consumers enjoy a subsidised rate, PUCSL Chairman Janaka Ratnayake also stated that they were "looking at how we can generate some revenue from high income earners to subsidise the low-income earners"[2]. If a new mechanism to aid low-income households is proposed, it is vital that its details are communicated to consumers. Furthermore, PUCSL must demonstrate how the current subsidy scheme will benefit low-income earners in all consumer categories, recognising that low-income earners are not a homogenous group. In keeping with the distributive principles of energy justice, we argue for a rigorous socioeconomic modelling of the impacts of tariff hikes on domestic consumers. Tariff changes should be informed by an in-depth understanding of how different customer types/groups consume energy, rather than just blanket raises. This speaks to the importance of recognising the interests of consumers and their inclusion in decision-making processes as forms of energy justice. Thus, public consultations featuring a diverse cross-section of households should include direct input from households and communities. It is also imperative that the gendered nature of energy use is recognised. While PUCSL has relied on the media to communicate tariff raises to the public, what that means for a monthly bill may be lost in the sea of figures, rates, unit costs, fixed costs, and tariff brackets. The news updates that lead with '75% increase in electricity tariff' does not help households truly understand what the change will mean to their monthly bill. We recommend that tariff revisions should be accompanied by public awareness campaigns that break down revisions and are supplemented with information that the public needs to make decisions about energy use.

Pitfalls of using electricity consumption as a proxy for vulnerability

With the approval of the PUCSL, the Ceylon Electricity Board (CEB) has raised electricity tariffs for the first time in nine years. Those who consume under 30 units a month will see the greatest increase in rates of 264%, while those who consume between 30-60 units face a 211% increase. Fixed monthly charges

have increased for all domestic tariff brackets and those who consume over 180 units will see their fixed charges jump from Rs. 540 to Rs. 1,500. While low-consumers face the highest increases, PUCSL insists that they receive a subsidised rate (Newsfirst, 2022). Even an earlier iteration of the tariff revision presented a safety net mechanism supposedly for low-income groups aimed at those who consume under 60 units per month (Ada Derana, 2022). This hinges on a problematic assumption made by the PUCSL – the conflation of low-income with low levels of consumption. This has the effect of placing all low-income earners into this category of electricity consumption, which does not necessarily align with the real experiences of these households. The logic of electricity consumption as a proxy for vulnerability also informs a proposal by Verité Research Sri Lanka Economic Policy Group (SLEPG), to use electricity consumption to determine eligibility for welfare. The recommended threshold of 60 kWh a month would reach 50% of the population, expanding those eligible for welfare well beyond the limited scope of Samurdhi. However, it fails to account for the electricity consumption patterns of the urban poor, particularly in the context of the economic crisis. The SLEPG brief is based on Household Income and Expenditure Survey data from 2016 and it identifies those with a monthly expenditure of Rs. 565.30 or less as consuming 60 kWh or less of electricity. In 2013, one study found that the average electricity bill for low-income urban communities was Rs. 956 or 8% of total expenditure (CEPA, 2013). Nine years later, it is a given that this figure is much higher for urban households. During fieldwork conducted in two low-income communities in Colombo in the last eight months, we observed that households' electricity consumption invariably exceeded 60 kWh, with the lowest bill averaging at Rs. 800. Even a household consisting of a mother and an adult daughter reported consuming 86 units, resulting in a bill of Rs. 1,255.10, while a family of five racked up a bill of Rs. 5,008.50[6] or 201 units. These households received at least one cash transfer of Rs. 5,000 as a part of the Government's Covid-19 relief scheme, despite none of them being Samurdhi recipients. It is uncertain why such households should be excluded from a welfare scheme, particularly when the SLEPG brief acknowledges that social protection should be widened to include a significant segment of the 'middle class' that has been disproportionately affected by the pandemic as well as the current economic crisis. The assumption that electricity use can communicate information about a distinct family unit is problematic. The cost of installing a new metered connection is Rs. 20,000, which, when coupled with the burden and costs of bureaucracy and obtaining documentation, is a significant barrier to getting a separate metre. Often multiple households share an electricity connection, particularly when grown children have received a divided property. In such instances, limiting consumption is impossible and installing another electricity metre is burdensome and expensive. Using electricity consumption as criteria for welfare access also lays the groundwork for moralising about the lifestyles of the working-class poor and policing what is considered to be 'wasteful or unproductive' usage. Welfare should not be contingent on a household's frugality, particularly when an economic crisis has completely transformed electricity use. As highlighted in our previous article, Covid-19 lockdowns and the economic crisis have seen significant shifts in electricity consumption in urban poor households – with more reliance on electrical appliances for cooking, more household members being home, and so on. If there is an insistence on allocating subsidies on the basis of low consumption, then it is necessary to investigate what levels of electricity consumption can guarantee an acceptable standard of living. One significant recommendation calls for a policy declaration on what constitutes basic electricity requirements in the household; for example, lighting, fan, refrigerator, iron, etc. and an accompanying technical and social survey to establish how much electricity is required to satisfy this basic entitlement (Siyambalapitiya, 2018).

Structural reforms and accountability

Citizens who rely on this essential public service are being asked to shoulder the brunt of the CEB's burgeoning operational costs without receiving any meaningful commitment to efficiency, transparency,

and accountability in exchange. Despite burdens that would be imposed by the hike, there is no evidence of accompanying structural reforms to the CEB's operations in response to the current crisis. Indeed, the proposed tariff increases are even more galling for citizens when one considers that the CEB is failing to comply with key requirements of the Sri Lanka Electricity Act of 2009. This includes a lack of independent auditing to gauge the true efficiency of the CEB, a lack of financial separation between CEB-owned licensees, and a failure to establish a 'Bulk Supply Transactions Account' to better administer subsidy requirements such as for low-income users. These were 'key conditions' for a previous tariff revision approved by PUCSL in 2013 and remain unaddressed to date. Therefore, there are critical questions of justice that may be raised about the precedent that PUCSL could set by conditionally approving a tariff revision yet again and whether they have the means to hold the CEB to account. Finally, tariff revisions cannot be viewed in isolation. Cost-reflective tariffs aligned with International Monetary Fund (IMF) recommendations have included a call for "energy pricing reforms to reduce fiscal risks from loss-making public enterprises"(IMF, 2022). Tariffs can sway public opinion about reforming the CEB but also about the future of public enterprises. Privatisation has been touted as the cure for 'underperforming' enterprises such as the CEB, but even proponents of electricity privatisation acknowledge that it fails in contexts of recession and weak governance (Blagrave, 2021). Justifications of cost-reflective tariffs rely on the same logic that assumes public institutions must be profitable, rather than guarantee essential services for people (Kadirgama, 2022). At this crucial juncture, it is vital to recognise that electricity is a public good. Treating it as such has ensured that almost 99% of citizens in Sri Lanka have access to electricity and the quality of life it provides.

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Food for thought: Rethinking home gardening and subsistence agriculture

Anisha Gooneratne
18 September 2022

Link

With Sri Lanka's Year-on-Year (YoY) food inflation rising to a staggering 82.5% in July 2022 [1], organisations such as the World Food Programme and the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) have warned of rising food insecurity in the country. A recent report published by the World Food Programme [2] in August highlighted that 6.3 million people in Sri Lanka were food insecure, with numbers expected to rise as the crisis unfolds. The Colombo Consumer Price Index (CCPI) highlighted food inflation (YoY) at 93.7 % in August 2022 [3], which is significantly higher than national inflation. This further compounds the impact of food insecurity that has been experienced in Colombo over the past few years. To mitigate the rise in food insecurity, 'home gardening' has emerged as a popular buzzword amongst policymakers. In May, the Minister of Agriculture encouraged the public to start growing food in their home gardens [4]. In June, the Secretary to the Ministry of Public Administration, Home Affairs, and Provincial Councils issued a circular encouraging all public servants to stay at home on Friday and engage in growing food in their homes [5]. Globally, urban agriculture has been used as a coping mechanism against crises to ensure food security. At the household level, it has proved effective in promoting dietary diversity, better access to more nutritionally rich food, and also helps weather shocks in the supply of food through market systems [6]. It's important to highlight that whilst home gardening can help improve dietary diversity and reduce the severity of food insecurity, in no way will it completely eradicate food insecurity for Colombo's working-class poor. It also cannot be the Government's way of absolving itself of Colombo's food crisis.

Food insecurity in Colombo

Even before the Covid-19 pandemic hit, Colombo reflected the largest percentage and largest absolute number of food insecure people in Sri Lanka, consuming less than the Food and Agriculture Organization (FAO) recommended per capita calorie intake of 1,810 kcal a day [7]. Nationally, Colombo had the lowest access to a safe, stable, and nutritious diet, which has led to 40% of the city's population consuming less than the recommended calorie intake a day [8]. These figures may be far worse today. In addition to fluctuating food prices, the rising cost of living in Colombo has reduced the purchasing power of the urban poor. In 2016, whilst median household income in Colombo was 11% higher than that of other urban areas and 49% higher than rural areas, residents in Colombo spent comparatively less on food. According to the Household Income and Expenditure Survey (HIES) conducted by the Department of Census and Statistics, residents in Colombo spent six percentage points less on food than rural residents, owing to the high price of

housing, utilities, and transportation in Colombo [9] [10]. This has resulted in residents of Colombo having less disposable income to spend on food. Thus, the need to rely on alternative methods of procuring food has become significantly heightened especially now, given the soaring price of food and households' need to allocate their budgets to other expensive items such as electricity, cooking gas, and fuel. However, 'home gardens' are only accessible to a few residents in Colombo, leaving most of Colombo's working-class poor highly vulnerable to food insecurity.

High-rise living and lack of space to grow food

In addition to this, the Urban Development Authority under the Colombo Urban Regeneration Project has identified 68,812 families for relocation to Government-built high-rise apartments [11]. These apartments are between 450 to 550 square feet in size with common areas that feature long corridors with minimal sunlight. In 2019, 12,855 families were relocated under phases one and two of the project, with the third phase of the project likely to relocate another 5,500 households to these high-rises [12]. Many of these families have lost access to communal spaces where they used to grow food, and with the number of families being relocated rising, it is likely that many more will struggle to grow their own food going forward.

Based on research conducted in two communities in Wanathamulla, 20 respondents said that whilst they would like to grow food, they lacked the space to do so. Shanthi [name changed for privacy], who was relocated to the high-rise Sirisara Uyana, noted: "I would love to grow food, but we lack space. We used to grow food where we used to live (Colombo 8), and we could use that to supplement our meals. However, after we were relocated to this building, we don't have space or much sunlight to grow food."

State support and initiatives

Further compounding the lack of space is the lack of support and incentives from the Local Governments. Rani [name changed for privacy] from Seevalipura noted that in the late '90s, targeted Government initiatives encouraging them to grow food had proved very successful. She elaborated that people had even used to grow food on their roofs, having thought creatively around space limitations. For those living in Colombo facing a burden of both food insecurity and space restrictions, instructions to 'stay at home and grow food' are simply not enough. There needs to be a more targeted focus on supporting communities that don't have the space or resources to grow. While the Colombo Municipal Council (CMC) has commenced a project titled Urban Harvest – an initiative to support communities in Colombo to grow food, there is an urgent need to expand this programme to provide support to the working-class poor of Colombo, especially communities with space limitations.

Recommendations

In order to better support Colombo's working-class poor to grow food to help increase dietary diversity and reduce the impact of food insecurity, we have detailed some recommendations based on empirical evidence from our fieldwork:

Involvement of the Grama Niladhari: Given that strategies need to be implemented at a local level, and given varied contextual differences in Colombo, it is essential that Grama Niladharis are empowered to help support communities in Colombo, taking into account the varying contextual needs of different communities. This will help communities receive contextually relevant targeted support, compared to a one-size-fits-all policy.

Easy access to seeds: There is limited knowledge on where seeds can be acquired and what type of seeds one should buy based on available growing conditions (space, access to sunlight, resources, etc.).

Resources to help grow food in space-constrained areas: For those living in space-constrained areas such as high-rises, space is a luxury. Better support in teaching communities how to grow in small spaces, such as the use of racks, balconies, and common areas, is vital to support working-class communities in growing food. Alternatively, the use of land in

schools and religious establishments can also work towards an allotment system to help mitigate spatial limitations.

Health and nutrition education: Out of 20 households that were interviewed as part of our study, all 20 said they had not received proper guidance on nutrition. They noted that their knowledge came from what they had been taught when they were young. Targeted programmes at raising awareness on the nutrition of locally grown food can better help families plan what food to grow to help support diet diversity and better nutrition, whilst also helping to reduce dependency on imported items.

Empowerment of all family members: Urban agriculture has been identified as an activity that can further burden women, as often the role of tending to a home garden can fall disproportionately on women [13]. Household duties and caring for the family usually fall on the shoulders of women who are not engaged in other ways of income generation. In Colombo, women are already overburdened with managing shortages of cooking fuel, power cuts, and online classes. In order to ensure that women aren't further burdened, it is important that all members of the family are empowered to engage in urban agriculture.

Food for thought:
Rethinking home gardening and subsistence agriculture

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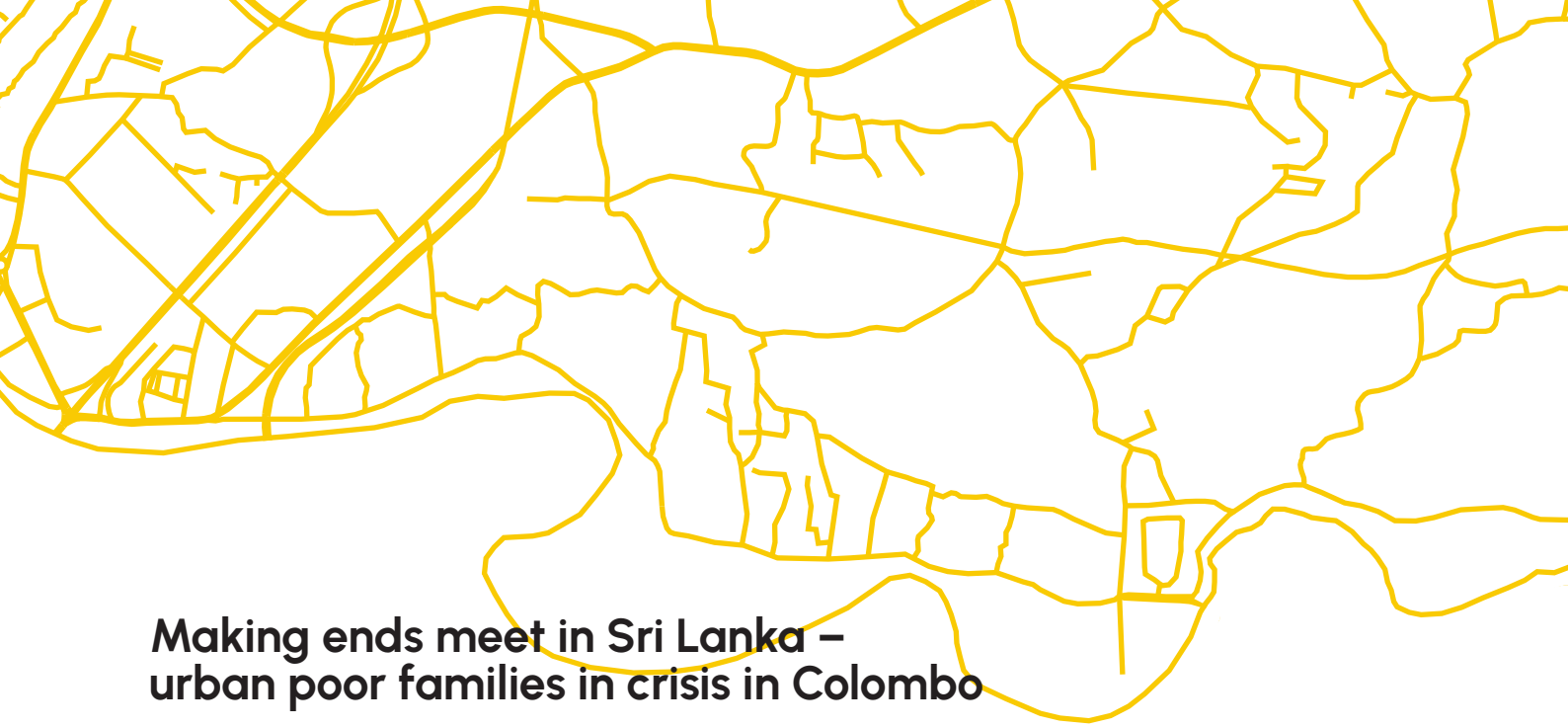

Making ends meet in Sri Lanka – urban poor families in crisis in Colombo

Iromi Perera
11 October 2022

Link

The economic and political crisis in Sri Lanka has affected almost every home in the country in some way, and for the working-class poor of the capital Colombo, the effect has been devastating. Whether they recover from it, and the long-term implications of it cannot even be comprehended.

