



DHAKA FOOD AGENDA 2041

For a healthy, resilient and sustainable urban food system



Dhaka Food Agenda – 2041

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FOREWORD

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Executive Summary

Why an urban food agenda?

Rapid urbanization of a growing population challenges established efforts in ensuring access to sufficient, affordable, nutritious, safe and sustainably sourced food. Improvements in income bring transformational changes and opportunities. However, associated evolution of food consumption patterns in such a dynamic environment are translating into a “triple burden” of overweight and obesity, under-nutrition and micronutrient deficiencies. Moreover, major uncertainties linked to climate change, natural disasters, environmental degradation, pollution, biodiversity loss, environmental footprint, unequal income growth, disease outbreaks, price volatilities, and unstable global food markets add complexity to the trajectories of change. Responding to such myriad of challenges and ambitions requires a holistic food systems approach and cannot be addressed by single disciplines, institutions, departments or sectors. An urban food agenda offers directions and pathways for the coordination, collaboration, collective vision, innovative policies, and leadership that are essential to transform Dhaka’s food system and be a leading example of a dynamic and sustainable metropolis.

What is the Dhaka Food Agenda?

The Dhaka Food Agenda 2041 (DFA 2041) is a stakeholder-created and evidence-informed long-term collective vision, a resource document to support policymaking and urban planning. The document is a synthesis of key challenges and aspirations for meeting Dhaka’s food needs and forward-looking pathways to accompany transformation, which complements the existing policies and development goals of Bangladesh. The DFA 2041 is guided by the vision on Dhaka’s food system to:

‘Meet Dhaka’s future food demands in an equitable and inclusive manner, ensuring nutritious and safe food for all through a food system which is sustainable, resilient, and environment-friendly, and guided by collaborative stakeholder engagement and learning.’

What is the Dhaka Food Agenda?

The Dhaka Food Agenda 2041 was developed by engaging a wide range of stakeholders active in Dhaka’s food system through a participatory and consultative process. Development of Dhaka’s Food Agenda has been driven by foresight and scenario analysis, considering the longer-term implications of current trends and potential consequences of future uncertainties. In this process, data and projections were used to guide stakeholder discussions. In addition, existing policies, and examples from urban food agendas in other cities were used to guide the thinking. This enabled developing a set of possible future scenarios, their implications, and desirability, and supported formulating strategy and planning.

The process was guided by the Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C), and supported by the four City Corporations (CCs) of the Dhaka Division: Dhaka North, Dhaka South, Gazipur, and Narayanganj. It was facilitated by the FAO Representation in Bangladesh, Wageningen University and Research and Foresight4Food.

Key directions for Dhaka's Food System

Key directions for Dhaka's food agenda	Key directions for Dhaka's food agenda
Consumption of healthy and nutritious food	<ul style="list-style-type: none"> • Ensure (consumer) awareness and access to healthy diets and nutrition information • Enhance consumers' access to affordable, diversified, healthy diets • Ensure physical access to foods for all
Meeting Dhaka's future food demands	<ul style="list-style-type: none"> • Ensure responsiveness to changing market dynamics in production and supply, including strategies for urban food production • Ensure safe and healthy food production, transport, processing, handling and distribution throughout the food value chain • Invest in shortening food value chains and make them more efficient to provide affordable healthy diets • Reduce food loss and waste throughout the food value chain, from farm to fork
Optimizing people's livelihoods in the food system	<ul style="list-style-type: none"> • Enhance promotion of safe food production, processing and handling as a strategy to improve working conditions of food sector actors • Support avenues to facilitate investment and creating economic opportunities in agri-food sector • Ensure adaptive capacity of fresh market and informal sector vendors to change • Ensure livelihoods and benefits (economic/ other) for low-income communities active in food-related waste businesses when shifting from low-to high-value waste management
Protecting Dhaka's population from shocks to the food system	<ul style="list-style-type: none"> • Strategize for improving resilience for enhanced food security and food safety, given the impacts of climate change, trade and other conditions • Support resilient business environment development • Improve the resilience of food outlet landscape (food markets, vendors) to adverse weather conditions and climate change impacts • Make low-income and vulnerable groups more resilient to stress and shocks
Feeding Dhaka in a nature positive way	<ul style="list-style-type: none"> • Shift towards nature-positive consumption and food behaviour • Promote nature-positive production to improve soil health, water and air quality, and enhance food safety • Ensure more efficient, environment friendly, and sustainable food transportation system • Develop clean and safe food markets (fresh/ wholesale/ supermarkets, others) and distribution that strengthen natural habitats
Strengthening Planning and Governance of Urban Food Policy	<ul style="list-style-type: none"> • Continue, consolidate, and anchor the key urban food system governance platforms • Scale-up and replicate good practices, and create enabling environment • Monitor, reflect and learn, and reformulate policies and plans



Introduction

What is the Dhaka Food Agenda?

The Dhaka Food Agenda 2041 (DFA 2041) is a stakeholder-created and evidence-informed long-term collective vision, outlining how Dhaka's food system can contribute to safe and nutritious food, health and wellbeing, livelihoods, and the environment for Dhaka's population. This agenda is a resource document to support policymaking and urban planning by the National Government and Dhaka Division's City Corporations, while guiding all stakeholders towards a common set of goals. The DFA 2041 is a synthesis of key challenges and aspirations for meeting Dhaka's food needs and forward-looking pathways to accompany transformation of its urban food system.

The DFA 2041 is aligned with and is complementary to the existing policies, development plans, and goals set by the Government of Bangladesh (GOB). We can highlight the UN Food Systems Summit (UNFSS) National Pathway (2021), the National Food and Nutrition Security Policy (2020), the Bangladesh 8th Five Year Plan July 2020 – June 2025 (2020) and the Perspective Plan of Bangladesh 2021–2041 (2020). The DFA 2041 seeks to address specifically current and emerging urban issues.

Why an urban food agenda?

"We have a national aim to scale up our country to a developed nation by 2041. For Bangabandhu Sheikh Mujibur Rahman's "Shanor Bangla" and our Hon'ble Prime Minister's target to be a developed nation by 2041, we all are working cordially. For this, we need to have a food agenda. The Dhaka Food Agenda 2041 will be the guideline for the city dwellers to follow and respective stakeholders... to look after the issues.

I advise all to work actively to bring cohesiveness, as we have more challenges. Stakeholders will sit together, and they will try to find out solutions. If we do not work together then the loss is ours. So I will invite all to align with government's decisions and work together to move our country forward."

Md. Tazul Islam, MP

Hon'ble Minister, Ministry of Local Government
Rural Development and Cooperatives (MoLGRD&C)

BY 2041, DHAKA WILL HAVE AN ESTIMATED URBAN AND PERI-URBAN POPULATION OF 40 MILLION. ENSURING SUFFICIENT, AFFORDABLE, NUTRITIOUS, SAFE AND SUSTAINABLY SOURCED FOOD FOR THIS LARGE POPULATION WILL BE CHALLENGING. THE RISKS AND UNCERTAINTIES OF CLIMATE CHANGE, NATURAL DISASTERS, DISEASE OUTBREAKS, AND UNSTABLE GLOBAL FOOD MARKETS COMPOUND THE CHALLENGE.

For Dhaka, and Bangladesh at large, the potential social and economic costs of failing to achieve a healthy, sustainable, and resilient food system are huge. It might seem that 2041 is a long way off; however, action or lack of action in the short term will have consequences for the future of Dhaka's food system.

Bangladesh has had a highly successful trajectory of development, and by 2041 aims to be a high-income country. Rising incomes and changing lifestyles could radically shift people's consumption patterns. Meanwhile, inequality and poverty will remain critical issues, requiring innovative policies to ensure that those less fortunate in society are not further burdened with poor nutrition. Without the right measures in place, Dhaka could be confronted in 2041 with the scenario of a significant "triple burden" of overweight and obesity, under-nutrition and micronutrient deficiencies. Good health requires safe food and proper nutrition, much remains to be done to ensure all citizens of Dhaka have access to such food, in terms of how it is produced, processed, transported and retailed.

The way we produce, distribute and consume food is one of the biggest contributors to climate change and environmental degradation, including biodiversity loss and pollution. Food systems are going to have to change dramatically over the coming decades to reduce these impacts. With 40 million people, the environmental footprint of Dhaka will be substantial, within the city, across Bangladesh and globally. Dhaka has the potential to be a leading example of how a dynamic metropolis can reduce its environmental footprint by the way it manages its food system. Food is culture and often the thread that connects people. For a country with such a rich and diverse culinary heritage, finding pathways for good food as part of Dhaka's identity is also an important long-term ambition. Yet, there are plenty of uncertainties. How fast or slowly the population will grow or what consumption patterns people will have in 2041 are uncertain. In addition, to what extent the city will be adapting to climatic issues or future shocks to the food system (such as a pandemic) is another uncertainty. These are some of the key dimensions that will shape Dhaka's food system and consumer behaviour.

This myriad of challenges and ambitions requires a holistic food systems approach. They cannot be dealt with by single disciplines, institutions, departments or sectors. Coordination, collaboration, collective vision, and leadership is essential. An urban food agenda offers directions and pathways to guide such coordination and to transform Dhaka's food system towards a healthy, sustainable, inclusive and shock-resilient future.

How was the Dhaka Food Agenda 2041 developed?

