

RESILIENCE REFUSED WASTED POTENTIALS FOR IMPROVING FOOD SECURITY IN DHAKA

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With 1 figure, 2 tables and 4 photos

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Summary: In 2007 and 2008, Bangladesh was subject to a food crisis – the outcome of multiple causes – which had a severe impact on the urban poor of the country’s capital. Dhaka’s food supplies were repeatedly disconnected due to floods and cyclones, yet there was always enough food in the megacity thanks to wholesale traders’ diverse and flexible supply networks. Despite the interim government’s eviction drives aimed at slum dwellers and street vendors, the food hawkers still managed to distribute prepared food throughout the city. And despite rapidly rising food prices, most of the urban poor found ways to endure the crisis. In this article, we look at the people who made Dhaka’s food system resilient enough to avoid catastrophe. We discuss three relevant actor groups – food traders in wholesale markets, street food vendors, and poor consumers – and investigate the roles they play in keeping the city fed, and how they act in the light of crises. Neither these actors nor their contributions to urban food security are acknowledged by the state, nor are they substantially supported. Significant potentials for a resilient urban food system thus remain unpromoted and even blocked. Resilience is being refused.

Zusammenfassung: Die globale Nahrungskrise in den Jahren 2007 und 2008 hatte beträchtliche Auswirkungen auf die städtische Armutsbevölkerung in Bangladesch und dennoch konnte eine großräumige Katastrophe verhindert werden. Trotz zahlreicher Unterbrechungen der städtischen Belieferung durch Zyklone und Überschwemmungen, war es Lebensmittelhändlern durch ihre flexiblen Netzwerke möglich, die Stadt mit ausreichend Nahrung zu versorgen. Trotz einer großangelegten Räumungskampagne von Slums und informellen Märkten seitens der Interimsregierung, schafften es die Straßenhändler ihr Verteilungssystem von zubereiteten Speisen aufrecht zu erhalten. Und obgleich rapide ansteigende Preise die Existenz vieler Familien niederer Einkommenschichten stark beeinträchtigte, fanden sie Wege, die Krise zu überstehen. In diesem Artikel fragen wir nach den Menschen, welche Dhakas Nahrungsversorgungssystem resilient genug gemacht haben, dass es zu keiner größeren Katastrophe gekommen ist. Wir schauen auf drei Akteursgruppen – Lebensmittelhändler auf Großmärkten, informelle Straßenhändler und städtische Arme als Verbraucher – und analysieren, welche Rolle sie für die Versorgung der Stadt spielen und welche Möglichkeiten und Risiken sie im Umgang mit Krisen haben. Es zeigt sich, dass von Seiten des Staates weder die Akteure noch ihr Beitrag für die städtische Ernährungssicherung wertgeschätzt und gefördert werden. Wichtige Potentiale für eine verbesserte Ernährungssicherung bleiben so ungenutzt bzw. blockiert. Der Bildung von Resilienz wird eine deutliche Absage erteilt.

Keywords: Urban food security, food systems, social resilience, urban governance, Bangladesh

1 Dhaka’s food system under stress

In 2007 and 2008, a rapid rise in food prices pushed hundreds of millions of people around the globe into hunger and poverty; the urban poor were particularly affected (COHEN and GARRETT 2010; RUEL et al. 2010; FAO 2011). In Bangladesh, the food crisis was exacerbated due to the fact that it was accompanied by an ecological and a political crisis. The *ecological crisis*, which resulted from the combined effects of the 2007 monsoon floods and Cyclone Sidr (November 2007), brought

devastation, destroying much of the paddy crop in Bangladesh’s north and south (WEBSTER et al. 2010). Consequently the country had to import large quantities of food grain just when world market prices started to rise to unprecedented heights. In consequence, the “rice nation” of Bangladesh was particularly sensitive to the global food price hike of 2007/2008 (WORLD BANK 2010; FAO 2011). This *economic crisis* most severely affected the country’s urban poor, because they primarily rely on their cash income for accessing food, and thus face difficulties if prices rise rapidly while their

income does not (ZINGEL et al. 2011). In addition, 2007 and 2008 were marked by a *political crisis* in Bangladesh, as the 2006 elections were suspended and a caretaker government took control. This military-backed interim government was supposed to remain in power for three months, until free and fair elections could take place. In fact, it ended up maintaining control of the country for two years in an effort to re-establish law and order and eradicate corruption throughout the political-economic system. Yet most visible among the interim government's actions were large-scale slum clearance drives and evictions of informal street markets, which again affected the livelihoods of the urban poor severely (IGS 2008; SIDDIQUI et al. 2010).

This multidimensional crisis had devastating effects in the country's capital, the megacity of Dhaka. Nevertheless, a large-scale catastrophe was prevented. Although Dhaka's supplies were repeatedly disconnected as a result of production shortfalls and road blocks due to flooding, there was always enough food in the city. Even though the interim government evicted thousands of hawkers, street food was still available and the sale of prepared food was not substantially disturbed. And finally, even though the prices of staples rose by more than 100% within two years (MoA 2009), most of the urban poor found ways to endure the crisis. Who are the people behind these achievements? How did they make Dhaka's food system robust enough to avoid a catastrophe of even larger dimensions? And what hardships did they bear in building and maintaining this resilience?

In this paper we seek to answer these questions by discussing three case studies. The first deals with the question of how food traders organize urban supplies in times of food shortages due to *ecological crises* caused by cyclones and floods. The second explores the strategies of street vendors who continued their food provision services in the face of the prevailing *political crises*. The third case study places its focus on Dhaka's urban poor and investigates the coping strategies they employ to overcome the *economic crisis*. All three case studies provide evidence of the capacities of the people of Dhaka to navigate crises. However, they also point to the fact that the contributions of these actors to urban food security are not acknowledged by the state; nor are their efforts substantially supported. In consequence, large potentials for improving food security are left unused. In Dhaka, people's resilience is being restricted.