"We spend more on eating than what we earn. No matter how frugal we try to be, it isn't possible. We have to buy everything from the shop. Coconut oil is expensive now, coconut is expensive, rice is expensive. Just think how much it costs to buy just those three...How to buy vegetables, fish, dry fish? It takes a lot of money to eat." Self-employed mother of two from Colombo.

Over the past year we have seen lower middle-class families that were able to make ends meet comfortably slip into poverty, sometimes unable to put more than two meals on the table a day. Food and nutrition were the first to be affected, with education, livelihood, transport soon to follow. The Sri Lankan economic crisis and the severe impact on the households all the way up to even include the middle classes, cannot be addressed with short term measures like cash transfers or ration packs. Instead, policies must look at the intersecting issues and opt for a universal social protection approach to mitigate the long-term impact.

Impact of the pandemic

The onset of the Covid-19 crisis in 2020 disproportionately affected working class poor households in Colombo. Many who relied on daily wage work were no longer able to go to work following the impositions of lockdowns, which resulted in many households losing their income. This reduced cash in hand they had to spend on food was also exacerbated by high food inflation (over 90 percent by August 2022), making food even less affordable to households. In addition, other monthly expenses add stress to already stretched household budget like utility bills, rent, mortgages, vehicle leasing, loans, children's education and tuition, transport, medicines etc.

Deepening existing precarity

Low-income settlements in Colombo experienced greater food insecurity even before the pandemic, with 72 percent of households being food insecure. Women in low-income households in Colombo were more likely to be underweight and overweight, with higher instances of blood pressure, diabetes, heart disease and anaemia when compared to their rural counterparts. Low dietary diversity and poor nutrition among urban poor people was largely attributed to the high cost of living in Colombo, with both food expenditure and non-food expenditure being more expensive in Colombo.

The economic crisis has undone whatever recovery was made since Covid-19 lockdowns were lifted. A sharp increase in the price of gas means that many households have switched to cheaper, alternative methods of cooking. The most popular choice for many households is the rice-cooker, with many cooking all their meals, including tea in the rice cooker. However, for houses with arrears in electricity bills from the Covid-19 lockdown period when they did not have the ability to pay, a rice cooker represents a higher electricity bill – a luxury not many can afford. An increase in electricity tariffs in August 2022 has seen bills significantly increase, making this no longer a viable option.

Universal, not targeted support

From a policy perspective, there must be a significant shift in the way that we approach any long-term policies. Civil society organisations have been calling for universal support schemes instead of targeted support as that would only exacerbate existing divisions in communities and favour some over others based on political affiliations, ethnicity etc. Communities needs at present are beyond the point of targeted measures. A realistic understanding of the household budget must be reached before determining the threshold of support schemes.

Approaches to calculating food expenditure must show an appreciation for dietary diversity, cultural practices of cooking, as well the varied nutritional needs and demands of households. Dry rations packs alone will not fully meet the nutritional needs of households and will place a burden on the health sector in the longer term.

Nutrition levels in children can also be targeted through meal programmes at every school irrespective of whether they previously had a school mid-day meal programme or not. While this would ease the burden on the families who have to send food for their children every day to school, it would also provide daily access to nutritious food that the children may otherwise not receive. The current allocation per school meal is not sufficient to provide a nutritious meal and should be changed to secure dietary diversity and cost.

A system of basket goods

Given the rapid increase in the price of goods, a system of basket goods should be available to households as opposed to a certain amount of money or vouchers. If households are guaranteed a consistent amount of rice, pulses, vegetables, fruit, milk, eggs every week for at least one year, for example, it would enable them to continue to buy the same quantities of food, irrespective of inflation, and have a nutritious diverse plate that includes protein and fibre, as well as carbohydrates. Beyond food expenditure, other needs require cash in hand, ranging from rent, utility bills and transport to medicine, children's education, loans, mortgages and everyday items like soap and clothes.

Finally, policies must address the disproportionate impact that the crisis has had on women and the increased unpaid care work that has fallen on them to simply make ends meet. Strategies to improve urban food security, including community kitchens or urban home gardening initiatives, rely heavily rely on the unpaid labour of women to deliver support to communities. From putting food on the table to running the household to their own livelihoods – women have shouldered a greater burden through this time.

Power struggles: Electricity and Colombo's working class poor

By Meghal Perera
10 December 2022

Link

"After we finish paying the electricity bill we can't lift our heads"

Just four months after a 75% increase in tariffs, Cabinet has reportedly granted approval for further tariff increases in January and June 2023.
The idea of all consumers paying a cost-reflective tariff is gaining momentum and has been promoted by the Minister of Power and Energy, who prefers a cash transfer as a silver bullet to all the woes of low-income households.

Such approaches continue to treat all electricity consumers as a homogenous group and assume that electricity consumption has no implications on livelihood, education, safety, and nutrition.
Qualitative research conducted in low-income communities in Colombo shows that the effects of the August 2022 tariff hike on the working-class poor have been deep and far-reaching and the coping strategies they have adopted are as diverse as they are complex.

The research also shows that monthly unit usage of working-class poor households in Colombo also exceeds what is considered the lowest usage group, thereby cutting them off from any offset benefits like cash transfers even though they do fall into a category that requires assistance.

Cutting down consumption impossible
Cutting back on electricity consumption is impossible when informal livelihoods are often dependent on domestic electricity connections. It is not uncommon for vendors to set up shops within their houses or in some cases run their domestic connections to a nearby stall for lighting.

Mala, a respondent from Wanathamulla, has started a small retail shop from her house and says she will continue to use her fridge because cool drinks are one of her best-selling items. Instead, she no longer uses her ceiling fan during the day.

Less than a kilometre away, Seela has unplugged her fridge and washing machine and has switched from cooking on her rice cooker to using a gas stove again. She admits that the ceiling fan is switched on for most of the day and that she allows her two children to watch television. She points out that there is nothing else to occupy them – she doesn't feel safe sending them to play outside.

It is important to note that the response to increased bills is not as simple as switching off the lights and conserving energy. Rather, these strategies are based on a personalised balancing act of livelihood, income, safety, and comfort, and they all invoke a cost in terms of time and energy.

This cost is disproportionately borne by women as well, who are left to cope with and strategise to make ends meet with every changing aspect of the economic crisis.

Common coping strategy

Another common coping strategy has been to simply not pay the electricity bill and then take a loan to pay off arrears once the threat of disconnection is made. In October 2022, 15 houses in one apartment building in a Urban Development Authority (UDA)-highrise scheme in Dematagoda with arrears of over 30,000 were disconnected and households took loans and pawned jewellery to pay off a portion of the arrears and get reconnected.

For some households it has become an issue of choosing which bill to pay. For example, Kamala who lives in a UDA highrise in Wanathamulla, says: "My daughter gave me Rs. 10,000 for all the bills – electricity, water, rent. But I had to buy a gas cylinder for Rs. 5,400 and then after paying the electricity bill (Rs. 5,008), I had no money for anything else." She has accumulated over Rs. 80,000 worth of installment payments for her UDA flat and notes that the building manager has threatened to cut her water supply if she does not pay off her arrears. For many low-income households utility arrears seem inevitable.

Bills and legitimacy

While electricity bills rise, the physical size of paper bills has shrunk, with residents in some parts of Colombo now receiving smaller receipts instead of the usual electricity bills over the last three months. Reading an electricity bill and understanding unit costs, fixed charges, and interest on arrears is already a confusing task for many households, but this is made more complicated by the fact that the new bills are only in English.

These new bills – which are more like "supermarket receipts," as one interviewee put it – are not only smaller and flimsier, but more liable to wear and tear. Even in the course of a few weeks, the ink rubs off and key information is erased.

It is also important to note that for low-income households with insecure tenure, electricity bills are an important document that prove their place of residence. Electricity bills are notably used as proof when applying for entry to Government schools. During shortages, utility bills were required to prove residence to receive the few gas cylinders trickling into a particular locale. Any proposal to eliminate physical bills needs to reckon with legitimacy that these documents provide the urban poor.

Injustice of increasing tariffs

During public consultations by the Public Utilities Commission of Sri Lanka (PUCSL) for the proposed tariff increases in August 2022, many voiced the injustice of increasing tariffs at a time when the Ceylon Electricity Board (CEB) has been unable to provide people with a continuous supply of electricity. Apart from a few weeks of abundant rain, daily power cuts of one to 2.5 hours have continued and are likely to worsen next year (1). Unlike middle class or luxury apartments, the UDA-run highrises do not have generators so daily power outages leave common and public areas of the complexes unlit.

Quality of life impacted

The outages also mean that the basic premise of apartment living – lifts – do not work for periods of two-and-a-half hours a day. Whether this is out of indifference or incompetence, this has inhibited the quality of life of all the inhabitants of such highrises, effectively constraining the movement of the elderly, disabled, young, and vulnerable.

A community leader in a highrise in Dematagoda notes that a majority of residents of the highrise are elderly and struggle with climbing up 14 storeys, while school children simply wait out the power cut when they return from school so as not to climb steps with heavy bags.

Beyond the inconveniences and discomfort caused by power outages, the absence of lighting in common areas at night also raises security concerns. While he has written to both the UDA and CEB requesting that a generator be provided to ensure

the functioning of lifts and public lighting, he has funded small-scale solar-powered lighting for public areas.

While such stories of communities coming together to cope with the effects of the crisis are inspiring, they reveal a history of neglect and underfunding by the State.

Preferential treatment

Colin McFarlane (2010) writes that "the inequalities woven through urban infrastructures are rarely more evident or visible than in times of crisis or rupture" and nearly a year of energy crises has shown this to be true. It has also raised questions of who deserves electricity and how the State should distribute or withdraw it.

These questions are answered when religious institutes are granted relief from increased tariffs while low-income households forego meals to conserve energy. They are answered when the Government uses a $ 100 million Indian credit line to fix rooftop solar panels in Government institutions and religious places.

While the Minister of Power and Energy is keen that all citizens pay a single tariff, the State does not subject all its citizens equally to power outages. Those who are not citizens receive even more preferential treatment as tourist zones in the Southern Province and Ella will be exempt from power cuts.

Rather than upholding energy justice principles, the electricity grid has created its own form of stratified citizenship which determines who receives power.

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City Resilience Through Urban and Peri-urban Agriculture

Anisha Gooneratne
12 December 2022

Link

Diminishing crop yields, high inflation, along with disruptions to global supply chains, and bans on imported items have left Sri Lanka grappling with serious and worrying levels of food insecurity. For those based in Colombo, the risk of food insecurity is much greater compared to rural areas, considering they bear a higher degree of expenditure on non-food items such as rent and transport, leaving only a little to be spent on food. This, combined with the higher prices of food in Colombo compared to other areas of the country, leaves Colombo exposed to a greater degree of risk of food insecurity. With the city's population expected to grow to nearly 3 million by 2035 the need to build resilience in the city by strengthening food systems interacting with Colombo is essential to ensure food security for its residents. With the Colombo Municipal Council (CMC) piloting urban agriculture in their gardens, perhaps the time has come to think of moving production closer to the capital.

The problem

Despite its population density, there is close to no agricultural production being undertaken in Colombo to support the demand for food. Currently, distribution of food to the city of Colombo is not planned according to the closest production source, which has resulted in food being transported across the country from the North Central and Eastern Provinces, approximately 265 km away from Colombo. Variation in distance has resulted in fluctuating food prices with the price of food being higher in Colombo compared to other regions that are closer to the source of production. As highlighted in this article, while your food could be grown in your neighbourhood, it is likely that it will travel all the way to Dambulla before it finds its way back to Colombo.

Furthermore, the poorly planned food distribution system is worsened by the lack of supporting infrastructure to transport food across the country to Colombo. Lack of robust storage and refrigeration facilities along the value chain and in Colombo results in food spoilage and wastage. A 2020 report conducted by the National Audit Office revealed a post harvest loss of between 30%-40% of fruits and vegetables owing to unsuitable packaging and transport among other reasons. This translates into increased prices for residents in Colombo as the supply of food coming into Colombo is diminishing.

These underlying weaknesses in the system have been further compounded by rising fuel prices. Mahen*, a vegetable seller in Wanathamulla who is severely affected by the rising price of food said, "The price of vegetables in the wholesale market is unaffordable. Not only has the rise in fuel prices increased the price of vegetables but as less vehicles are carrying vegetables into Colombo due to the fuel shortage, this reduced supply has further increased

the price of these goods. I also have to spend more money to travel back and forth from the wholesale market – the cost of my trip has doubled. My clientele also can't afford to spend too much money on vegetables, so there isn't even a demand for what vegetables I bring to sell."

The complexity of existing value chains transporting food to Colombo has led to high food miles, which can be defined as the distance food travels from source to consumption. Increased food miles can result in increased greenhouse gas emissions and pollution, further reiterating the necessity to move production of food closer to Colombo and peri-urban areas.

Re-building food systems

The need for resilience in times of crisis cannot be underscored enough. Drawing from the works of Johannes Langemeyer we take resilience to mean the "capacity of an urban system to absorb disturbances, reorganise and maintain essentially the same functions during its development along a particular trajectory". In this regard, preventing and reducing the impact of disruptions such as fuel shortages, price increases and improper storage and transportation to the food value chain can better help to mitigate the severity of food insecurity for Colombo.

Urban agriculture can be defined as "the production of crop and livestock goods within cities and towns". While the term is facing increased popularity now, it has very much been a part of past policy interventions. For example, in 2014, in partnership with the international network of Resource Centres on Urban Agriculture and Food Security (RUAF), the International Water Management Institute (IWMI), UN-Habitat Wageningen University–PPO and the School of Forestry at University of Florida, the Western Province undertook a project in the city of Kesbewa to rehabilitate abandoned paddy lands for crop cultivation under the banner of urban agriculture. The Divi Neguma programme under the Mahinda Chinthanaya in 2011, also promoted urban agriculture in the form of home gardens. More recently, the CMC in partnership with Cargills Ceylon, has started growing vegetables on the grounds of the Town Hall, with the CMC expected to expand its urban agriculture programme to Viharamahadevi Park and other CMC lands.

Urban agriculture has long been considered a viable option to counter crises and shortages in food. Expanding food production closer to the city can help to reduce food miles and associated greenhouse gas emissions, minimise food wastage during transportation and counter shortages of fuel which could in turn help to counter the increased price of vegetables and fruits in Colombo. In addition to this, urban agriculture has been reported to have supported employment, inclusion and empowerment, especially in the global south, which can help to reduce inequalities that have been heightened by urbanisation.

Thinking ahead

If Colombo is to truly fulfil its commitment to urban and peri-urban agriculture it is essential that certain factors are taken into consideration. The first is ensuring that urban wetlands and other ecological sites are not destroyed for the promotion of urban agriculture. Rather than destroying or replacing these sites, it is important to do it in a way that it complements the existing ecosystem. This also includes sustainable ways to irrigate such as rain water harvesting and the use of organic waste as compost to name a few.

Urban agriculture also does not need to merely take the form of land use in urban and peri-urban areas. Emerging alternative methods include various forms of vertical farming such as hydroponics that can be used in indoor, space constrained areas or even rooftops have gained popularity in cities worldwide. In Singapore, 10% of leafy green vegetables are produced through indoor farming mechanisms. In Japan, commitment to indoor agriculture has resulted in companies moving production of crops to indoor environments. The Mirai Company in Japan has built a 25,000 sqm indoor farm producing lettuce at 100 times more per square foot compared to traditional methods. Compared to traditional methods of land use farming, their endeavours have resulted in

energy usage reducing by 40%, 80% less food waste and 99% less water usage. Indoor/vertical farming has the potential to help reduce the burden of land use, especially in space constrained areas where traditional farming is not an option. It is also a way in which production can move closer to the city to better help food supply into Colombo.

The transition to urban agriculture is not an opportunity for the private sector alone, nor should be seen as one that justifies the acquisition of land in the name of city resilience. Herein lies a unique opportunity to also support the urban poor better with access to food. Allotments in urban areas have been a popular part of urban planning in European cities; in Germany and Portugal, allotment gardens have been created by Local Government to give access to the urban poor to grow their food and better weather against food insecurity. Following similar principles in Colombo could better support Colombo's urban poor, as many struggle with adequate space to grow at home. Moving production closer to home in the form of allotments could also take into account empty spaces in high rise buildings, such as the UDA high rise buildings used to relocate the urban poor. Creating allotments in urban spaces such as this could better support their access to food without having to travel great distances to reach their allotments while also creatively using empty spaces. The many forms urban agriculture can take is vast and, more importantly, its potential impact to food systems and food security especially for the urban poor cannot be underscored enough.

However, merely growing food closer to the city is not enough. More needs to be done to strengthen the existing infrastructure in the food value chain. For example, the creation or better use of distribution hubs closer to the city can help to ensure that food is not travelling great distances before it reaches a collection/sorting hub. This can help to prevent wastage during transportation, and also reduce greenhouse emissions. Additionally, further strengthening cold storage along the value chain can better help to mitigate the wastage that is experienced post harvest.

Thinking more long term, it is important that food systems are thought of as part of city planning and not outside it. In this way, there is better commitment to ensuring food is more accessible for residents in cities as opposed to re-actively introducing crops into existing urban infrastructures retrospectively.