The Dhaka Food Agenda 2041 was developed by collecting ideas from a wide range of organizations' representatives. Its content is based on various stakeholder consultation sessions and has been discussed with over hundred local government officials and representatives, policymakers from ministries, urban planners of City Corporations and professional networks, experts from research organizations, development partners, advocates from I/NGOs-NPOs-CBOs and voluntary foundations, market committees, private sector associations, urban gardeners, entrepreneurs, retailers, vendors, and residents throughout Dhaka's food system.

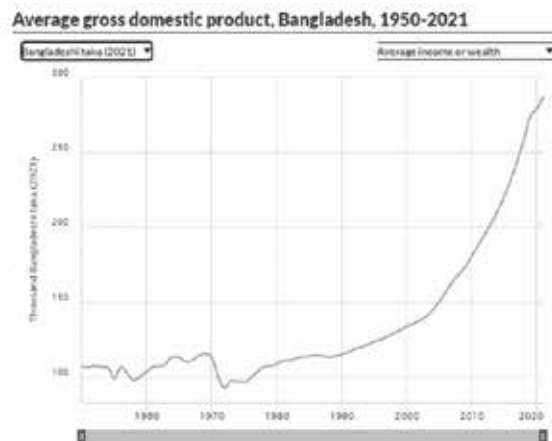
The thinking behind Dhaka's Food Agenda has been driven by foresight and scenario analysis. It is impossible to predict the future. However, it is possible to consider the longer-term implications of current trends and imagine the consequences of future uncertainties, unlikely events or shocks to the system. This enables us to develop future scenarios, which supports strategy and planning in two ways. First, they offer a guide to what would be desirable future states, helping to create the insight and motivation to steer toward a more desirable and away from less desirable future situations. Second, they enable consideration of how to respond if you do end up in a particular scenario. Scenarios are developed by looking at critical uncertainties and asking: "what would happen if...?"

The process developed from participatory meetings, through interviews and sessions from February to December 2022. This process was guided by the Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C), and supported by the four City Corporations (CCs) of the Dhaka Division: Dhaka North, Dhaka South, Gazipur, and Narayanganj. The process was facilitated by FAO Representation in Bangladesh, Wageningen University and Research and Foresight4Food. In addition, existing policies, and examples from urban food agendas in other cities were used to guide our thinking such as Bangkok, Melbourne, and several European cities. After conversations with members of the Consultative Group in Urban Food Systems Strategies (CGUFSS) and the City Working Groups in November 2022, as well as with civil servants from various policy departments, final revisions were made. The Ministry of Local Government, Rural Development and Cooperatives endorsed the Dhaka Food Agenda 2041 in <2023>.

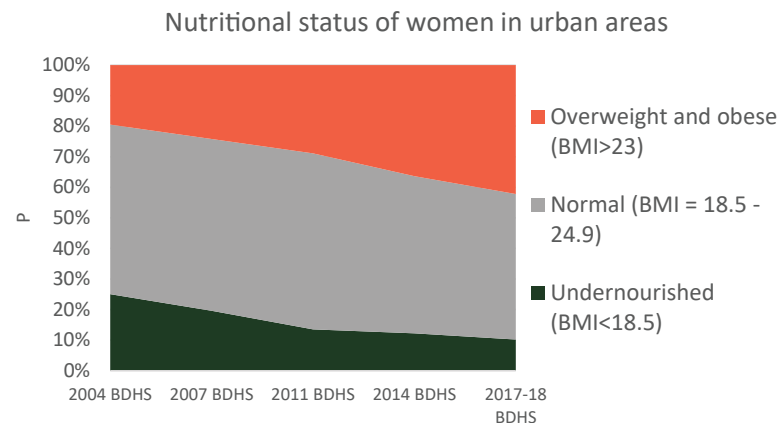


Trends, looking ahead and uncertainties

Current trends



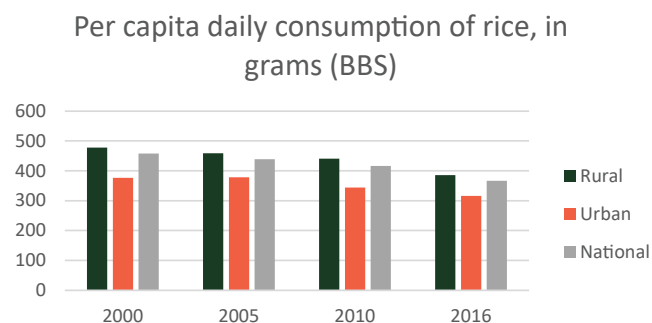
Income has been steadily growing...
Source: <https://wid.world/country/bangladesh/>



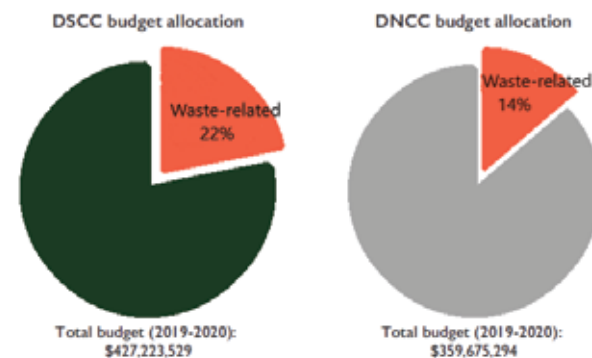
Nutrition is affected, with more people suffering from overweight and obesity...
Source: <https://dhsprogram.com/>

Among the eight divisions of the country, Dhaka has the highest annual population growth rate at 1.74% (1.22% national)

Source: Population and Housing Census 2022



Food habits are changing...
Source: <https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/133124/file/133336.pdf>

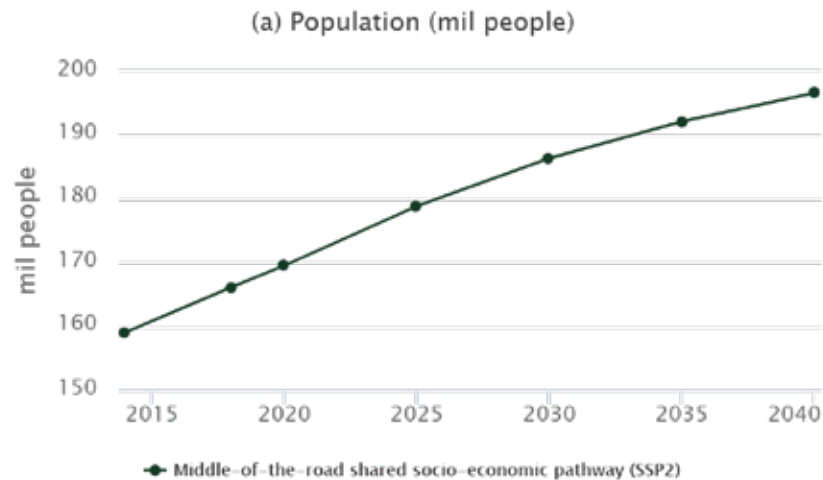


Waste is a burden on cities' budgets...
Source: DNCC Waste report 2018-2019

Trends, looking ahead and uncertainties

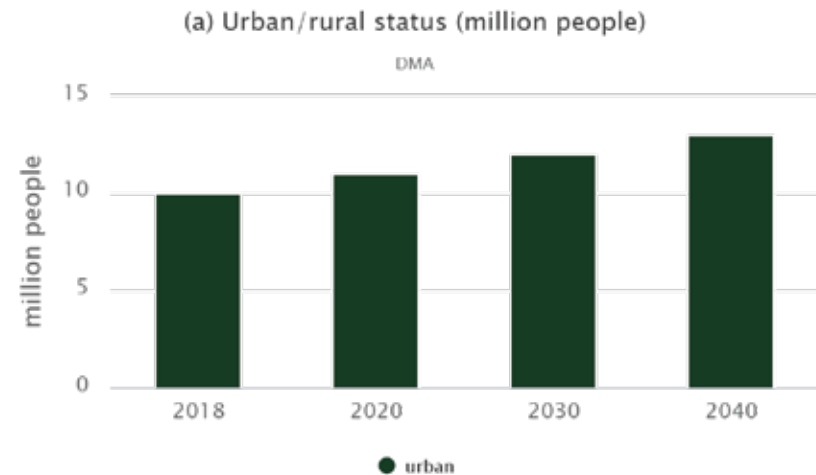
Looking ahead futures

Moving from current trends to projections for the future, a consistent increase in population growth can be projected, reaching a population of nearly 200 million.



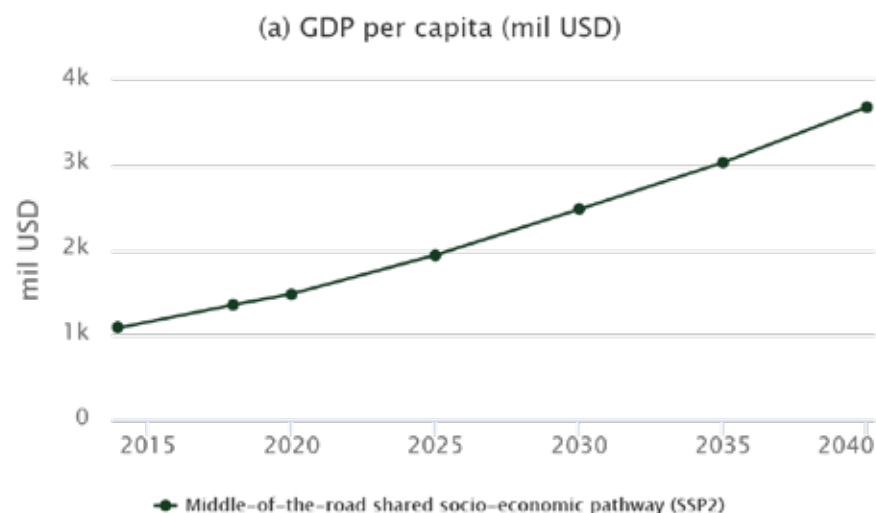
Source: SSP database

The population growth in the Dhaka Metropolitan Area (DMA) is comparable to the national average and the region is expected to reach an urban population of about 13 million in 2040.



