

# Nutrition strategy for the Dhaka Food Systems Project

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This document provides the nutrition strategy for the Dhaka Food System project, which WUR implements with FAO over the period 2019 – 2023. The first chapter provides the rationale for developing a nutrition strategy and methodology. In chapter two a nutrition situation analysis is presented for the Dhaka Metropolitan Area (DMA). Chapter three describes the strategic pathways for the DFS project to contribute to nutrition outcomes in the DMA. These strategic pathways are related to the analytical framework used by the High Level Panel of Experts on Food Security and Nutrition to transform food systems for healthier diets. Chapter four describes the cross-cutting strategies needed to achieve the intended nutritional results. The last chapters add suggestions for the creation of an action plan for the Thematic Clusters.

Dit document geeft de voedingsstrategie voor het Dhaka Food System project, wat WUR met FAO implementeert over de periode 2019 – 2023. Het eerste hoofdstuk geeft de rationale voor het ontwikkelen van een voedingsstrategie en de methodologie. In hoofdstuk twee wordt een voedingssituatie analyse gegeven voor de Dhaka Metropolitan Area (DMA). Hoofdstuk drie beschrijft de strategische routes waarmee het DFS project kan bijdrage aan voedingsresultaten in de DMA. Deze strategische routes zijn gerelateerd aan het analyse kader wat wordt gebruikt door het High Level Panel of Experts on Food Security and Nutrition om voedsel systemen te transformeren voor gezondere diëten. Hoofdstuk vier beschrijft de strategieën die nodig zijn om de beoogde voedingsresultaten te bereiken. De laatste hoofdstukken voegen suggesties toe voor het maken van een actie plan for de thematische clusters.

Keywords: nutrition, Dhaka, urban food system, healthy diets, urban nutrition, food systems framework, food environment, affordable nutritious food, policy

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# Contents

<b>List of abbreviations and acronyms</b>	<b>5</b>
<b>1 Introduction</b>	<b>7</b>
1.1 Project background	7
1.2 Rationale for the nutrition strategy: Making the DFS project work for healthier diets	8
1.3 Objective	9
1.4 Methodology	9
1.4.1 Data resources	10
<b>2 Nutrition situation analysis in DMA</b>	<b>11</b>
2.1 Prevalence of malnutrition	11
2.1.1 Undernutrition	11
2.1.2 Micronutrient deficiencies	12
2.1.3 Overweight & obesity	13
2.2 Main causes of malnutrition in urban areas	14
2.2.1 Household food insecurity	16
2.2.2 Care and feeding practices	20
2.2.3 Environmental health and access to health services	21
2.2.4 Gender dynamics and nutrition	22
2.2.5 COVID-19 and nutrition	23
2.3 Mapping of stakeholders and ongoing interventions	24
2.4 Policy and governance landscape for nutrition in DMA	25
2.4.1 Nutrition policies	25
2.4.2 Governance structures for nutrition in DMA	26
<b>3 Nutrition narrative of the Dhaka food systems project</b>	<b>27</b>
3.1 DFS narrative on nutrition	27
<b>4 Cross cutting strategies to strengthen nutrition outcomes</b>	<b>32</b>
4.1 Recommended nutrition strategies	32
4.2 Specific recommendations per activity	35
4.3 Contribution to national policy objectives	35
<b>5 Next steps</b>	<b>36</b>
5.1 Application of the 4 cross cutting strategies	36
<b>Appendix 1</b>	<b>37</b>

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# List of abbreviations and acronyms

BCC	Behaviour Change Communications
BFSA	Bangladesh Food Safety Authority
BUHS	Bangladesh Urban Health Survey
CC	City Corporation
CHO	Chief Health Officer
DAE	Department of Agricultural Extension
DFO	Department of Fisheries
DFS	Dhaka Food System
DLS	Department of Livestock Services
DMA	Dhaka Metropolitan Area
DNCC	District Nutrition Coordination Committees
DSCC	Dhaka South City Corporation
EKN	Embassy of the Kingdom of the Netherlands
FAO	Food & Agriculture Organisation
FLW	Reducing food loss and waste
FM	Upgrading fresh markets
FSCA	Improving food safety and consumer awareness
FSPG	Strengthening food system planning and governance
FVC	Strengthening food value chains
GCC	Gazipur City Corporation
GHP	Good Hygiene Practice
HLPE	High Level Panel of Experts on Food Security and Nutrition
LGD	Ministry of Local Government, Rural Development and Cooperatives
LMIC	Low and Middle Income Countries
M&E	Monitoring & Evaluation
NCC	North City Corporation
NCDs	Non-Communicable Diseases
NFS	Promoting nutrition and food security
NIPORT	National Institute of Population Research and Training
NNS	National Nutrition Services
ToC	Theory of Change
SO	Strategic Objective
UNICEF	United Nations International Children's Emergency Fund
WB	World Bank
WCDI	Wageningen Centre for Development Innovation, Wageningen University & Research
WHO	World Health Organisation
WUR	Wageningen University & Research





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# 1 Introduction

## 1.1 Project background

The Dhaka Food System (DFS) Project of Food and Agriculture Organization of the United Nations (FAO) in collaboration with WUR and funded by the Embassy of the Kingdom of the Netherlands (EKN) in Bangladesh, aims to contribute to the development of a safe, sustainable and resilient food system for the Dhaka Metropolitan Area (DMA). DMA is collectively comprised of the North Dhaka City Corporation, South Dhaka City Corporation, Gazipur City Corporation and Narayanganj City Corporation. This will be achieved through an iterative action learning approach in 3 output pillars:

- Output 1: food system modelled for the DMA: to understand the current situation (baseline) of the demand, supply and institutional aspects of the food system. Identification of hotspots/leverage points where intervention could improve food system's performance.
- Output 2: strategic food agenda 2041 for the DMA developed; participatory meetings and workshops, multi-stakeholders and gender involvement.
- Output 3: interventions to improve the performance of the food system for the DMA developed.

The DFS project was formally signed in August 2018 but has effectively taken off in August 2019 and since then has further developed the project strategy. FAO and WUR team have taken a participatory approach for the identification of a Theory of Change (ToC), resulting in four elaborated ToCs addressing four strategic objectives:

- i) Improving access to food & nutrition security for the urban poor.
- ii) Strengthening the food market system and reducing food loss and waste.
- iii) Improving governance, planning, and management of food in the city.
- iv) Building awareness about food safety and strengthening community participation.

In addition, metropolitan food system policy development and food governance are defined as critical areas of intervention. The project aim is to form a DMA wide consultative group able to formulate and implement a Food Agenda 2041. Key players in the City Corporations will be brought together in CC working groups, as well as Government Ministries, utility and waste management agencies, the private sector, consumers and civil society, to form a common platform.

After the mid-term review of the project in 2021, the initiatives implemented under the DFS project were organized in 6 thematic clusters:

Thematic Cluster	Initiatives
1: Promoting nutrition and food security (NFS)	<ol style="list-style-type: none"> <li>1. Raising awareness of the urban poor on safe food and nutrition.</li> <li>2. Promoting rooftop gardening in DMA for improved nutrition.</li> <li>3. Urban gardening in four cities by the urban poor.</li> </ol>
2: Upgrading fresh markets (FM)	<ol style="list-style-type: none"> <li>1. Capacity of food market vendors strengthened on food hygiene, preservation, food safety, market safety and transportation.</li> <li>2. Providing online selling platform and access for wet markets for affordable and fresh foods safely GCC and NCC.</li> <li>3. Mobile courts enforce monitoring in fresh markets of DNCC, with support from City Government, BFSA, DLS, DAE and DFO.</li> <li>4. Seminar to share citywide food market assessment on fresh markets.</li> </ol>
3: Reducing food loss and waste (FLW)	<ol style="list-style-type: none"> <li>1. Strengthening the capacity of food market vendors, market management committees and City Corporation on food loss and waste reduction /management.</li> <li>2. Piloting waste segregation systems in selected fresh markets in DSCC.</li> <li>3. Piloting black soldier fly production to produce animal feed from fresh market organic waste.</li> <li>4. Seminar to share the use of biogas digesters to manage waste from fresh markets case study.</li> </ol>
4: Improving food safety and consumer awareness (FSCA)	<ol style="list-style-type: none"> <li>1. Improving the awareness of the street food vendors on food hygiene, preservation, and transportation.</li> <li>2. Supporting the implementation of a food safety grading system in selected hotels and restaurants in NCC and GC.</li> <li>3. Providing technical assistance to improve GHP in slaughterhouses.</li> <li>4. Establishing Farmer's Market at DMA (DNCC, DSCC GCC and NCC).</li> </ol>
5: Strengthening food value chains (FVC)	<ol style="list-style-type: none"> <li>1. Strengthening the capacity of value chain actors on the supply of hygienic and safe food.</li> <li>2. Create information linkages between wholesale and retail markets about the supply and price of food.</li> <li>3. Strengthening rural urban linkages by linking wholesale markets with production hub.</li> </ol>
6: Strengthening food system planning and governance (FSPG)	<ol style="list-style-type: none"> <li>1. Policies formulated and endorsed to strengthen urban food system planning.</li> <li>2. Strengthening institutional capacity to integrate food system thinking into urban planning.</li> <li>3. Developing Dhaka Food Agenda 2041.</li> <li>4. Institutionalizing the Urban Food Planning Unit in LGD.</li> </ol>

More information on each cluster can be found [here](#).

## 1.2 Rational for the nutrition strategy: Making the DFS project work for healthier diets

In the Dhaka Food Systems project document, malnutrition in all its forms is highlighted as a priority issue in urban areas. Poor urban households and disadvantaged groups in the informal low-income settlements particularly suffer from the chronic consequences of hunger and malnutrition<sup>1</sup>. Malnutrition is the number one risk factor driving most death and disability in urban Bangladesh<sup>2</sup>.

In that regard, the DFS project is building on national policies and seeks to adopt an approach consistent with the Bangladesh National Nutrition Policy and 7FYP (2016-2020) embracing the SGDs, poverty eradication, and the promotion of compact, networked, resilient, competitive, inclusive and smart urban development, including insurance of an adequate and stable supply of safe and nutritious food, enhance the purchasing power of people to increase food accessibility, and ensure adequate nutrition for all.

<sup>1</sup> Hoque, M. A., Sayeed, M. A., Ahsan, M. R., Mamun, M. A., & Salim, F. (2016). Nutritional Status among under-5 Children of a selected slum in Dhaka city. *Northern International Medical College Journal*, 7(2), 143-145. <https://doi.org/10.3329/nimcj.v7i2.29658>.

<sup>2</sup> Pedersen C, Remans R, Zornetzer H, De Hemptinne M, Brulé-Champagne E, Jensen S, Pedro C, Gonzalez W, Falla A, Laporte MA and DeClerck F. Game-changing innovations for healthy diets on a healthy planet: Insights from a Delphi Study. *Global Alliance for Improved Nutrition (GAIN). Working Paper #15*. Geneva, Switzerland, 2020. DOI: <https://doi.org/10.36072/wp.15>.

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Malnutrition leads to direct loss in productivity from poor physical status, indirect loss in productivity from poor cognitive development, and loss of resources from increased health care costs of ill health. Hence improving nutrition contributes to productivity, economic development, and poverty reduction by improving physical work capacity, cognitive development, school performance, and health by reducing disease and mortality.

## 1.3 Objective

The overall objective of a DFS Project Nutrition Strategy is to ensure that within the scope of the project nutrition security issues are adequately addressed. These include the ongoing high levels of both chronic and acute under-nutrition and micronutrient deficiencies, despite improvements in food availability and access, increasing overweight and obesity, especially among women and children, and the high cost of food and food preparation, especially for the residents of the informal low-income settlements. This last issue has drawn particular attention over the past year during the outbreak of COVID-19. The Nutrition Strategy aims to ensure that all project components are integrating approaches that contribute to or drive improved nutrition for the DMA population.

Subobjectives:

- To articulate the nutrition narrative of the DFS project, making its contributions to nutrition outcomes more explicit.
- To identify cross cutting strategies to integrate nutrition into existing activities and thus strengthen nutrition outcomes.
- To identify blind spots (where DFS project could contribute more to nutrition and what type of factors also affect nutrition which may diminish expected nutrition improvements).

## 1.4 Methodology

This nutrition strategy was developed along the following steps:

1. A nutrition context and situation analysis was conducted based on key informant interviews (internal & external, list of interviewee included in Annex 2), primary data from studies conducted under the DFS project (see 1.4.1) and secondary sources.
2. A first workshop was organized for relevant DFS project staff with the objective to share and validate the outcomes of the nutrition context and situation analysis.
3. Bilateral meetings were held with the FAO and WUR activity leads to discuss the implication of the findings of the situation analysis for their respective activities, and on adding nutrition considerations and action points for each activity (integrated with Gender Matrix).
4. Based on these conversations the Nutrition narrative was drafted as well as 4 cross cutting strategies to maximize contribution to improved nutrition outcomes.
5. A second workshop was organized to build capacity of the DFS team on the Nutrition Narrative (using a food systems perspective) and to plan, for each of the 6 thematic clusters, how the 4 cross cutting strategies to strengthen nutrition outcomes can be applied.