2 Building social resilience for improving urban food security

2.1 Urban food security at risk

Despite a steady growth of agricultural production around the world, and despite a tremendous increase in the international trade of edibles, global food security is far from being attained. Today, 15% of the population in the Global South are still undernourished (FAO 2011). Moreover, decades of deregulation and privatization policies together with innovations in the financial sector have led to an unprecedented volatilization of capital to which food prices are particularly sensitive (ALTVATER 2005; RUEL et al. 2010). In addition to that, global environmental change has unforeseeable impacts on food systems worldwide (INGRAM et al. 2010; IPCC 2012). There is mounting evidence that with ongoing urbanisation hunger shifts from rural to urban areas (RAVALLION et al. 2007; RUEL et al. 2010). In some countries of the Global South, including Bangladesh, the incidence of chronic food insecurity is already higher in cities than in rural areas (COHEN and GARRETT 2010). This is due to the fact that urban households primarily rely on their income for access to food (SEN 1981; WATTS and BOHLE 1993). In times of economic, political or ecological crises poor urban households suffer from decreasing purchasing power, as prices of food commodities increase while their income does not (BOHLE and ADHIKARI 2002; PRYER 2003). Urban food security, in turn, is largely a matter of undisturbed food supply chains and functioning markets on one side and people's access to the labor market on the other. Both sides of the coin are fundamentally linked to the exertion of power and control by different agents within food systems, and to the political economies of cities as such (HEYNEN 2006).

We argue that the present neoliberal regime contributes significantly to reshaping megacities and urban food systems alike. Cities compete over private-sector investments and large-scale, export-oriented economies, which are often seen as the sole saviors of progress and development, and which have become the prime drivers of urban governance and planning (JESSOP 1997; BRENNER and THEODORE 2002; MACLEOD and JONES 2011). In the Global South, neoliberal restructuring is often accompanied by three significant trends: Firstly, urban redevelopment goes hand in hand with slum clearances, which increase the urban

poor's already existing hardships; governments and city municipalities reject the subalterns' claims on urban space (WEBER 2002). Secondly, informal small-scale businesses are being fought against and displaced, which leads to the marginalization of the street economy and contributes to the restructuring of urban food systems (SMITH 1998; BHOMWIK 2010). Thirdly, aesthetics and beautification have become key criteria of urban governance, and modernization is being accomplished by discursively marginalizing and physically displacing of traditional elements of the urban economy (SMITH 1996; MACLEOD 2002; CHATTERJEE 2004; ARABINDOO 2012). All of these trends can be witnessed in Dhaka, where more than one third of the population are living in slums and where informal labor accounts for two thirds of all employment, particularly in the food system (GHAFUR 2000; WORLD BANK 2007; HACKENBROCH et al. 2008; ETZOLD et al. 2009; MALIGALIG et al. 2009). We argue that the disregard of the interests of the urban poor and the displacement of informal economies on the part of the state not only increase the existing socio-economic disparities, but also leave significant potentials for creating a more resilient urban food system unused.

2.2 Social resilience in food systems

There is a clear consent among scientists, policy-makers and non-governmental organizations on the need to enhance (urban) food security and to craft resilient food systems that are able to overcome future crises (ERICKSEN et al. 2010; FAO 2011). So far, however, the scientific debate on building resilience in food systems has significant shortcomings, as questions of power relations and people's agency, as well as of the role of private enterprises and the state in governing food systems, have not been adequately addressed (BOHLE et al. 2009; CANNON and MÜLLER-MAHN 2010; EAKIN et al. 2010; SCHILPZAND et al. 2010). **In order to develop our argument, we nonetheless draw on the concept of resilience, but reframe it for our purposes.** FOLKE et al. (2010) and others (HOLLING 2001; BERKES et al. 2003; WALKER and SALT 2006) define resilience as comprising all those conditions and mechanisms that enable systems to maintain function under stress (*persistability*), to adapt to external change (*adaptability*) and to transform themselves in a way that enhances their future functionality (*transformability*). In this line of argument, the resili-

ence of an urban food system lies in its capacity to *persist* in its current state while facing disturbance and change, to *adapt* to economic, political, social and environmental changes, and to *transform* in ways that actually improves the food system outcomes in the future.

In contrast to such a systemic view, an actor-oriented perspective centers around the "social resilience" of the people *in* the urban food system, e.g. the producers, the traders and the consumers, and how they are embedded in the food supply chain and entangled in webs of power (see KECK and SAKDAPOLRAK 2013 in this volume). A normative dimension is added too, since justice, fairness and equity are key features of social resilience, and since the desired outcome of a food system is food security, rather than profit (BOHLE et al. 2009; EAKIN et al. 2010). Influenced by the vulnerability paradigm, the notions of hazard, risks and capacities are central to our understanding of social resilience *in* food systems (cf. GLAVOVIC et al. 2003; OBRIST et al. 2010; BÉNÉ et al. 2012): 1) *Hazards* and *Risks* are all those actual and/or potential trends, shocks or seasonal developments that have a negative impact on people's businesses and livelihoods, and which jeopardize their contribution to functioning food systems and their own food security. 2) *Coping capacities* comprises those resources that people have directly at hand, which enable them to immediately cope with and overcome particular threats. 3) *Adaptive capacities* addresses people's capacities to learn from past experiences, to anticipate risks, to mobilize support from other people through reciprocal network relations and to flexibly adapt their livelihoods or business strategies in the light of stress and shocks. 4) Finally, *transformative capacities* reflects people's entitlements and their positions of power: whether they have access to assets and help from the state or non-governmental organizations, and whether they are able to develop institutions through which they can improve their individual human security and foster collective food security and societal robustness towards future crises (see Fig. 1). Such an understanding of resilience encompasses both the actor-oriented and the systems perspectives, and provides space for analyzing the underlying dialectics at play: the economic, political, social and ecological conditions of food systems *structure* people's resilience and their food security, while people *make* urban food security and the resilience of food systems through their everyday practices and personal interactions (KECK and SAKDAPOLRAK 2013).