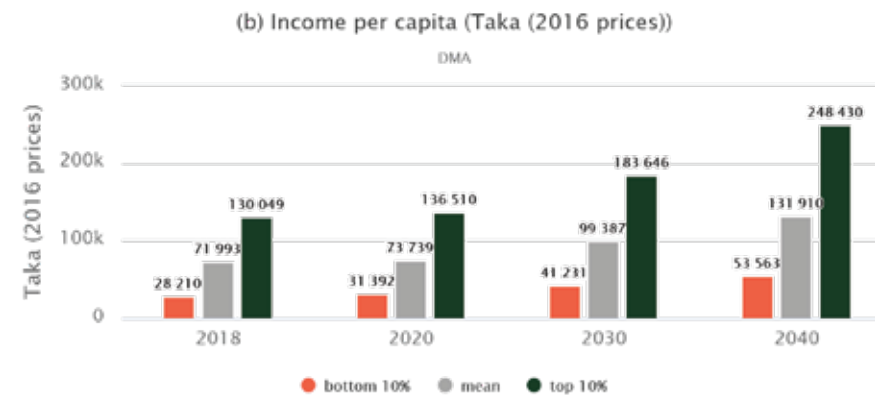
Source: SSID model

The assumed GDP per capita growth rate is expected to constantly increase in the period 2018–2040. Bangladesh is expected to have a larger pickup in GDP growth during 2030–2040.



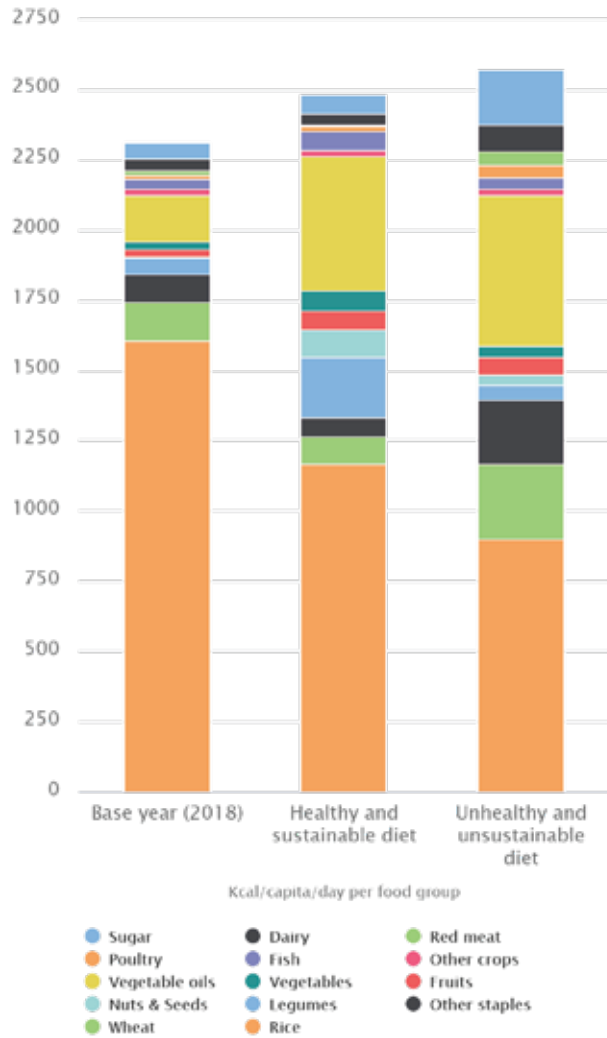
Source: SSP database

The average yearly income (gross domestic product) per capita in the city corporations of the Dhaka Division is projected to grow at a similar rate in the baseline scenario. Both bottom and top 10% household incomes will increase but inequality in income is expected to remain by 2040. The income and population growth patterns are important drivers of the projected model outcomes for food consumption and dietary change.

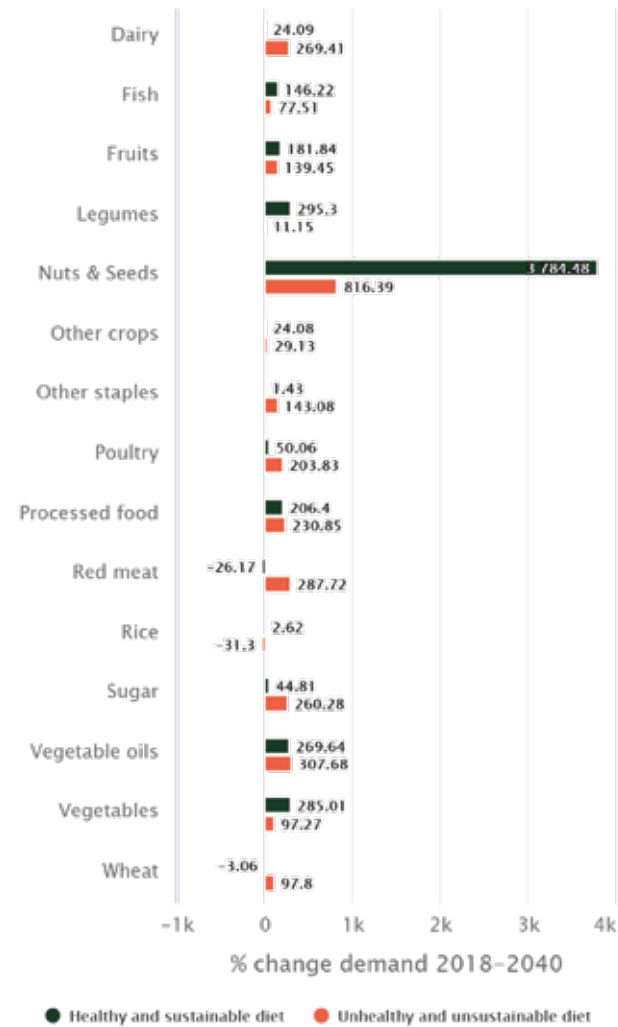


Source: SSID model

The current consumption pattern is based on an import – domestic production ratio that is expected to evolve, depending on the evolution of the volume but also of the nature of that demand. As shown by the changes in the caloric intake, defining factor is whether consumption patter will evolve into a healthy or unhealthy diets, alongside the evolution of the domestic agricultural production.



Source: MAGNET model



Source: MAGNET model

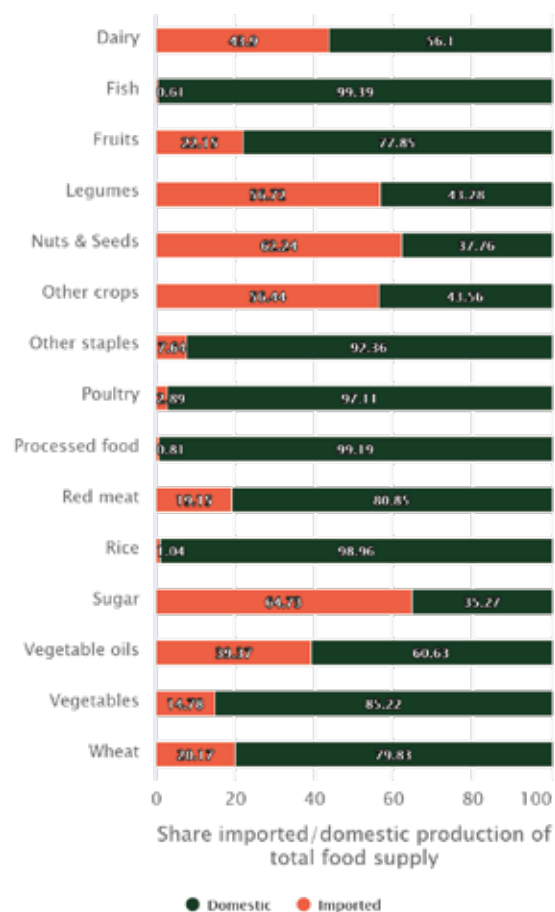
In the below the top figures represents: (left) the composition of the food groups in the Bangladesh daily caloric intake per capita for the base year 2018 and the two projected changes that could develop in alternative diet scenarios, one 'healthy and sustainable', and the other 'unhealthy and unsustainable' for Bangladesh in 2040; (right) the percentage change in the total demand for each of the food groups compared to the base year 2018. The bottom figures show the base year 2018 (left) and the model projected shares of domestic production and import to meet the reported projected demand for each food groups in 2040 for unhealthy diet scenario (middle) and healthy diet scenario (right). These projections are based on the price and competitiveness between domestic and global markets. The diet scenarios are based on the Bangladesh specific EAT-Lancet diets.

Base year 2018



Source: MAGNET model

Un-healthy diet scenario projection 2040



Source: MAGNET model

Healthy diet scenario projection 2040



Source: MAGNET model

Trends, looking ahead and uncertainties

Critical uncertainties

A series of critical uncertainties likely to shape the transformation of the Dhaka food system were identified through the participatory process as listed in Figure below. Now, moving forward, the Government of Bangladesh is integrating some of the uncertainties in formulating the long-term plans and policies. As such, the uncertainties remain but are beginning to be articulated into the key future visions and policies.