Chasing Efficiency While Leaving Vulnerable to Their Own Devices

Channaka Jayasinghe
9 January 2023

Link

According to the Central Bank's annual report of 2021, The National Water Supply and Drainage Board (NWSDB) recorded an operating loss of Rs. 3.1 billion during the year 2021[1]. The report compares it to the loss of Rs. 370.5 million recorded during the previous year, making it an 8 fold increase over the span of a year[2]

The poor financial position of the NWSDB has been an ongoing issue at least since 2012[3]. The underlying causes of this include accumulated net losses from practices such as poor asset management and tariff setting, consumption rates which are lower than design projections and losses as non-revenue water (NRW)[4]. Wickramasinghe, (2018) describes Non-Revenue Water (NRW) as "the gap between the volume of water supplied through a system and the volume of water which is billed as authorized consumption"[5]. The main causes of NRW are Physical water losses (leakages, wastage), Commercial losses and Unbilled authorized consumption[6]. The NRW estimates for Colombo are quite high, although it is in a downward trajectory. In the years 2005, 2011 and 2016, the estimated NRW was respectively 54%, 49.97% and 46%[7]. ADB, (2016) notes that physical losses from leaky old pipes is the main contributor to NRW[8].
The NWSDB has been submitting proposals since 2012 to increase water tariffs, and except in 2016, these requests have not been considered[9]. However, on the 1st of September 2022, while the country is going through a financial crisis, the NWSDB revised its tariffs [10].

It is unsurprising that this would be an attractive choice to make from an economic efficiency point of view. As part of a broader set of strategies, tariff setting is a way to make the supply of water part of Demand Responsive Approaches (DRAs) which are commonly understood as measures one could take to "reduce water demand without compromising water related services"[11]. However, it has been observed in Sri Lanka, that DRA approaches which are biased towards cost recovery, exclude poorer sections of society due to the inadequate flexibility of offered solutions that fail to acknowledge constraints such as inconsistencies in income[12]. Therefore, economic efficiency related arguments cannot be presented as being politically neutral. Impacts from such policy decisions have real consequences on people's abilities to meet their material needs. Therefore, sites where people struggle to work within the system, are important to be constantly aware of when implementing DRA approaches.
Multi-storey housing complexes built by the currently ongoing Urban Regeneration Programme and the previously concluded Sustainable Township Programme are such sites where people who were previously living in working class poor settlements were relocated to. Economic efficiency related

arguments are at the heart of these relocation projects as well, for they served the purpose of liberating the lands on which tenement gardens existed on in order to make them available for commercial and mixed-use developments. The people are in turn expected to make payments to the Urban Development Authority towards ownership of their apartments. Here, the economic efficiency related approach taken towards developing the City of Colombo, entangles with the economic efficiency related arguments of governing water infrastructure, for according to the residents living in Sirisara Uyana and Methsara Uyana (located in Borella, Colombo 8), delays in payments to the UDA are met with threats of being disconnected from the building's water supply. Being located among housing units spread across 12 storeys, there are very few easily accessible alternative sources of water, if people find themselves disconnected from the water grid.

In Seevalipura, located in Wanathamulla which is Colombo's oldest Tenement Garden[13], many households have water connections. Users are at least partly incentivised to obtain household water connections because water bills can be used as acceptable proof of residence when applying for a bank loan and/or when enrolling children into schools. Furthermore, Seevalipura also has several public wells. Sometimes people supplement the water from their household water connection with that collected from public wells. One resident whose household cannot afford a water connection, consistently relied on their neighbour's water connections to supply their drinking water needs, while using the public wells for other needs. The responsibility of maintaining these wells are not formally borne by any public institution. Instead, the residents maintain them, except when they require major repairs. In such situations people request assistance from the municipal authorities who will make the necessary arrangements.

Although struggles to pay the bills exist in Seevalipura as well, there are more options to access water, and somewhat more space for people to innovate solutions for themselves as well. One such solution is the case of a communally managed water connection which has been connected to a publicly accessible toilet. This water connection is about 10 years old (though the toilet itself is far older) and served 34 households of which 30 were occupying state lands. However, since 2021, the state has begun evicting these 30 households from this land. Since the location is publicly accessible, some people use water from this connection without paying into the pool, however, if this behaviour is consistently observed they would be requested to pay a nominal fee. As the paying members grew smaller and the costs keep rising, at least two members have applied to get household water connections, citing that the benefits outweigh the costs. However, with the rising costs of living (including the water tariffs), the pool of paying users has increased and lengthened the lifespan of this collective project.

Upon consulting an engineer from the NWSDB about such forms of infrastructure, it does appear as if such requests are considered on a case-by-case basis after a field team is deployed. The NWSDB's interest in facilitating access to infrastructure was noted by a user when they described how they wrote to the NWSDB at the beginning of 2022 when this connection was disconnected as part of a process of upgrading the pipes. Following which a few officers from the NWSDB visited the premises and assessed the need, and restored the connection in July, 2022.

The cost recovery imperative at the core of DRAs seems hard to fault when thinking about it in the abstract. The revenue collected from tariffs collected by an institution provisioning public infrastructure should be sufficient to cover the cost of water sold, operations and maintenance, debt services, capital or interest payments of expansion projects, while also generating a reasonable surplus.

However, the policies taken to meet this end need to acknowledge that broad approaches with sweeping underlying assumptions about capacities to access infrastructure tend to be based on hypothetical people who are similar to one another differing only by "level of income". It must be noted that the current tariff structure does offer a special rate for

Samurdhi beneficiaries. However, the limitations of the Samurdhi scheme to target those who need assistance the most is a matter that needs to be considered seriously if this dedicated tariff band is considered to be an effective fix.

Interventions to support people and communities who lack access to infrastructure need to consider solutions that stem from the question "what do their (collective or individual) capacities allow" rather than "what should they do". When comparing the urban environment within high-rise apartments and tenement gardens such as Seevalipura, it is apparent that the urban environment people live in and their relationships with structures of power such as state institutions also have a bearing on their capacities to access infrastructure.

Therefore, solving issues related to people's capacities to access infrastructure requires a more grounded approach which is sensitive to understanding the variety of contexts in which people live, and not only counting and accounting revenue generated, costs incurred, and average monthly incomes.

This is not an unreasonable suggestion for state institutions, for according to literature pertaining to the in situ upgrade programmes such as the Million Houses Programme conducted in the 80s written by Lankatilleke, (1985)[14] and Simon, (1985)[15], practices of state institutions have in the past entangled with the field at a deeper level, in order to understand specific needs and their contexts.

Chasing Efficiency While Leaving Vulnerable to Their Own Devices

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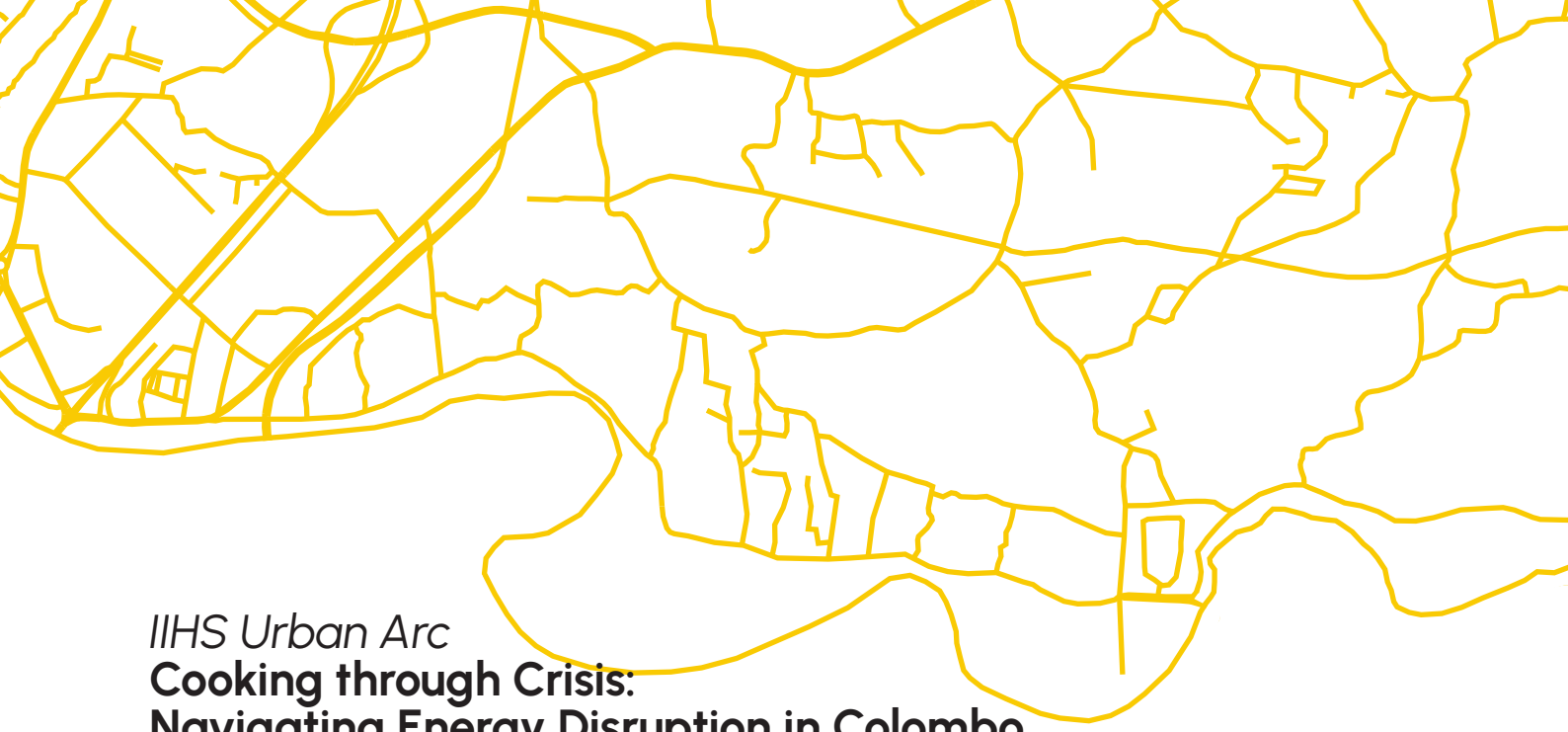

IIHS Urban Arc

Cooking through Crisis: Navigating Energy Disruption in Colombo

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Introduction

Beginning with a spate of LPG cylinder explosions in late 2021 and precipitated by an economic crisis defined by a shortage of all fuels, daily power outages of several hours and regressive electricity tariff hikes, Sri Lanka's energy infrastructure has been in a state of prolonged breakdown. The experience of this widespread disruption has temporal dimensions as supplies of kerosene, LPG cylinders and diesel have contracted and expanded at different points in the year, with prices subject to frequent change by the state. Electricity supply and load shedding was no exception as the length and frequency of power outages waxed and waned according to the intensity and duration of rainy seasons.

While the energy crisis is a multi-faceted problem with wide-reaching consequences, it also manifests in the everyday experience of cooking. The gendered expectation of Sri Lankan women to provide their families with home-cooked nutritious meals has not changed. The routine and time-consuming labour of cooking has only been complicated by the crisis as women now face uncertainties in procuring cooking fuel which can and do change on a daily basis. Urban households are more vulnerable to disruptions in supply chains. The situation is even more acute for low-income urban households, whose precarity in the form of informal livelihoods, insecure tenure, time scarcity and housing typology all increase vulnerability to infrastructure breakdowns.

Mcfarlane (2010) offers a useful starting point to thinking about infrastructural breakdown in the cities of the Global South, noting that such disruptions both mediate and reflect urban inequality. He identifies that disruption as a concept is problematized in contexts of the Global South, where frequent infrastructural breakdowns are more the norm than the exception. As such, there is a need for more research into how the urban poor in the Global South experience and respond to disruption.

Research has identified how the urban poor access energy, electricity in particular, through improvisations (Silver, 2014). Using such improvisations as a lens for examining electricity, can shift the perspective from a failed modernist grid, to the creative actions of 'urban bricoleurs' in accessing electricity (Munro, 2019). Scholars have also shown how responses to disruptions in electricity supply are determined by class, and how disruptions in themselves are a result of power dynamics (Silver, 2015).

Following the end of the civil war, Colombo's urban landscape has been reimagined and reshaped with the ambition of creating a 'world class city', which as is seen in many cities of the Global South, aims to create aesthetic spaces for aspiring middle classes (Masqood et al., 2019). Through the Colombo Regeneration Project, long term working class

residents of Colombo have been forcibly evicted and relocated to Urban Development Authority-run highrises, in order to free up commercially lucrative real estate (Amarasuriya and Spencer, 2015). These changes have exacerbated the precarity of working class residents in Colombo, who live in fear of relocation, while those arbitrarily relocated into highrise apartments must contend with new lifestyles and routines that emerge out of living in an unfamiliar housing typology (Perera, 2015). For these relocated households, deteriorating quality of life and exacerbated vulnerabilities to economic shocks and crises, are just some of the effects of widespread urban change.

Studies have also engaged with the experiences of energy poverty through the lens of economic crisis. Petrova and Prodromidou (2019) consider, albeit in the Global North, how experiences of energy poverty are dependent on the built environment and relationships to the state. Phillips and Petrova (2021) explore how energy precarity is reproduced or destabilised through intersecting materialities of housing and infrastructure, noting that "energy precarity is shaped by inflexible material infrastructures as much as uncertain, flexible incomes" (p.1037). The role of housing typologies and materialities have been more specifically shown to influence the adoption of multiple cooking fuels in rural and urban households (Ochieng et al., 2020). The cooking energy needs of the urban poor have been often ignored and understudied (Broto et al., 2017). The assumption that urbanisation occurs with a parallel expansion of the electricity grid, has meant that cooking fuel types are neglected.

Sri Lanka's energy crisis offers a chance to examine disruption and energy poverty among the urban poor in a Global South context. A closer examination of cooking fuels used by low-income families in Colombo can offer perspective of how an energy landscape in prolonged breakdown and constant flux is experienced through everyday life, in an activity that is routine and essential. This paper explores how low-income families navigate the energy crisis and what bearing it has on their everyday lives in terms of procuring cooking fuel. It considers what influences the tactics and improvisations employed in the face of escalating energy precarity. The results contribute to scholarship on experiences of energy precarity and disruption in cities of the Global South. Such research is particularly relevant as in other cities of the Global South, energy crises, urbanisation and displacement of the working poor are trends that will only intensify in the future.

Methods

This paper is based on findings from fieldwork conducted in Colombo from November 2021 to October 2022. Qualitative interviews were conducted over the course of a year with 20 households in two low-income settlements; Seevalipura, a 'watte' or tenement garden and Sirisara Uyana, an Urban Development Authority-run highrise apartment, housing relocated families from low-income settlements. 10 households from each site were selected using purposive and snowball sampling. As fieldwork ran parallel to the unfolding and escalation of Sri Lanka's economic crisis and political unrest, the energy experiences of households varied significantly according to the date of the interview. As such, they yield data that is non-comparable but offers rich insight into the temporal dynamics of the energy crisis.

Discussion

Women in low-income households use a variety of tactics and improvisations to ensure regular home-cooked meals for their families, during a prolonged but constantly changing energy crisis. The most common response was to substitute one fuel source with another, which often meant investing in a stove or other equipment. As the availability and price of gas cylinders, kerosene and electricity frequently changed over time, merely switching to one new substitute was insufficient as that fuel might suddenly be unavailable or subject to a price hike. By employing multiple fuels or stacking cooking fuel, households were able to withstand a sudden increase in the price of a gas cylinder or shortage of kerosene by using an alternative source of fuel. Five cooking fuels were observed to be in use over the last year; LPG gas, wood, kerosene, electricity and coconut shells. In some cases, a household had stacked as

many as four fuel types in preparation for the latest manifestation of the energy crisis.

While all interviewed households had predominantly used gas cylinders before the energy crisis, a series of explosions in late 2021 saw gas cylinders gain a reputation for being not just expensive and unavailable, but also dangerous for women cooking alone. While some attempted to mitigate this threat by tactics such as applying liquid soap on the regulator to detect gas leaks, others abandoned the fuel entirely. This laid the groundwork for fuel stacking and switching as a means of coping with constant energy disruptions. The unpredictability of gas cylinders was not limited to the existential risk of explosion. Gas cylinders offered users no indication of how much fuel had been consumed or was left, finishing without warning. While this was inconvenient at the best of times, in a context where gas trickled unevenly into the market and had to be accessed through lengthy queues, such unpredictability had heavy consequences. By contrast, kerosene could be purchased in transparent bottles where usage could be tracked and quantities per meal calculated and accounted for.

While firewood, purchased in bundles for one or two days also offered this certainty, its attraction also lay in its availability. Though kerosene was initially available at the beginning of the year, by April, shortages meant queueing for long periods to procure it. In addition, unlike gas cylinders, kerosene needed to be purchased more frequently, meaning that the sunk cost of hours in line was greater. While some women were able to do this, others, particularly working women, did not have the same luxury. They purchased firewood daily, acknowledging that cooking with this fuel was more taxing in terms of time and effort, and more deleterious to their health.