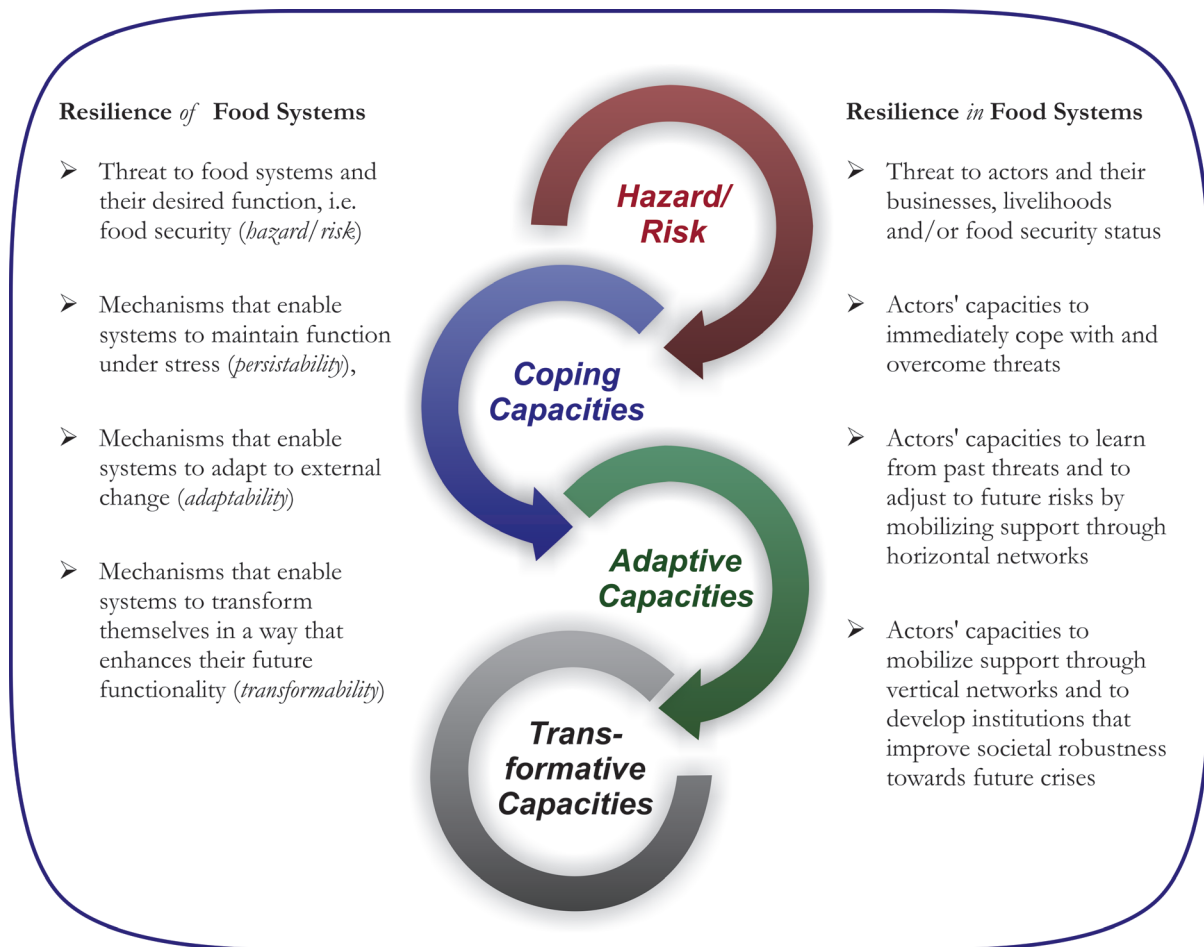


Fig. 1: Social resilience in urban food systems. Source: Own draft based on KECK and SAKDAPOLRAK 2013

3 Methodology

The subsequent empirical case studies focus on three particular actor groups which contribute to the overall resilience of the food system of the megacity of Dhaka, and whose own resilience is at risk. Food traders in wholesale markets, street food vendors, and poor urban consumers are clearly not the sole – or, even, one might argue, the most important – actors in the food system. However, we deliberately chose these groups because they play different roles in urban food provision – from the organization and distribution of supplies to the preparation and consumption of food – and because they reflect different positions of power in the society, and thus have different capacities to act in crises. Each case study is the result of empirical research conducted in Dhaka between 2007 and 2010.

The study of food traders in wholesale markets was guided by the triangulation (FLICK 2008)

of qualitative and quantitative research methods. Qualitative methods used were observations, semi-structured interviews and participatory techniques. Repeated interviews were conducted with 42 rice and fish wholesalers; 18 actors at various positions along the supply chains, such as peasants, millers, intermediaries and retailers; and 28 experts from various governmental, non-governmental and academic backgrounds. Venn-diagrams (KUMAR 2002) were used to clarify the social embeddedness of the traders. The major quantitative method employed was a standardized survey with 206 rice and 242 fish wholesalers (n=448) in 21 wholesale markets (12 out of 24 rice markets and 9 out of 13 fish markets) within the area of Dhaka City Corporation¹⁾ (DCC), which was conducted between November 2009 and

¹⁾ On 29 November 2011 the government of Bangladesh split the Dhaka City Corporation into two corporations, North and South. Our study was finalized before this dissociation.

January 2010. A second survey (n=1211) with two rounds of inquiry (in February 2008 and 2009 for rice, and in March and August 2009 for fish) focused solely on amounts of food sold in Dhaka's markets (see KECK 2012b for more details).

The study of street food vendors was guided by an inductive research approach that combined different types of interviews with different stakeholders: repeated semi-structured interviews were conducted with 70 street food vendors, with 15 "regulators" of vending sites, such as policemen or security guards, with 50 street food consumers, and with nine local experts. Venn-diagrams were employed to map the street vendors' social networks and the power relations at selected vending sites. 120 street food vendors were also interviewed in November 2009 at six characteristic sites with the help of a structured survey. All study sites were publicly accessible places within the area of DCC. Moreover, over 210 local newspaper articles were analysed in order to dissect popular discourses on street food vending (see ETZOLD 2012 for more details).

The urban poor's food consumption patterns and their coping strategies during the food crises were assessed through a standardized household survey in nine slum settlements located in different parts of Dhaka. This food consumers' survey (n=207) was realized in May and June 2009 in co-operation with another research consortium in the megacities programme²⁾. In order to assess the effects of the increased price of staples on the food security of the slum dwellers, the Coping Strategy Index (CSI) (MAXWELL 1995) was included in the questionnaire. The CSI is a tool for measuring food insecurity on the household level (see ZINGEL et al. 2011 for more details).

4 The case of food traders in wholesale markets

This first case study concentrates on the locations where food enters the city from outside; that is, on the wholesale markets. Wholesalers are defined as

business organizations dedicated to the sale of products to anyone other than final consumers. As most of the traders in wholesale markets are licensed and pay tax, they can be addressed as formal businesses. In the following, we investigate how food wholesalers cope with immediate shortfalls of particular supplies (*coping capacities*) and how they adjust their businesses to cope with supply bottlenecks in the long run (*adaptive capacities*). We then discuss the extent to which they are able to upgrade their enterprises in a way that might enhance the overall food security situation in Dhaka (*transformative capacities*). We chose the commodities of rice and fish as the basis for this analysis in order to compare the marketing of perishable and non-perishable goods.