Critical uncertainties	Climate resilience	Is food going to be reliably produced, accessible and affordable despite climate change?
	Trade	Will Bangladesh rely positively on an open or will need to respond to geopolitical setback of globalization?
	Business structure	Which businesses will be selling food? A diversified set of retailers or will this be concentrated in a few hands?
	Equity	Is the expected growth in incomes translated in shared prosperity or inequalities?
	Consumption patterns	Is consumption going to be healthy and sustainable, may be or may be not?
	Food prices	Can we expect price stability and affordability?

Climate resilience: a number of questions arise such as whether food will reliably going to be produced as well as be accessible and affordable despite climate change coupled with other challenges like decline in soil quality, possible impacts on agricultural productivity due to rise in salinity, extreme weather conditions, heat stress, loss of biodiversity, pollution and environmental degradation. Part of the answer may come from the Bangladesh Delta Plan 2100 (BDP2100), seeking to address climate vulnerabilities and improve the management of water, land, ecology, and environment through addressing the risks right at the source, and by strategies, policies, investment programmes and institutions. Accordingly, the associated strategies for flood control, water storage, irrigation, land-agriculture-forest resource management, and ecological balance are the major elements of policy package for reducing poverty and improving environmental management in the Perspective Plan 2021-2041 (PP2041). The 8th Five Year Plan (8thFYP) also puts forward a sustainable development pathway with the intent to enhance resilient to disasters and climate change.

Trade: In the long term, will Bangladesh rely positively on an open web of trade relationships or would it need to respond to geopolitical setbacks of globalisation? For the near future, the PP2041 supports trade that is more open, diversified and export-oriented. Trade liberalization is set to continue, with trade facilitation aimed to reduce cost and increase speed of trade.

Business structure: There are pressing questions as to which businesses will be selling food and whether there will be a diversified set of retailers or it may become concentrated in a few hands. On one hand, policy as per the PP2041 emphasizes on industrialization, and a more intensified structural transformation and transition from agriculture to manufacturing and service-based industries. On the other hand, in the agro-food sector, the current National Food and Nutrition Security Policy (NFNSP) (2020) underscores empowering small producers and non-farm SMEs and encourages growth of self-supporting financially viable small, medium and large commercial agri-food units, capable of adopting latest energy-efficient technologies including for processing and value-addition. With a largely deregulated market economy as the PP2041 supports, the smallholder-dominated agriculture sector may face several challenges.

Equity: The trend regarding growth in incomes is very strong, but will it translate into shared prosperity or growing inequalities? This will depend on the policies in place today and in the future. Currently, the PP2041 and the 8thFYP underpin inclusive and poverty-reducing growth with lesser income inequality. Policy priorities are – strengthening human capital base of the poor, developing agriculture for poverty alleviation, promoting labour-intensive exports including agro-based and manufacturing SMEs, eliminating inequalities in access to services and finance, and ensuring social protection benefits for the most disadvantaged and marginalized ones – in an attempt to guarantee income, employment, and a minimum quality of life for all. These priorities have been fleshed out further in the National Social Security Strategy of Bangladesh (NSSS).

Consumption pattern: Consumption trends are paramount in shaping the food system. However, is consumption going to be healthy and sustainable? Trends, as identified by the PP2041, put forward that the fast-growing middle-class are strengthening domestic demands and as a result, domestic markets are expanding rapidly. At the same time, the NFNSP recognizes that Bangladesh is undergoing a dietary diversification from energy-rich cereals towards nutrient-rich foods, although the pace has been slow, with globalization, urbanization and income growth as the major drivers for dietary changes. It further recognizes that these drivers can also have negative impacts on dietary patterns, as consumption of convenience foods with little nutritional value has increased over time.

Food prices: Are prices to be stable or reasonably predictable in the future? Is food to remain affordable? The current planning instrument of the PP2041 recognizes that high inflation, especially led by food price inflation, directly hurts poor people. Thus, it targets to reduce the rate of inflation and maintain it around 4-5 per cent per year, by ensuring well-coordinated monetary and fiscal policies, improving productivity, augmented supply with emphasis on food security, enhanced public sector role in infrastructure, strengthened competition policies in a largely deregulated market economy, and macroeconomic management for low inflation and inclusive growth. Improving access to safe and nutritious food at an affordable price is also one of the objectives of NFNSP.

Imagining the future of Dhaka's food system



Consumption patterns and business structure were selected as the two critical uncertainties that would have the most significant impact on the future of Dhaka's food system. For Dhaka, the food system of the future will look very different depending on what people are eating. Diets are changing, for example, per capital consumption of rice is decreasing while consumption of fast foods, carbonated drinks and wheat-based products are becoming more common. How far and how quickly will this change go? As incomes are growing, demand for animal-based proteins is on the increase. Looking into the future, we need to consider how much of Dhaka's food will be produced domestically and how much will be imported, and how will this be influenced by diets.

These questions were explored by foresight and scenario analysis, and the four scenarios in Figure below were developed. Depending on government policies, changing consumer understanding and attitudes, food prices, and the advertising of firms it is plausible to imagine two extremes of consumption (the vertical axis in Figure below). On the other axis, for example, influenced by foreign direct investment policies, the competitiveness of small-scale enterprises, and changing shopping preferences, we can image two different extremes of the business structure. Thus, the four different scenarios were described Figure below.

The current business structure of the food system, as has also been identified in the stakeholder consultations, is dominated by many micro, small and medium scale enterprises and producers. Food is purchased predominantly from fresh markets, local shops and street traders. Supermarkets still have limited penetration. The consumption pattern, although improving, remains cereal-dominated and environmentally unsustainable. By comparison, in North America and Europe, a few, large firms dominate the agri-food sector and employment in the sector is relatively low, compared to other sectors. This consolidated and centralised model is gradually increasing in many low and middle income countries and this can be Bangladesh's future, too.

What might the situation be like in Bangladesh in 20 years, with what implications for food purchasing outlets, livelihood opportunities, equity and sustainability?

Clearly, the scenarios at the bottom of the diagram are undesirable given Bangladesh's overall development goals and its food and nutrition security strategies. However, it is quite plausible for Dhaka to end up in either one of these scenarios, depending on the force of political economic drivers and the effects of policy. The participatory process considered that if no interventions are taken, Dhaka's food system future will be moving mostly towards the bottom-right quadrant, where centralized large-scale firms promote unhealthy and unsustainable diets to maximize short-term profits.

The scenarios at the top of the diagram are more desirable in terms of consumption patterns and food security and nutrition. The consultative process reflected that Dhaka desires the business structure or market to remain dominated by the micro-, small- and medium-scale enterprises, with a narrow percentage of market share for the larger scale consolidated firms serving the high-income urban people. Given the small-farm based agrarian economy of Bangladesh, this is desired because the small producers and enterprises can better contribute to our culture, diversity, and environment, if they receive the right education and training. This stance will also create more employment and job opportunities in the rural areas, protect smallholders and ensure fairer prices for them, and there will be better control over markets with stronger institutions. The dominance of smaller or larger scale enterprises in the food system have upsides and downsides, which need careful consideration. Recognizing that the agri-food sector provides a large share of employment, the food system needs to maximize fair economic opportunities for as many people as possible.



Scenario A: "Diversified and viable small-scale entrepreneurship for healthy people and planet"

Consumers have shifted to healthier diets that are resource efficient. Food demands are being met by many micro, small and medium scale enterprises working in partnership with larger firms, with good food safety and quality standards in place. Appropriate technology plays an increasing role in sustainable business operations. Farmers can get a fair price, and incentives are in place to protect the environment. Healthy food is more available and affordable to both poor and wealthy consumers with a diversity of retail options.



Many micro-, small- and medium-scale enterprises

High consumption of unhealthy and/or resource intensive diets. Food sector remains dominated by many micro, small and medium enterprises operating with poor standards and low returns. Growing food inequalities between those who can afford better quality healthier food and those who can't. Limited power of small retailers over types of food to sell and pricing. Growing difficulties in domestic production and increased reliance on the international market.



Scenario C: "Fragmented, uncoordinated and unsustainable agri-food sector hangs on"

Healthy and environmentally sustainable diets

Consumption patterns

Business structure

Consumption patterns

Unhealthy and resource-intensive diets

Scenario B: "Responsible larger-scale companies drive sustainability and health"

High consumption of healthy diets and less resource-intensive input next to the dominance of larger companies and firms. Smaller farmers and enterprises find it difficult to compete and be viable, the consumption of diverse local food declines. Business marketing heavily influences consumption patterns. All food is increasingly purchased at larger supermarkets and online, with significant levels of imports.



Dependence on larger scale and consolidated firms

Unhealthy and resource intensive food consumption being driven by high dependency on larger scale firms with low levels of responsible marketing and procurement. Increasing triple nutrition related health issues. Small scale farmers and enterprises are heavily exploited by a low number of larger-scale companies monopolizing the market. Purchasing from supermarkets becomes more prevalent, many of which provide cheap poor quality and low nutritional value food products. Food inequalities increase.



Scenario D: "Profit driven larger-scale companies drive unsustainable and unhealthy consumption"

A vision for Dhaka's food system



Why an urban food agenda?