Cooking with firewood is unfortunately not a method that all households can adopt. Despite their small plot size, houses in the watte were able to cook on a wood stove as many of their houses had been designed with a chimney in the 1980s, where participatory planning processes delivered low-income housing design in tune with the rhythms of everyday life. While some households had altered their chimneys, there was still open space for a small wood stove.

In contrast, low-income households relocated to UDA-run highrise apartments were restricted to homogenous 500 square foot apartments where cooking on a wood-stove would pose a serious fire hazard. Households instead opted to cook meals in electric rice cookers which led to a sharp increase in their electricity bills. Housing typology constrained fuel choice and intensified dependencies on fluctuating supply chains. The possibility of cooking gas running out was met with resignation but also rebellion, as some households planned to set up a wood stove, regardless of safety or suitability to a highrise apartment. Others opted for middle ground, choosing a coconut shell charcoal stove, which emits less soot and smoke and presents only moderate risk. Relocated households living in highrises were thus more vulnerable to the vagaries of the energy crisis and with fewer strategies at their disposal, had instead to adjust fuel type and meal frequency.

Conclusion

The varied responses to the energy crisis display improvisations that are not driven only by cost, but rather represent a delicate balance of time, income, labour, risk and skill. Women in particular are compelled to adopt multiple fuel sources to face immediate and fluctuating disruptions in one or many energy supplies. While the configurations of these factors are personal, they remain mediated by 'inflexible material infrastructures' in the form of apartment balconies, forgotten chimneys, glass bottles of kerosene and damp firewood. Crisis and energy poverty are not blanket experiences that provoke standardised responses, but sources of experimentation, risk management and ingenuity.

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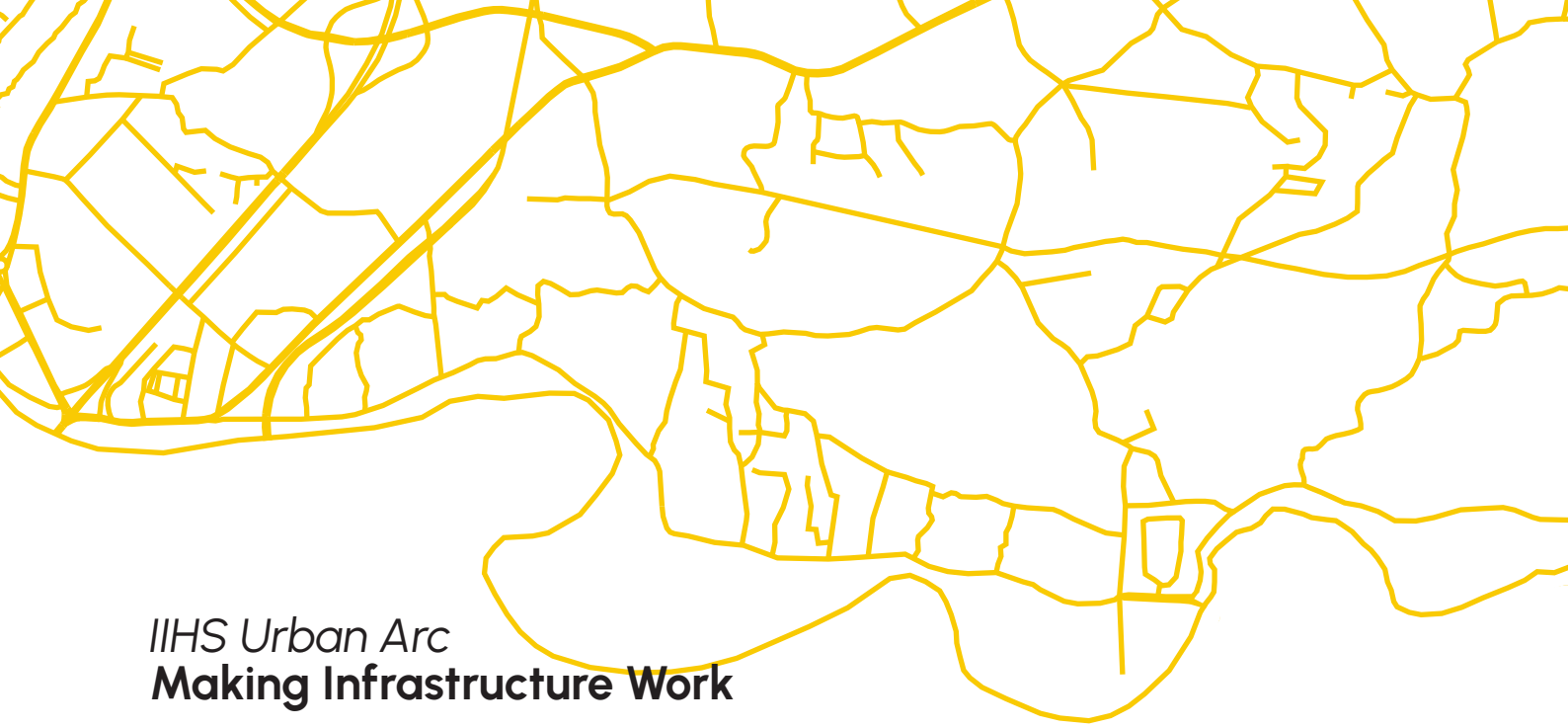

IIHS Urban Arc
Making Infrastructure Work

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Introduction
Urban infrastructure serves the purpose of facilitating population densification and the constant on-going process of state-building. Scott, (2008, pp. 2) describes this process as sedentarisation, which can be understood as a process of settling-the unsettled or dampening of fluxes.

While this study found instances of infrastructure used as a means of command and control which are in-line with conceptualising infrastructure as tools of the state, it also recognised infrastructure embodying counter-political arguments about the need for unsettling and flux within the city.

Methodology
This study was conducted by making use of both primary and secondary data sources.
Primary data collection was conducted as part of an ongoing broader study on how urban poverty affects people meeting their basic needs and accessing infrastructure. Face-to-face interviews were conducted with seven respondents from Seewalipura in Wanathamulla, a watte, or tenement garden inColombo, and ten respondents from two State run high-rise apartments in the vicinity using a mixed sample strategy. Face-to-face interviews were conducted with them using semi-structured interviews where their water consumption patterns were explored.

An engineer from the Non-Revenue Water department of the National Water Supply and Drainage Board (NWSDB) was consulted to understand the NWSDB's efforts to provision water equitably. A lawyer with a background in supporting activities of civil society organisations was consulted to understand how the National Water Supply and Drainage Board Law, No. 2 of 1974 and its amendment relate to the different observed forms of water infrastructure.

Officials from the Urban Development Authority were consulted with regards to the currently ongoing Urban Regeneration Programme.

Secondary data collected for this study include both academic and grey literature.

Findings
The National Water Supply and Drainage Board (NWSDB) was established as a public authority and was vested with its mandate by the National Water Supply and Drainage Board Law, No. 2 of 1974. It is the primary agency responsible for water supply and sanitation in Sri Lanka, and is responsible for planning, designing, constructing and managing infrastructure covered by the NWSDB Act (ADB, 2016).

For years, the revenue collected by the NWSDB did not meet the costs which it incurred, however, the water tariff and water connection fees were restructured in the months of September and October in 2022 respectively (Daily News, 2022). Apart from low tariff and connection fees, other reasons contributing to the net losses include mismatches between consumption rates and design projections; and Non-Revenue Water (NRW) which was mainly due to old infrastructure (ADB, 2016, p. 7, 24; Fan, 2015; NWSDB, 2018).

Many Non-Governmental Organisations (NGOs) have assisted the NWSDB to Improve its revenue position, and currently (as of October, 2022), the webpage of the NWSDB lists 24 foreign funded projects taking place in different parts of the country (NWSDB, 2022). Such projects were designed to promote both financial discipline and efficiency of the grid (which includes the reduction of NRW) by improving the NWSDB's technical and management capacity (ADB, 2016; Fan, 2015).

With the assistance of such organisations, Demand Responsive Approaches (DRA) were mainstreamed into the NWSDB's operations. DRAs are intrinsically biased towards cost recovery, and contributes towards easing management burdens of low-income cities, mitigating risks such as the risk of demand for water exceeding the capacity to supply, and decentralising responsibilities of the decision making authority and improving cost recovery (Ariyabandu & Aheeyar, 2004; Dharmapala & Ranasinghe, 2006; McGranahan, 2002). Programmes such as the Randiya Programme played a role in facilitating DRA approaches by replacing common outlets located in underserved settlements with individual connections. Apart from the physical changes to the infrastructure, this programme also made structural changes to NWSDB by establishing mobile offices close to the communities where this programme was taking place to improve the convenience of the application and payment processes (Fan, 2015). Users were also incentivised to obtain Household Water Connections because water bills are considered to be acceptable proof of residence when applying for a bank loan and/or when enrolling children into schools.

Studies exploring preference for piped water infrastructure in Sri Lanka have concluded that there is a high willingness to pay for household connections (Krishnapillai et al., 2020; Mcloughlin & Harris, 2013). However, studies have also concluded that the capacity of people to actually afford household water connections is variable (CEPA, 2009; Plummer, 2002, as cited in Mcloughlin & Harris, 2013). Therefore, prioritising cost recovery and financial discipline would largely be a de-politicising project, for it involves the "imaginary separation of the economic from the political, such that the fundamentally political nature of unequal economic and social relations in society are rendered invisible" (Wood, 2016, p. 527).

The mismatch between provisioning infrastructure and accessing it becomes clear at smaller scales such as in the case of Seewalipura which is located in Wanathamulla which is considered to be Colombo's oldest tenement garden (IUIDP, 1985). Over the years Seewalipura has seen multiple onsite upgrading programmes being conducted, therefore it is unknown when public water infrastructure was introduced here. However, according to a community organiser who has assisted such programmes since the 1980s, public taps were the only form of public water infrastructure in Seewalipura until the early 2000s, which is when household water connections became available in Seewalipura. It must be noted that NWSDB first began installing water meters to households in Sri Lanka in the 1980s while billing for consumed water was initiated in 1984 (NWSDB, 2018). Several publicly accessible wells are also present in Seewalipura. The maintenance of these is not formally borne by any public institution. Instead, members of the community maintain them, except when they require major repairs. In such situations people request assistance from the municipal authorities who will make the necessary arrangements.

Today, household water connections are common in Seewalipura. Among the seven respondents of the study, only two did not have water connections due to the inability to afford one, while another respondent's household supplemented the water

used from their personal water connection with that from a nearby public well.

Among the two respondents who did not have household water connections, one respondent's household was reliant on their neighbour's water connection to supply their need for drinking water, while also sourcing water from a public well for the rest of their needs. The other household is reliant on a communally managed form of water infrastructure which is semi-formal in nature.

When the communally managed water connection was first installed 10 years ago, it served families living in 34 households. These households were either unable to afford a household water connection, or as in the case of 30 of those households which were occupying state lands, they were unable to formally apply for them. Since 2021, the state has been evicting people form these houses. The rest of the 4 households are on lands which were upgraded in-situ through various onsite development projects conducted in Colombo.

Each household contributes Rs. 50 per month to pay the water bill and for the materials and labour used to maintain the facility. However, since the state began its programme of evicting the 30 households occupying state lands, the pool of paying users has dropped drastically. Furthermore, at the beginning of 2022, the NWSDB disconnected the collectively maintained water connection when it was upgrading its pipelines, requiring a representative from the collective to write to the NWSDB in February, 2022 about the need for this water connection. Following a field visit by a few officers from the NWSDB, the connection was finally restored in July, 2022.

However, since the increase in water tariffs in September, 2022 (and the rapidly rising cost of living following the financial crisis) other members of the community have begun to pay to use this collectively maintained water connection in order to reduce the billed usage of their personal water connections. Since the toilet is publicly accessible, it was also used by non-paying individuals, some of who live in Seewalipura as well. However, in practice, a nominal payment was requested from anybody observed to repeatedly free-ride and use water from this toilet. Two of the users (one of them being the respondent of the survey) mentioned that they have individually applied for water connections because the benefits of collectively using this facility currently outweigh the costs.

From a legal standpoint, the law as described in National Water Supply and Drainage Board Law, No. 2 of 1974 (Amended in 1992) currently exists, there are possibilities, more as a consequence of the lack of clarity around what is possible, for the NWSDB to accommodate more practical arrangements and accommodate local proposals or solutions.

Upon consulting an engineer of the NWSDB about such forms of infrastructure, it appears as if providing water connections for communal use does happen on a case-by-case basis if requests from communities are accepted based on the observations of field staff deployed to the site.

The struggles to afford water connections were also observed in households living in two high-rise housing projects (Sirisara Uyana and Methsara Uyana) built by the Urban Development Authority (UDA).

These multi-storey housing complexes are part of the state's overarching strategy of liberating lands occupied by tenement gardens which can then be utilised for commercial and mixed-use developments. To realise this development paradigm, the "Sustainable Township Programme" (conducted in 1998) and the currently ongoing Urban Regeneration Programme (since 2010) were conducted by the UDA and have been responsible for the eviction and relocation of households from working class poor settlements in various locations in Colombo to high-rise housing projects. The residents of these housing projects are making monthly payments to the Urban Development Authority towards ownership of the apartments they are living

in. Interviews with officials from the UDA suggest that the institution is interested in hastening this process of transferring the formal ownership to the residents. According the respondents from the high-rise apartments, the UDA management have used the threat of disconnection from the building's water supply as a means of enforcing these payments, thereby effectively weaponising the grid.

Discussion

The process of extending and managing the grid within the city of Colombo in the recent past has by and large been the outcome of efforts by the state and development agencies resulting in the mainstreaming of DRA approaches to improve the NWSDB's revenue position.

It is clear that DRA approaches risk excluding some users from accessing piped water from the grid due to non-affordability. In some cases, such as in the high-rise apartments, this act of exclusion can be strategically used by the state in order to force people to pay other dues.

It is also clear that if state institutions engage with working class poor communities in non-prescriptive and supportive way, community led solutions which makes water more accessible to a larger pool of people and DRA approaches may not be mutually exclusive. However, it must be kept in mind that the collectively maintained water connections is not free of regulatory constraints. Therefore, one person (under whose name bills are issued) among the collective is liable to the NWSDB for any issues which may arise with regards to the connection.

Therefore, it is important to keep in mind that the politics of small interventions such as the establishment of semi formal forms of infrastructure is still bounded by the politics of state-craft. After all, it appears as if the experimental project by the collective is coming to an end with the eviction of most of its paying members and some people opting to get personal water connections. However, the rising cost of living has seen more people paying into this system which may in fact extend the collective project's life-span.

Be that as it may, Seewalipura is a landscape where people have conducted other experiments in the past by taking immanent approaches to problem solving with the tacit knowledge that "one can only achieve the solution that the conditions allow for" (Vasileva, 2018, p. 112). Therefore, it wouldn't be surprising to see other experiments being conducted in the future contributing to the cumulative flux of the City of Colombo, which at least for now, is yet to be settled.

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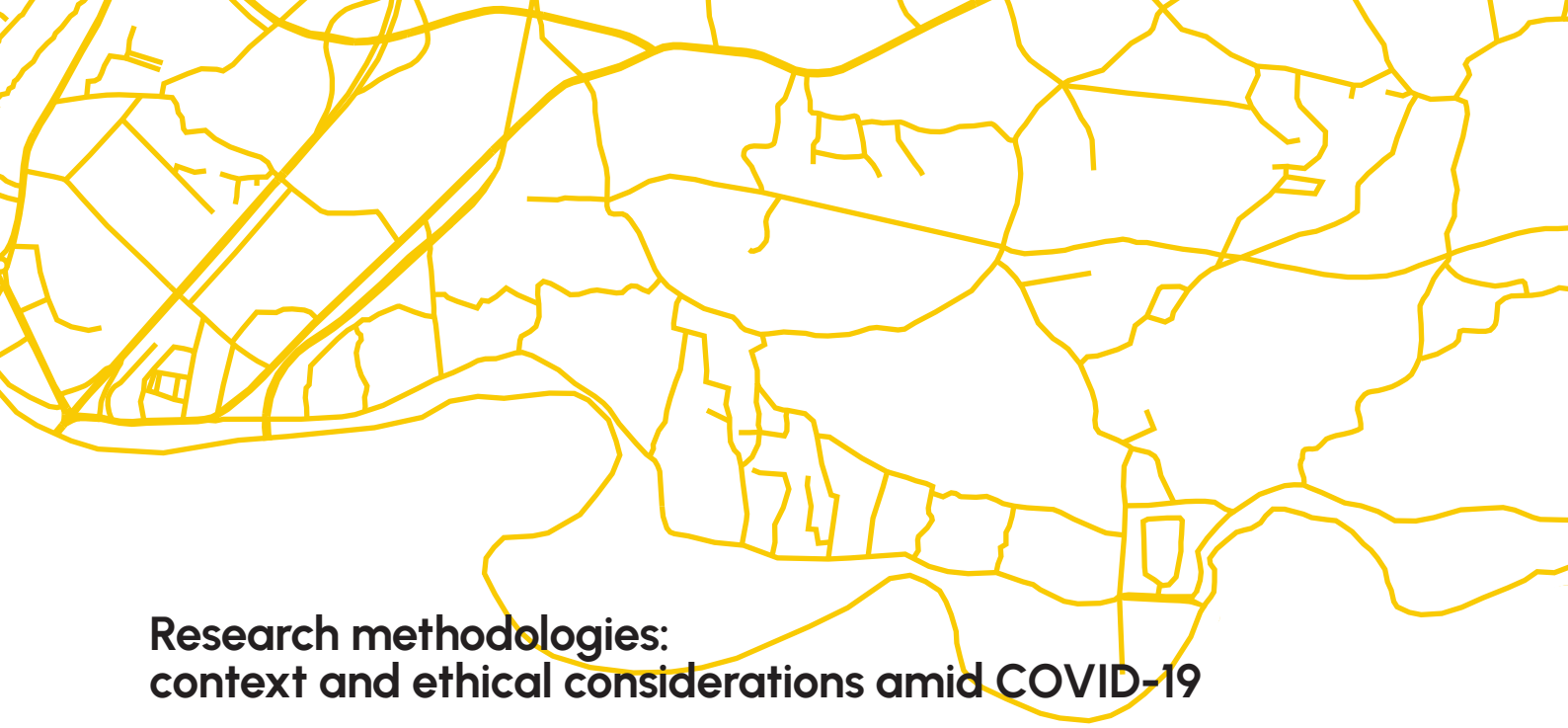


Research methodologies: context and ethical considerations amid COVID-19

Anisha Gooneratne
01 February 2023

Link

COVID-19 has renewed our focus on the importance of context in research. During the COVID-19 pandemic, we saw a wave of disruptions across a multitude of spectrums, which permeated every aspect of life. For researchers it was no different. COVID-19 presented challenges for planning and undertaking research and encouraged us to consider new modes of operation.