*This [video](#) was prepared for the mid-term review and briefly explain why and how the nutrition strategy was developed and what the 4 cross cutting strategies are.*

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### 1.4.1 Data resources

This situation analysis (referred to under 1.4 Methodology, step 1) is based on secondary literature and preliminary findings of primary research conducted as part of DFS project output 1; the Dhaka Consumer Survey and the DFS Urban poverty and food security research:

- The main secondary information sources have been (various editions of) the UNICEF Child Well-being survey for urban divisions<sup>3</sup>, the Bangladesh Household Expenditure and Income Survey, the Bangladesh Demographics and Healthy Survey and the Bangladesh Urban Health Survey (BUHS). In 2006, the National Institute of Population Research and Training (NIPORT) and others conducted the first ever BUHS, providing extensive data on adult and child health and nutrition outcomes and potentially relevant factors that are representative for slum and non-slum areas in city corporations as well as for district municipalities and large towns (NIPORT and others 2008). This survey was repeated in 2013 (NIPORT and others 2015). This survey disaggregates by city corporations (slum and non-slum), whereas the Bangladesh Demographic Health Survey (2017-2018) reports on a national average for the urban population.
- The DFS Dhaka Consumer Survey was conducted in 2020 in the four city corporations of DMA, including 2027 households from the following income groups; low poor, low middle poor, middle income and above.
- The DFS Urban poverty and food security study findings are based on 85 household visits, 7 Focus Group Discussions with community development committee members, two Cluster-level validation workshops and one city level validation workshops. The study was conducted during the period of October 2019-March 2020.

It is generally recommended in literature on urban health and nutrition that studies of slum health and nutrition should be treated as different from studies of urban health (Ezeh et al. 2017) in other parts of the city, as physical and social environments of slums may intensify the residents' nutrition and health risks. The BUHS has defined slums as settlements with at least 10 households with the following characteristics:

- Very high population density.
- Predominantly poor housing conditions.
- Poor water and sewerage conditions, or high sharing of water source and sewerage.
- Poor and very poor socio-economic conditions.

To the extent possible, the context and situation analysis of this strategy reports on slum and non-slum populations. However, for some of the indicators disaggregated data at this level was not (yet) available.

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<sup>3</sup> In addition, related to the collection of data on nutrition in urban areas, UNICEF is working on the harmonizing of urban nutrition data with the national Health Management Information System.

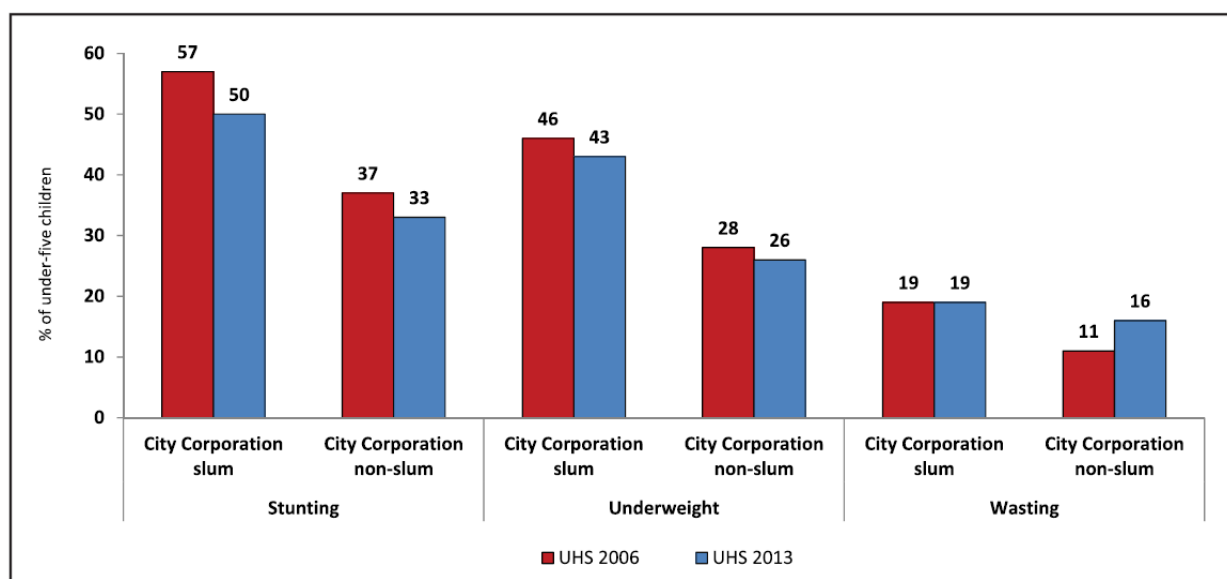
## 2 Nutrition situation analysis in DMA

Chapter two starts with an understanding of the prevalence of malnutrition in DMA and why this is a serious problem. The causes of malnutrition are presented in 2.2 and provide strategic and systemic entry points for improving malnutrition. In 2.3 a mapping is presented of nutrition stakeholders and ongoing nutrition interventions in Dhaka. Finally, in 2.4 the nutrition policy and governmental landscape is presented in 2.4.

### 2.1 Prevalence of malnutrition

#### 2.1.1 Undernutrition

**Child undernutrition rates are high, especially in slum areas.** This applies to all forms of undernutrition: stunting (height-for-age), underweight (weight-for-age) and wasting (weight-for-height) (Figure 1). The consequences of malnutrition go beyond poor health and wellbeing of these children now. Malnutrition, in all its forms, can impede mental and physical development of children, increase child morbidity and mortality, it can affect school performance and increase drop-outs. With that, high rates of malnutrition can have a long-lasting negative impact on the employability, lower productivity, household livelihoods, and economic development of the city.<sup>4</sup>



**Figure 1** Trends in prevalence of child malnutrition slum versus non-slum in Dhaka.

When looking more closely at the numbers on child malnutrition in DMA, we see not only that all forms of malnutrition are higher in slum areas compared to non-slum areas, but also that child malnutrition rates are, overall, decreasing between 2006 and 2013. Only wasting rates have *increased* in non-slum areas and are exceeding the WHO so-called 'emergency level' marked at 15%. However, the most recent numbers are already several years old and therefore it is unclear what the current status is.

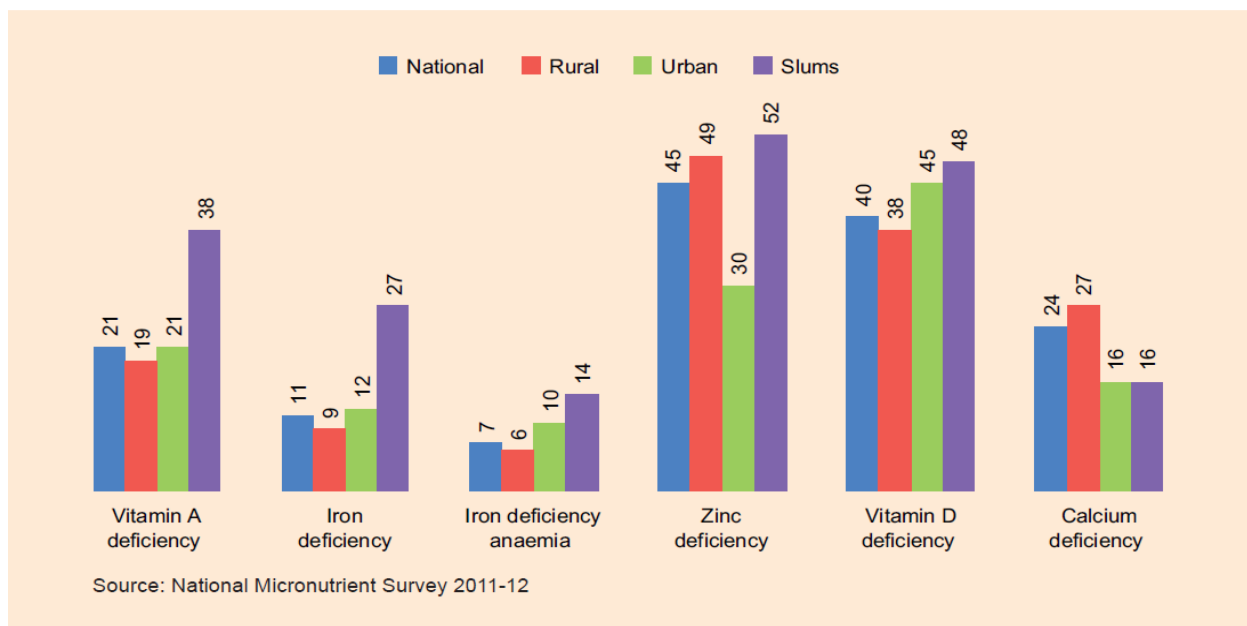
<sup>4</sup> Lancet 2013 Series on Maternal and Child Nutrition <http://www.sciencedirect.com/science/article/pii/S014067361360937X>.

Compared to rural areas, overall stunting rates in urban children are lower. However, when comparing slum areas with rural areas, we see that levels of child malnutrition are *higher* in slum areas<sup>5</sup>. Compared to other LMIC countries, Bangladesh scores worse compared to other LMICs on urban child stunting (World Bank, 2018).

These findings mean that when addressing malnutrition, it is of key importance that ultimately the populations in slum areas are benefitting from improved access to food and nutrition security. This is already an explicit focus on the DFS project and therefore a line to continue. Therefore, it is important to make explicit in the ToC how these groups are (directly or indirectly) reached.

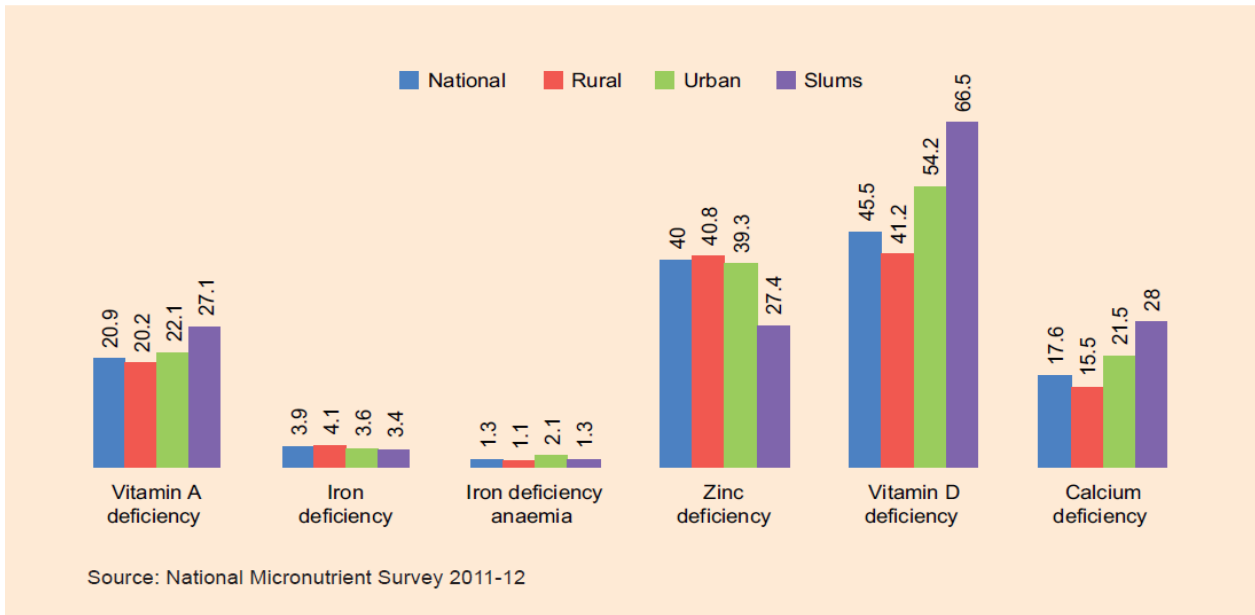
### 2.1.2 Micronutrient deficiencies

**Figure 2,3 and 4 below show that micronutrient deficiencies are highly prevalent in among young children and pregnant and lactating women in Bangladesh (which are at particular risk of developing micronutrient deficiencies), especially among slum dwellers.** According to the National Strategy on prevention and control of micronutrient deficiencies in Bangladesh “the major underlying causes of micronutrient deficiencies in all segments of the population are identified as household food insecurity, along with poor quality diet (predominantly plant-based foods and with minimum amount of animal foods); poor dietary diversity; lack of knowledge about food value and food diversity; intra- and inter-household disparity; gender inequality and inequity; and lack of social positioning of vulnerable and marginalised population. In addition, the predominant risk factors are identified as increase of rural to urban migration and population density, accompanied by a lack of basic living standards (water, sanitation, etc.); being a slum dweller or rural resident; poor knowledge about micronutrient-rich foods; lack of affordable diversified foods, especially animal food sources; and lack of awareness about the consequences of deficiencies and of the health benefits of adequate micronutrient intake. Many of these factors are addressed in the DFS project.