Bangladesh is committed to achieve the SDGs, where people, planet, peace, prosperity and partnerships are at the heart of our development drive. The need to transform agriculture and food system to achieve the SDGs has been reinstated by Bangladesh's participation in the UN Food System Summit 2021 and formulation of the National Pathway as presented by the Hon'ble Prime Minister Sheikh Hasina in the Summit. The Pathway puts forward the development of urban market infrastructure with backward and forward linkages, investment and strengthening capacity of all actors in government institutions at national and sub-national levels, and coordinated governance through an integrated multistakeholder, multi-sectoral and multi-level approach.

A long-term comprehensive Bangladesh Delta Plan (BDP) 2100 has also been formulated that focuses on economic growth, environmental conservation, and enhanced climate resilience. The Perspective Plan of Bangladesh 2021-2041 formulated to realize Vision 2041 of becoming a prosperous developed nation by 2041, also puts paradigm shifts in agriculture to enhance productivity and ensure nutrition and food security, strong and effective institutions with good governance, sustainable urban transition, urban governance reform, efficient energy and infrastructure, resilience to climate change and other environmental challenges, and establishing Bangladesh as a knowledge hub for promoting a skill-based society as key strategic goals and milestones.

Given possible scenarios for the future of Dhaka's food system and Bangladesh's overall vision for sustainable growth and development encompassing food and nutrition security, the vision on Dhaka's food system is to:

'Meet Dhaka's future food demands in an equitable and inclusive manner, ensuring nutritious and safe food for all through a food system which is sustainable, resilient, and environment-friendly, and guided by collaborative stakeholder engagement and learning.'

To realize this vision and steer or "nudge" Dhaka's food system towards a desirable future scenario the following five key directions for action were identified during stakeholder workshops:

1. Consumption of healthy and nutritious food
2. Meeting Dhaka's future food demands
3. Optimizing livelihoods of people working in the food system
4. Protecting Dhaka's population from shocks to the food system
5. Feeding Dhaka in a nature positive way

The following section outlines each direction and provides specific actions to follow over the short, medium and long-term.

However, given the uncertainties identified, and an increasingly turbulent international context, transforming Dhaka's food system will not be a simple or linear process. How to achieve the full set of desired food system outcomes is not fully known and ongoing research with technical, institutional and political innovation will be critical to bring about desired change. Further, there will be inevitable trade-offs between nutritional, economic, social, and environmental outcomes which will have to be managed, along with potential conflicting interests between different actors in the food system.

Best bet actions can be identified today, but how well they work will have to be constantly assessed and modifications made. New pressures on Dhaka's food system will emerge and unexpected shocks are inevitable, which will require new responses and changes in direction.



Key directions for Dhaka's Food System



The key directions of change identified for a healthier, sustainable and more resilient urban food system were further elaborated in stakeholder consultations into interlinked immediate, short term, and long-term areas of actions. Each action would contribute to change in the key directions. Immediate actions (within next twelve months) defined seek to contribute to quick wins. Long-term actions (for 2027–2041) aim for the future are sustained by immediate and short-term actions (for 2024–2026). They refer to actions that are not easily implementable or simply require longer periods to mature. In addition, putting the Dhaka food agenda into action and enabling a responsive approach to an uncertain future will require new forms of governance and stakeholder collaboration and learning across government, businesses, consumers, civil society and research.

1. Consumption of Healthy and Nutritious Food

Around the world, diets are changing and especially in urban areas, consumers tend to change their consumption patterns. Considering projected increase in welfare, it is safe to say that also in Dhaka, diets will continue to change in the future. However, what those diets will look like exactly, or how this might be different across income groups are some important uncertainties. What Dhaka's population will consume has many implications. If diets start mimicking other middle- and high-income countries, issues such as overweight, obesity and related non-communicable diseases such as cardiovascular disease and type-II diabetes should be anticipated. Navigating away from this scenario requires that healthy and nutritious food become accessible and affordable to all, through reliable and adequate food outlets in their neighbourhood, and that consumers are able to make informed choices: knowing what foods are healthy, safe and fitting their dietary needs. Their food environment should support consumers to make those healthy choices.

Therefore, the following three key areas of action are proposed:

1. **Ensure (consumer) awareness and access to information about healthy diets and nutrition facts**
2. **Enhance consumers' access to affordable, diversified, healthy diets**
3. **Ensure physical access to foods for all**

Regardless of what business structures will dominate Dhaka's food system in the future, these three actions ensure that appropriate foods reach all consumers in a transparent and affordable way. At the same time, demand is shaped by ensuring that consumers can make informed choices and act accordingly.

1.1 Ensure (consumer) awareness and access to healthy diets and nutrition information

Immediate actions

- **Conduct targeted good food campaigns, training on healthy diets, proper cooking/ consumption practices,² food labelling and food safety, engaging producers, buyers and end consumers, private sector, media and monitoring institutions for responsible food offer and choice³**
- **Promote healthy foods more attractively, engaging the private sector⁴**

Short-term actions (2024–2026)

- Incorporate nutrition education in academic curriculum⁵
- Test food items regularly⁶ to check for nutrition facts and publish results publicly⁷
- Widely disseminate age-and-key-groups-specific dietary guidelines based on local foods (e.g., for pregnant and lactating women – PLW, children, adolescents)⁸

Long-term actions (2026–2041)

- Ensure consumer rights through policies and their implementation⁹
- Ensure proper labelling of food items (in easy terms/ Bangla) with food facts, nutrition values¹⁰

Leading actor: Ministry of Food (MoF)

Roles for specific actors, champions, networks:

- **MoF/ BFSA:** Raise awareness (esp. for children and youth to change their mindset) and enforce laws
- **DAE/ DoF/ DLS (MoA, MoFL):** Raise awareness and formulate policies
- **MoEducation:** Integrate nutrition and safe food in curriculum
- **BSTI:** Ensure proper labelling
- **Research organization/ CGIAR:** Conduct evidence based research
- **CC:** Ensure access to information at community level; integrate nutrition awareness in development plans, with special attention to PLW and children
- **A2i:** Produce/ develop and disseminate information
- **Other actors:** MoHFW, MoWCA, Consumers' Association/ CSOs, NGOs

1.2 Enhance consumers' access to affordable, diversified, health diets

Immediate actions

- Keep nutritious foods affordable by setting price ceilings for basic food items/ major food groups¹¹
- Increase transparency and competitiveness by displaying daily product prices in fresh markets, and monitoring markets for prices, unethical stocking, and syndicates and enforce laws¹²

Short-term actions (2024–2026)

- Engage restaurants and hospitality industry to promote nutritious foods
- Establish area-based weekly farmers markets, or allocate space for farmers inside fresh markets, to sell quality fresh products at reasonable price
- Invest in basic infrastructures that support nutrition and health such as safe drinking water and sanitation for all¹³

Long-term actions (2026–2041)

- Implement the existing NFS policies, Plans of Action (PoA), guidelines and multisectoral urban food and nutrition strategy¹⁴
- Policy planning and monitoring by inter-ministerial coordination body¹⁵
- Make City Corporations the primary regulatory authority to ensure NFS in cities¹⁶ with budget allocation

Leading actor: Ministry of Food (MoF)

Roles for specific actors, champions, networks:

- **DAM (MoA):** Monitor markets
- **CC:** Monitor markets and educate consumers
- **Other actors:** BNNC, NNS, MoHFW, MoA, MoFood, MoSW, CAB

1.3 Ensure physical access to foods for all

Immediate actions

- Increase efficiency in market management and accessibility through strengthened collaboration with Market Management Committees and residential societies
- Encourage consumers to buy from regulated markets, vendors and shops

Short-term actions (2024–2026)

- Allocate space for nutrition corners in CCs (inside fresh markets, low-income communities)
- Develop and implement plans/ guidelines to manage and expand food outlets properly, including regulating street markets, and street or mobile food vending¹⁷
- Enable online shopping facilities at fresh markets to increase access to nutritious food in areas with fewer food outlets¹⁸

Long-term actions (2026–2041)

- Develop long-term plans to gradually improve fresh markets and informal markets and establish new fresh markets (incl. suitable location, permanent designating space, days–times to operate, training facilities for vendors/ actors) through proper spatial planning and design¹⁹
- Establish at least one registered fresh market in each Ward, and one standardized model market in every City Corporation²⁰

Leading actor: City Corporation (CC)

Roles for specific actors, champions, networks:

- **CC, MMC, law enforcement agencies and consumers' association:** Monitor markets and ensure compliance of FMs to the standards
- **CC:** Develop market infrastructure, regulate functioning of markets, establish and maintain grievance mechanism, and bring coordination among stakeholders
- **District administration/ CC:** Allocate land for new markets
- **DAM:** Provide guideline on field level activities for farmers' market

2. Meeting Dhaka's future food demand

The number of people living in urban areas of Bangladesh is expected to be above 90 million in the next 2 to 3 decades. This will create an increasing urban food demand while production capacity is constrained, especially due to loss of agricultural land. Such trends raise the question of how Dhaka will be able to meet future food demand given the uncertainties in how diets will change in the future. Dietary patterns may evolve into demand for more unhealthy and unsustainable diets, or for healthier and sustainably produced diets. Steering towards healthy and sustainably produced diets translates into a higher demand for certain foods, such as fresh fruits, vegetables, and sustainably produced foods. This requires actions targeting sourcing (domestic production or imports), market dynamics, market infrastructure and logistics to ensure business structures that reach all city dwellers equitably. The following four key areas of action are proposed:

1. Ensure responsiveness to changing market dynamics in production and supplies, including strategies for urban food production
2. Ensure safe and healthy food production, transport, processing, handling and distribution throughout the FVC
3. Invest in shortening food value chains and make them more efficient to provide affordable healthy diets
4. Reduce food loss and waste throughout the FVC, from farm to fork

These action areas focus on the need to organise for and uphold adequacy, safety standards and efficiency in any food value chain, and diversify options for meeting future food demand. They seek to closely monitor food related uncertainties and help to strategize accordingly.