Conducting our research on the infrastructure and nutrition nexus in Colombo, Sri Lanka, in the context of COVID-19 was daunting. Because of the pandemic, the working-class poor (mainly daily wage workers) were struggling to feed their families. Therefore, COVID-19 encouraged us to rethink our methodologies because we had to focus on the context of our research and its impact.

Contextual challenges in designing our methodologies

COVID-19 and planning

The planning was the hardest part. COVID-19 presented us with so many new and complex considerations. For example, would we be able to go into the field? If not, what contingencies should be in place to ensure that we could meet our timelines? What risks might we pose to the community if we went in during a wave of COVID-19?

Designing the questions

Our most important consideration was the type of questions that we should ask our interviewees. Much of the existing literature and many of the surveys on food, nutrition and grid access have been conducted in the Global North. Because the context of these questions was so different, they couldn't be applied in the Global South. E.g., questions such as, "How many times this month have you gone to bed hungry?", wouldn't have been ethical in our research, as people were struggling to afford food on such a large scale.

Because people are at the heart of our research, it was imperative that we should document our interviewees' lived experiences, without making them feel uncomfortable. As food is such a personal and sensitive topic, we needed to reflect this in our methodologies. Consequently, we decided to cover broader questions. For example, we gained an insight into our interviewees' eating habits by focusing on what they ate and on how often they bought groceries.

Time considerations

The interview questions were one part of our methodology and the other was time. We were reluctant to take up too much of our interviewees' time because of their other commitments – e.g., work or household duties. We designed our interview

questions with this in mind, so that we didn't take up more than 40 minutes of their day.

Although, in addition to the interviews, we also had to do follow up visits to help us understand some of the findings. These visits included a group discussion, where we presented our analysis and collectively discussed policy recommendations.

Compensating our interviewees: ethical considerations

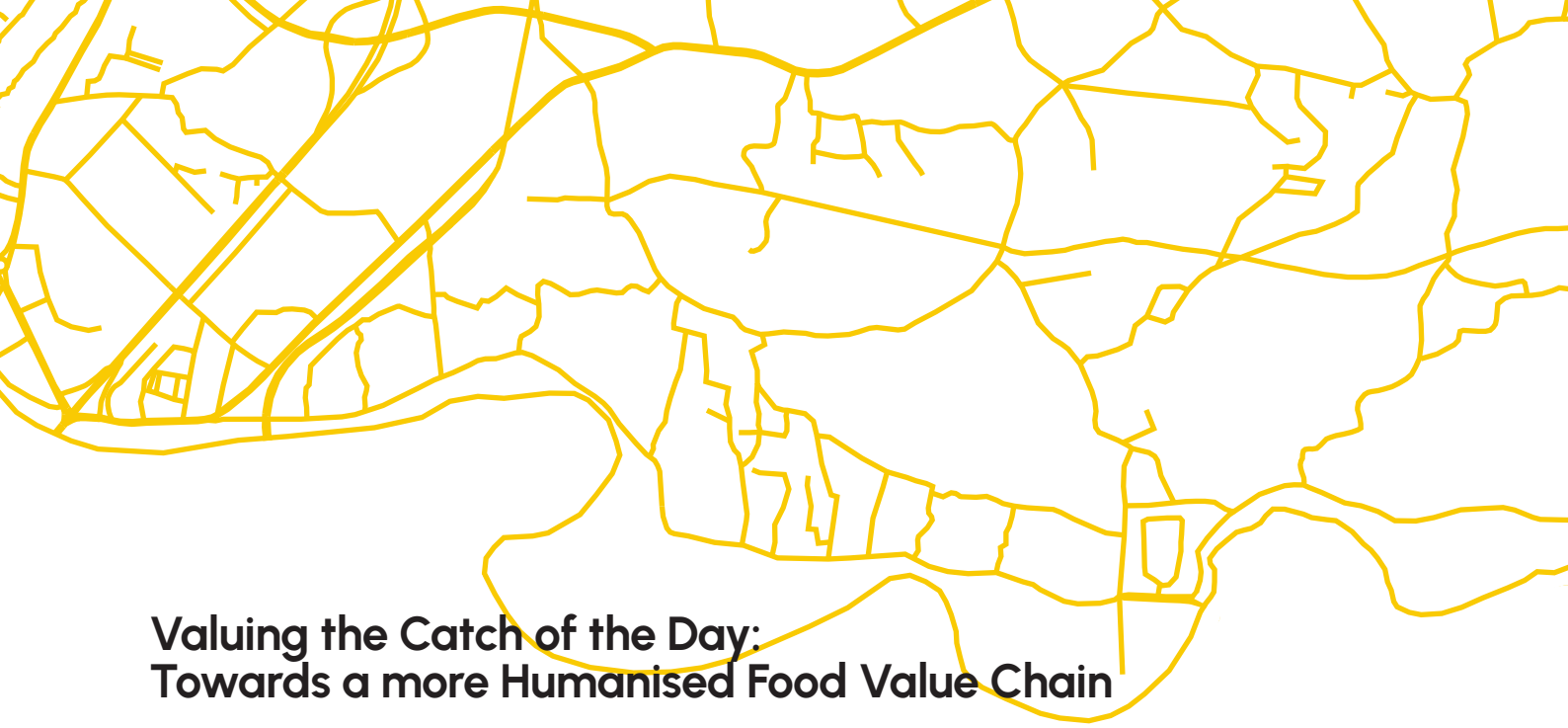
As we were talking about sensitive topics during a time of crisis, we wanted to find a way to give back to our interviewees. But we had to do this in a way that wouldn't make them feel obliged to do the interview. And we thought that offering compensation to them beforehand could compromise the data collection. To mitigate these concerns, we waited until after the interview to offer the compensation: vouchers to spend at a neighbouring supermarket.

This worked well, as it meant that no one felt obliged to talk to us. However, there were still some ethical considerations. E.g., there was asymmetry of information at the start of the interview: we knew that they'd be given compensation, but they didn't. Perhaps it would've been better if we'd disclosed this at the start of the interview.

With ethical considerations like these, the answers are often not straightforward. Given the context, I believe it was the right thing to do. Whilst not providing any compensation may be acceptable research practice, it would have left us feeling that it was an exploitative relationship – their time for our benefit.
As we continued to engage with the community, this practice of giving back extended to monetary support during April's new year celebrations. We also committed to one year of fundraising for a community meal drive.

The importance of context: summing up
In hindsight, events like COVID-19 can provide an opportunity for us to reflect on how we conduct research in an ever-changing environment. As researchers, we rely on people's cooperation to help us study urban contexts. So, keeping them at the heart of our research is imperative. This includes capturing and reflecting people's lived experiences accurately, and in a fair and just manner.

It's becoming increasingly difficult to separate context and research in the wake of the new challenges posed by COVID-19. And I don't think we should. It's important to incorporate context into our research so that it's representative. This is true in both how we design our methodologies and in how we conduct and produce our research.



Valuing the Catch of the Day: Towards a more Humanised Food Value Chain

Channaka Jayasinghe
14 March 2023

Link

The Peliyagoda Fish Market is a fascinating place which serves an important role in the movement of seafood throughout the city of Colombo and beyond. It is a sensorial experience due to the array of seafood on display, and the energy and labour provided by all who make this market space function.

By 10.30am at the wholesale stalls or wholesale leli where most of the sales took place since 2.00am, people begin to crunch numbers and calculate the day's earnings, debts and the commission fees due to suppliers. Others begin packing the remaining fish into boxes for storage and splashing water to clear debris from their stalls. Meanwhile, cleaning staff begin their activities to collect waste and see to it that the biological waste is received by the fish meal processing plant at the back, while the waste which is to be collected by the Municipal Waste collection truck is gathered elsewhere. These are a fraction of activities taking place at the Central Fish Market. In fact, these are but a much tinier fragment of activities taking place between the Indian Ocean and one's plate, as seafood moves from the boats harvesting our fisheries, to the fish landing sites, and finally to the vendors at markets of various sizes such as the Central Fish Market in Peliyagoda, and the numerous static and mobile vendors across the island.

When speaking to the vendors at Peliyagoda and fish suppliers, prices are what appear to determine the path sea food takes as it navigates these constellations of nodes which make up the fish market network which extends across the country. However, unsurprisingly, people speak about the importance of relationships and the means of communication when establishing market linkages, for the importance of trust is something everybody spoke about.

Speaking about the market for fish in general, Namal who is a fisherman said that the best quality tuna, red snapper, squid and lobster find their way to the export markets. Some fishermen may have agreed on a price with the buyer(s) even before their boats have reached their destined landing sites. Nalin, who is a fish supplier from Negombo described how even some smaller boats also have similar arrangements with potential buyers before

landing their catch on to the beach. As the seafood moves inland from the beaches where they are released from the nets and separated by type, the prices may begin to vary depending on negotiations and auctions which take place where a rupee value is pinned onto a unit of fish of a particular type. If prices are not satisfactory, waiting is always an option for both buyers and sellers.

When I spoke to Nalin at around 10.30am, he was seated on top of a concrete workbench which almost extends the length of a small fish market place managed by one of the fishing societies. The main building of the market is empty except for a few sellers operating a few isolated stalls outside of the main building. He was waiting for two boats carrying fish which he was interested in buying, while also waiting for fish from the beach to arrive at the market because the prices at the beach are a bit too steep for him. Nalin's decisions are at least partly influenced by the daily phone call with the vendor at Peliyagoda who he supplies to. Suranga, who supplies fish from Modara to the Central Fish Market, also described how phone calls help plan for the next day. He also described how he visits the market as well in order to get a "feel" for the prices of fish which helps him plan.

Direct questions on how price is determined fail to provide satisfactory answers. Some vendors at the Central Fish Market explained that the "price" is determined at the beach. However, when speaking to people further up the fish supply chains extending from Negombo and Modara, it is clear that directly or indirectly they are keeping track of fish prices at the Central Fish Market. Namal also described types of information which determine the supply of fish from a particular landing site which includes memories about past weather conditions, the cultural relevance of a particular period of time for a fishing community, and whether or not it is the monsoon season (when the sea is rough). He also explained how fish stored in ice also affects the price of fish.

While speaking to Nalin, a fisherman walked into the fish market to begin selling a basket of Sudayo (White Sardinella) he was carrying. While selling he began to complain about the cost of being a fisherman. Not only have the prices of the boats, engines, gear, and fuel increased due to the financial crisis, there is a clear drop in the quality of the gear which is available. Nevertheless, he says that his earnings for the day will need to cover the wages of the eight people who he has employed for the day. He also spoke about how his wife is probably buying Sudayo at a much higher cost from a neighbouring fish seller – thus linking his household to the fish market as both a producer and a final consumer. Due to the lack of sales at the market, he begins to search for better prices. He requests another fisherman to call a buyer to advertise the availability of his fish at a particular price and with the help of one of his employees, begins carrying the remaining fish and the weighing scale to a location closer to the road while the remaining seven employees continue to work where his boat landed.

A fisherman points out that the reason why the marketplace seems almost empty these days is because the price of fish is too high for most of the vendors to make a profit at this location. A prior visit to a small fish market at Modara, saw more action with fishermen selling their catch at either set prices or engaging in negotiations with

potential buyers. At one point, a selection of fish which was on display was being collected into the buyer's bucket by the seller while the two people were still in the process of negotiations. All around these two people, less animated engagements between buyers and sellers were also taking place, with some discussions taking place via phone calls. However, the fishermen in Modara are not immune to the market forces influenced by the financial crisis, for a group of fishers who were helping another to remove kinks and curls of a new coil of nylon rope, echoed the views of their counterparts in Negombo about the cost and quality of gear.

On Markets

It is unsurprising that attempts at describing how exactly the market for fish is structured and functions, forming channels of perishable goods, beginning from the coast and extending across the country, cannot do justice to its sheer complexity. Economist Friedrich Hayek likened the market to a "highly complicated organism" (Hayek, 1933, pp. 123) where "every part performs a necessary function for the continuance of the whole" (Hayek, 1933, pp. 130). Markets according to Hayek were not merely places where goods and services are produced, provided, and consumed, but also facilitates the communication of "relevant information" through many intermediaries whose "limited fields of vision" sufficiently overlap (Hayek, 1945, pp. 526). Prior to Hayek, John Maynard Keynes' was more candid about what he thought about questions on how exactly markets function when he admitted that

"... we simply do not know. Nevertheless, the necessity for action and for decision compels us as practical men to do our best to overlook this awkward fact and to behave exactly as we should..." (Keynes, 1937, pp. 214).

Even with limited understanding about how exactly they function, it is hard to not appreciate the capacity of markets to coordinate the movement of seafood from our oceans to our plates using the price mechanism and relationships. However, exploring upstream of the fish supply chains, does beg the question about what "relevant information" is lost when the value of fish is determined by the price mechanism.

Pushing the Limits of the Price Mechanism

For the price mechanism of a market is after all a collective exercise of value clarification. Here, the work of Professor of Philosophy Thi Nguyen who studies the social impacts and outcomes of games and gamification of systems is important to consider. His studies show how imposing singular clarified value systems on real-world activities drive out value pluralism which he says is important for a "vibrant social-political community" (Thi Nguyen, 2021; Caroll, 2021).

The distress of fishermen who are finding it increasingly harder afford their traditional livelihood, the plight of vendors of small fish markets where prices of fish are beyond the spending capacity of the immediate community, the loss of livelihoods of the most vulnerable of us who provide their labour at fish landing sites, and the impacts on marine life as fishermen may be forced to maximise catch to make each trip to sea economically efficient: How well does information about these aspects travel with price information? Or is this information not relevant?