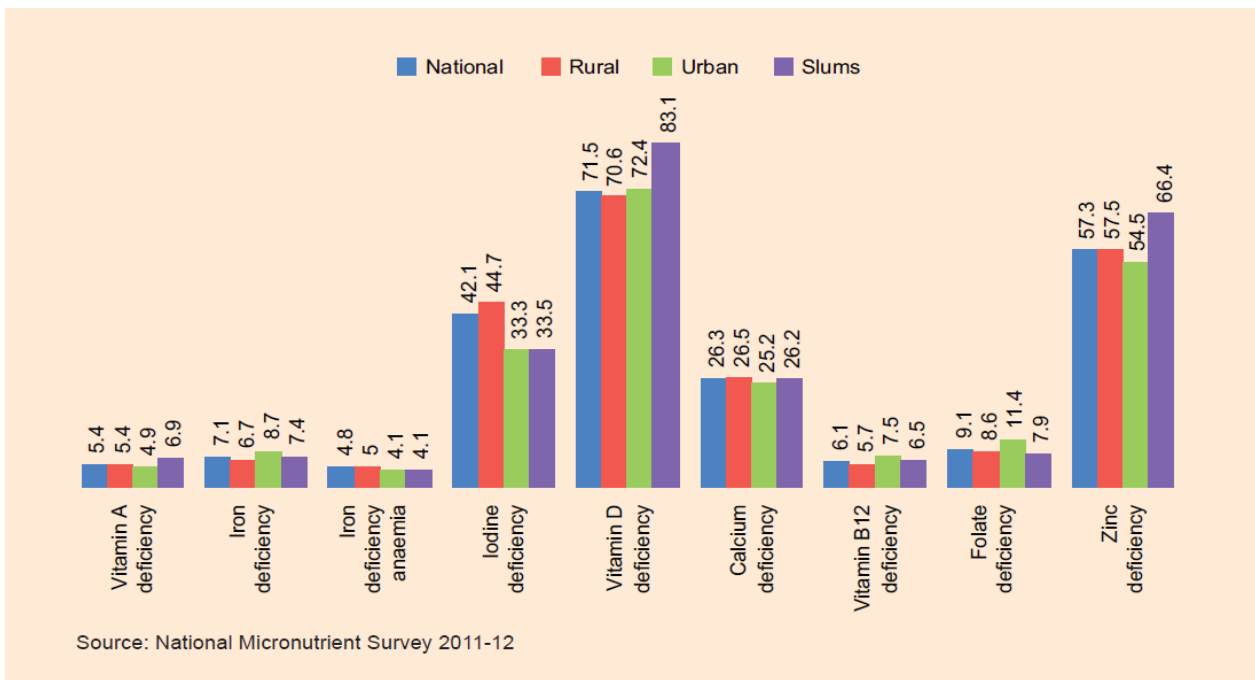


**Figure 2** Micronutrient deficiencies among children aged 6-59 months.

<sup>5</sup> Levels of moderate stunting at 48% for slum children versus 38% for rural children, and severe stunting at 23% versus 12% (BHDS 2014).



**Figure 3** Micronutrient deficiencies among School-aged children aged 6-14 Years.



**Figure 4** Micronutrient deficiencies among NPPL in Bangladesh.

### 2.1.3 Overweight & obesity

**Overweight and obesity are on the rise, and with that other non-communicable diseases.** Exact numbers on overweight, obesity and related diseases in DMA are limited, but between the early 2000s and 2018, overweight and obesity has more than doubled in Bangladesh to 2.2%. In the urban areas of the country rates are even higher with currently 14 out of 100 children being obese. Overweight and obesity increase the risk of the development of other non-communicable diseases such as type II diabetes, cancer and cardiovascular disease. This means that increasing rates of overweight and obesity will also bring an increase in co-morbidity, thereby impacting employability, livelihoods and placing increasing pressure on the healthcare system. When zooming in on overweight and obesity and related diseases (diabetes and hypertension) in Dhaka, we see that rates are generally higher in non-slum areas compared to slum areas.

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For female adults living in urban areas 19% is underweight, 25% is overweight, 12% has diabetes, and 28% suffered from hypertension<sup>6</sup>.

These findings suggest that, apart from focusing on undernutrition and micronutrient deficiencies, overweight and obesity should not be overlooked. The focus of the DFS is not on addressing overweight and obesity, but it is important to realise that improving access to food and nutrition security can benefit not only the urban poor, but also other groups in DMA by increasing access to a healthy alternative to foods that are high in fat, salt and sugar, which contributes to overweight and obesity. In addition, GIS mapping and scenario modelling could be used to assess the size and future projections of overweight, obesity and related non-communicable diseases in DMA to inform the Strategic Food Agenda 2041.

**Malnutrition issues are different per population group and geographic context and therefore require a tailored approach.** When looking at the different forms of malnutrition – undernutrition, micronutrient deficiencies, overweight/obesity – we see an emerging pattern in which people in slum areas are poorer populations who are predominantly affected by undernutrition, while non-slum resident and higher income groups are rather affected by overweight and obesity. What is also seen in other contexts, is that even within one household, different forms of malnutrition exist. This co-existence of all forms of malnutrition is called the triple burden and creates a level of complexity that requires an approach that is tailored to the unique setting in which you intervene.

## 2.2 Main causes of malnutrition in urban areas

There is biological vulnerability to malnutrition, such as among children or (pregnant and lactating) women, and chronically ill, who have increased nutrient requirements. In addition, certain households are more vulnerable due to their livelihood situation or geographic location.

Poor urban households and disadvantaged groups in the informal low-income settlements particularly suffer from the chronic consequences of hunger and malnutrition<sup>7</sup>. The BBS estimates that 21% of the urban population lives below the poverty line, one third in extreme poverty.

The following groups are vulnerable to malnutrition:

- Female headed households.
- Households without guaranteed income.
- People living in unregistered slums (as food donations are not provided).
- Bottom of the pyramid working in industries are vulnerable due to their lack of time and dependence on cheap unhealthy foods.
- Adolescents. Studies showed that their diets are low in diversity, and they suffer micronutrient deficiencies (GAIN) and since the COVID-19 crisis they face high levels of food insecurity<sup>8</sup> (FAO, 2020).

The analysis of main causes of malnutrition in urban areas follows the UNICEF model for determinants of malnutrition (Figure 5). The model shows that, in addition to household food insecurity, inadequate feeding and caregiving resources, unhealthy household environment and inadequate access to health services are other key determinants for malnutrition.

The following sections describe the underlying causes for malnutrition in urban areas, starting with household food insecurity, followed by inadequate caring practices, unhealthy household environment and inadequate access to healthcare, and gender dynamics. If available, data for urban slum populations is underlined, since this is the target group of DFS strategic objective 1.

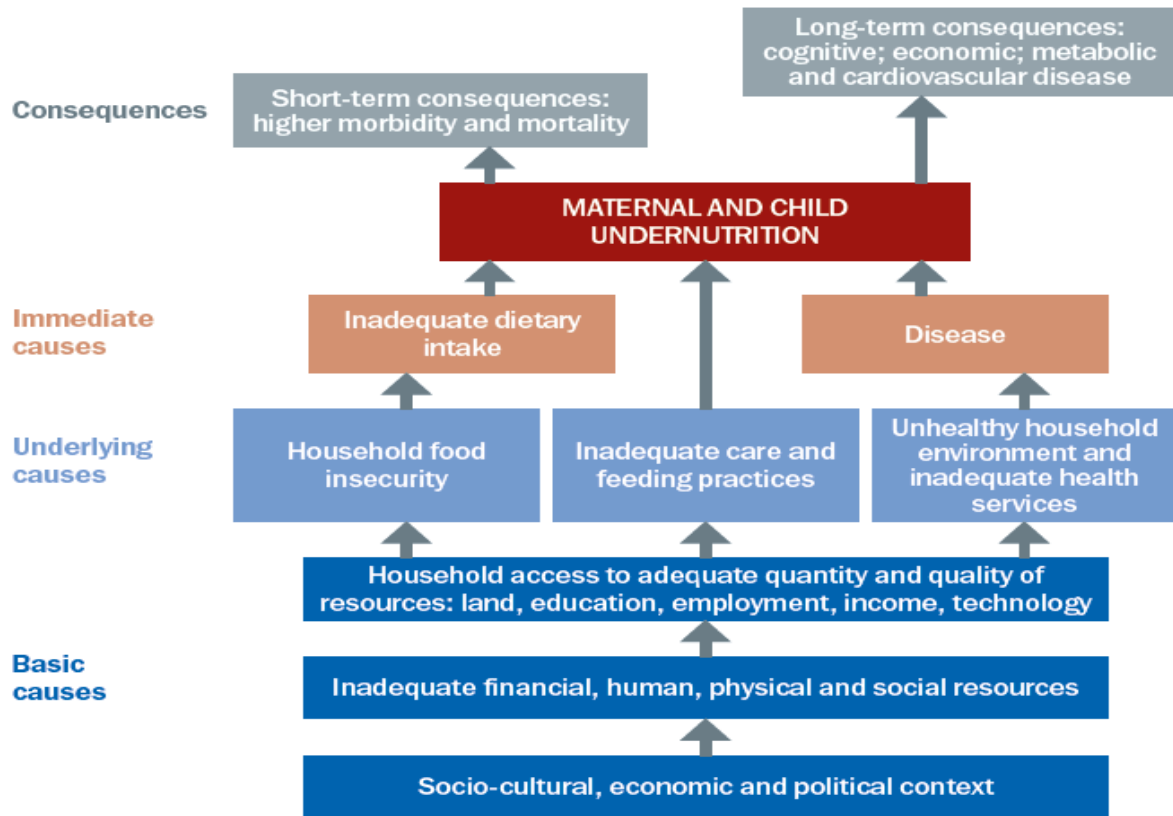
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<sup>6</sup> For female adults living in urban areas 19% is underweight, 25% is overweight, 12% has diabetes, and 28% suffered from hypertension (BDHS 2017-2018).

<sup>7</sup> Hoque, M. A., Sayeed, M. A., Ahsan, M. R., Al Mamun, M. A., & Salim, F. 2016. Nutritional Status among under-5 Children of a selected slum in Dhaka city. Northern International Medical College Journal, 7(2), 143-145.

<sup>8</sup> FAO. 2020. Second rapid assessment of food and nutrition security in the context of COVID-19 in Bangladesh: May – July 2020. Dhaka. <https://doi.org/10.4060/cb1018en>.





**Reference**

UNICEF. Improving Child Nutrition. New York, United Nation's Children's Fund (UNICEF), 2013.

**Figure 5** Conceptual framework determinant of child malnutrition.

## 2.2.1 Household food insecurity

This section will first discuss:

- Levels of household food insecurity and coping mechanisms

And then zoom in on the following factors determining household food security

- Food availability and sources
- Food affordability
- Food consumption patterns
- Drivers of food choices
- Processing, storages and preparation

### Prevalence of food insecurity

**Household food insecurity levels in DMA, are of concern, especially since the COVID-19 measure have been put in place. Harmful coping strategies for household food insecurity directly impacts diets, nutrition outcomes and livelihoods.** The 2020 Dhaka consumer survey used the Food insecurity Experience Scale to measure assessed experience-based household level food insecurity. They concluded that 19% of the households could be classified as food secure, 31% suffered from mild food insecurity, 36% from moderate food insecurity and 14% from severe food insecurity<sup>9</sup>. Food insecurity increases as income decreases.

### FOOD INSECURITY BASED ON THE FIES: WHAT DOES IT MEAN?



The table below presents the coping strategies reported by urban poor food insecure households in DMA<sup>10</sup>.

<sup>9</sup> The survey was conducted about 3 months after the first COVID-19 measures were put in place. Household food insecurity levels are expected to be subjected to change, partly as a result of changes in the COVID-19 measures. The DFS project provides regular updates on the food security situation.

<sup>10</sup> DFS Urban poverty and food security research (FAO-WUR, 2021).