4.1 Feeding the megacity of Dhaka

Bangladesh is a natural habitat for both rice and fish due to its location in the world's largest river delta with highly fertile alluvial soils, its thousands of ponds, canals, rivers and lakes, and its proximity to the ocean. Nevertheless, in recent years, "green revolution" technologies have become the main driver of recent production growth. The impressive increase in (milled) rice yields from an average annual production of 10.2 mio metric tons in the 1970s to 22.2 mio metric tons in the 2000s (MoA 2007) could not have been achieved without extensive irrigation, the introduction of high-yielding variety seeds and the widespread adoption of fertilizer and insecticide use. Likewise, with the breeding and rearing of carp, it is the resource-intensive inland water fisheries in ponds and ditches that comprise today's major source of fish in Bangladesh (DoF 2009). These factors have made the South-Asian country self-sustaining in rice and fish production. However, natural disasters like the floods and the cyclone in 2007 challenge Bangladesh's food supply at irregular intervals and make imports necessary (KECK et al. 2008).

According to our own survey data, today there are approximately 4,400 traders running businesses in the 87 food wholesale markets located in Dhaka's centre, i.e. the area of DCC. If all the business days of all these food markets are added together, Dhaka's traders sell on more than 30,000 market days per year. Taken together they supply more than 9,000 tons of food every single day (see Tab. 1). Dhaka's wholesalers have a vested interest in running their businesses on as many days as possible. This is however not always possible due to many reasons. A producer might be hindered in delivering goods due

²⁾ The households were randomly selected from a sample that was drawn at the same time at the very same study sites by the INNOVATE research consortium. We wish to thank Alexander Krämer and M.M.H. Khan (both University of Bielefeld) and Patrick Hostert and Oliver Grübner (both Humboldt University of Berlin) for their cooperation in realising the survey in the same slums, for their help in terms of sampling, and for sharing parts of their results which were necessary for our own analysis (see GRÜBNER et al. 2011 for sampling, methodology and some results)

Tab. 1: Key characteristics of food wholesale markets in Dhaka

Food Type	No. of Markets	Total No. of Wholesalers	Total No. of Market Days	Total Daily Turnover, (in mt)	Food Balance in Dhaka City (in % of the national urban average)
Rice	24	775	7,979	3,010	111.1
Fresh Fish	13	898	5,110	707	169.8
Pulses/Spices	10	345	3,234	1,054	165.9
Fruits	9	566	3,181	366	168.4
Meat	9	601	2,868	341	162.6
Vegetables	7	834	2,920	3,065	164.6
Edible Oil	6	202	2,086	353	166.9
Eggs	5	129	1,773	69	140.6
Dried Fish	2	27	730	22	-
Wheat	2	33	678	61	42.7
Total	87	4,410	30,559	9,048	-

Source: Own surveys 2008–2010

Note: Regarding the total number of wholesalers and the total daily turnover, the figures for rice and fish are the result of a triangulation of data from three surveys: one preliminary survey of *all* food wholesale markets in 2009 (n=87), one survey of daily turnovers on rice and fish wholesale markets in 2008–2009 (n=1211), and one survey of the rice and fish wholesale business in 2009–2010 (n=448). All other figures are based on the survey of all food wholesale markets only. In order to provide maximum accuracy in terms of the total daily turnover per food type, figures of considerable size (pulses/spices, fruits, vegetables and edible oil) were reduced by an average error ratio of 20.0%, which resulted from the above mentioned triangulation.

to harvest losses, freight might be damaged during transportation, or delivery might be delayed due to traffic jams and accidents. Food traders need to be prepared for such instances, otherwise their business might be jeopardized.

4.2 Living with supply shortfalls: food traders' coping and adaptive capacities

Both the floods of the 2007 monsoon and Cyclone Sidr (November 2007) brought devastation to Bangladesh's north and south, destroying much of the paddy crop, causing countless fish ponds to overflow, and repeatedly disconnecting Dhaka's food supplies (WEBSTER et al. 2010). Yet there was always enough food in the megacity thanks to wholesale traders' flexible contracting and their diverse supply networks. The contracts between the wholesalers and their suppliers are not written, nor are they enforceable by any judicial body. What counts is the very word of the traders, as one of them affirmed: "Our entire business works on the basis of trust" (Own interview, 30.01.2009). Typically, traders in Dhaka (see Photo 1) are engaged with their suppliers in a relationship of mutual dependency.

On one side, each season the suppliers take out a loan (*dadon*) from Dhaka's wholesalers to invest in fish production. On the other side, the suppliers provide the wholesalers with advance deliveries, which are always paid for after the goods have been sold. The consequence of this practice is the emergence of strong personal relationships between the businessmen, which become particularly manifest in acts of mutual assistance (cf. UZZI 1997; LI 2007). The suppliers make an effort to provide fresh food every day to "their" wholesalers. At the same time, the wholesale traders in Dhaka continue to take fish from "their" suppliers even if they could make a more lucrative deal with others (KECK et al. 2012). This attitude, with its emphasis on prolonging their existing business relationships, has a clear priority over the pursuit of short-term gains, and serves as pillar of the traders' *coping capacities*.

Since not every supplier is able to provide fish every day, the business relations between Dhaka's wholesalers and their suppliers do not remain static. In order to buffer the effects of shortfalls, Dhaka's food traders maintain relations to multiple suppliers from a variety of places. With all of them, the traders continually share information on the current situation of their businesses, on production



Photo 1: A trader auctions fresh fish, Kawran Bazar, fish wholesale market (Photo: MARKUS KECK 31.03.2008)

and transportation costs, and on profit margins (ibid.). If one supplier is not able to deliver goods, another supplier from another region might be. In this way the traders try to constantly extend their personal network over the years that they are in business. When they first enter the business, many of the traders in Dhaka have no more than three to five business connections. Only over the years they are able to raise the necessary funds to expand their network to include an average of 20 suppliers. In this way alternative supply options arise which eventually guarantee that the traders in Dhaka can run their business every single day throughout the year. Against this background, the diversity of the wholesalers' business networks must be addressed as the main source of their *adaptive capacities*.

By means of their business networks Dhaka's wholesalers ensure the reliability of the food supply of the whole megacity. These networks are so effective that food availability in Dhaka is above the national urban average, most prominently in terms of fish. Taking the population figure of the DCC area as a reference, the gross availability of fish amounts to 99 grams per head, per day, which is 1.7 times the national urban average (58 gram per head and

day) (BBS 2007). The same holds true for all the other food segments recorded except wheat³⁾ (see Tab. 1). Of course, availability does not necessarily mean access, and most of the perishable goods that are delivered to Dhaka are out of reach for low income groups. Nevertheless, at this point it should be mentioned that the supply of food to the megacity is not a problem, logistically speaking, despite poor infrastructure and outdated technology in use. In terms of supply, Dhaka is an island of plenty.