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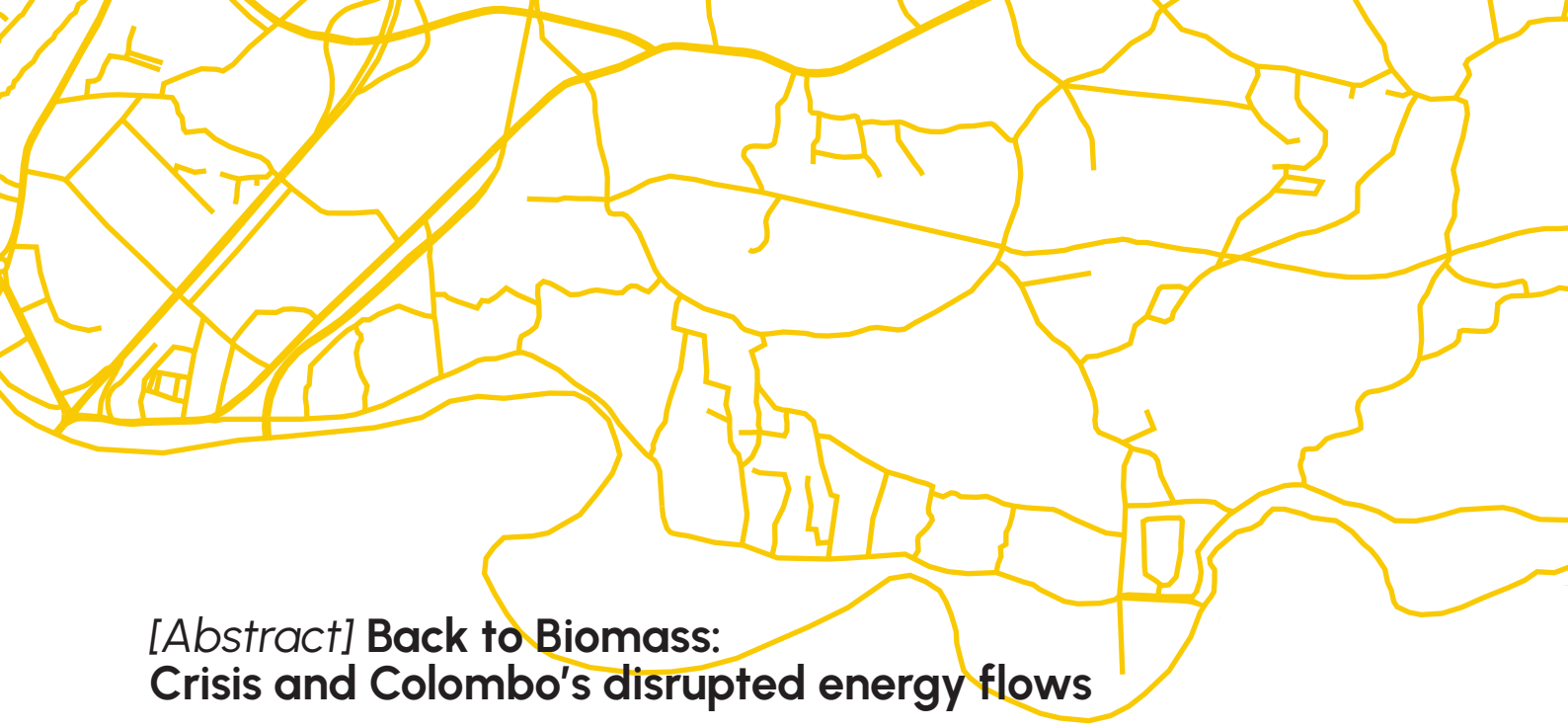
[Abstract] Disrupted flows of urban food in Colombo: the effects of overlooking the human-infrastructure nexus

Anisha Gooneratne.
24 May 2023 (Virtual)
Symposium organised by Flow/Overflow/Shortage Editorial Collective.

The paper offers a new way to understand the disruptions to the flows of urban food in cities: through impacts to supply, quality and price of food. I argue that understanding the way that people interact with infrastructure—what I term the 'human-infrastructure' nexus—is essential to ensuring the availability, affordability and quality of food in cities. The nexus between food and infrastructure in urban environments is an area that has been underexplored in the literature (Living Off-Grid Food and Infrastructure Collaboration (LOGIC) et al., 2023), with much of the existing literature focusing on the role of infrastructure in minimising post-harvests loss in urban areas (Lipinski et al. 2013). The paper draws on a case study of the relocation of the main wholesale market in Colombo, Sri Lanka to analyse vendors' interaction with the infrastructures they encounter as part of the relocating. The wholesale market is a key point of food access for urban food vendors and urban households, and hence acts as a key node in food supply to the city. By policymakers not taking this nexus into account, it has resulted in a disruption of key processes in the market: vendors have found alternative ways of processing bananas as the processing infrastructure does not suit their needs; they use public walkways to display their food as their new stall space is often too small; and shortcomings in public transport infrastructure have reduced demand for produce in the market. These disruptions have affected what kind of food is sold in the market, as well as the price and quality of produce. These effects have important consequences for food security further downstream: Colombo's low-income neighbourhoods may lose access to healthy, affordable food.



[Abstract] Back to Biomass: Crisis and Colombo's disrupted energy flows

Meghal Perera.
25 May 2023 (Virtual)
Symposium organised by Flow/Overflow/Shortage Editorial Collective.

Sri Lanka's energy crisis ushered in a period of prolonged breakdown in the energy landscape of Colombo. Liquified petroleum gas (LPG) cylinders were the most popular source of cooking fuel in urban areas even among low-income households, but severe shortages and price hikes made flows of LPG cylinders sluggish and unpredictable. Drawing on fieldwork conducted in two low-income settlements during the last two years, this paper will explore how urban residents responded to acute energy shortages by stacking different types of cooking fuel, sometimes adopting as many as four types of fuel. As supplies of LPG dwindled, new flows of biomass such as firewood and coconut shells peaked.

This paper will argue that a reconfiguration of energy flows as a result of shortages in the city offers an opportunity to rethink notions of the urban and modernity. It interrogates how cooking fuel has been central to the imaginings of crisis, with biomass flows used as visual evidence of urban crisis. It argues that the popularity of biomass among the urban poor, even after regular LPG provisioning has been restored, demonstrates an attitude of techno-ambivalence. While firewood has long been associated with rural and pre-modern ways of life, the crisis has now made firewood a fuel source that is used even in housing typologies that exemplify the modern urban ideals. In doing so, this paper aims to contribute to scholarship on infrastructural shortages and crises in cities of the Global South.

Beyond Pomp and Pageantry: Looking at Public Markets as Lived Spaces

Nimaya Dahanayake
7 June 2023

Link

The public market is an important part of Sri Lanka's built food environment. From fresh fruits and vegetables to apparel, public markets may sell a wide range of both perishable and/or non-perishable goods. While the supermarket has become a popular choice in the contemporary food retail context for many consumers in Sri Lanka, people still rely on traditional public markets, especially for their fresh produce needs.

The city of Colombo has in recent years undergone a rapid transformation due to state-led gentrification projects. Late urban researcher and activist Nirmani Liyanage once said that 'Colombo is becoming a bad copy of Singapore because we don't know who we are', in response to development plans that were not contextualised to suit local needs. Her research on local markets, known in the vernacular as the pola and the state's attempt to shift vendors into 'blue roofed' structures that bear no resemblance to its previous form, highlights the struggles vendors face, as well as the spatial, economic and cultural incompatibility of such structures with the activities that take place in the pola. are far from the abstract space imagined by planners.

The Old Manning Market in Pettah, was a historically important public space located in the heart of Colombo. Its move to Peliyagoda at the height of the pandemic in 2020, altered the economic, social and cultural lives of many of its vendors and consumers. The New Manning Market is spread over 13.5 acres of land in Peliyagoda, in contrast to its previous 2 acres in Pettah and features 1192 stores and parking space for about 600 trucks. While the rationale for the move was to reduce traffic congestion in Colombo and provide vendors with better infrastructure facilities for their business activities, this state-led gentrification of the New Manning Market has not taken into account the lived experiences of those at the Market.

González and Dawson (2018) perceives markets as frontiers of gentrification. They argue that traditional public markets are affected by state-led gentrification, which often starts with the neglect or abandonment of the market, that later justifies redevelopment. This can displace both vendors and consumers. The shift of the Manning Market from Pettah to Peliyagoda is a similar scenario, where authorities did little to maintain the Manning Market in Pettah (i.e., which was in a severely dilapidated condition well before the time of the shift). This made it easier for justifying a shift of the Market from Pettah to Peliyagoda, and displaced vendors and consumers by charging significantly higher rents and making the market comparatively inaccessible, respectively.

Similar to the pola, the relocation of the Manning Market from Pettah to Peliyagoda too, was a 'blue roofed' gentrification effort led by the Urban Development Authority (UDA). As Liyanage (2016) also suggests in her research, planners and policy makers often see derelict spaces (i.e., Old Manning Market) as mere under-utilised spaces, and fail to understand the creativity and resourcefulness of people that often goes into transforming such public spaces into 'useful' spaces. This is the same logic used to relocate working class poor communities from the heart of Colombo as the land they occupy is 'under-utilised' – not earning income for the State – failing to understand how people in the wattes occupy and transform space.

This article draws from Colombo Urban Lab's research on the infrastructure – nutrition nexus at the New Manning Market in Peliyagoda, and attempts to highlight some of the spatial, connectivity and economic incompatibilities of the Market as compared with its activities.

Spatial

The New Manning Market in Peliyagoda has two floors. The ground floor was originally intended for wholesale vegetables, while the first floor was intended for wholesale and some retail activity for fruits and vegetables. Today, there are a significant number of stalls on the first floor that are vacant and under-utilised, as some vendors have moved their operations to the ground floor. The first floor also accommodates fruit stalls outside as well as inside, adjoining the stalls located on the exterior. However, some vendors pointed out that the stalls inside attract less consumers and has resulted in less business activity.

The spatial incompatibility of the New Manning Market can also be seen through the stall space provided for many vendors. Vendors should have been provided better stall spaces through the relocation. However, the reality is that a stall meant for the use of one vendor, is now allocated between two or three vendors. The limited stall spaces have resulted in many of the agricultural produce being kept outside the stall, often spilling over onto the space intended for walking around the Market. A fruit vendor on the first floor revealed that there is a significant discrepancy between the number of stalls selling bananas and the number of smoke rooms available for ripening the fruit. The same vendor spoke of the inconvenience of the location of toilets on the first floor. He said that 'It takes a long time to go to and from the toilets, located on either end of the first floor. I can't leave my stall unmanned for that long, I will lose customers.'

The design of the market has also not taken into account adequate ventilation and maximising natural light, which means that lighting is required to be switched on during the day – an added cost to the vendors. This highlights some of the spatial incompatibilities of the Manning Market, as a public space that has little understanding of the lived realities of vendors at the Market.

Connectivity

The Old Manning Market was located in the midst of two transportation hubs – the Pettah railway station and the central bus stand where most buses begin their journey. Accessing the Old Manning Market via public transport was convenient even without a personal vehicle at one's disposal. Despite the dilapidated state of the building at the time, the Old Manning Market was full of business activity, as it was the norm for people to stop by on their way home after work to grab a few essentials for the upcoming week. At the New Manning Market, some vendors highlighted that business has reduced significantly in comparison to their previous location in Pettah. Although there may be other factors that have affected demand (i.e., Sri Lanka's economic crisis) many consumers that frequented the Old Manning Market in Pettah, do not travel to Peliyagoda to get their groceries, as it is inconvenient and frankly, 'out of the way'. It is not connected by public transport and a private vehicle is required to travel to the New Manning Market. Despite the new and improved state of the premises, business has

reduced for some vendors due to the new location of the Market, which has made it comparatively inaccessible or unaffordable for many consumers.

Economic

The New Manning Market is significant for the economic opportunities it provides many. From the farmer to the vendor, there are a number of people that benefit from the market and its operations. Markets are undoubtedly about people – and the New Manning Market supports the livelihoods of many. Many of the vendors we interviewed said that they worked with the farmers directly, without a middleman, and this ensures that the suppliers receive the best prices for their produce. Walking through the market, it would be difficult to miss the labourers transporting fresh produce from lorries that have arrived from different parts of the country to designated stalls. The Market also provides economic opportunities for those not working at the Market, such as small retail shops operating in and around Colombo. The location of the New Manning Market has not only made it inconvenient for consumers but also for vendors and other retailers operating in and around Colombo, who must now bear the cost of a personal vehicle (i.e., a motorbike or a three-wheeler) in order to access the market. Interestingly, the move of the market away from the city center has also affected the income of those operating public bathing wells in Colombo.

The introduction of various laws and policies in an attempt to improve and systematise the operations of the Market and its value chain, only exacerbate the disconnect that exists between planners, policy makers and the vendors. In January of this year, Sri Lanka Railways dedicated train to transport fruits and vegetables to supermarkets and the Manning Market in Colombo. Our research with vendors at New Manning Market revealed that not only is this impractical, it is also not the most economical as the New Manning Market is located a few kilometers away from the Pettah Railway Station. If they rely on train transport, there would be an additional cost of transport (i.e., from the railway station to the market) that vendors will have to bear.

The reconfiguration of Colombo's built environment and key infrastructure has lasting consequences for the city's food environment and people's access to affordable and nutritious fresh produce. Public markets are more than the building in which its activities take place. They are lived spaces for people of different walks of life and facilitate more than mere commercial activities. The conceptualisation and design of these markets must also consider the lived experiences of those that work and engage with the market, in order to make them sustainable in the long run.

Dirty Business:
Reading modernity in Colombo's fish markets

Meghal Perera
20 September 2023

Link

"Like all promises made by politicians, the promise of a hygienic new fish market with modern amenities remains merely a promise. The new market complex is in fact much worse than the old fish market."

The above quote is taken from a newspaper article titled "Filth and Fish at Peliyagoda Fish Market", written in 2019, about seven years after the market opened. Captions of photos highlight the incongruence between the promised modern market and how it is now used. We are told that "Hygiene is not on this vendor's mind as he displays his wares beside a drain" and "crows flock to the market with its "modern amenities"". By drawing our attention to the fact that the promised new market is in fact worse than its predecessor, we begin to question the feasibility of the promise in the first place. Is it possible to have fish without filth?

In Sri Lanka, fish markets have been described as places of filth and disorder for decades. The Asian Development Bank noted in 2007 that "prevailing health and hygiene levels in St Johns [sic] Fish Market (Colombo's existing market) are well below the minimum required standard." In the 1980s, UDA planners assure us that at St. John's "operations were conducted in absolute squalor" and "the condition of the temporary market is deplorable to say the least" (UDA, n.d). Under colonial rule we fared no better, as Dr. William Phillip, Medical Officer of Health at the Colombo Municipal Council in 1906, writes that public markets are "a positive disgrace to the town" and that fish and meat are "being exposed under the most unsanitary conditions".

Why are fish markets consistently decried as filthy, and what does that say about urban space and our changing ideas of what is acceptable in our cities? While adding fish markets to the list of national failings may be the simplest course of action, a closer examination of how these markets are perceived by urban planners and administrators, offers us insight into dominant ideologies of planning, municipal governance and public health that continue to influence our cities today.

For colonial administrators, the idea that diseases originated from miasmas and bad odours was particularly tenacious and continued to influence urban planning and public health in the tropics even after germ theory was widely accepted(Ramanna, 2002). Fish markets no doubt represented a source of contagion and disease, because of their smell, but also because of the disorder and chaos they fostered. In Colombo's municipal bylaws we see that markets are pathologised, with rules about unlicensed fish and meat stalls sitting alongside prohibitions against unlicensed market servants and disorderly conduct. Even the architectural form of a civic market-hall as introduced to the colonial city by the British can be read as a way of controlling the unruly indigenous bazaar (Sohoni, 2022). Food inspectors not only

expunged the marketplace of putrefied fish and other contaminants, but guarded against unscrupulous vendors and vengeful customers, keeping the market an ordered, disciplined oasis.

Fast forward a hundred years and reports of poor hygiene standards at St. John's in 2008 represent a barrier to wooing discerning export markets, rather than a potential cause of food poisoning in a Colombo suburb. In a similar vein, crowded disordered markets are still problematic but mostly due to the traffic they cause around Pettah.

When markets are filthy and unhygienic, demolition and construction, sometimes with relocation, are put forward as the solution – even in 1906, the Medical Officer advocated for a new central market at a convenient location. Markets in particular present low-hanging fruit for governments looking to give their cities a facelift. Amongst the many preparations for the non-aligned summit in 1976, Sirimavo Bandaranaike's government demolished the Kollupitiya market, replacing it with a modernist structure designed by Justin Samarasekera. Another victim of the summit prep was the original St. John's Fish Market in Pettah, which had been built in 1894. In 1978, the Urban Development Authority was established under a newly elected UNP government. One of the first buildings constructed by the UDA was the new St. John's Fish Market and a concept note for the redevelopment of Pettah developed by the UDA notes:

"Designed by the Chief Architect of the Buildings Department, according to the UDA development plan it will be a three-storey building with ramps sans staircase for the convenience of shoppers. In addition to the fish stalls the market will also provide chicken stalls, dry goods, households utensils, grocery shops, offices and snack bars and to top if off — a roof top restaurant." (UDA, n.d)

The building was completed in 1983. In 2012, the latest iteration of the cycle of dirt, destruction and rebuilding was completed as the St. John's market was demolished and the fish market moved 5km away to Peliyagoda, outside the limits and mandate of the city of Colombo.

Absent from these conversations is maintenance, and the largely hidden labour that ensures markets, infrastructure and society runs without glitch.
One reason could be that these views are usually expressed by planners and administrators rather than vendors and customers, the people who use the space the most. Throughout the cycles of destruction and construction, the opinions of those whose livelihoods are most affected by these decisions have never been consulted. While many vendors did not want to move from Pettah to Peliyagoda, they still had opinions about the state of the market. href="https://www.sundaytimes.lk/060212/ft/16.html" target="_blank">One vendor stated "I have been selling fish for the last 20 years. Earlier there were good facilities, toilets in working condition, water etc. Today most of the toilets are broken and those which are in use are stinking. The entire market has become a hell-hole, with huge holes on the roads and inside the premises with these holes filled with dirty water and fish-blood, people are forced to walk through".

During our research earlier this year on Colombo's grid infrastructure and food environment, vendors echoed these sentiments about the Peliyagoda Central Fish Market, complaining about the state of the toilets, as well as the lack of maintenance done on the buildings, pointing at the literal cracks in the facade. Even as early as two years into its opening, auditors flagged maintenance problems at the market.