Strategies that have been reported by urban poor to cope with household food insecurity are<sup>11</sup>:

Coping strategies	Potential harmful effect
Buying cheaper but less preferred food items (mostly lower quality vegetables).	The quality and diversity of the foods consumed may reduce, as a results, reduced intake of essential micronutrients. Also, these lower quality vegetable may be unsafe.
Buying lower quantities and less diversified food items staying within the limited budget of 30 TK (30 Tk is common daily food budget for urban poor in times of crisis). E.g. rice with mashed potatoes.	Reduction in overall food intake. Household members may fail to consume adequate amounts of proteins, fat, carbohydrates for energy, body maintenance and growth. Reduce dietary diversity compromises micronutrient intake.
Consumption of dried cheap food to fill the stomach (biscuit, puffed rice/muri).	These food provide mostly, or only, carbohydrates – commonly referred to as empty calories, as these food do not contribute to the daily required nutrient intake.
Prioritizing the children and men to have meals before women in the households.	Women risk inadequate food intake, undernourishment and micronutrient deficiencies. This will affect their, health, productivity, caring capacities and overall wellbeing.
Saving money by shrinking food and non-food related expenditure and depositing about 50 to 100 TK in their respective local saving groups as a strategy to ensure the food security for the households.	Saving money on non-food related expenditures health care, Non-food related expenditures on health are also important to nutrition. E.g. a healthy body is need to consume and absorb nutrients.
Borrowing money or taking loans from neighbours/relatives and financial institutions but they usually have to pay a very high interest to pay back those loans.	High interests on paying back loans affect the household monthly budget, hence the food budget. If paying back these loans is stretched out over a long time, household may face budgetary constraints to access preferred and nutritious foods for a longer time.
Selling assets or property (gold jewellery, land in their village).	These could be harmful strategies as these assets could have been a sources of income and are important in case of unexpected health costs.

## Food availability and food sources

**Wet markets are an important source of food, and used by all income groups, supermarkets more common among high income groups.** For most urban poor, especially slum dwellers, wet markets are the primary source of food, complemented by (mobile) food vendors for any items needed last-minute or on non-market days. Low quality, damaged and adulterated foods from the wet markets are channelled to the wet markets in the slum<sup>12</sup>. Poorer consumers, especially day labourers, often buy their food in smaller portions for the day itself, as they cannot afford to buy in bulk<sup>13</sup>.

For middle- and high-income households, food is purchased at a wide variety of locations. Supermarkets and convenience stores are popular, which offer more junk foods as compared to the traditional markets. Also, fast food shops or other options to eat out are often used by these income groups.

Mobile door-to-door vendors are used as a source of food by almost half of the population<sup>14</sup>.

**Around 15 percent of the households grow crops or vegetables or keep animals at their home or in a garden close to their homes<sup>15</sup>.** The share of households indicating that they engage in home gardening increased with income and almost all households (97%) consume their own produce. Key informants stress that it is only a small number of slum dwellers who have a small plot of land which is sometimes used for growing and selling vegetables. The number of residents benefiting from this opportunity is only a fraction of all slum dwellers and mostly limited to those who live in former rural areas in the north od Dhaka. Those who own a house sometimes rear livestock around their houses, such as chickens or a goat.

<sup>11</sup> DFS Urban poverty and food security research (FAO-WUR, 2021).

<sup>12</sup> Key informant interviews.

<sup>13</sup> Key informant interviews.

<sup>14</sup> 2020 Dhaka Consumer Survey.

<sup>15</sup> 2020 Dhaka Consumer Survey.

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## Food affordability

**Food expenditures as a share of total monthly expenditure declines as household wealth increases, being the highest for the low-poor income group (54%) and the lowest for the middle and above (48%).** The main food items purchased by the urban poor are rice, lentils, onion, pepper and small fish. Fruits, vegetables and other protein sources such as meat is only bought if the budget allows. The average share of food expenditure as part of total monthly expenditure is highest for households in Narayanganj City Corporation (60%) and lowest for households in Dhaka South City Corporation (44%)<sup>16</sup>.

**The daily allocated expenditure on food for most of the urban poor household's ranges from 100 to 150 Taka based on the family size and daily or monthly income of the households.** Hence, their ability to acquire diversified food for the household heavily depends on their capacity to afford diverse foods within this limited budget. In time of crisis, households reported that they reduce their daily food expenditure to 30 Taka<sup>17</sup>.

**Low and irregular income of the urban poor slum communities is the main determinant of their food insecurity and inadequate dietary intake.** Women in the study areas know the importance of good nutrition and knowledge on healthy eating practices, yet they often cannot access adequate quality and quantities of food. The other factors such as rising food prices, house rents, utility bills, cost of children's education along with unexpected emergency situations such as fire accidents, heavy rain fall, illness of (income providing) household members, loss of employment and debts, put further strain on the household budget for food<sup>18</sup>. Nonetheless, key informants report that slums dwellers make enough money for themselves and their family to not feel hungry, yet when it comes to providing a nutritious diet, they do not have the knowledge and skills to acquire the optimum variety of foods with a limited income. For example, to enhance their diets they will buy meat once a week, instead of less expensive but equally nutritious foods. Urban poor are often inclined to buy low priced foods with high food safety risks, which could make them more prone to health effects as a result of consuming unsafe foods.

## Food consumption patterns

**Urbanization drives the adoption of diverse diets but also an increase in highly processed food and high fat and carbohydrate foods.** A re-analysis of the HIES data of the past 20 years indicates that urbanization has increased the adoption of a more diverse dietary pattern and reduced the adherence to traditional and highly monotonous dietary patterns<sup>19</sup>. "However, with urbanization, decreasing family sizes, and the spread of education and employment among women, a major change has become evident in the food habits of the educated middle- to upper classes. They increasingly consume processed food items such as sauces, jams, jellies, pasta products, soft drinks, and fruit juice. Thus, the basis of a processed food market has been established".<sup>20</sup> Obesity is on rise, also among urban poor, as workers who do not bring their own food to work, rely on high fat and carbohydrate rich street food which often does not meet food safety standards. Across all wealth quintiles the consumption of junk food is very high. A number of studies show that school-going children, adolescents and university students are frequent consumer of processed foods, fast-food and street foods which reflected by the density of such food outlets around educational institutes and other places commonly visited by adolescents and young adults in urban and semi-urban areas in Bangladesh<sup>21</sup>.

**There is a Large disparity in consumption frequency of eggs, fish, liquid milk, fruits and meat products between poor/low-income groups and high-income groups.** Monthly consumption frequencies of a selection of food groups by income level in DMA is presented in Figure 6 below. The frequency of consuming pulses, green leafy vegetables and other vegetables does not seem to differ much

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<sup>16</sup> 2020 Dhaka Consumer Survey.

<sup>17</sup> DFS Urban poverty and food security research.

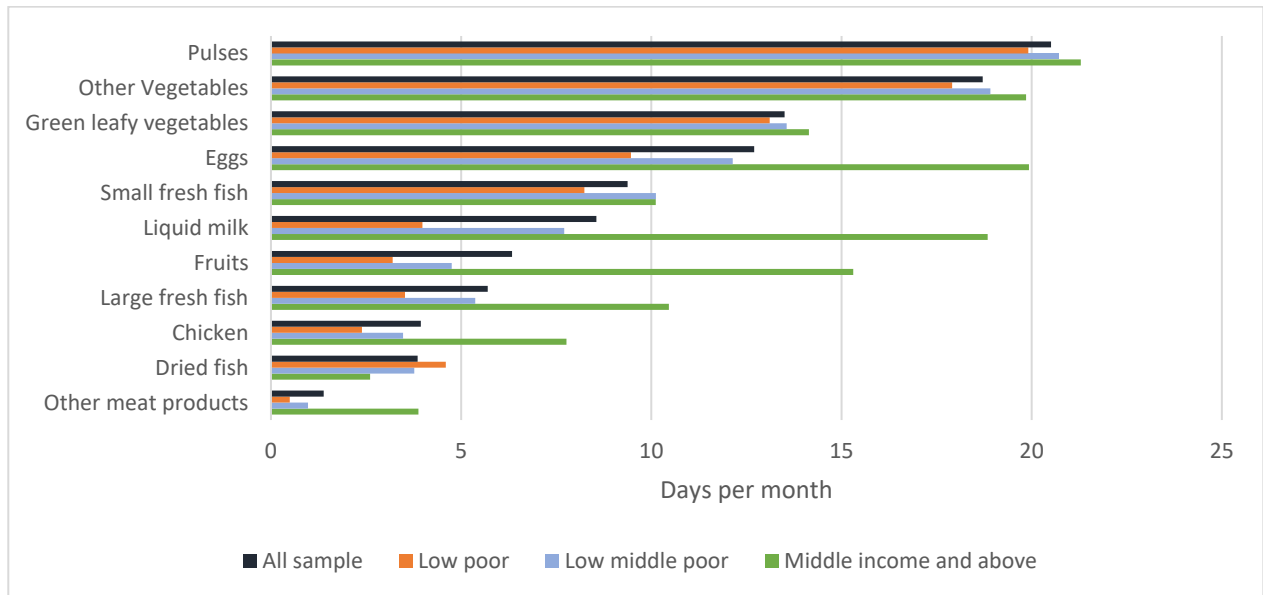
<sup>18</sup> DFS Urban poverty and food security research.

<sup>19</sup> Waid, J. L., Sinharoy, S. S., Ali, M., Thilsted, S. H., Gabrysch, S. (2019). Dietary patterns and Determinants of changing diets in Bangladesh from 1985 to 2010. *Current Developments in Nutrition* 3(4): nzy091.

<sup>20</sup> de Brauw, Alan; Waid, Jillian; Meisner, Craig A.; Akter, Fahmida; Khan, Bushra Ferdous; Alam, Nazmul; et al. 2019. Food systems for healthier diets in Bangladesh: Towards a research agenda. IFPRI Discussion Paper 1902. Washington, DC: International Food Policy Research Institute (IFPRI).

<sup>21</sup> idem.

between income groups. Yet, the consumption frequency of eggs, fish, liquid milk, fruits and meat products is considerably lower for the low poor and low middle poor group<sup>22</sup>. The Bangladesh Food based dietary guidelines recommends daily intake of most of these food groups. For urban poor households, meat, fish, fruits and dairy products are considered as the most expensive foods, hence are consumed occasionally, e.g. when guests come over or during festivities.



**Figure 6** Monthly frequency of food group consumption by income groups on household level<sup>23</sup> (other meats products included cow, sheep, and goat meat).

**Eating away from home is common and slightly increasing.** According to the Bangladesh HIES, the amount of food eaten away from home is slightly increasing and this trend is higher among the urban population (40% of food consumed) compared to rural areas (28% of food consumed)<sup>24</sup>. This trend fits more general hypotheses about the way dietary preferences shift towards processed foods and particularly towards ‘food away from home’ as incomes rise (Pingali, 2007)<sup>25</sup>. A similar observation in consumption of out of home foods was made for the population sampled in the 2020 Dhaka Consumer Survey, in which households ate outside their home on 12 days per month on average with little variation across income groups. The most frequently patronized outlet for out of home consumption are formal hotels (medium-small sized restaurants) followed by small neighbourhood restaurants such as mudi, dokan, and departmental stores. The most popular meals eaten away from home are the rice dishes: biriyani, khichuri and polao<sup>26</sup>.

### Drivers of food choices

**The main food choice motives that defined what consumers eat on a daily basis are (in order of importance) price, health benefit, perceived safety, convenience to acquire and prepare, and sensory qualities.** Environmentally friendliness of the foods and their effect on weight control are the least important motives. “The demand and desirability for nutritious foods are disproportionate. The market that is near, pricing, and mobility of people often determines what they eat” (Key informant GAIN).

<sup>22</sup> 2020 Dhaka Consumer Survey.

<sup>23</sup> 2020 Dhaka Consumer Survey.

<sup>24</sup> BBS 2017.

<sup>25</sup> de Brauw, Alan; Waid, Jillian; Meisner, Craig A.; Akter, Fahmida; Khan, Bushra Ferdous; Alam, Nazmul; et al. 2019. Food systems for healthier diets in Bangladesh: Towards a research agenda. IFPRI Discussion Paper 1902. Washington, DC: International Food Policy Research Institute (IFPRI).

<sup>26</sup> Nadhali project Food system analysis for the city of Dhaka. 2018.

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**Food taboos during prenatal and postnatal period are still relatively common in urban poor communities adversely impacting dietary intake of pregnant and lactating mothers with severe health consequences for mothers and babies.** Elderly household members, mothers in law in particular, impose food restrictions on their daughters or daughters in law. An example of these food taboos is the belief that if a mother increases her food intake during pregnancy, she will have complications during delivery because of the size of her baby.

**There is very little evidence on consumer's knowledge of food and healthy diets, in relation to recommended diets (e.g. dietary diversity, amount, nutrition requirement for different groups)<sup>27</sup>.**

### Food processing, storage and preparation

**Poor cooking facilities hamper urban poor households from safely preparing food.** Since the dwellers are in constant threat of eviction, they tend not to invest too much in communal spaces and most constructions are of temporary or semi-permanent in nature. Communal kitchen are often not connected to clear water and this results in unhygienic conditions, complicating safe food preparation. It is common for slum dwellers to share cooking facilities with 10 to 15 other families. Women spend considerable time waiting for the communal kitchen to be available. For that reason, they are only able to prepare meal just once a day, and use that meal for lunch and dinner, and in few cases, also for breakfast. Children often consume family meals which have been prepared several hours earlier and not stored safely, running the risk to consume contaminated food. Electricity and gas supplies are also inadequate. Gas burners are shared with 5 to 6 families. The gas pressure is adequate only during a small-time window (11pm to 6am)<sup>28</sup>.