4.3 Food traders' limited transformative capacities

Despite the food traders' impressive *coping* and *adaptive capacities*, their *transformative capacities*, related to their ability to develop institutions which might enhance the future food security situation in Dhaka, are limited. Apart from a lack of political awareness, which was found even among market association leaders, this has much to do with the continuous neglect, on the part of both the central government and the municipality, of the importance of the role played by wholesaling in urban food provision. Evidence of this neglect is apparent when scrutinizing wholesalers' prospects for upgrading. In general, upgrading means the improvement of companies' produced value: traders might, for example, improve consumers' food safety by providing better quality products; they might offer consumers more choices by diversifying their portfolio of goods or services; or they might buffer price volatility by extending their storage capacities. To achieve any of these benefits, two preconditions must be guaranteed: access to loans, and a minimum of tenure security. Despite the fact that 89% of Dhaka's wholesalers are licensed, however, these preconditions are not met.

In the course of their individual business histories, 43% of rice wholesalers and 46% of fish wholesalers took out at least one loan for business purposes. In the case of rice traders, 86% of those loans were granted by private or governmental banks, while the remaining 14% were informally granted by family members, friends, business partners or money lenders. In the case of fish traders, however, only 52% of the loans taken were provided by banks, with a remarkable 48% secured

³⁾ The low wheat figure might be explained by the fact that most of Dhaka's wheat wholesale trade takes place in Narayanganj, where large mills and storages are located.

from informal sources. Notwithstanding their economic weight – the average annual turnover of a rice wholesaler in Dhaka accounts for 37 million Bangladesh Taka (or 365,000 EUR), the average annual turnover of a fish wholesaler accounts for 49 million Bangladesh Taka (or 485,000 EUR) – fish traders are clearly disadvantaged due to their limited access to the city's formal banking system. Besides the risks inherent in any business trading in perishable goods, this inaccessibility is mainly rooted in a lack of public appreciation of the fish wholesale business as a whole, which is not only perceived as uncertain, smelly and unclean, but also as unorganized, inefficient and backward. Local moneylenders capitalize on this situation by demanding high interest rates, which can be as high as 10% per month (KECK 2012a). These expenditures increase food prices, as they are passed on to the final consumer.

Of Dhaka's 87 food wholesale markets, 36 markets (41%) are located on public land, belonging in most cases to DCC. Yet the fact that a market is on governmental land does not provide any basis for tenure security. In fact, public markets are heavily contested. According to a DCC officer, the market pitches and stalls are leased out to the businessmen. This statement does not accurately reflect the actual situation, however. Our data show that only two fish wholesalers (1%) and not a single rice wholesaler possessed a leasing contract for a DCC market pitch. Instead, interviews highlighted that Dhaka's public markets are in the hands of middlemen, who sublet the pitches in order to skim off money from the higher rent charges. Monthly pitch rental costs in Dhaka's public markets vary between 6,000 and 7,000 Taka. However, in order to get a pitch in the first place, traders need to pay a relatively large advance. Wholesalers in one fish market, for instance, mentioned that their stall pitches had been auctioned when the market was inaugurated. For one vending site of a size of 10 to 10 feet (9.3 square meters), they had paid in advance between 50,000 and 100,000 Taka. What was meant to be a deposit that would be repaid later turned out to be a bribe to brokers, who guaranteed the traders entry to the market in return (ibid.). This practice of paying bribes to land brokers ends up negatively impacting the urban poor as the costs are forwarded to the consumers. Both wholesalers' limited access to loans and the practice of doing private business with public land must be seen as two crucial impediments to building a more resilient food system in Dhaka.

5 The case of street food vendors

The second case study looks at the distribution of prepared food in Dhaka and pays special attention to the role of street food vendors. It demonstrates how these actors cope with state-induced eviction drives (*coping capacities*) and how they establish social networks through which they sustain their businesses and provide their services in the long run (*adaptive capacities*). Furthermore, it discusses the marginalization of street food vending through powerful discourses that block the hawkers' own potentials and hinder their provision of high-quality food to Dhaka's labor force (*transformative capacities*).

5.1 Street food vending in Dhaka

Street food vending plays a dual role in Dhaka's economy. Firstly, it is important for feeding Dhaka's blue-collar workers. Given the socio-economic inequalities in the megacity, it is especially the highly mobile and hard-working laborers, such as rickshaw pullers or construction workers, who depend on full meals and energy-rich snacks from street food vendors in order to keep going throughout long working days (SUJATHA et al. 1997; TINKER 1997). For them, comparatively cheap street food is a necessary supplement to their diet. Secondly, street vending is itself one of the most important employment opportunities for the urban poor (SALWAY et al. 2003; WORLD BANK 2007). As compared to other urban food providers, like wholesalers or retail shop owners, Dhaka's street food vendors have low incomes; almost two thirds of them live below the poverty line for Dhaka. They do not benefit from any social security or state welfare scheme, and they must endure long working hours (on average 14h/day), constant exposure to wind and weather, and poor working conditions. Today, there are around 95,000 street food vendors in Dhaka alone.⁴⁾ While street food trade is in the hands of women in most other countries of the Global South (BROWN 2006), in Bangladesh, it is clearly dominated by men.

⁴⁾ In Asia, only Calcutta (~150,000), Bangkok (~120,000) and Delhi (~60,000) have similarly large numbers of street food vendors (Bhowmik 2010). The estimate for Dhaka (Statistical Metropolitan Area) in 2010 is based on UN (2011) population data and information from the Labour Force Survey and the 2001 Population Census (BBS 2004, BBS 2007), a food consumption survey (n=207), and a street food vendors' survey (n=120)(see ETZOLD 2012).

5.2 Living with evictions: street food vendors' coping and adaptive capacities

In order to run their businesses, food hawkers appropriate public space. In contrast to the food wholesalers, whose businesses are formally registered, the street vendors have no access to trade licenses and cannot register their small and flexible street shops. Due to their illegal status⁵⁾, they are constantly at risk of being evicted. Places in the city center that are logistically, financially and symbolically important are particularly contested. There, street vendors have to be alert at all times to avoid being evicted by powerful actors. Accordingly, the vendors have to align their business strategies with the very local patterns and rhythms of territorial governance (ETZOLD et al. 2009; ETZOLD et al. 2012; see also HACKENBROCH 2013).

Displacements are an ordinary part of the daily encounters between state actors and hawkers (BROWN 2006). However, large-scale eviction campaigns are also carried out in Dhaka occasionally, in particular in times of conflict and political insecurity (HACKENBROCH et al. 2008). Throughout the two-year rule of the military-backed interim government, from January 2007 to December 2008, more than 60,000 slum dwellers were forcibly evicted across the city⁶⁾, wholesale and kitchen markets were bulldozed (KECK 2012a), and thousands of street vendors were repeatedly expelled from public spaces (see Photo 2 and 3). The urban poor and many street entrepreneurs, the most visible elements of the informal economy, became victims of the Caretaker Government's bid to reinforce law and order and to symbolically demonstrate power and authority.