2.1 Ensure responsiveness to changing market dynamics in production and supply, including strategies for urban food production

Immediate actions (steps in next 12 months)

- Map urban suitable spaces and raise awareness on urban farming²¹
- Map food sourcing strategies of consumers
- Generate and share market projections and modulate imports-exports/ fiscal policies accordingly to mitigate price volatility²²

Short-term actions (2024–2026)

- Support climate resilient and regenerative agricultural strategies for diversified food production, including use of vacant urban lands for gardening, support urban agriculture (e.g. with subsidies), and incentivize conservation of agricultural lands²³ e.g., by tax rebates
- Develop policy guidelines for urban farmers-gardeners and support expansion of rooftop and urban gardening, building on Good Agricultural Practices (GAP)²⁴
- Monitor food environments for alternative food sourcing behaviours of consumers²⁵

Long-term actions (2027–2041)

- Integrate climate resilient and regenerative agricultural strategies, including urban gardening and farming, for diversified food production in long term coordinated policy plans and appropriate policy/ legislation frameworks for implementation and monitoring²⁶
- Integrate food sourcing strategies in multi-sectoral urban food and nutrition strategy and ensure implementation of long and short-term NFS action plans²⁷
- Develop implementation schemes to make urban farmers' markets more sustainable
- Encourage agricultural research, training, and technology adaptation to improve crop varieties, enhance productivity, mechanize, digitalize, commercialize, and diversify agriculture, utilize lands/ productive resources by well-trained farmers, use and promote high yield varieties/ breeds/ species, adopt smart modern agricultural techniques including for urban and peri-urban agriculture²⁸

Leading actor: Ministry of Agriculture (MoA), through DAE and DAM

Roles for specific actors, champions, networks:

- MoA: Develop necessary policy and monitoring mechanism
- LGD: Develop land use mapping

- DAE/ NARS: Provide training, implement and promote GAP, innovative/ smart practices and modern technologies, uptake research programmes to increase urban production
- MMC: Ensure quality of food and mitigate conflicts in the markets
- CC: Coordinate with relevant stakeholders such as BFSa, MMC, DAM
- Other actors: MoCommerce, Export Promotion Bureau (EPB), BIRTAN to make markets dynamic, I/NGOs

2.2 Ensure safe and healthy food production, transport, processing, handling, distribution, and marketing throughout the food value chain including cities

Immediate actions (steps in next 12 months)

- Include food safety as a key responsibility of CC in Local Government (City Corporation) Act 2009²⁹
- Strengthen food inspection and testing procedures in fresh markets, hotels, restaurants and other food businesses³⁰

Short-term actions (2024–2026)

- Invest in awareness campaigns and capacity building of all actors in the food value chains from farm to fork on natural preservation methods, hygiene practices, food safety standards and health impacts³¹
- Review food safety policies, identify gaps at city level and establish coordination among responsibilities of different authorities involved in food production and safety³²
- Develop Standard Operating Procedures (SOP) and monitoring for safe food processing, storage including cold chains, and handling for fresh markets, hotels, restaurants and other food businesses, and ensure adequate compliance and grievance management mechanisms³³
- Develop viable business models for safe, organic food production, processing, handling including mechanisms for intensifying, certifying and licensing of food-related businesses³⁴

Long-term actions (2027–2041)

- Develop joint action plans on food safety and hygiene in food distribution and marketing in cities to strengthen coordination among implementing agencies, ministries, private sector, NGOs, CBOs and other stakeholders³⁵
- Develop appropriate (academic) curriculum and strengthen enforcement mechanisms of the Food Safety Act and other regulations (train law enforcement agencies and food safety personnel to utilize the existing food testing protocols, capacities, infrastructure)³⁶
- Implement national policies and legislation on limiting use of pesticides, chemicals, and preservatives, and incorporate them in development projects, and enhance accountability³⁷
- Create safe foods rights charter to empower consumers and enhance the access, availability and affordability of safe foods³⁸

Leading actor: MoA & MoFL (DAE, DLS DoF), BFSa, City Corporation (CC)

Roles for specific actors, champions, networks:

- DAE, DoF, DLS, DAM BADC: Ensure health, safety, and standard food behaviour in production, post-harvest management, processing, and handling; structurally improve food safety conditions throughout the VC with BFSA; conduct mobile courts with CC and BFSA
- BSFA: Raise awareness, train up actors (esp. mobile and street food vendors, restaurants), enhance monitoring
- CC: Strengthen city food safety governance and promote multi-stakeholders collaboration (e.g., by forming Monitoring Cell/ Food Commission/ Standing Committee, incl. CC Health & Sanitary Officers, ZEOs, BFSA) to implement food safety guidelines, ensure compliance to food safety regulations, raise awareness, prevent adulteration, monitor markets (govt., privately owned), and ensure licensing
- Law enforcement agencies: Enforce laws and acts
- Private sector: Play a key role to ensure food safety, traceability and avail necessary information to consumers
- Development partners: Raise awareness, support street vendors to improve hygiene, perform together with CCs in action-based approach and with result-oriented outputs
- Other actors: Dept. of Education, producers' groups, cooperatives, traders' associations, MMC, DNCRP, CAB, and sector-related regulatory bodies

2.3 Invest in shortening food value chains and make them more efficient to provide affordable healthy diets

Immediate actions (steps in next 12 months)

- Explore and identify roles of actors in prioritized food value chains, selected for nutritional value, dietary diversity, affordability and access, to reduce intermediaries' costs and risk of adulteration³⁹
- Sensitize consumers on consumption of locally produced foods⁴⁰
- Strengthen food inspection and quality control in the FVC by grading, sorting, cleaning, and proper storage and transportation⁴¹

Short-term actions (2024–2026)

- Encourage research to map and test solutions to shorten the food value chain (e.g., continue farmers market)⁴²
- Train and engage FVC actors in multi-stakeholder platforms to support information exchange and joint action, promote product aggregation, contract farming, and value addition to agricultural products⁴³

Long-term actions (2027–2041)

- Develop joint action plans on shortening food value chains to strengthen coordination and feedback mechanisms among implementing agencies, ministries, private sector, farmers, NGOs, CBOs and other stakeholders⁴⁴
- Develop viable business models balancing shortening food value chains and good pricing for consumers, including mechanisms for intensifying agri-food MSMEs, and regulating intermediaries and big traders/ enterprises⁴⁵

Leading actor: DAM and Ministry of Commerce

Roles for specific actors, champions, networks:

- DAM, DLS, DoF, MoCommerce: Lead initiatives to shorten food value chains
- CC: Develop capacity of stakeholder groups involved in food trade at different levels
- Other actors: Dept. of Cooperatives, BIRTAN

2.4 Reduce food loss and waste throughout the food value chain, from farm to fork

Immediate actions (steps in next 12 months)

- Sensitize all actors (farmers to consumers) on good practices on food loss and waste (prevent, minimize, manage), through SBCC, educational curricula, mass media campaigns and training⁴⁶
- Encourage research to map and test solutions to reduce food loss and waste during harvest, processing and retail, and to increase product shelf life at retail level⁴⁷
- Invest in improved waste disposal system such as allocation of disposal places for organic waste, expansion of waste segregation efforts⁴⁸

Short-term actions (2024–2026)

- Promote responsible business and develop Standard Operating Procedures (SOP) and monitoring for reduction of food loss and waste in processing, storage – including cold chain technologies – and handling in fresh markets, hotels, restaurants and other food businesses, and ensure adequate compliance mechanisms⁴⁹
- Experiment with nudging behaviour towards portion control in restaurants/ big ceremonies⁵⁰
- Review food loss and waste policies and related legislation, identify gaps at city level and establish coordination among responsibilities of different authorities involved⁵¹
- Promote large scale food processing and related technology transfer (esp. for seasonal fruits/ vegetables, fishes, milk), better utilization; improve packaging⁵²

Long-term actions (2027–2041)

- Develop joint action plans on food loss and waste to strengthen coordination and feedback mechanisms among implementing agencies, ministries, private sector, farmers, NGOs, CBOs and other stakeholders.
- Ratify and establish revitalised urban FLW management policies and segregated waste processing system, including implementation force

Leading actor: DAE, DAM, DoF, DLS (MoA and MoFL), CC, producers' associations, and MMC

Roles for specific actors, champions, networks:

- DAE, DoF, DLS and DAM: Monitor FLW from farm to market, ensuring compliances to food safety issues, cooperate with ministries to formulate FLW policy, promote seafood, and support food processing enterprises
- CC: Develop markets to reduce FLW, enforce relevant laws, support waste to energy conversion initiative (e.g. biogas) with relevant infrastructure and equipment, promote responsible business, and make consumers aware

3. Optimizing livelihoods of people working in the food system

What Dhaka's food system looks like largely influences the types of food-related jobs in the cities. Moving towards the desirable scenario where food safety standards, good agricultural practices and sustainability standards are upheld, implies an extension of standards' monitoring and enforcing efforts. This again may affect curricula in education and capacity development activities for actors throughout food value chains. In addition, whether the food system comprises a diverse business structure, or alternatively, rather large-scale companies, has very different implications for the level of competitiveness and needs for structures to support such businesses. An important area of attention for Dhaka is how to respond to the large numbers of informal jobs on which Dhaka's food system depends. Regardless of the future direction, optimising people's livelihoods in the food system requires action that support fair incomes across all sectors and actors within the food system, and decent work conditions for all workers. Four key areas of action are proposed:

1. Enhance promotion of safe food production, processing and handling as a strategy to improve working conditions of food sector actors
2. Support avenues to facilitate investment and creating economic opportunities in agri-food sector
3. Ensure adaptive capacity of fresh market and informal sector vendors to change
4. Ensure livelihoods and benefits (economic/ other) for low-income communities active in food waste businesses when shifting from low-to high-value waste treatment

These areas of action focus on improving work conditions and fair income throughout the value chain, with a special focus on those currently working in the informal sector and in low-income jobs.