**As a result of a lack of storing facilities, perishable foods cannot be stored safely.** The Dhaka Consumer Survey reports that, overall, the respondents believe that the major cause of suffering from diarrhoea was contamination of food consumed outside the home (39%), followed by food contaminated during preparation at home (38%), food contaminated during storage (28%), water contaminated (24%), and food contaminated during production/ on the market (14%). Household income has a direct positive impact on the ownership of consumable durables including refrigerators, freezers and microwaves<sup>29</sup>.

**Implications for the DFS project.** Efforts to ensure the availability, accessibility and safety of nutritious foods in the market will go to waste if the food cannot be properly utilized. For optimum utilization of the food, one needs clean water, and proper cooking and storing facilities. If the body falls sick, the body's utilization of the food – taking up and using nutrients for bodily functions – is compromised. Hence, one also require access to health care, proper sanitation and a hygiene environment to live in (see also 2.2.3).

### 2.2.2 Care and feeding practises

Inadequate care-giving and feeding practises are a major determinant of child malnutrition. The first 2 years of a child's life are particularly important, as optimal nutrition during this period lowers morbidity and mortality, reduces the risk of chronic disease, and fosters better development overall. WHO and UNICEF have developed clear guidelines for Infant and Young Child Feeding (IYCF) practises<sup>30</sup>. The main components of these guidelines are: early initiation of breastfeeding within 1 hour of birth; exclusive breastfeeding for the first 6 months of life; and introduction of nutritionally-adequate and safe complementary (solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond. Care giving practises are usually assessed as the proportion of children who receive care as per these guidelines. This section gives a snapshot of care and feeding practises according to data for urban areas in Bangladesh.

**Many infant and young children in urban areas, and particularly urban slums, do not receive optimal feeding.** Only one in four children aged 6-23 months in slums were fed with proper IYCF, compared to 40% for non-slum children. "Proper IYCF practises" include initiating timely feeding of solid or semisolid

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<sup>27</sup> Key informant interview: Inge Brouwer.

<sup>28</sup> DFS Urban poverty and food security research.

<sup>29</sup> Nadhali project Food system analysis for the city of Dhaka. 2018.

<sup>30</sup> Main components: early initiation of breastfeeding within 1 hour of birth; exclusive breastfeeding for the first 6 months of life; and introduction of nutritionally-adequate and safe complementary (solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond.

foods at age of six months and increasing the amount and variety of foods and frequency as the child gets older while maintaining breastfeeding<sup>31</sup>. As compared to girls, boys have had a higher likelihood of receiving both minimum dietary diversity and acceptable diet (combination of minimum dietary diversity and feeding frequency). Only about half of Dhaka division urban children age 0-5 months are exclusively breastfed<sup>32</sup>.

**The two main barriers towards providing adequate feeding and caring practises are lack of time (due to combination with work) and financial resources to acquire the foods.** Childcare is often the responsibility of women. A major proportion of women in urban poor communities are also engaged in informal and low-paid jobs such as garments worker, domestic housemaids, assistant in beauty parlours, tea vendors, food vendors (selling vegetables/snacks/fruits), or cleaner at government office or private company. Women who stay at home, are often involved in home-based work such as tailoring, hand stitching and embroidering<sup>33</sup>. Urban poor women find it difficult to combine work outside the home with care giving<sup>34</sup>. Figure 4 shows that under 5 children of working mothers are mostly either accompanying the mother to work, cared for by their grand-mother, or cared for by a friend/relative or neighbour<sup>35</sup>.

DFS Urban poverty and food security research showed that frequent NGO interventions, have increased awareness among mothers of the nutritional value of different kinds of foods, appropriate feeding times, good infant feeding practises and hygiene practices. Also, women living in the urban slums enjoy greater mobility and decision-making power related to food purchases. Yet, IYCF practises are inadequate, and the consumption of nutritious food is low. Competing expenditures, such as children’s education and housing, leave little resources for food purchases. Women cannot acquire the nutritious foods they desire for their children and other family members<sup>36</sup>.

**Table 1** Persons caring for the under-5 child of a working woman.

Domains	Mothers currently working		Persons caring for the childs of a women currently working outside home							
	Work outside home	Work at home of women	Number	Accompany mother to work	Father	Grandmother	Elder sister	Friend/ Neighbor/ Relative	Servant/ Other of women who work outside home	Number
City Corporation slums	22.1	5.0	5,391	22.5	6.2	28.5	18.9	21.3	2.5	1,153 (1,190)
City Corporation non-slums	10.6	3.2	7,903	19.9	3.1	34.8	15.3	21.3	5.6	287 (293)
Other urban areas	7.8	3.6	3,787	26.6	5.6	37.8	12.6	12.2	5.2	286 (294)

Among women age 15-49 with at least one child of age under five and who work outside home, the percentage who cared for the child by sample domains, UHS 2013.

### 2.2.3 Environmental health and access to health services

**Poor hygiene practises and sanitation hamper nutrition outcomes in DMA.** Households without proper sanitation facilities and hygiene practises have a greater risk of diseases, such as diarrhoea, dysentery, and typhoid, compared to households with improved sanitation facilities, eventually leading to malnutrition due to limited nutrition absorption. According to the Bangladesh DHS, only forty-two per cent of

<sup>31</sup> BUHS 2013.

<sup>32</sup> Child Well-Being Survey 2016, Divisional Reports. Bangladesh Bureau of Statistics and UNICEF Bangladesh 2016, Dhaka, Bangladesh.

<sup>33</sup> DFS Urban poverty and food security research.

<sup>34</sup> DFS Urban poverty and food security research.

<sup>35</sup> BUHS 2013.

<sup>36</sup> DFS Urban poverty and food security research.

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urban households have an improved<sup>37</sup> (not shared) toilet facility. Urban households that share toilets with several other households have lower child growth outcomes, this may be because these communal toilets are particularly unclean and poorly maintained<sup>38</sup>.

Hand washing is an important step in improving hygiene and preventing the spread of disease.

Interviewers of the BDHS 2017-2018 observed a place for washing hands in 99% of urban households. They observed the presence of water and either soap or a cleansing agent among half of the urban households (56%). Access to improved drink water sources similar for slum and non-slum (99% access to improved water sources)<sup>39</sup>.

**Health and nutrition outcomes are poorer for slum residents than for non-slum residents (except adult overweight, diabetes, and hypertension).** Slum women have higher rates of illness, are shorter and more likely to be underweight, have higher mental ill health scores, and difficulty with physical mobility than non-slum women<sup>40</sup>. A major concern for health is that COVID-19 measures and related fear is preventing people from visiting health clinics<sup>41</sup>. In addition, urban poor reported to not have any budget allocation for medical care. Hence, in times of unexpected health or other emergency, it is always the food budget that will be compromised with the optional choice of the budget cut on children's education if the unexpected, incurred costs are unmanageable<sup>42</sup>.

**Evidence to date suggests that service delivery for nutrition is poorly coordinated with little if any assessment of the quality of service.** Unlike rural areas, the responsibility for providing health and nutrition care in urban areas of Bangladesh lies with the LGD, MoLGRDC. However, rather than to undertake this responsibility themselves, most of the city corporations and municipalities, through the Urban Primary Health Care Service Delivery Project, outsource the delivery of the required services to NGOs.

Another key component for health is physical exercise. The opportunity for physical exercise in Dhaka are very limited<sup>43</sup>.

#### 2.2.4 Gender dynamics and nutrition

**Children born to child brides also have a higher risk of malnutrition than children born to older mothers.** The legal age of marriage for women in Bangladesh is 18, but a large proportion of marriages still take place before the woman reaches her legal age. The 2017-18 BDHS found that 55% of women age 20–24 were married before age 18. The percentage of teenager that has started childbearing in urban areas stood at 23% in the BDHS 2017-2018.

**The relaxing gender norms have enabled women to have more control over food purchases as well as determining the quality and quantity of food to be purchased.** The Dhaka Urban poverty and food insecurity study found that, although women in the study areas live in a patriarchal society, they enjoy relatively higher mobility and do not have to adhere strictly to the practice of 'purdah' as in other part of Bangladesh. Women are either in charge of purchasing food items for the household or tell their husbands what to purchase. Women are often considered as "having a better sense of how much money can be spend to ensure food for the family for the entire month". The Nadhali project concluded that "women are the key

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<sup>37</sup> Improved sanitation facility includes flush/pour flush to piped sewer system/septic tank/pit latrine, ventilated improved pit (VIP) latrine, or pit latrine with slab.

<sup>38</sup> The World Bank Govindaraj, Ramesh, Dhushyanth Raju, Federica Secci, Sadia Chowdhury, and Jean-Jacques Frere. 2018. Health and Nutrition in Urban Bangladesh: Social Determinants and Health Sector Governance. Directions in Development. Washington, DC: World Bank.

<sup>39</sup> Child Well-Being Survey 2016, Divisional Reports. Bangladesh Bureau of Statistics and UNICEF Bangladesh 2016, Dhaka, Bangladesh.

<sup>40</sup> The World Bank Govindaraj, Ramesh, Dhushyanth Raju, Federica Secci, Sadia Chowdhury, and Jean-Jacques Frere. 2018. Health and Nutrition in Urban Bangladesh: Social Determinants and Health Sector Governance. Directions in Development. Washington, DC: World Bank.

<sup>41</sup> Key informants.

<sup>42</sup> DFS Urban poverty and food security research.

<sup>43</sup> Key informants.



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decision makers in the household in determining what food is to be purchased, prepared and cooked in the household even although they may not execute the purchase”.

**Yet, despite the relaxation in gender roles, women reported to often eat ‘last and least’ as they prioritize feeding their children and husbands.** This creates the unequal food distribution at the household level. Also, generally no special treatment (in terms of care and food intake) is provided by husbands and/or other family members for pregnant and lactating women<sup>44, 45</sup>.

### 2.2.5 COVID-19 and nutrition

**The COVID-19 pandemic has revealed vulnerabilities in the food system that impacted nutrition security, thereby not only affecting the poor, but also those who were only just managing.** This means that disruptions in the food system ultimately impact health and nutrition of the most vulnerable groups in society. The pandemic has revealed that this is a broader group that encompasses many more households than those ‘typically’ considered to be vulnerable to malnutrition. Considering the long-lasting impact of malnutrition, especially at a young age, strategies to increase resilience to shocks like the COVID-19 pandemic, are key. A number of impacts that directly or indirectly impacted nutrition of the DMA population are described below.

**As a result of the lockdown early 2020, entire food chains were disrupted, especially chains of perishable products such as fish, chicken, dairy and vegetables.** On the one end of the chain farmers received lower prices for their products, while on the other end demand for food decreased because of limited operating hours of shops, decreased customers visits to wet markets, transportation issues and labour shortages<sup>46</sup>. Simultaneously, shortages in supply affected the prices of products such as eggs, vegetables and broiler meat.

**Loss of jobs in the formal and informal sector has led to a decrease in purchasing power** across households but especially among poorer households, up to an estimated 70% loss of income<sup>47,48</sup>. Food expenditure decreased by 22% in rural households and 28% in urban households, findings that are confirmed by the Dhaka Consumer Survey. Almost 60% of the respondents, received money or food support since the start of the Covid-19 crisis.

**Consumer visited food outlets less frequently and spent less money.** Due to increased food prices, but also misinformation around the spread of the COVID-19 virus, a reduction in protein consumption was noted. Especially poorer households and households with unpredictable income increasingly opted for cheaper and less nutritious foods and reduced intake of broiler meat, chicken and fish, important sources of protein<sup>49</sup>. Reduced consumption of nutritious food is more common among households in the low-poor income group than households that are middle or high income<sup>50</sup>. On Dhaka’s wet markets, overall demand for essential food commodities such as rice, vegetables, eggs, fish and lentils reduced, which was mainly linked to changed consumer behaviour such as reducing food intake or skipping meals. This was especially the case during the lockdown period in spring 2020.<sup>51</sup>

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<sup>44</sup> DFS Urban poverty and food security study.

<sup>45</sup> HKI 2016.

<sup>46</sup> Idem.

<sup>47</sup> Income of the extremely poor, moderate poor and vulnerable is estimated to have dropped by 70% during this crisis (Rapid country assessment: Bangladesh. The impact of COVID-19 on the food system. Wageningen University & Research, Global Alliance for Improved Nutrition and CGIAR Research Program on Agriculture for Nutrition and Health (17 July 2020)).

<sup>48</sup> It is estimated that 51% of the population in Dhaka had no income at all. (FAO. 2020. Second rapid assessment of food and nutrition security in the context of COVID-19 in Bangladesh: May – July 2020. Dhaka. <https://doi.org/10.4060/cb1018en>).