Both ordinary displacements and more comprehensive eviction drives pose a livelihood challenge to street vendors. They lead to personal stress and physical harm, to the destruction or confiscation of vending equipment, and to the interruption of the vendors' businesses, and thus to a critical setback of their income. In their efforts to avoid and overcome the negative impacts of evictions, Dhaka's street food vendors display *coping capacities*. In times of police raids, the vendors quickly close down their shops,

⁵⁾ In Bangladesh, all laws governing the sale of food and appropriate behaviour in public space date back to British colonial rule. Today, the *unlicensed* sale of prepared food in public space is illegal according to the Pure Food Ordinance (1959), the Dhaka Metropolitan Police Ordinance (1976) and the Dhaka City Corporation Ordinance (1983).

⁶⁾ Interview with M.Q. Khan, Director of the local NGO-network "Coalition for the Urban Poor", Dhaka, 02.01.08.



Photo 2: A street food stall on the university campus before its destruction during an eviction campaign by the police (Photo: BENJAMIN ETZOLD 22.10.2007)

cover their push-carts or flee the scene with their mobile vending units. Some also try to convince police officers to turn a blind eye to their vending spot with a small bribe, by appealing to their generosity or by evoking their pity. During temporary evictions, street vendors do not usually move too far away, so they can quickly re-appropriate their vending sites afterwards. For this reason, they remain in continual contact with one another so as to remain informed about when it is safe to resume vending.

Apart from these reactive measures the vendors have also developed remarkable *adaptive capacities*. They maintain reciprocal relations to relatives, close friends and local patrons so that money can be borrowed in case their equipment is confiscated or destroyed. They try to save money, and learn not to invest in expensive equipment in order to reduce



Photo 3: A street food stall on the university campus after its destruction during an eviction campaign by the police (Photo: BENJAMIN ETZOLD 13.12.2007)

losses and recover more quickly from confiscations. Some vendors seek ways to shift their businesses to more marginal vending sites, which are not as frequently controlled by the police, but this approach to risk reduction is rarely successful, as less frequented sites are also less profitable. Finally, many vendors replace bulky equipment, like large tables and heavy boxes, with mobile push-carts or rickshaw-vans that enable them to move away quickly and thereby evade evictions.

5.3 Street food vendors' blocked transformative capacities

Due to their own perseverance, their flexible business strategies and their personal networks of support, most street food vendors are able to sustain their livelihoods despite regular evictions. They are only "getting by", however, not "getting ahead" (BOHLE 2005). Their *transformative capacities* remain very limited given that prevailing micro- and macro-political governance structures work against them.

At the street level, the hawkers are entangled in a net of dependency and subordination, and are used to the informal "politics of the street", a term that has been used by BAYAT (1997) in his studies on street vendors in Tehran to describe informal arrangements and local power relations. Every day, the street food vendors have to give "security" payments to local musclemen (so called *mastaans*), middlemen who have close ties to both political leaders and the police, and who control the street trade and keep a watchful eye on all business that takes place in "their" territory (WORLD BANK 2007; BANKS et al. 2011). The amount of these *chanda* payments largely depends on the size of the hawkers' businesses; the more profitable permanent shops have to pay more than the mobile hawkers. On average, the daily bribes account for one third of the hawkers' daily profits, yet they rarely complain as they see the bribes as *informal operating costs* that cannot be avoided. Moreover, through these payments they secure their "right to stay" at their particular vending site. As a part of the *Chanda* is channelled to local police officers, the street vendors are to some extent even protected against raids. For instance, when the Bangladesh Nationalist Party (BNP) government was in power (2001-2006), street traders did not have to fear eviction by the police as long as *chanda* was paid regularly.

At the macro-political level of governance, the street vendors cannot expect support from the legal system (i.e. the court, state law, city

ordinances) or the political system (i.e. support of political parties, NGOs, civil society associations). In contrast to India, Bangladesh's hawkers do not have the benefit of powerful lobby groups that firmly advocate their interests (cf. BHOWMIK 2010). Furthermore, the public media largely portrays street food vending in a rather negative light, particularly for their daily encroachments of sidewalks and other public spaces. A newspaper review revealed that a total of 210 articles had been published on the subject of hawkers and street vending in the most important national English newspaper, "The Daily Star", between 2003 and 2009. Across all these articles, the benefits of street vending – as a source of livelihood for the urban poor, as a service for the urban population, or as a significant aspect of local food culture – were highlighted 88 times. In contrast, street vending was described in rather negative terms 221 times, portraying it as a threat to the functionality of the city, as a risk for food safety and public health, and as a problem of public security and legality. From 2007 to 2008, the interim government used the same narratives to legitimize its eviction campaign against street vendors, claiming thereby not only to restore law and order, but also to clear public spaces, to facilitate better traffic flows, to improve people's food safety conditions, to reinstall public security, and to contribute to the beautification of the capital city.

Dhaka's street food vendors suffer from everyday extortions by power brokers and from eviction drives that put their income, their savings and livelihoods at risk. They are also subject to political marginalization through the dominant public discourses. The everyday practice of street food vending has not only been declared illegal by law (illegalization), but is also framed as a marginal activity in the informal economy (informalization) and is seen as an inappropriate encroachment on public space (delegitimation). Together with the overall conditions of poverty, the informal rules that are set by the powerful actors of the street, and the regular evictions, it is this discursive marginalization that hinders Dhaka's street food vendors in their attempts to expand their businesses, introduce new products or new equipment, and improve the hygiene at their shops and thereby enhance food safety. Even after ten to twenty years in the business, most vendors are not able to upgrade their vending unit and secure their livelihoods. The street food vendors' resilience is limited by the micro- and macro-politics of street food governance.

6 The case of low-income urban consumers

This third case study centers on the urban consumers, who occupy a position at the end of Dhaka's food supply chains. By taking food security as the normative backbone of our study, it is the urban poor and their capacities to deal with uncertainty and crisis to which we give priority here. Against the background of the food price hike of 2008 we discuss the following questions: how do the urban poor in Dhaka cope with limited income in a situation of increasing retail prices (*coping capacities*)? How do they adjust to such adversities in the mid-term (*adaptive capacities*)? Can they access governmental and non-governmental support to improve their households' food security situation and their overall resilience in the long run (*transformative capacities*)?