3.1 Enhance promotion of safe food production, processing and handling as a strategy to improve working conditions of food sector actors

Immediate actions (steps in next 12 months)

- Raise awareness and skills about workplace safety, among food businesses, farmers, workers, employers, and law enforcers⁵³
- Assess workplaces (agri-production, markets, processing plant, and transports) to identify weaknesses (infrastructure, safety, hazards) and barriers for a healthy work environment⁵⁴
- Develop Standard Operating Procedures (SOP) for safe workplaces in the food sector, including informal sector, and appropriate monitoring mechanisms⁵⁵

Short-term actions (2024–2026)

- Map and pilot test solutions for improved workplaces, and support investment in improving workplace conditions (tax rebate, favourable loans)⁵⁶
- Engage with food sector associations to develop joint action plans on workplace conditions in the food sector, and strengthen coordination and feedback mechanisms among implementing agencies, ministries, private sector, farmers, NGOs, CBOs and other stakeholders⁵⁷

Long-term actions (2027–2041)

- Introduce and invest in automation and technology in the agri-food sector that can enhance safety and reduce hazards⁵⁸
- Designate a department/ division as reasonable for workplace safety and workers' rights⁵⁹
- Ratify and establish workplace policies and legislation for the food sector, to monitor agri-food sector workplaces for compliance to standards and develop intensifying and certification schemes⁵⁷

Leading actor: MoLE, BFSA, and private sector

Roles for specific actors, champions, networks:

- BFSA, BSTI and associated labs: Ensure safe food production
- MoLE: Assess and develop workplaces and capacity of workers, employers, and inspectors
- Private sector and corporate organizations: Cooperate with govt. for collective effort

3.2 Support avenues to facilitate investment and creating economic opportunities in agri-food sector

Immediate actions (steps in next 12 months)

- Map potential investors in Bangladesh and abroad⁶¹
- Identify the barriers and gaps for agri-business financing and investment in existing policy and practices⁶²

Short-term actions (2024–2026)

- Develop a road map to improve investment climate and business opportunity in food sector, including a particular focus on support of small (household-based) food processors, and medium and large-scale food businesses⁶³
- Improve market linkages, develop marketing channels and transport arrangements to enhance farmers' (esp. marginalized) access to markets⁶⁴
- Enable farmers to get (safe) inputs on interest-free/ soft govt. loans⁶⁵ and repay agri-loans by agri-produces and loan products

Long-term actions (2027–2041)

- Enhance accessibility of financial services by facilitating and simplifying service delivery, e.g., one-stop service desk under one department⁶⁶
- Upgrade, ratify and implement revitalised investment policies and legislation, to establish a favourable and supportive investment climate⁶⁷
- Develop central data management system to monitor economic contribution of food sector⁶⁸
- Bring emerging sectors under specialized business category, e.g., beef-meat processing⁶⁹

Leading actor: Bangladesh Investment Development Authority (BIDA)

Roles for specific actors, champions, networks:

- BIDA, Bangladesh Bank, MoForeignAffairs: Create enabling environment for investment
- LGD, DAE, DoF, DLS, BSTI, BFSA, MoCommerce, agro-processing industries: Coordinate policies to support the investment environment

3.3 Ensure adaptation of fresh markets and informal sector in the realm of changing market structures

Immediate actions (steps in next 12 months)

- Raise awareness of actors (MMC, vendors) on ways to make markets more efficient and consumer-friendly⁷⁰
- Explore the potential of fresh markets and market management committees to respond to shifting market dynamics and identify solutions⁷¹
- Strengthen capacity and technical knowledge of vendors/ low-income/ informal food sector actors on business management, value addition, standards, services, and income generation activities (IGA)⁷²

Short-term actions (2024–2026)

- Provide for and facilitate resources (public space) and regulatory framework to support implementation of solutions and innovative market models, including mechanisms to include informal sector actors, ensure minimum wage for food sector workers, upgrade market infrastructure⁷³
- Promote gender and social inclusion in urban food economy (e.g., support Community Development Committees of Town Federations/ women to put up organic food stores in communities)⁷⁴
- Promote peer-to-peer & CC personnel to grass-root level knowledge sharing to enhance outcomes of capacity and awareness building activities⁷⁵

Long-term actions (2027–2041)

- Develop (urban) policy instruments and implementation strategies supporting the inclusion of the informal food sector in urban policies for social development and wellbeing, and equip seasonal workers to take part in informal food sector⁷⁶
- Ensure compliance of traders and workers with the market regulations (CC, urban planners and market officers)⁷⁷
- Connect informal food sector actors with private sector (e.g., to source raw materials, grade/ sort, outsource processing partially, check quality, market/ distribute) to formalize them⁷⁸

Leading actor: CC, DAE (MoA), Ministry of Food

Roles for specific actors, champions, networks:

- LGD, MoA, MoFood: Adapt necessary policies
- CC: Enforce and implementation policies, and ensure monitoring
- MMC: Support in enforcing rules and ensuring compliance
- MoL&E: Empower workers' unions to gain bargaining power
- Other actors: LGD, RAJUK, BFSA, CAB, I/NGO

3.4 Ensure livelihoods and benefits (economic/ other) for low-income communities active in food-related waste businesses when shifting from low-to high-value waste management

Immediate actions (steps in next 12 months)

- Advocate (re)use of solid waste by selling, recycling and creating alternative income through SMEs⁷⁹
- Identify and analyse business opportunities for the highest waste producing products/ sectors (e.g., fish shell to ornament)⁸⁰

Short-term actions (2024–2026)

- Map and pilot test alternatives to reuse and recycle organic food wastes⁸¹
- Introduce/ promote small-scale waste recycling technologies/ methods to informal FLW sector workers and provide vocational training on waste reuse and recycling⁸²

Long-term actions (2027–2041)

- Establish business support package for entrepreneurs in food waste reusing or recycling⁸³
- Connect informal food sector actors with private sector (e.g., to source waste, grade/ sort/ clean, outsource processing partially) to formalize them⁸⁴

Leading actor: CC, MoA (DAM, DAE), MoFL (DLS, DoF)

Roles for specific actors, champions, networks:

- CC: Facilitate the process of moving towards high-value waste treatment, and provide waste segregation support to markets
- DAE, DAM, DLS, DoF: Provide technical support, awareness, and training, implement policies and services in cooperation with CC
- NGO: Conduct training, raise awareness, and pilot solutions

4. Protecting Dhaka's population from shocks to the food system

This fourth key direction focuses on the importance of building resilience into the urban food systems to enable them to respond adequately to uncertainties and shocks. Whether it be climate related shocks, pandemics, or geopolitical instability, there is a need for adequate safety nets and price regulatory mechanisms to ensure food and nutrition security for all. Conscious decision-making regarding the level of self-sufficiency and dependence on food trade is also required, driven by an understanding of the risks and opportunities that different business structures and food sourcing strategies provide. Therefore, the following four key areas of action are proposed:

1. Strategize improving resilience for enhanced food security and food safety, given the impacts of climate change, trade and other conditions
2. Support developing resilient business environment
3. Improve the resilience of food outlet landscape (food markets, vendors) to adverse weather conditions and climate change impacts
4. Make low-income and vulnerable groups more resilient to stress and shocks

Together, these action areas address the needs for the most vulnerable groups and acknowledges the need to better understand and respond to vulnerabilities from food production to transportation, storage and retail.