<sup>49</sup> Rapid country assessment: Bangladesh. The impact of COVID-19 on the food system. Wageningen University & Research, Global Alliance for Improved Nutrition and CGIAR Research Program on Agriculture for Nutrition and Health (17 July 2020).

<sup>50</sup> Dhaka Consumer Survey.

<sup>51</sup> FAO. 2020. Second rapid assessment of food and nutrition security in the context of COVID-19 in Bangladesh: May – July 2020. Dhaka. <https://doi.org/10.4060/cb1018en>.

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**In the range of assessments conducted to map the impact of COVID-19 on the food system, a number of vulnerable groups in and around urban areas have been identified that are particularly affected by COVID-19 measures and health risks:**

- **Slum dwellers and urban poor.** This population is likely to have fewer reserves, has lower job security and is therefore more vulnerable to food price shocks. The food basket price for urban slum dwellers increased by almost 5% in the first half of 2020<sup>52</sup>.
- **Migrant workers.** Migrant workers are affected by lack of work, impacting their livelihood, health and nutrition. Large numbers of migrants returned to their home villages in rural areas<sup>53</sup>.
- **Children.** Especially in low-income households.
- **Workers in food value chains.** Especially (mobile) food vendors.
- **Female-headed households.** In urban areas, female-headed households experienced a reduction in household expenditures, and many women working in the garment sector are left without a job<sup>54</sup>.
- **Workers in the informal sector.** Poor households who main income earners worked in the informal sector (and garment) were affected most as these sectors were hit severely by the lockdown<sup>55</sup>.

**These changes in value chains, employment, livelihoods and coping mechanisms by consumers will inherently impact the quality and diversity of diets, and intake of protein- and micronutrient-rich foods across these different groups in society.** This is also shown in a study by IFPRI and IFAD: dietary diversity among youth in the Dhaka region was among the lowest compared to other areas in Bangladesh. These findings imply a considerable nutrient inadequacy among youth, with risk of micronutrients deficiency as a result. This in turn can lead to immune impairments and increase vulnerability for infections. Although this study focused on youth, these findings may form a proxy for the (low) dietary diversity and consequent risks at household level.

Although the impacts of the COVID-pandemic are still crystalizing, this crisis shows underlying vulnerabilities in Dhaka's food system, its resilience to sudden shocks and which groups are more exposed to negative impacts than others.

**By applying a food systems lens, the DFS project is already working on different elements in the food system that can ultimately contribute to increased resilience and improved nutrition outcomes.** For example by improving value chains and making them more safe, efficient and reliable, or by diversifying food sources through urban gardening. But also modelling scenarios that assess vulnerabilities and give input for targeted interventions to increase nutrition security, especially for specific vulnerable populations. Making the pathways from such activities to improved nutrition and health explicit can support the narrative behind these efforts. It places these project activities in a bigger picture where improvements in the food system are seen as an investment in a more resilient system in which physical and financial access to nutritious food is safeguarded for all, also in times of crisis.

## 2.3 Mapping of stakeholders and ongoing interventions

The stakeholder and ongoing interventions were mapped using information from interviews with key informants, websites of development partners, and minutes of City Working group meetings. An overview has been included in Appendix 1.

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<sup>52</sup> Idem.

<sup>53</sup> Idem.

<sup>54</sup> PPRC-BIGD, "Livelihoods, coping and support during COVID-19 crisis", April, 2020.

<sup>55</sup> Dhaka Consumer Survey.

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## 2.4 Policy and governance landscape for nutrition in DMA

### 2.4.1 Nutrition policies

The main Bangladesh and Dhaka national and subnational policy documents relevant to nutrition are:

- National Food and Nutrition Security Policy of Bangladesh 2020.
- 7th five year plan (7FYP)<sup>56</sup>. Through the four key sectors (1) Agriculture (Crop and Non-crop); (2) Environment and Climate Change; (3) Health, Nutrition and Population Development; and (4) Social Protection. The Plan attributes the success in reducing child malnutrition to multi-sectoral efforts and notes that further progress requires continued, concentrated efforts that address the multicausality of malnutrition.
- National nutrition policy 2015. The policy objectives of the National Nutrition Policy 2015, specifically aim to:
  - Improve the nutritional status of all citizens, including children, adolescent girls, pregnant women and lactating mothers.
  - Ensure availability of adequate, diversified and quality safe food and promote healthy feeding practices.
  - Strengthen nutrition-specific, or direct nutrition, interventions.
  - Strengthen nutrition-sensitive, or indirect nutrition, interventions, and;
  - Strengthen multi-sectoral programs and increase coordination among sectors to ensure improved nutrition.
- The NAPN2, has identified a set of evidence-based strategies to fulfil these objectives. The Plan follows a life cycle approach and targets the following priority groups; The first 1000 days, from conception up to 23 months of a child; Adolescent girls; Pregnant and lactating women; Elderly population; Physical, mental & cognitive disabled.
- The second National Plan of Action for Nutrition (NPAN2) 2016-2025 which translates the provisions of National Nutrition Policy 2015 into sectoral strategies, key action areas and major activities.
- Country investment plan CIP2. This multisectoral investment plan describes five areas for investment to address hunger and malnutrition. These areas reflect an overall shift towards addressing malnutrition in all forms, not only focusing on self-sufficiency. Yet, none of the investment programmes related to nutrition in the CIP2 pay specific attention to the urban context. For the DFS project, the relevant CIP2 pillar is Investment pillar III – Improved dietary diversity, consumption and utilisation for which the three priority interventions are:
  - III.1.1. Scale up nutrition training, behaviour change communications (BCC) for enhanced knowledge, safe storage, household processing and improved consumption.
  - III.1.2. Prevent and control non-communicable diseases (NCDs) and ensure healthy diets through promotion of dietary guidelines linked with national NCD strategies and related nutrition services.
  - III.1.3. Knowledge based tools and research on the development and promotion of nutrient dense recipes using local foods for enhancing diversified food consumption to reduce stunting, wasting and micronutrient deficiencies.
- National Strategy on the Prevention and Control of Micronutrient Deficiencies Bangladesh (2015-2024).
- Bangladesh School Feeding policy.
- Bangladesh Government Adolescent Health Strategy. This strategy includes key nutrition interventions for adolescents.
- National Social Security Strategy. This strategy aims to lower the risks faced by vulnerable people including a reduction of their nutritional vulnerability. The NPAN seeks to orient social safety net program (including one farm, one house program) towards nutrition.

**Until now, health and nutrition policies and programs in Bangladesh have focused largely on providing health services to rural areas.** National nutrition action plans tend to overlook urban-specific issues for food security and nutrition, suggesting that agreed strategies for improved nutrition have a similar focus in both urban and rural areas<sup>57</sup>. Consequently, urban populations, and especially the urban poor, have not enjoyed sufficient access to quality health and nutrition services. At this moment, there is no policy in

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<sup>56</sup> General Economics Division (2015). Seventh Five Year Plan FY2016-FY2020: Accelerating growth, empowering citizens. Planning Commission, GoB.

<sup>57</sup> Hussain, A.M.Z. and Talukder, T.A. 2015. Nutrition Background Paper to inform the preparation of the 7th Five Year Plan, UN REACH Bangladesh.

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place to provide guidance as to how the health system should work in city corporations and municipalities. The World Bank recommends for an urban health (& nutrition) policy, which should include a strong focus on the needs of slum residents, and should consider unique urban governance structures and the needs of a working population. **The policy should recognize that non-health determinants of health and nutrition outcomes** (such as **access to safe and nutritious food**; household income; mothers' education attainment; and water, sanitation, and hygiene infrastructure and services) are important to improving nutrition and health. Thus, the policy should cover the roles and responsibilities of other nutrition and health-sensitive ministries, including food, education, housing and public works, and water resources<sup>58</sup>.

**The NAPN2 and 7FYP highlight the vulnerability of urban slums and mark disparities between urban non-poor and urban poor/slum dwellers when it comes to the prevalence of malnutrition.**

Low coverage of health and nutrition services for slum and street dwellers due to absence or paucity of service facilities, and minimal access to safe drinking water as well as sanitation services are mentioned as the major causes of under-nutrition in urban slums. The NAPN2 as well as the 7FYP underline the slow progress in establishing a coordination mechanism that will help smoothen the process of urban health services. The policies call for strengthened coordination between MOHFW, MOLGRD&C and relevant ministries as well as NGOs to ensure delivery of essential and comprehensive nutrition service packages in urban areas with special focus to the urban slums. The services should be complemented by a nutrition-sensitive social protection program, access to balanced and diversified diets as well as WASH services.

Key informants report that an advisory groups has been tasked with the development of an urban nutrition strategy for the NNS. This strategy should inform the NNS on their activities in urban areas.

**The DFS project is designed to seek alignment with national policies and existing efforts to translate nutrition objectives at DMA level. The City Food Councils and CGUFSS have the potential to serve as key governance structures to make these linkages.**

#### 2.4.2 Governance structures for nutrition in DMA

With technical support from LIUPC project of UNDP, Dhaka North City Corporation has formed a **multi-sectoral City Nutrition Coordination Committee** in February 2020, a total 22 organizations from Government, UN Agencies, NGOs and Civil Society who are working on nutrition and or health became members of the committee. This committee is chaired by the Chief Health Officer (CHO) of the City Corporation, and the City Mayor is the Chief Advisor of the Committee, the UNDP town managers is the secretary of the committee. Other sectors, such as livestock and health are also represented in the committee, as well as the chairpersons of the town federations. UNDP has conducted a capacity assessment to identify capacity gaps and needs of these committees, and plan to provide capacity support based on this assessment. Meanwhile the multi-sectoral City Nutrition Coordination Committees have also been established in NCC, DSCC and GCC.

The purpose of the Multi-sectoral Nutrition Coordination Committees is to strengthen coordination among the health and nutrition service providers and stakeholders for ensuring efficient and effective nutrition services among the most deprived populations and to support in mainstreaming the essential package of National Nutrition Services (NNS) by following national standards<sup>59</sup>. Multi-sectoral Nutrition Coordination Committees are supposed to prepare a multisectoral nutrition plan for their CC. UNDP also provides financial support for the implementation of this plan. There are examples of Multisectoral Nutrition Coordination Committees which effectively lobbied for the recruitment of a Nutritionist in the municipality<sup>60</sup>.

According to key informants, the NNS is supposed to be coordinating on urban nutrition interventions, however, there is still quit some confusion on who is doing what and on the take up of these interventions.

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<sup>58</sup> The World Bank Govindaraj, Ramesh, Dhushyanth Raju, Federica Secci, Sadia Chowdhury, and Jean-Jacques Frere. 2018. Health and Nutrition in Urban Bangladesh: Social Determinants and Health Sector Governance. Directions in Development. Washington, DC: World Bank.

<sup>59</sup> Food agenda briefing note DNCC.

<sup>60</sup> Key informant UNDP.

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## 3 Nutrition narrative of the Dhaka food systems project

### 3.1 DFS narrative on nutrition

In order to understand how DFS objectives and activities can contribute to nutrition outcomes, *The High Level Panel of Expert Framework for Food systems and nutrition* is a helpful tool. Figure 7 below shows how food system activities, through the supply chain, the food environment, consumer behaviour, and diets eventually affect health and nutrition outcomes<sup>61</sup>. These activities interact with a range of drivers (social, economic, political, environmental etc), but also the policy landscape and governance.

The framework highlights the central role of the food environment in facilitating nutritious, healthy and sustainable consumer behaviour. The food environment refers to *the physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food*<sup>62</sup>. The key elements of the food environment that drive consumer choices are the availability and physical access, affordability, and acceptability of food, information, guidelines and advertising, food quality and food safety, and policy conditions.