6.1 Dhaka's poor and the food price hike of 2007–2008

Rapid urbanization has led to an unprecedented socio-spatial fragmentation of the megacity of Dhaka, which houses approximately 14.7 million people; that is 10% of the country's total population (UN 2011). Residential areas for the elite and emerging upper-middle class, together with their commercial centers, shopping malls, cafes, clubs and restaurants, are harshly contrasted by the countless slums that can be found all over the city. These latter settlements provide shelter to almost one quarter of the city population (WORLD BANK 2007), but the slum dwellers suffer from poor housing conditions and do not have adequate access to clean water, sanitation or waste removal. Moreover, many slums are highly exposed to floods during the summer monsoon (BRAUN and ABHEUER 2011; ABHEUER et al. 2013). Although poverty has been reduced in Bangladesh, both in absolute and in relative terms, 18% of the people in the mega-urban region of Dhaka still live below the upper poverty line (cost of basic needs methods, BBS 2011) and are thus seriously affected by chronic food insecurity (PRYER 2003; ZINGEL et al. 2011).

According to official data provided by the Bangladesh Bureau of Statistics (BBS 2011), Bangladesh's urbanites spend on average 48% of their total expenditure on food. While the wealthiest decile spends 37% of their income on food, this increases to 75% of monthly incomes for the poorest decile. On average, urban households spend most of their food budget – 28% – on rice, while expenses for fish and meat make up 16% and 14%, respec-

tively (ibid.). This large budgetary allocation for food meant that 2008's global food price hike was a severe shock for Dhaka's urban poor. From January 2006 to December 2008 prices for (low value) coarse rice more than doubled from 16.5 Bangladesh Taka (BDT) to 35 BDT per kg (MoA 2009). In May and June 2009, when our survey was conducted, prices had slowly decreased, but remained high with prices at between 20 and 25 BDT per kg. Dhaka's low-income households pursued three sets of strategies to deal with increased prices: they reduced their food intake and their expenditures on non-food items; they sought to increase their incomes by searching for additional work and relied on help from other people in their community; or they relied on governmental or non-governmental food aid (see Tab. 2).

6.2 Urban poor's coping and adaptive capacities

The *coping capacities* of the urban poor are rooted in their perseverance in enduring hardship, whether this takes the form of everyday crises due to irregular incomes or ill health, or an extraordinary situation such as the food crisis in 2007/08 (PRYER 2003; COHEN and GARRET 2010). In Dhaka, the most basic tactic employed to deal with rising food prices is that of decreasing the family's overall food intake and changing the diet. Three quarters of our sample households ate cheaper and less preferred food; for instance, they reduced their diet to rice and lentils (*dal*) and ate less fish, meat and vegetables. 52% of our sample reduced the portion size of their meals, and 47% had to skip one or two meals a day in order to keep their expenses low. In South Asian slums women often reduce their food intake for the sake of others; in Dhaka the extent of women's malnutrition is especially alarming (PRYER 2003, SHAFIQUE et al. 2007). Almost two thirds of the respondents in our survey stated that female members of their household, in particular adult women, reduced their food intake. By means of this practice, women ensure the nutrition of their children to the greatest possible extent – even though this practice is highly detrimental to their own food security and health status (ZINGEL et al. 2011). Another indicator of the slum dwellers' high vulnerability is that one third of the respondents stated that they did not eat anything for a whole day at least once in the week prior to the survey. Families that do not have a sufficient income are also forced to sell assets to meet the rising costs for food. 52% of our sample households stated that they had already sold some household assets such as

Tab. 2: Coping, adaptive and transformative capacities of Dhaka's poor to deal with the 2007/2008 food price hike

Practices	Frequency (in %)
Coping capacities	
Consumption of less expensive but less preferred food	75
Female HH members reduce food intake for sake of children	65
Reduction of portion size of meals	52
Sale of assets	52
Suspension of one or two meals a day	47
Suspension of complete food intake for a day	33
Adaptive capacities	
Acquaintance of additional work	92
Purchase of food on credit	87
Borrowing food or money from relatives or neighbors	67
Sending children to eat with relatives or neighbors	27
Bring food from home village	11
Transformative capacities	
Purchase of subsidized food from emergency markets	15
Participation in (non-)governmental food aid programs	3

Source: Own survey 2009; n=205

Note: The frequency (in %) shows the share of respondents who have realized the respective strategy in the week prior to the interview, i.e. throughout the food price hike in May–June 2009.

kitchen utensils, mobile phones or jewelry in order to overcome their current crisis.

Social relations play a pivotal role for the *adaptive capacities* of Dhaka's slum dwellers, as they normally mobilize support in times of crisis through stable reciprocal networks, the maintenance of which, however, requires constant investments (BOHLE 2005; ASSHEUER et al. 2013). Three types of networks are particularly important for the food security of the urban poor: those used for generating additional income; those used for accessing food on credit; and those used for gaining unremunerated support. Each of these types of network is briefly outlined below.

First, most frequently Dhaka's poor people tried to increase their financial capital to meet the rising costs for food. 92% of our respondents increased their working hours in their present jobs or looked for additional opportunities for income generation. Most of the urban poor in Dhaka do not have access to the formal labor market. They therefore work as day laborers, rickshaw pullers, street vendors or garbage collectors, for example. While the flexibility of the informal economy and the ease of entering new jobs is clearly an advantage for the poor in times of crisis, low salaries, lack of social security and hazard-

ous working conditions expose them to new insecurities (SALWAY et al. 2003; PRYER 2003; BEGUM and SEN 2005; KULKE and STAFFELD 2009).

Second, most slum dwellers maintain close relationships with local businessmen so they can secure access to groceries on credit. Due to their irregular and insecure incomes, 87% of the interviewed families bought food on credit from "their" local grocery shop. However, since Dhaka's slum-dwellers have no access to the formal banking system, money lenders and also local retailers capitalize on the poor's difficult situation by demanding high interest rates that add to the slum households' overall debts. Our survey shows that the poorest slum-dwellers are also the most heavily indebted.