While maintaining an existing building may solve problems of 'dirt', building a new market from scratch garners more political will as it offers an opportunity to reshape urban space and add another piece to the jigsaw puzzle of a world class city. Showcasing the present as terrible and beyond redemption lays the groundwork for shiny new buildings that bring the city into its inevitable future. This future is achieved by building among other things, markets that are 'modern.'
Modern here can be read as both an aesthetic to aspire to, as well adopting the latest technological advancements in infrastructure and facilities, both readings of which are borrowed from Western countries. Each iteration of a new fish market

is accompanied by the latest technology and amenities, serving as a reminder that what is modern is a forever shifting horizon that the global south will always fail to catch up to. In the 1950s we see post-independence Ceylon still dependent on foreign experts from Denmark and Great Britain who are dispatched to study the island's fisheries and produce recommendations (Petersen, 1949; John, 1949). A closer study of these reports shows a bewilderment with local practices, as much as it does an absolute belief in the superiority of Western systems of fishing. Amongst suggestions of canned turtles and germicidal ice, these reports marshall case studies from France and Germany, and suggest fishing regulations be based entirely on Norway's model (Petersen, 1949). There was little room for the indigenous climate, let alone indigenous knowledge.

Such deference to experts and the latest technology continues today, even when varying contexts lead to failure. Examples of this can be seen in the Peliyagoda Fish Market, where a 50MT flake ice factory was planned, with estimates of LKR 28 million in revenue (ADB, 2007). Eventually a 25 MT capacity flake ice factory was established, according to accepted industrial best practice. The ice factory fell into disuse because flake ice was not the kind of ice that wholesale and retail vendors required. Vendors said that flake ice was too thin and melted too fast, preferring to use block ice which is crushed. A similar reliance on block ice is seen in fishing industries in Kerala and Indonesia (Geethalakshmi et al., 2021; Wibawa et al., 2022) . As of today supplies of block ice have to be contracted out to meet the demand and are bought from lorries parked in the market. With only one supplier of block ice, vendors were vulnerable to price gouging during the crisis where a block of ice went up to LKR 1600 (the price as of March 2023 was LKR 600). This is even more unfortunate in light of the fact that the Peliyagoda Fish Market received no power outages during the crisis, and had sufficient supplies of diesel for generators to power cold storage rooms. The disjoint between foreign best practice and local implementation may have been bridged if vendors were included in the consultation process of designing and imagining new markets.

What is lost when Western practice is best practice, and Western form is modernity? Vivian Chan (2022) writes that in Hong Kong's wet markets "wetness permeated the market, both as a source of life, lustre and cleanliness, and as a constant threat to the government's vision of a clean, modern, working society and urban landscape." She writes that these markets facilitate the desires and requirements of their customers, particularly considering Chinese cooking practices where strategies such as checking the clarity, shine and fullness of fish eyes are essential for determining freshness and quality. These sensory and tactile approaches are often portrayed as messy and illogical, but they are how shoppers make sense of produce and of the world.

Compared to these wet markets, or even other traditional markets, the supermarket has been promoted as a modern, hygienic and ordered environment that is the best place to buy produce. Apart from being predictable and ordered, they are scrupulously clean and sterile places. Moyer (2009) argues that "cleanness is framed, by food producers and retailers, as a matter of removing and/or revealing traces of a food item's production history". As we become more accustomed to our food stripped of traces of production, context and labour, spaces that show the evidence of production in the form of blood, waste, and dirty water become dirty, if not filthy. Despite the fact that fish at Peliyagoda market may be fresher than a fish filet wrapped in plastic at Keells, the supermarket processes the fish out of sight, and thus out of mind for the consumer.

This is not to suggest that sanitation efforts are always cosmetic, and that any attempt to keep a workspace clean is a Western imposition. Rather, it is precisely the act of cleaning, washing, repairing and maintaining that enables markets to function. Urban planners can adopt an approach that seeks to work with what is already there, be it buildings, climate, practices or people, rather than chase an ephemeral modernity.

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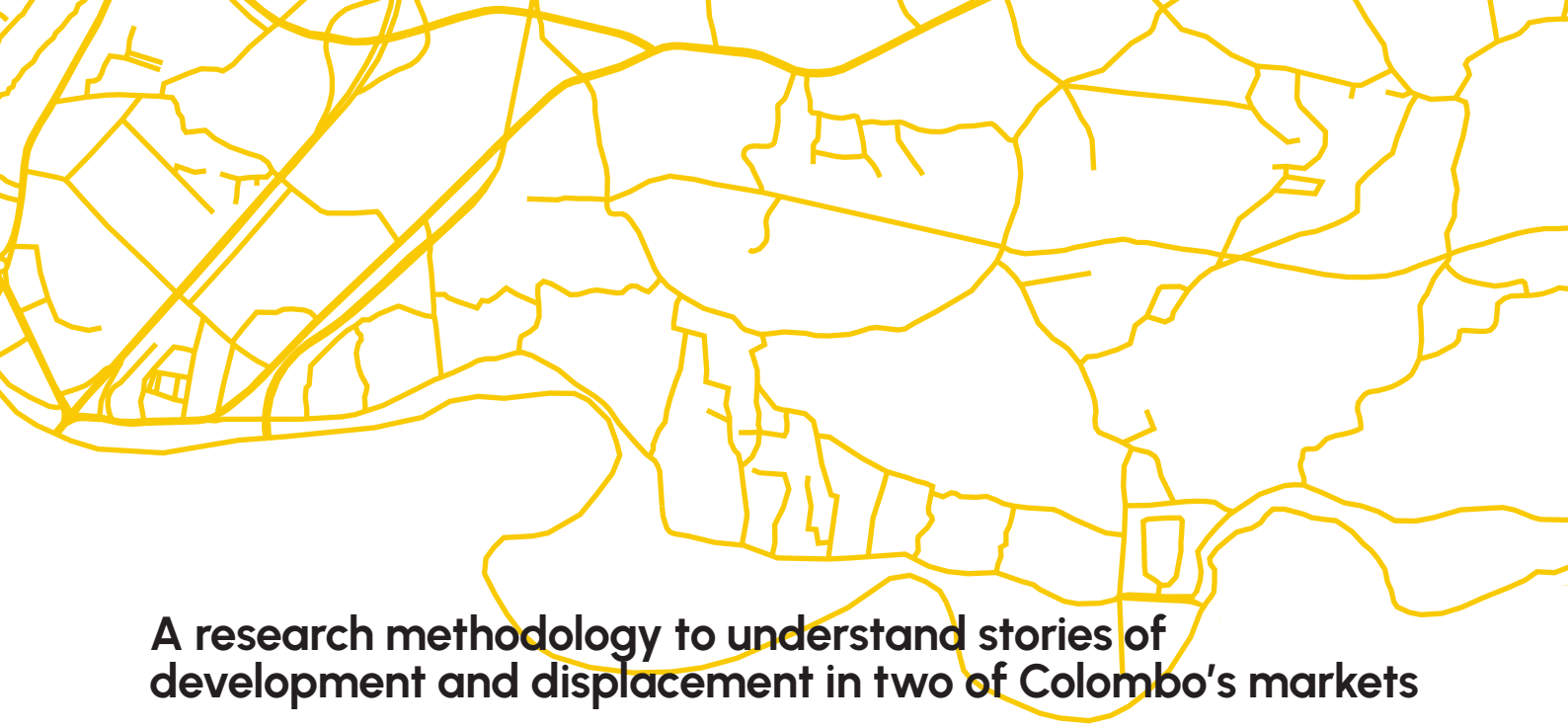

A research methodology to understand stories of development and displacement in two of Colombo's markets

Anisha Gooneratne
22 January 2024

Link

Giving voice to counter narratives in word class city making

Much of Colombo's post-war development has prioritised the aesthetics of the city, rather than the functionality of it. Sri Lanka's post war development paradigm included visions of turning Colombo into a "world class city", focusing on vanity projects that would beautify the city. Under the Mahinda Chinthana, the goal was to transform Sri Lanka into a strategically important economic centre of the world which encompassed "transforming Colombo and its metropolitan area into a modern, worldclass, slum-free economic hub". As part of this, development projects saw mass displacement. The "Urban Regeneration Programme", for example, saw the planned dispossession of around 68,000 families, with many facing military-backed forced evictions, all in order to fulfil the imaginaries of a "world class city".

In the bid to build a world class city, many of Colombo's working class poor found themselves being displaced- displaced from both places of residence and places of business, as they did not align with Colombo's evolving identity.

Two of Colombo's main vegetable and fruit wholesale and retail markets that have been impacted by this new development paradigm, are the Manning Market in Pettah and the Nagalagam Market based in Thotalanga. While each market encapsulates a distinct developmental history, they each possess a unique experience following their respective redevelopments, aligned with the vision of becoming a world-class city.

This article presents a methodology, following an ethnographic approach to understanding development and the problems associated with it for those whose views are seldom included in the new city identity. An ethnographic approach was chosen as it is a methodology that provides holistic insights into people's views and actions, which is embedded in the location which they inhabit. We argue that to understand and analyse the complexities of these markets, and the nexus of interaction amongst vendors, built environment, infrastructure, and customers – an ethnographic approach yields thick descriptions that capture and represent the lived experience of each market, which is often at odds with the vision under which they were displaced.

The methodology is as follows and is expanded in subsequent sections:

1. Understanding the context around the development of the market
2. Secondary and primary research to understand the historical development of each market
3. Visiting the market at multiple times of the day to get an understanding of each market's

operations
4. Conducting semi structured interviews with vendors operating in each market
5. Conducting interviews with vendors and households who source from the market
6. Analysing the value chain of different products and their infrastructural requirements
7. Multiple follow-up visits to the market to understand changing dynamics, and conducting follow-up interviews with vendors to understand the changing landscape

Understanding context

The development of each of the markets doesn't stand in isolation, but rather is embedded in a context of beautification, and aesthetisation which was a dominant narrative at the time of development. Understanding the context behind these developments helps to contextualise the motivations behind each redevelopment project. As such, the question of "who is the market for" and "what purpose does it serve", is considered less when understanding that its development fits within a city's transformation into an aspired state. This dynamic introduces a tension between the priorities of aesthetisation and functionality, with the former usually gaining prominence, which was the prevailing trend during the period of development.

Secondary and primary research to understand the historical development of the market

Secondary research was conducted to understand the individual historical development of each market. For the Nagalagam Street Public Market (Nagalagam Market), to bridge the lack of literature available, we conducted semi- structured interviews with Community Leaders, to understand how the market developed over time. Through these conversations, we gained insight that the public vegetable and fruit market has long been at the heart of their community, with much of the Thotalanga area developing around the concentration of vending activity. In 2018, a new and improved marketplace replaced the old market, boasting modern amenities, designated spaces for vendors and shelter from the rain and heat. Street vendors who were operating on the streets in Thotalanga, were relocated into this market.

The Manning Market has considerably more literature, which highlights how the Manning Market was originally located in Pettah, and was established over 150 years ago. The market was located between Olcott Mawatha and Bastian Mawatha, in the heart of the city centre close to main transport hubs, and spread over 3.5 acres of land. In 2020, amidst COVID-19 lockdowns, vendors of Manning Market were moved to Peliyagoda, the site of a brand new market, which was supposed to provide vendors with over 1200 shops, modern amenities, better storage, parking facilities and waste management, all with the vision of providing a "modern marketplace for traders as well as customers".

Whilst both markets were sites of re-development, one being in-situ development and the other, relocation – both developments resulted in displacement of vendors.

Visiting markets at multiple times of the day

Visiting each market multiple times prior to starting our interviews, was vital to understanding how the market functioned. Visiting the Manning Market at 3:00 AM when it started operations gave us a deep understanding of how the market operated, especially when goods from around the country were being unloaded. Being in the market during the day allowed us to also understand how vendors interacted with their customers, with suppliers, and with different stakeholders of the market. We were then able to identify which stakeholders would be essential to speak to as part of the next phase of the methodology, the interviews.

Conducting semi structured interviews with vendors operating in each market

At the Nagalagam Market, we conducted interviews with vendors inside and outside the marketplace, as many vendors were vending from makeshift

stands on the roads adjoining the market despite having a dedicated marketplace. These interviews with vendors helped us confirm our observations from visiting the markets. We aimed to keep each conversation to a maximum of 30 minutes each time so as not to impact their business, whilst also being mindful and giving them space to conduct operations whilst speaking to us, which gave us another layer of insight as to how they conduct operations on a daily basis.

It was through these interviews that we were able to identify that many of the vendors in the Nagalagam Market had moved back to the roadside, as business was significantly better there, leaving empty stalls inside the market. As one vendor pointed out, "When we were inside the market, we saw that those on the roadsides were getting much more business than us, as passers-by would stop and buy produce. Hardly anyone goes into the market." The remaining vendors who were still operating inside the market, were vendors doing a combination of both wholesale and retail and couldn't move onto the road given the scale of their operations.

Similarly, vendors at Manning Market spoke of how the new market didn't deliver on the modern amenities that were promised to them. They noted that they would rather be at the old market than the new, as their operations would go on until 8:00 PM, however, their operations in the new market finish at 1:00 PM, as they have no business. Whilst vendors expected to receive a modern marketplace, they were greeted with stalls that were half the size of the stalls originally promised to them, vendors having to share plug points for scales, and a significant fall in number of consumers accessing the market. Although their old location lacked infrastructural amenities such as storage space and stall size, the new market came with an increase in rental cost too.

Despite being promised improved amenities and modern facilities, vendors at both markets have a preference to their old place of operation. This highlights that infrastructural amenities and 'modern' facilities aren't always the most important factors when building a market – rather accessibility for customers is. A participatory approach to planning would have highlighted this – if the planners were truly concerned with the functionality of the built environment.

Conducting semi-structured interviews with vendors and households who frequent the market

The Nagalagam Market is predominantly frequented by residents for household consumption. Conducting semi-structured interviews with households in neighbouring wattes enabled us to understand how they interact with the market, and confirmed much of what the vendors themselves told us, as households preferred to shop from vendors on the roadside, as opposed to inside the market.

Similarly, speaking to vendors from an area close to the Manning Market, gave us further insight into how they interact with the market, and the challenges they are facing with increased fuel costs in accessing the Manning Market.

These interviewees were not only useful in understanding interactions with the market, but also understanding how these markets affect the food plates of households. Given that the Manning Market is the main wholesale market for vegetables and fruits in Colombo, much of the produce sourced by neighbourhood vendors in Colombo is sourced from this market. Hence, any increased costs faced by wholesale vendors in the markets, or increased costs in accessing the market usually has downstream impacts to customers, in the form of higher prices.

Analysing the value chain of different products and their infrastructural considerations

Stemming from the household and vendor interviews, we identified produce that was frequently purchased by consumers, and analysed their flows in the two markets. Although the newly built markets provided more infrastructural considerations than the previous locations of vending, these facilities were barely used, inaccessible, or didn't suit vendors requirements. For example, fruit vendors were given

no storage space for their produce, which resulted in them having to build additional structures (at their cost) to store excess produce overnight. Additionally, cool rooms that were promised to all vendors in the Manning Market, were designated exclusively for those who import fruit, making it inaccessible to vendors who source produce from the local economy.

Similarly, in Nagalagam Market, whilst vendors were promised access to better infrastructure, they preferred to vend from the roadside as infrastructure didn't fully determine what they were able to sell, and they were able to rely on hybrid-forms of infrastructure. These included rechargeable lights, water from their homes nearby, or from the river bordering Thotalanga.

Multiple follow-up visits to the market

Conducting multiple follow-up visits to the market and vendors we interviewed helped us to strengthen our familiarity with the market and rapport with vendors. We visited the market over a period of five months,and witnessed how periods of crisis impacted the market. At the Manning Market, rising electricity tariffs in 2022 and 2023 resulted in stall rental costs being doubled, a cost which vendors were unable to bear. These visits also highlighted that whilst a crisis can have immediate impact, the impact can also be delayed – as vendors were having to contend with the belated impacts of the fertiliser ban which resulted in less supply and lower quality. As one vendor noted with reference to the relocation and rent increases, "by moving us to this space, they [the Government] have broken our business".

It was evident through all these interactions and triangulation of evidence, that these two markets that the Government has built in the vein of modernity and development have not provided services beyond aesthetics. At both markets, the modern facilities have not substantially improved business, and vendors prefer the roadside or their old location as it serves their business better. However, unlike the vendors at Thotalanga who were able to move to the roadside, the vendors at Manning Market have nowhere to go, and must contend with operating from this new space. Understanding these stories of change helps us to better understand how the market functions, not only on a day-to-day basis but also how it faces and responds to periods of crises. The operations of the market are complex, and when dealing with markets that are the main hubs of wholesale fresh produce to Colombo, it is imperative to accurately capture their experiences – as it directly impacts the food security of the city. Given the complexity of the operations and the multiple interactions that take place within its space, a single visit would not have been sufficient to capture the complexity and diversity of each market, whilst also building trust with vendors.

This research is a part of two ongoing projects with the Institute of Development Studies, UK – the Living Off-Grid Food and Infrastructure Collaboration and 'Fruits and Vegetables for Sustainable Healthy Diets' Initiative (FRESH).