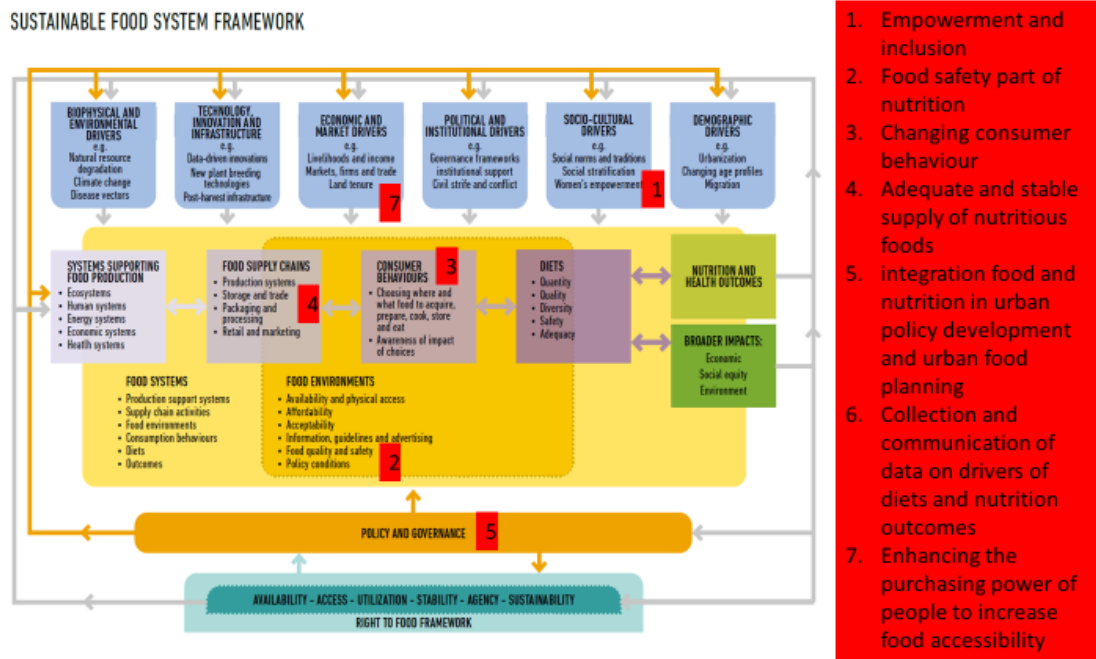
DFS project aims to make a positive impact on different food system elements, from value chain to consumption to policy and governance. Yet, as shown in the framework, these impacts ultimately affect the *food environment* of the DMA population: this is where all efforts of the DFS project come together. These improvements in the food environment, in combination with DFS efforts to leverage behaviour change of urban consumers toward healthy (food) choices, will lead to healthier diets, that meet energy needs, provide a diversity of foods of high nutritional quality and are safe. Healthy diets are essential to prevent malnutrition in all its forms (undernutrition, micronutrient deficiencies, overweight and obesity). By contributing to healthy diets, the DFS project is not only contributing to *prevention* of health problems such as underweight and stunting and to diet-related NCDs such as diabetes, coronary heart disease, cancer and stroke<sup>63</sup>. In fact, by contributing to consumption of nutritious food, the project is investing in a healthier DMA population that has opportunity to learn, work and thrive, now and in the future.

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<sup>61</sup> The feedback loop in the framework however, shows that food systems, through diets, give rise to a variety of outcomes. These relate not only to nutrition and health, but also to all the dimensions of sustainability, which in turn link back to the food system drivers.

<sup>62</sup> HLPE 2017.

<sup>63</sup> Idem.



**Figure 7** Sustainable Food Systems Framework.

The next section describes how the DFS strategic objectives (SO) and initiative within the 6 thematic clusters contribute to improved nutrition outcomes in the DMA.

**DFS strategic objectives and outputs**

Strategic objectives:

- i) improving access to food & nutrition security for the urban poor;
- ii) strengthening the food market system and reducing food loss and waste;
- iii) improving governance, planning, and management of food in the city;
- iv) building awareness about food safety and strengthening community participation.

Output areas:

Output 1: Interactive models for the Dhaka food system  
 Output 2: Strategic food agenda for Dhaka 2041  
 Output 3: Interventions in DMA food system

Thematic Cluster 1: Promoting nutrition and food security (NFS)  
 Thematic Cluster 2: Upgrading fresh markets (FM)  
 Thematic Cluster 3: Reducing food loss and waste (FLW)  
 Thematic Cluster 4: Improving food safety and consumer awareness (FSCA)  
 Thematic Cluster 5: Strengthening food value chains (FVC)  
 Thematic Cluster 6: Strengthening food system planning and governance (FSPG)  
 More information on the thematic clusters can be found [here](#).

**1. The DFS project supports inclusiveness and develops the capacity of women & youth. This capacity is key for women & youth, as to produce, process, purchase, and prepare nutritious foods, as well as for ensuring equitable intrahousehold food distribution.** Women often prioritize men and children for food intake, especially in times of shock. Pregnant and lactating women are not receiving the additional foods they require. Women are a vulnerable group when it comes to malnutrition and women and youth face barriers towards participation in food supply chains. The DFS project engages men, and women, and youth in project design and implementation.

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This helps to already take specific nutrition needs of men, women and youth into account. The Gender strategy of the DFS project has identified a number of activities to address the genders dynamics related to production, processing, purchase, preparation and intrahousehold distribution of food (SO1&SO2, Thematic Cluster NFS).

Also, the DFS project helps to put the needs of groups vulnerable to malnutrition on the agenda for local governance, planning and management of food in the city, such as the Urban Food Agenda (SO3, Thematic Cluster FSPG).

**2. The DFS promotes food safety at multiple levels, and food safety is an part of nutrition.** Healthy diets are safe diets. Unsafe food creates a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly, and the sick. By promoting food safety and hygiene, the DFS project aims to eventually reduce the spread of food borne disease and related health hazards - the latter which can hamper nutrient absorption and utilization by the body, leading to malnutrition. A reduction of the frequency of health hazards as a result of unsafe food, will help to make people less vulnerable to malnutrition.

The DFS project activities promote best practices to ensure food safety at the following levels:

- At (urban poor) consumer behaviour level by increasing knowledge about safe and high risk foods through community training and awareness campaigns (SO1&SO4, Thematic cluster NFS).
- At the level of food vendors; (i) on wet markets (food environment) by building capacity of food market vendors on hygiene practises and the introduction of regular monitoring of food safety at the markets through mobile courts (Thematic Cluster FM) and (ii) for street food vendors by improving their awareness on food hygiene, preservation and transportation.
- At the level of hotels and restaurant through training and a food safety grading system (SO2, and Thematic Cluster FSCA).
- In slaughter house through the provision of training on Good Hygiene Practises (Thematic Cluster FSCA).
- Throughout the entire value chains by strengthening the capacity of value chain actors on the supply of safe and hygienic food (Thematic Cluster FVC).

**3. The DFS project implements targeted communication campaigns and trainings to positively change consumer behaviour toward healthier food choices.** The campaigns and trainings, implemented under SO1 and Thematic Cluster NFS, will target vulnerable groups for malnutrition such as slum dwellers, urban poor, women, and adolescents. Their aim is to:

- Raise awareness on the importance of nutrition for growth and development.
- Enhance willingness to pay for nutritious foods.
- Transfer knowledge on nutrition requirements for different household members, the nutrition value of certain foods.
- Discourage the consumption of unhealthy foods at home and away from home (as overweight and obesity rates are on the rise in Dhaka).
- Promote empowerment to increase demand for nutritious foods. As a result, consumers should be able to make well informed choices when it comes to food purchases, preparation and consumption.

The awareness campaigns are informed by evidence generated under DFS output area 1, where a thorough consumer behaviour study is conducted among consumers of different socio-economic classes living in the DMA.

The awareness raising campaign will have a greater likelihood to change consumer behaviour and result in healthier diets, as the DFS project combines behaviour change activities with efforts to make positive changes in the food environment (availability/affordability/safety and quality of foods).

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#### **4. The project strengthens adequate and stable supply of safe and nutritious food, which upgrades the food environment of DMA population/vulnerable groups.**

Healthy food environments enable consumers to make nutritious food choices with the potential to improve diets and reduce the burden of malnutrition. A number of DFS activities will help to increase the supply of safe and nutritious foods:

- The value chain<sup>64</sup> analysis conducted under DFS output 1 and Thematic Cluster FVC, will provide a strategic action agenda for the four city corporations to increase food availability and reduce food loss and waste in selected value chains of the following nutritious foods; mango, onions, and beef.
- Through the public and private investments in food markets, these become a better place to access nutritious foods (SO2, Thematic Cluster FM). Especially efforts to improve waste handling and increase food safety contribute to a safe and clean marketplace, and thus the nutritional quality of food sold in these markets.
- Urban poor households are supported to practice urban gardening through the provision of training and inputs, which increases (year round) household supply of safe and nutritious food (SO1 and Thematic Cluster NFS).
- Citizens of DMA are supported to establish rooftop gardens and increase home-grown production of safe and nutritious foods (Thematic Cluster NFS).
- Through the activities around the Food Agenda and with the Food councils, the supply of a variety of nutritious foods can be coordinated (SO3 and Thematic Cluster FSPG).

#### **5. The DFS project promotes the integration of food and nutrition in urban policy development and urban planning.**

The project is in the process of facilitating the formation of key governance structures to integrate food and nutrition in the urban agenda. Two examples are four City Food Councils (one in each CC), and a Consultative Group for Urban Food Systems Strengthening (CGUFSS) as overarching structure to support food systems strengthening at DMA level (DFS Output 2, SO3, Thematic Cluster FSPG). These CFCs and CGUFSS are dedicated groups comprising a variety of stakeholders from different sectors, offering different perspectives to the DMA food system. Together, they form hubs that bring key (food system) issues, knowledge and recommendations for policy action together. As such, the CFCs and CGUFSS will be able to bring together social, economic and environmental objectives in the DMA food system (and specific issues within each CC) and identify strategies that contribute to a sustainable and resilient food system in DMA.

In these governance structures, representation of nutrition-oriented stakeholders is essential to bring forward nutrition issues, highlight vulnerable populations for malnutrition, integrate nutrition objectives with other areas of action, and ensure that the Strategic Food Agenda 2041 contributes to improved nutrition outcomes in line with strategic objectives of national nutrition policies. In doing so, these CFCs and CGUFSS form a linking pin between the nutrition domain and other domains such as environment, urban planning and food safety (horizontal linkages). This allows the CFCs to not only address nutritional issues in their CCs directly, but also tackle underlying causes of malnutrition. In addition, these structures form a linking pin to align local action on nutrition with national nutrition policies and action plans (vertical linkages)<sup>65</sup>.

Initiatives implemented under output 3 can support these governance structures by providing knowledge and recommendations based on pilots. Pilots will then benefit from a nutrition-sensitive design to investigate and measure how different interventions can contribute to improved nutrition, for whom and where – also if improved nutrition is not the main objective. This means that the link with nutrition, and relevant nutrition indicators should be clearly formulated at the start. Again, this contributes to a more integrated approach where different objectives can be achieved within one strategy. For example, improving the organisation of wet markets can contribute to a reduction of food loss, reduce waste and thus negative environmental impact of landfill sites, and increase hygiene and food safety and thus nutrition outcomes.

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<sup>64</sup> In a standard value chain, the term “value” refers specifically to economic value. In a nutrition sensitive value chain, the term “nutrition value” refers to value that is relevant for nutrition, such as nutritional value (micro and macronutrients), or value that arises from issues of food safety or food loss and waste. These are factors that affect the economic value of the final product and also its quantity, quality and safety, which are essential aspects of shaping nutrition sensitive food systems.

<sup>65</sup> FAO. 2019. FAO framework for the Urban Food Agenda. Rome. <https://doi.org/10.4060/ca3151en>.



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**6. The DFS project maps and models the Dhaka Food System, this includes the collection of data on the drivers of diets and nutrition outcomes, which will provide better understanding of the barriers and opportunities to healthy diets, especially for vulnerable groups or areas in the city.**

The data generated under DFS output 1 can support evidence-informed interventions and inform the Strategic Food Agenda 2041 (Thematic Cluster FSPG). The interactive GIS map can help to highlight the geographic areas with high rates of malnutrition, the severity of the issue, and related prevalent challenges/issues in the food environment (e.g. food deserts). The food system dashboard can shed light on possible future scenarios of how the food environment will be changing as DMA develops, taking into account land-use changes, demographic developments and climate scenarios. Both the interactive GIS map and food system scenarios can inform the Strategic Food Agenda 2041 and guide decision-making on which population groups to target, which areas of the DMA and what strategies to apply that contribute to food and nutrition security.

**7. The DFS project enhances the purchasing power of people to increase food.** The COVID-19 pandemic is, amongst others, reinforcing the fact that even when people are knowledgeable about healthy food choices, financial resources ultimately determine what people buy and thus what their families eat. This means that only improving knowledge about and availability of nutritious food is not sufficient. Also financial resources should be available to be able to make healthier choices. Several DFS project activities have the objective to increase incomes:

- Increased income earned from the produced food in urban gardens (SO1, Thematic Cluster NFS).
- Increased income from increased sale of markets and shops (Thematic Clusters FM and FSCA).
- Increased income from circular business opportunities such as the black soldier fly (SO2, Thematic Cluster FLW).

Since it is often women who purchase food for their households and manage the household budget, it is important that this group, as well influential people in their interpersonal environment<sup>66</sup> are targeted in the project activities. This, in turn links to the gender strategy mentioned under leverage point 1, where the interests and decision-making power of women are highlighted.

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<sup>66</sup> This includes husband, parents in law and peer group.

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## 4 Cross cutting strategies to strengthen nutrition outcomes

### 4.1 Recommended nutrition strategies

Following the situation analysis and leverage points for contribution to nutrition outcomes in the current DFS project design, four crosscutting strategies are recommended to strengthen nutrition outcomes of the DFS project, as part of an overall improved food system. They are presented below.