Third, direct help from the extended family or close friends is of critical importance for food security. Two thirds of surveyed households borrowed food or money from family members or neighbors. Furthermore, 27% had sent their children to eat with relatives or neighbors, a demeaning strategy for household heads, who are expected to feed their families. Both strategies can only be realized if long-standing relations of trust and mutual support exist among the slum-dwellers. This is also the

case with those engaged in “translocal livelihoods”, which reflect the multiple ties between migrant household members living in cities and those (still) living in rural areas (cf. LOHNERT and STEINBRINK 2005; GREINER and SAKDAPOLRAK 2012). We did not find evidence that the slum-dwellers had reduced the remittances they sent back to their rural families (COHEN and GARRET 2010). Rather, the food flows from the rural areas to the cities increased during the food price crises. 11% of the respondents stated that they had recently brought back food to the city after a visit to their home village. Overall this indicates that good social relations, in particular to family members no matter where they live, whether in the immediate neighborhood or rural homes, are a vital asset of the urban poor to be able to deal with times of crisis. In turn, socially excluded families and individuals find it a lot harder to cope with crises and to adapt their livelihoods.

6.3 The urban poor without transformative capacities

Although mechanisms to buffer the effects of food crises do exist in Bangladesh, in the case of the food price shock of 2007/08 they were inadequate to meet the needs of the urban poor. Public pressure led the interim government to once again implement a Public Food Distribution System that was originally instituted in Bangladesh (then East Pakistan) in the wake of the great famine in 1943. Under this system, food grain depots are maintained in rural districts. These depots are supplied through public procurement of domestic resources and through imports under food aid programs. The system serves to stabilize food prices. Moreover, food-for-work programs are intended to ease the situation for particularly vulnerable groups. In 2008, the government used its stocks and sold subsidized rice through so-called Open Market Sales (OMS). In addition the country’s National Guard (Bangladesh Rifles, BDR) also ran emergency markets in Dhaka. From either source, individuals could buy up to three kg of rice at 25 BDT per kg, while the market price for one kg was around 30 BDT or above.⁷⁾ However, the Public Food Distribution System did not reach the people that were most severely affected by the price hike. Only 15% of our interviewees bought food from OMS shops or BDR markets, while the majority

continued to buy food at normal market rates from bazaars and retail shops. The rationale behind this was that standing in a queue for hours in order to get subsidized food (see Photo 4), and thereby save some money, proved to be less effective than using the same time to earn more. The government’s emergency aid thus widely failed to effectively decrease the urban poor’s burden of rising food prices.

Moreover, no more than 3% of our interviewed households benefitted from governmental or non-governmental safety net programmes, which include cash or food transfers to those in need. In fact, the “Vulnerable Groups Feeding Programme”, one of the central government’s largest food aid schemes, is designed to target chronically food-insecure people and those severely affected by the impact of natural disasters. Most of the governments’ food aid and poverty alleviation programs focus exclusively on rural areas and leave vulnerable groups in cities unaided. This shows the rural bias in poverty reduction policy and development practice in Bangladesh (BANKS et al. 2011), a bias that the socio-economic hazard of rising food prices did not change. The vulnerable urban population fell through the cracks of the aid machinery. Against this background, people’s deep disappointment with the government becomes comprehensible. When being asked about the availability of external help to deal with the 2007/08 price inflation, 58% of the respondents stated that they had managed all their miseries by themselves, while 41% reported their families’ support. Remarkably, not a single person mentioned receiving any help from the government. People’s *transformative capacities* reflect their position of power in society and the



Photo 4: People queue up at a public food distribution point of the Bangladesh Rifles (BDR) in Dhaka in order to get subsidized rice during the food price crisis in 2008 (Photo: MARKUS KECK 06.02.2008)

⁷⁾ Interview with Mr. Hiran Maya Barai, Chief Controller of Dhaka Rationing, Dhaka, 21 January 2008.

(mal-)functioning of governmental security schemes in times of crises (see also ABHEUER et al. 2013 for the case of floods). We must conclude that Dhaka's poor hardly had any support from the state to help them endure the 2007/08 food crisis. This fact points to their marginal position of the *urban* poor in the public discourse on poverty alleviation, development and distributional justice (ibid.). The resilience of the largest group of Dhaka's population, the urban poor, is being refused.

7 Resilience refused

In 2007 and 2008, Dhaka faced a complex crisis that put urban food security at risk in many respects. But despite the coalescing of multiple negative factors, a catastrophe was prevented. Firstly, despite an *ecological crisis* in 2007, when severe floods and a tropical storm destroyed much of the country's paddy production, diverse supply networks, mutual support and trust-based relations enabled Dhaka's food traders to make sure that harvest losses and blocked access roads would not cause severe supply shortfalls in the city. Secondly, in 2007 and 2008, Bangladesh also experienced a *political crisis*, when a military-backed interim government took over the country for two years in an effort to re-establish law and order and to eradicate corruption throughout the political-economic system. Most visible among the interim government's actions were large-scale evictions of thousands of informal street vendors in the capital city. Nevertheless, due to their flexibility, their social capital and their ability to re-appropriate public places, the hawkers managed to maintain their provision of food services to Dhaka's workforce. Thirdly, in 2008, rising food prices severely affected the country's urban poor, with the price for (low value) coarse rice rising by more than 100% in less than two years. However, by reducing their food intake, by searching for additional income sources, and by relying on their personal networks, they successfully navigated this *economic crisis*, although at the cost of their own food security.

The meta-analyses of the three presented case studies (DE HAAN 2012) shows that flexibility, reciprocal networks and social capital are central for building resilience in Dhaka's food system. However, this holds true only for the presented actors' *coping* and *adaptive capacities*. As the case studies show, their opportunities to develop their *transformative capacities* remain widely blocked or are even non-existent. The people who make Dhaka's food system resilient

through their everyday practices and personal interactions may be "getting by", but they are not "getting ahead". We have identified three major barriers to their capacity to do so.

Firstly, despite the efficiency of their supply networks, many wholesale traders remain excluded from the formal banking system, relying instead on informal credits under onerous terms. In addition to that, they are forced to pay bribes to land brokers in order to enter markets – practices that end up negatively impacting the poor as these additional costs are passed on to the consumers.

Secondly, despite the role they play in providing prepared food to Dhaka's workforce, street food vendors have been evicted from public places as they run informal businesses that are seen as a threat to urban functionality and development. As a consequence, not only were thousands of livelihoods disrupted, but laborers' access to food was also put at risk.

Thirdly, there are currently no effective governmental food aid schemes that would help the urban poor to effectively overcome the burden of rising food prices. Consequently, the most vulnerable are left alone in the very situation in which governmental support would be needed the most.

The food crisis in Bangladesh did not result in a deeper understanding of the hardships of the urban poor on the part of the government; nor did it lead to a public outcry from those people who keep the city fed. This raises two questions: Why is meeting the basic needs of the country's urban poor not on the agenda of the central government? And how can the people of Bangladesh mobilize resistance against this ignorant state in order to improve their own food security and the resilience of Dhaka's food system as a whole?

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