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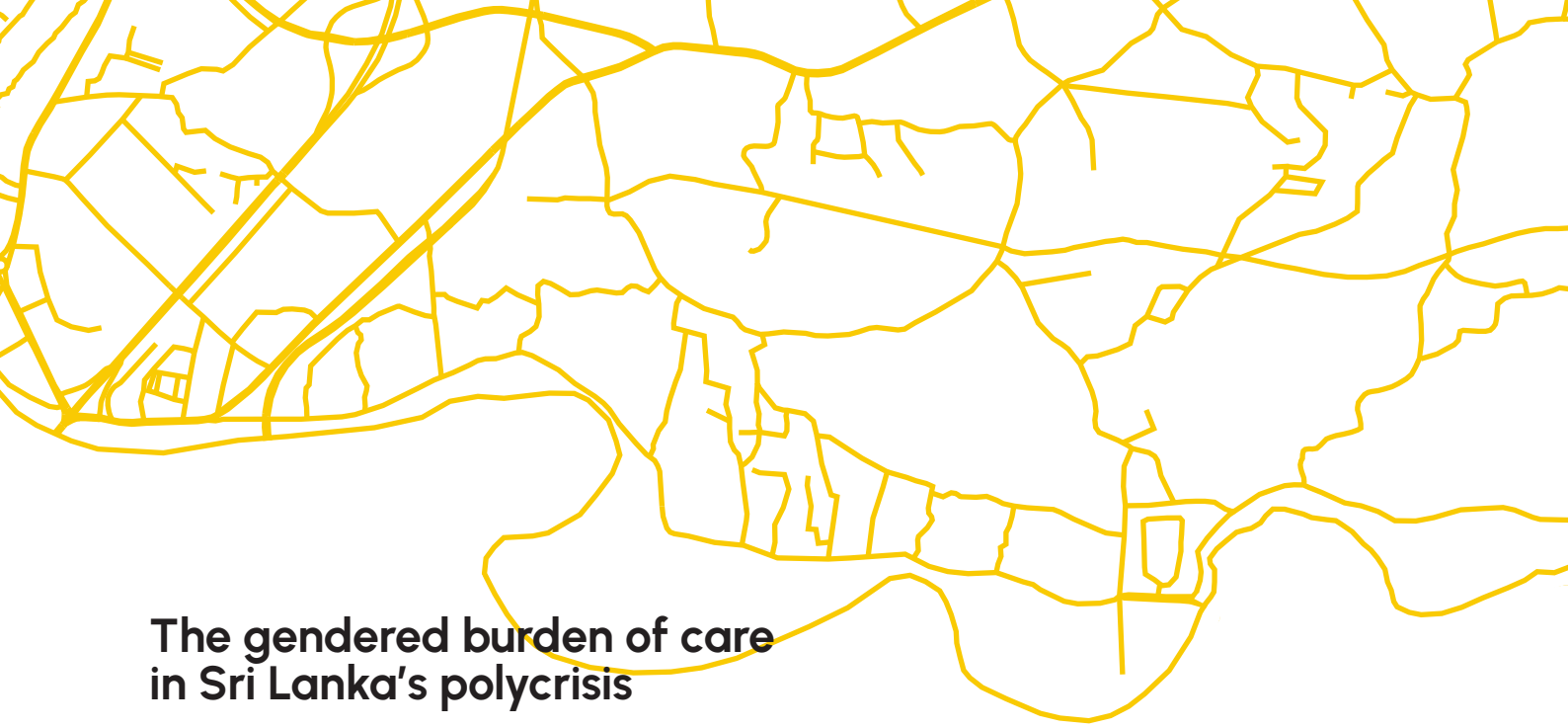

The gendered burden of care in Sri Lanka's polycrisis

Iromi Perera
18 March 2024

Link

For women in working-class poor settlements in Colombo, since Covid-19, it seems that crises have kept on coming with no respite. At the height of Sri Lanka's economic crisis in 2022 when food inflation reached 90% the shocks were far from over. Electricity tariff rates were revised and increased by 75%, followed by an increase of 65% on top of that hike in early 2023.

The economic and health indicators for Sri Lanka are currently at unprecedented and alarming rates. Decades of investment in health and education have been undone. There is no meaningful attempt by the Government of Sri Lanka to address the ability for families to be cared for, and for their basic needs to be met.

From our research (as part of the FRESH and LOGIC collaborations with IDS), we can see that many in the middle classes – who have also felt the economic crisis – have seemingly found it hard to understand just how increasing debt and the daily struggle to eat, to work, to send children to school, to attend to health needs, has impacted the urban working classes, and how it has fallen hardest on the shoulders of women.

Women handle much of the day-to-day care not just of their households but also of the physical infrastructures – such as the work they do towards maintenance and repair of the grid, or of their food environment and so much more.
In Colombo we've seen that urban infrastructures of care – specific aspects of the urban environment that support or impede a care giver's work – have been either absent or inadequate to support carers, leading them to work harder or experience significant loss along the way to fulfil their care work. How do we care for the carer? How do our cities adapt and build our infrastructures to enable caring to happen in a meaningful way, without overburdening the carer?

Cooking through crisis
One way to understand the impact of Sri Lanka's crisis on urban working-class poor people is to look at the household eating habits. When we look at what people are eating, it is not enough to look at prices of food or food inflation but we need to also look at competing expenses, grid infrastructure connections such as energy, water and electricity and affordability, taxes such as value added taxes and so on. By looking at the intersection of these variables and policies, rather than in isolation we can understand the food plate and the gendered burden of crises.

While Colombo was food insecure even before Covid-19 due to high non food expenses like utilities and transport, working class families were still able

to eat three meals a day and maintain a diverse food plate. Through Covid-19 lockdown and the ongoing economic crisis families have significantly changed their food plate – eating fewer vegetables, proteins, and fruits daily, cutting down on quantities and even number of meals. In households with children, parents (especially mothers) are more likely to sacrifice their own nutrition for their children.

Through 2021 – 2023 we saw households stacking energy in a way they had never had to before – using more than one cooking fuel at one time and switching between energies to cook, when previously they all used only gas cylinders as cooking fuel. Women were navigating spatial limitations as well as the availability and affordability of cooking energy such as gas, kerosene, electric, wood fire and even homemade solutions using material such as coconut shells. Stacking in this way requires planning and time, and has a different impact on what is cooked as women would then prioritise food that cooked faster, could be eaten by itself or a fewer number of dishes.

When the electricity tariffs were increased, it further curtailed the ability to stack by removing time-saving electrical appliances like rice cookers (which were by then being used to cook curries as well) for the fear of increased bills.

Households even disconnected refrigerators and washing machines – further adding to the time poverty of women who then had to adjust for this by waking up earlier, or adjusting what they were cooking in order to gain some time. Cuts in social protection over the years have resulted in no school meal programmes in most Colombo schools. Children are required to come to school with a nutritious meal. This has placed an additional burden on mothers to provide this meal, with children not being sent to school on the days when a meal cannot be prepared.

Local policymakers and advisors claim that low-income communities do not know or care about nutrition and that they favour quick and easy meals. Our primary qualitative research shows that families have a good understanding of nutritious diets but have very pressing decisions to make on a day-to-day basis where they juggle not only food costs but also time, cost of cooking fuels, ability to afford electricity and water, education expenses, transport, health, debt and many other things.

Accounting for a constellation of shocks

While the health and nutrition indicators in Sri Lanka today gives some sense of the dire crisis in households, less is understood about the impact that these constellation of policies, lack of social protection and economic adjustments – including IMF reforms – happening simultaneously, recurring, overlapping, continuously – have had on women and their ability to fulfil their care work.

It is also vital to go beyond looking at the impact on time and health of carers, but also look at the right to leisure and to have access to spaces that allow some respite from the day, and that does not require being a parent to access these spaces (for example, accessing public space through playgrounds).

The built environment and its infrastructures and design can add to the burden of care work or enable socialising. It needs to be considered as seriously as nutrition or health when thinking about urban infrastructures of care. When policymaking or the discourse on care is holistic, we can better see what is needed for people to be able to access support that would enable them to look after their families and communities, and more importantly, themselves.

What we've seen in Colombo is that our infrastructures, policies and even the responses to the crisis are hugely inadequate to support families in time of need. To address pressing issues across health and development indicators, it is vital to look at the different ways in which households, particularly caregivers, are impacted in order to work towards a just recovery from crisis.

[Illustration] Coping through crisis

Conceptualised by Anisha Gooneratne, designed by Ruwani Rajapakse, developed by Manuja Mallikarachchi
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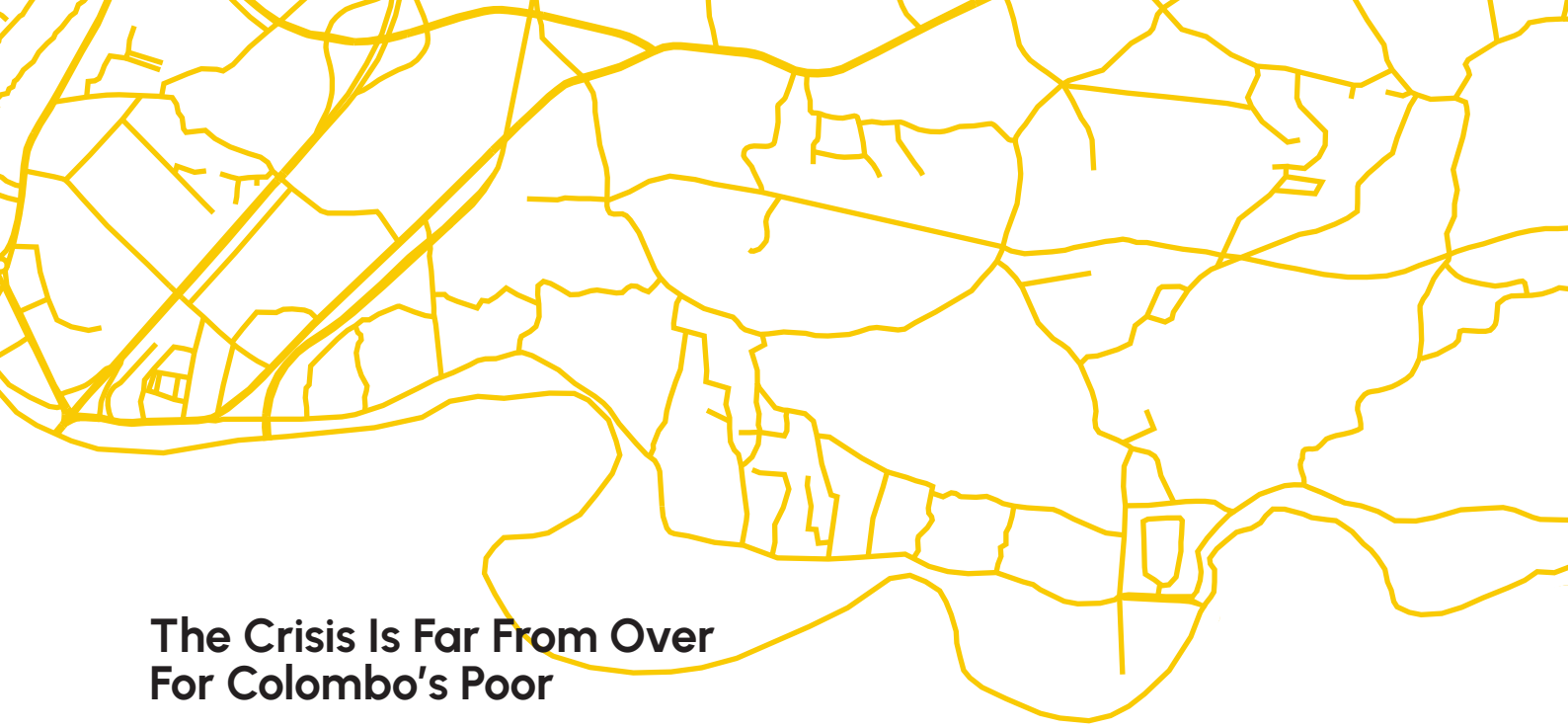

The Crisis Is Far From Over For Colombo's Poor

Anisha Gooneratne,
25 March 2024

Link

The long lines at fuel stations have disappeared as have the frequent power outages; it's almost as if the economic crisis is a thing of the past. For Colombo's working class poor it is anything but. The last few years have brought upon crisis after crisis, leaving many families at breaking point struggling to put a meal, let alone three, on the table today.

Since 2020, Colombo Urban Lab has been exploring how access to grid infrastructure such as water, electricity, cooking fuel and transport impacts access to food and diets in working class communities in Colombo. This is part of a larger multi-country collaboration called the Living off Grid Food and Infrastructure Collaboration exploring this nexus across Asia and Africa. The fieldwork for the project started amidst COVID-19 lockdowns and since then we have worked closely with working class poor families, both households and vendors in Wanathamulla to explore how access to the grid impacts access to food. This timeline depicts the shocks these communities have experienced since 2020 and the ways in which they have had to respond to multiple crises. When referring to shocks on the economy or impact to households, it's very easy to consider them in isolation without understanding that actually they are all interconnected and having compounding effects on households.

Prior to the pandemic, families were able to have three diverse meals a day that featured meat, fish or eggs and fruit; they were using gas as their primary means of cooking fuel and their children were going to school daily. With the onset of the pandemic and prolonged periods of lockdown, many households lost access to income as they were mainly daily wage earners. At this time, many began to dip into their savings to find money to feed their families. They were also avoiding meat as it was unaffordable and with the X-Press Pearl disaster, they stopped eating fish too due to health concerns. However, over time we saw households eating less fish not because of health reasons alone but also because it was unaffordable.

The gas explosions in December 2022 left families looking for alternative energy sources for cooking. Women had to stand for hours to procure kerosene or switch to a wood fire stove although it would take two to three times longer to cook. These changes were taking place in a community that hardly had wood fire available in their vicinity prior to the pandemic. As a result, women were spending about three hours cooking, or procuring cooking fuel – all which impacted women's time poverty. The infrastructure-food nexus that we were exploring presented itself very obviously at this time, as women were prioritising food that would cook fast and not take up too much cooking fuel. Items like manioc,

jackfruit and chickpeas were removed from diets as families selected food that would cook quickly or could be eaten without accompaniments. This was the first instance of how we see infrastructure determining the food plate.

Around May 2022 families started to buy food daily on credit and even bought milk powder in smaller quantities. Vendors would react to changing demand patterns by breaking milk packets, distributing them into smaller containers and selling them in smaller quantities to match demand and purchasing abilities of communities. Milk that was bought for the household was given to the child as a priority with many parents foregoing milk in their tea.

In August 2022 came the first of a series of electricity tariff hikes of around 75%. As a result, families started unplugging fridges and not using time saving cooking devices such as rice cookers amid electricity bills that were in arrears of about Rs 80,000-90,000. At this point, families were pawning jewellery, taking loans at high interest rates from loan sharks or undertaking a second job to pay their utility bills. For those living in the Urban Development Authority (UDA) built high rise housing complexes, they had no other option but to somehow find the money to pay their utility bills because if they didn't the UDA would disconnect their water supply. With no other public infrastructure that they could access, unlike in the wattes they came from, they had no choice but to settle their arrears. The situation at this time was so dire that families were choosing to cook on woodfire stoves in the corridor of their high rise despite knowing the risks because they couldn't afford gas, they couldn't get kerosene due to shortages and they couldn't afford electricity due to the tariff hikes so what choice did they have to feed their families? The start of 2023 brought yet another electricity tariff hike of around 66%. By this point, families were eating less, many having one meal a day with meals mainly consisting of rice and a small quantity of vegetables, foregoing meat, fish and even eggs.

In addition, our research highlighted that although many children of working class poor families go to government schools, many of these schools don't have a free midday meal programme. As such, teachers often demand that a nutritious meal be sent to school and, in some cases, even dictate a menu where on certain days of the week, certain food items have to be brought. Not only are these meals expensive to procure, they also consume a significant amount of energy to cook. Reports of teachers reprimanding children for not bringing nutritious food to school has resulted in parents opting to keep their children at home without sending them to school for fear that they will be scolded for not bringing nutritious food to school. Keeping in mind the high degree of learning loss during COVID-19 when children could not access remote education, further school absenteeism is likely to have long term impacts on their education.

Amid these compounding crises we see increased expenses, hikes in VAT on essential items like school books, medicine and a rise in utilities, all which impact these households disproportionately. Existing and new social security programmes such asaswesuma, are inherently problematic as they exclude many working class poor families who have access to assets and grid connections. As such these communities, some of which require it the most, are found facing these crises with limited state support.

The crisis is far from over. Compounding shocks have left families reducing the quantity and quality of meals, unplugging devices and even disconnecting from the grid, not sending children to school, pawning jewellery or taking high interest loans, foregoing essential medication and even undertaking a second job just to pay utilities or feed their family. These are just a few out of many methods families are using to survive, leaving many in precarious positions, facing generational poverty and severe long term nutritional impacts.

You can view an illustrated timeline of shocks and impacts explained above and the coping strategies families have had to use in the face of compounding crises.

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