**Strategy A. To carefully consider which population group and geographic area are selected for initiatives, and measure if and how these initiatives are directly or indirectly improving diets of vulnerable populations.**

The nutrition situation analysis highlights vulnerable groups to malnutrition in the DMA; including female headed households; households without guaranteed income (day labourers), people living in slum areas, especially those living in unregistered slums; and households with members working long hours (e.g. in factories), who are vulnerable due to their lack of time and dependence on cheap unhealthy foods. These groups generally have a low dietary diversity, hence a low intake of micronutrient rich foods. Since the COVID-19 crisis they face high levels of food insecurity. These groups are vulnerable due to their socio-economic conditions affecting access to food and food choices, hence the quality of their diets. Within these groups, there are groups with additional biological vulnerability (such as pregnant and lactating women, children and adolescents); because their bodies require additional nutrients for proper growth and development, or recovery from disease<sup>67</sup>. People can also be vulnerable to malnutrition because they live in a 'food desert', meaning that they live in a part of DMA from where it is expensive and/or time consuming to reach a market where fresh, nutritious and safe foods are sold.

The participation of these vulnerable groups and the chance to benefit from DFS interventions is key to improving nutrition outcomes in the DMA. At the same time, the most vulnerable do not always have the 'power to change' and adopt new behaviours, in that case it could be more strategic to target those who can, and aim for the trickle-down effect.

For the selection of the beneficiaries for the initiatives it will be key to ask the following questions.

- Who are directly/indirectly benefitting from this? Does this include people from the most vulnerable groups?
- What other stakeholders are already working with this group? What is their view on the intervention, the implementation approach, and the targeting strategy for the intervention?
- Can we spell out, e.g. in the ToC, how the initiative contributes to improved diets/nutrition of vulnerable groups or people living in a specific geographical area.
- Can we measure how this initiative contributes to filling the dietary gaps observed for this specific group?

**Strategy B. To build in a strong nutrition sensitization component across all levels.**

No need for everyone to become an expert on nutrition, but it is important for all stakeholders and beneficiaries to understand the following 3 major things:

1. The importance of healthy diets for health, (economic) development and overall wellbeing.
2. To be aware of what makes a 'healthy diet'; Adequate quantities, Diversity (variety of nutritious dense foods from basic food groupings), Moderation (of unhealthy foods) and Safety.
3. Understand their own role in ensuring healthy diets for all.

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<sup>67</sup> Certain groups can also be vulnerable to malnutrition due to their limited access to caring resources, health care, WASH services and pollution of their living environment.

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Nutrition sensitization across all level may include:

Building capacity of the **DFS project team** to get comfortable with the concept of healthy diets for nutrition outcomes and ensure that the DFS project team is able to pitch the DFS nutrition narrative. When engaging with government officials and private sector actors, the DFS project team should be able to explain why it is important to strive for healthy diets for all, in light of future health and (economic) development of DMA. The second workshop on the Nutrition Narrative and 4 crosscutting strategy will be used to build this capacity.

For the **consumers**, the 3 main points for nutrition sensitization will be:

1. Make the consumer aware of the importance of healthy food choices, for their health and school/work performance and the growth, development and well-being of their children. This should include raising awareness on the consequences of harmful food insecurity coping strategies<sup>68</sup> and unequal intra household food distribution.
2. Raise awareness on what constitutes a healthy, and safe diet.
3. Help consumers understand what kind of choices fit a healthy diet, and help them to make strategic choices taking into account their financial constraints (a food budget of approximately 100Taka/day for urban poor<sup>69</sup>) and their food environment.

The consumer awareness campaign, the food safety awareness campaign, and community trainings on food safety and nutrition, training for market and neighbour committees, and youth engagement activities will be important instruments for nutrition sensitization for the consumers.

For the **CC working groups (future City Food councils)**, it is important that they are sensitized on:

1. The importance of addressing nutrition issues for the health, wellbeing, (economic) development of their CC, the urgency of the malnutrition issues within their CC, the most vulnerable groups for malnutrition and the negative consequences of the issue, as well as the other factors affecting the nutrition status of people living in their CC (such as the coordination of nutrition and health services, access to sanitation etc.).
2. What constitutes a healthy diet, and to what extent the food that is available and accessible in their CC meets these criteria.
3. Their role in ensuring healthy, safe and affordable diets for all in the CC. It will be important to link the City Food Councils with the multisectoral city nutrition coordination committees, and ensure that their plans are aligned with the multisectoral city nutrition plan.

The following activities can be used to sensitize CC working groups: meetings, briefing notes, bringing working group members to areas with high levels of malnutrition/food desserts, interpersonal communication between DFS staff and CC working group members, etc.

For the **CGUFSS**, nutrition sensitization should include:

1. A sense of urgency on the issue of malnutrition, now and in the future – bringing different forms of malnutrition on the agenda in food governance (using future scenarios that specifically model prospects for women and vulnerable groups in the DMA in relation to nutrition). Help the members understand the importance of malnutrition for health and (economic) development.
2. Understand what constitutes a healthy diet and to what extent the current and future Dhaka food system can provide healthy diets for all.
3. Understand their key role in providing safe, healthy, adequate and affordable diets for the DMA population.

The following activities can be used to sensitize the **CGUFSS**: advocacy during meetings, briefing notes, bringing CGUFSS members to areas with high levels of malnutrition/food desserts, interpersonal communication between DFS staff and CGUFSS members, etc.

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<sup>68</sup> Such as skipping meals, prioritizing certain household members, and/or opting for less nutritious food.

<sup>69</sup> As reported in the DFS Urban poverty and food security research.

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For the **private sector actors** (vendors at wet market, restaurant owners, hotel owners, mobile food vendors) nutrition sensitization should cover:

1. The importance of healthy and safe food choices, for the health, school/work performance, growth and development and well-being of their customers and their own families.
2. Awareness of what kind of food products fit in a healthy diet, the food diversity that is needed for a healthy diet, how safety of foods can be ensured and which types of food should be avoided.
3. Awareness of their role in optimizing the food environment of the DFS consumer, by the types of food they sell, the safety practises they adopt, the locations where they sell from, the prices they set and the nutrition information they provide with the foods they sell.

As for the DFS project team, in relation to topic of nutrition sensitization 3. *Understand their own role in ensuring healthy diets for all* - it will be key to constantly keep on investigating what it is that stakeholders need to fulfil that role.

**Strategy C. To engage relevant stakeholders working on (other determinants of) nutrition in DMA.**

Malnutrition is a multifaceted issue as it is caused by multiple factors, of which inadequate food intake is only one. Improved diets of urban poor can only lead to improved nutrition security if the other underlying causes of malnutrition, such as poor WASH, lack of caring resources, lack of access to nutrition and health services, lack of access to hygienic facilities for food preparation and storage, are also addressed. The project can explore partnerships to address these issues in the DMA, and ensure to incorporate those in awareness raising activities and dialogues with policy makers.

This strategy also links to strategy A, which recommends to engage with stakeholders who are already working with groups vulnerable to malnutrition.

The first step will be to combine the light stakeholders analysis included in this Nutrition Strategy, with the Stakeholder analysis conducted by the City Coordinators to compile an overview of the different actors working on nutrition in DMA overall, but also, and especially within, the targeted CCs.

The next steps would be to:

- Invite these actors to nutrition related events of the DFS project to start the dialogue and seek synergies in the initiatives.
- Build on the materials already developed, tested, approved (e.g. by government) by these actors.
- Jointly prepare and strategize for meeting CC working group/City Food councils and the CGUFSS.

**Strategy D. Prioritize affordable, nutritious, and local food in all activities, especially those foods for which current consumption levels are low among urban poor.**

If the DFS project aims to improve nutrition outcomes for the DMA population, the activities need to promote foods that are part of a healthy diet, and definitely not those foods that are harmful for people's health, such as foods high in salt, sugar, and saturated fats.

Converging the DFS project activities on increasing the consumption of affordable, nutritious, and local food has the potential to significantly increase the diversity and quality urban poor diets. To this end, an assessment of the barriers towards consumption of specific food groups may help to inform activities aiming to promote dietary diversity among the urban poor<sup>70</sup>.

The nutritious foods for this current consumption levels among urban poor are disturbingly low are: eggs, fish, liquid milk, fruits and meat products.

This would mean that for each initiative, the targeted foods should be reviewed, and if need be because they classify as unhealthy or junk food, to change to other types of foods.

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<sup>70</sup> According to 2020 Dhaka Urban Consumer Survey.

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## 4.2 Specific recommendations per activity

For each of the on-going DFS activities, relevant strategies from the list above have been selected to integrate nutrition for these activities. The activity-specific strategies for nutrition have been incorporated in the Gender Matrix, for a similar exercise took place for the development of the DFS Gender Strategy (with the Gender Matrix as a result). The Gender and Nutrition matrix can be found here [26012021 Matrix Nutrition considerations and actions by Activity](#).

## 4.3 Contribution to national policy objectives

The Matrix with Nutrition and Gender considerations, includes an extra column to indicate the relevant objectives of the National Nutrition Policy 2015. Some of the DFS project activities are very similar to the strategies selected in the NAPN2 (the implementation strategy for the National Nutrition Policy 2015). In that case, these strategies are also included in the Matrix.

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## 5 Next steps

### 5.1 Application of the 4 cross cutting strategies

Each Thematic Cluster will be working with a template to reflect on extent to which the 4 cross cutting strategies are already integrated in the initiatives under the cluster, and to identify actions to strengthen the nutrition outcomes. These Thematic Cluster specific templates will serve as an action plan for the implementation of the Nutrition Strategy. The templates will be completed by the FAO members of the Thematic Cluster, and in close coordination with the WUR technical lead for nutrition.

Monitoring of the implementation of the Nutrition strategy will be done on the basis of this action plan.

# Appendix 1

Nr.	Partners	Project	Main objective	Activities
1	DNCC Ministry of Disaster Management and Relief	Food support of City Corporation to the disaster affected people (Food agenda briefing note SharePoint)		food and non-food (e.g., cash, cloths) support to disaster-affected people
2	UK Aid, Government of Bangladesh and UNDP	The Livelihood Improvement of Urban Poor Communities (LIUPC) Project	to provide support towards contributing to balanced, sustainable growth and reduction of urban poverty in Bangladesh.	LIUPC project provide supplementary nutritious food (e.g., lentils, eggs) of value taka 530/per month to each lactating and pregnant mothers of poor communities for the time of highest up to 24 months Business grants to the selected poor households (100% are women), long term (2-6 months) competency based vocational trainings to the unemployed youth for creation employment.
3	BRAC	Urban Development Project EMPOWER project	to mobilize and transform low-income communities to access services such as housing and safe water and sanitation, etc.	Urban Agriculture: Distributed vegetable seeds to people living in low income urban settlements aiming at providing household income and nutrition. Grants and training support for food and income
4	Concern	"Improving the Lives of the Urban Extreme Poor (ILUEP)	to support extreme poor living on the pavements; in squatter settlements and slums in Dhaka and Chittagong cities to help them move out of extreme poverty.	Business grants, for business including food business (egg, vegetables, fruits,) Nutrition counselling to PW Child day care Centre providing 3 times food Incentive for school enrolment Vocational training to the selected youth for employment creation and earning.
5.		Social protection programme Urban Poor		
6.	EU USAID	MUCH programme	enhancing the enabling environment for improved nutrition at a national level through the formulation of national policies and plans, and integrating a monitoring system within government to track achievements under these plans and policies.	

<b>Nr.</b>	<b>Partners</b>	<b>Project</b>	<b>Main objective</b>	<b>Activities</b>
7.	UNDP	Urban Poverty Alleviation Programme		1. Nutrition awareness (1000 days, PLW, nutrition BCC at household level, mostly on IYCF) 2. Nutrition sensitive; conditional food transfer to Mother of children under two. 20 000 HHs () 3. Urban livestock production and agricultural productions 4. WASH infrastructure activities. Building latrines, sanitary station, drying systems, market shades. 5. Business start-up grants for women (e.g. selling food, groceries stores, street food). 6. Prevent child marriage through educational grants and skills training grants 7. Strengthening nutrition governance 8. Community mobilization
8.	Alive and thrive WFP			
9.	GAIN		School nutrition	Providing hot cooks meals in schools in several wards
10	GAIN		Promotion of healthy food choices for garment workers	
11.	Nutrition International			
12.	UNCEF	Acute malnutrition corners	Management of acute malnutrition	
13.	FAO & WHO, BIID	Nutrition challenge badge menu initiative	Youth engagement for nutrition awareness	Establishment of nutrition clubs Awareness raising using 6 modules
14.	Alive and Thrive	Garments Covid response group, Nutrition working group		
15.	CARE			
16.	Dhaka North Community Town Federation	Raising awareness on healthy practices of consuming affordable nutritious food through direct nutritional interventions.		Women led Primary groups, Community development committees established in urban poor communities
17.	Bangladesh Consumer Association	Promote nutrition through advocating for consumer rights		





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The mission of Wageningen University & Research is "To explore the potential of nature to improve the quality of life". Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 6,800 employees (6,000 fte) and 12,900 students, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.