4.1 Strategize improving resilience for enhanced food security and food safety, given the impacts of climate change, trade and other conditions

Immediate actions (steps in next 12 months)

- Review policy and analyse risk/gap of the agri-food system (food security, safety) in the face of climate change⁸⁵
- Review bilateral trade agreements with major food producing and exporting countries⁸⁶
- Diversify the portfolio of essential foods' sourcing: peri-urban, close and long-distance production hubs, and imports⁸⁷

Short-term actions (2024–2026)

- Introduce and promote climate-smart/ resilient agriculture (crop varieties, technology, practices)⁸⁸
- Explore and incentivise urban and peri-urban food production⁸⁹
- Monitor and improve linkages between production, markets and food stocks⁹⁰

Long-term actions (2027–2041)

- Address and mainstream DRM and climate resilience in all agricultural and relevant policies, to ensure NFS⁹¹
- Formulate long-term plan to develop resilient agri-food infrastructure (production/ inputs/ irrigation, transportation, storage, energy, waste management)⁹² and upgrade healthcare systems to address emerging health issues (esp. urban) such as non-communicable diseases⁹³
- Integrate designated food production and preservation areas in urban planning⁹⁴

Leading actor: MoA, BFSA

Roles for specific actors, champions, networks:

- MoCommerce: Manage bilateral trade relations
- CC: Promote and support urban/ peri-urban production and trade
- DDM, MoDMR: Conduct vulnerability study
- MoA/ NARS: Provide training, and support resilient production and technologies

4.2 Support resilient business environment development

Immediate actions (steps in next 12 months)

- Analyse policy gaps on resilience of the food producing sector considering adverse weather and seasonal constraints⁹⁵
- Encourage matching consumption pattern to seasonal changes in local production and market potentials/ conditions⁹⁶

Short-term actions (2024–2026)

- Uptake strategies to mitigate food loss due to seasonal hazards: strengthen early warning system, change cropping pattern as per changing weather conditions and seasonal traits⁹⁷
- Support environment-sensitive seasonal business development: generate necessary market forecasts, introduce seasonal loans, insurance and technologies to promote post-harvest/ food processing and storage⁹⁸

Long-term actions (2027–2041)

- Reform price policy to reduce seasonal fluctuations (as currently prevented in the case of rice)⁹⁹
- Uptake strategies for balanced international food trade: encourage/ incentivize export-oriented agriculture, high-value crops, and food processing¹⁰⁰
- Decentralize services (education, health, industries) and utilize opportunities out of Dhaka¹⁰¹

Leading actor: DAM (MoA)

Roles for specific actors, champions, networks:

- Other actors: MoFood, MoCommerce, MoDisasterManagement&Relief, MOFECC

4.3 Improve the resilience of food outlet landscape (food markets, vendors) to adverse weather conditions and climate change impacts

Immediate actions (steps in next 12 months)

- Develop necessary criteria/ guideline to assess fresh/ other markets for resilience standards and assess them¹⁰²
- Incorporate guidelines for resilience into SOP for fresh/ other markets
- Raise awareness among market actors and consumers about resilient infrastructure and practices¹⁰³

Short-term actions (2024–2026)

- Encourage investing in developing resilient market infrastructure¹⁰⁴ (e.g. with tax rebates, specialized loan facilities for upgradation)

Long-term actions (2027–2041)

- Upgrade the retail and other market infrastructure to make them resilient (e.g. set up shed, WASH, drainage system to prevent waterlogging, covered van with chiller, food storage with refrigeration, waste management, concrete pavement, fire safety)¹⁰⁵
- Monitor markets for compliance to resilience standards and enforce relevant regulations¹⁰⁶

Leading actor: RAJUK, CC

Roles for specific actors, champions, networks:

- CC: Monitor food outlets regularly to ensure presence of safety measures, raise awareness and train up actors, and support investment for resilience
- RAJUK: Ensure compliance to resilient building codes/ requirements
- Other actors: MMC, DGHS, MoEFCC

4.4 Make low-income and vulnerable groups more resilient to stress and shocks

Immediate actions (steps in next 12 months)

- Control price inflation of basic food items (e.g. price ceiling, regulate syndicates, contract with private shops to sell products at defined prices)¹⁰⁷
- Develop individual-level strategies for DRM and climate impact mitigation (esp. in climate-vulnerable people); encourage personal savings, income diversification/ AIGA¹⁰⁸

Short-term actions (2024–2026)

- Design and uptake integrated customized short-term social safety schemes targeting the crisis periods (e.g. lean period, fishing bans, natural disasters), supplement them with govt. loan schemes/ agri-input subsidies, agri-insurance (crop, cattle), expand coverage of Open Market Sale (OMS)¹⁰⁹
- Implement the existing social safety policies such as, the life-cycle approach, emphasizing on socially vulnerable groups (PLW, children, elderly)¹¹⁰
- Invest in urban social safety nets, targeted programs for vulnerable groups, and food subsidies, including fortified basic foods (e.g. rice) for pregnant and lactating women (PLW) and children¹¹¹

Long-term actions (2027–2041)

- Design and offer counter-cyclical/ seasonal loans with minimum interest¹¹²
- Develop and enhance coverage of universal social schemes (e.g. universal pension/ savings)¹¹³
- Reform/ enforce policies to reduce income disparity (taxing)¹¹⁴

Leading actor: MoSW

Roles for specific actors, champions, networks:

- Other actors: MoFinance, MoDMR, MoA, LGD, MoFood, MoWCA, MoCommerce, DAM

5. Feeding Dhaka in a Nature Positive Way

As diets are changing around the globe, the impacts of food systems on the natural environment become increasingly evident, with loss of biodiversity, increasing greenhouse gas (GHG) emissions, environmental degradation but also pollution of food. Projected increase in wealth in Bangladesh goes hand in hand with anticipated increase in consumption of protein rich foods such as, dairy, meat and fish. However, from an environmental perspective, increased consumption of these foods have represent a critical risk. A major challenge is how to navigate towards consumption patterns that not only support good health and wellbeing, but also support a healthy natural environment within and outside Dhaka. In short: how can Dhaka feed its citizens in a manner that protects and even restores natural resources in and outside the city? This means not only sustainable and organic production of foods in urban and peri-urban areas, but also efficient organisation of food value chains to reduce food losses, smart packing of food and rethinking food transportation and waste management. What is considered food waste, and how to valorise waste throughout the food value chain are important questions for the future of Dhaka's food system. Therefore, the following four key areas of action are proposed:

1. **Shift towards nature-positive consumption and food behaviour**
2. **Promote nature-positive production to improve soil health and water and air quality, and enhance food safety**
3. **Ensure more efficient, environment friendly, and sustainable food transportation system**
4. **Develop clean and safe food markets (fresh/ wholesale/ supermarkets, others) and distribution that promote nature and resilience**

Together, these action areas acknowledge that a nature-positive approach requires a demand for foods that are produced as such, but also that production, transportation, processing, marketing and disposal of waste need to be in line with agreed sustainability standards and ambitions.

5.1 Shift towards nature-positive consumption and food behaviour

Immediate actions (steps in next 12 months)

- Conduct motivational mass media campaigns to promote nature-positive diets that discourage unhealthy foods and improve consumers' buying, cooking, and storage behavior to reduce FLW¹¹⁵
- Invest in future generations by building capacity of parents with school-age children and educating children in schools to normalize healthy, nutritious and nature positive food choices¹¹⁶
- Engage communities and households actively in improved ways of consuming, disposing and re-using excess foods or food waste (e.g. encourage community-level food donation)¹¹⁷

Short-term actions (2024–2026)

- Assess and upgrade existing rules and policies (for agriculture, food, trade) to promote nature-positive consumption¹¹⁸
- Gain a better understanding of current consumptions patterns, food buying behaviors, and FLW through data collection and research¹¹⁹
- Promote household-level waste segregation and composting to reduce FLW¹²⁰
- Adapt/ explore options to switch to eco-friendly alternative products/ packaging in every stage of food chain (jute/ bamboo)¹²¹

Long-term actions (2027–2041)

- Incorporate contents on safe, nature-positive diets in academic curriculum from primary education¹²²
- Stimulate initiatives that optimise use of water in agri-food sector¹²³

Leading actor: MoFood and MoA

Roles for specific actors, champions, networks:

- MoF, MoEducation: Provide training, and conduct promotional (TVC) and awareness raising activities for consumers and market actors over mass media [i.e. on not to over-purchase or store unnecessarily]
- MoA, BFSA, NARS: Introduce and promote new good practices
- Consumers/ association: Participate and cooperate
- Other actors: MoEducation, BFSA, NARS

5.2 Promote nature-positive production to improve soil health and water and air quality, and enhance food safety

Immediate actions (steps in next 12 months)

- Promote eco-friendly/ nature-positive production techniques (IPM, GAP, GAHP)¹²⁴ and soil-water quality testing¹²⁵
- Ensure soil and water quality testing services, also in cities esp. in areas important for urban agriculture/ gardening, and for agri-inputs suppliers¹²⁶
- Bring suppliers and food sector MSMEs under one umbrella to reduce FLW¹²⁷

Short-term actions (2024–2026)

- Promote structural data-collection and sharing on soil and water conditions in urban, peri-urban and rural production areas and monitoring of agro-chemical use¹²⁸
- Implement existing policies and standards for safe and nature-positive food production and distribution, including maximum residue limit (MRL), also for pesticides/ fertilizers¹²⁹
- Regulate and minimize food loss and waste, and promote valorisation of (food) waste through guidelines and enforcing 3R policy¹³⁰

Long-term actions (2027–2041)

- Diligent monitoring and enforcement of minimum standards for use of agro-chemicals and residues in production areas¹³¹
- Provide eco-friendly certification and supportive policies to encourage safe and nature-positive food production and distribution and efficient usage of land (soil) and waterbodies¹³²
- Ensure maximum utilization of food waste through structural uptake of waste recycling (e.g., to energy or fertilizer) and treatment both by government and private sector¹³³

Leading actor: DoE (MoEFCC) and producers' associations

Roles for specific actors, champions, networks:

- Academia and RAJUK: Test and avail information on soil–water condition in cities
- Farmers / producers' association and private sector: Adopt GAP and other good practices
- MoA (DAE, DAM), MoFL (DLS, DoF): Expand technology, and provide training and awareness on safe food production
- BFSA, BSTI: Ensure uptake of GAP and other good practice

5.3 Ensure more efficient, environment friendly, and sustainable food transportation system

Immediate actions (steps in next 12 months)

- Initiate collaboration across concerned ministries and with private sector traders/ transporters for complementary modes of transports such as railway and waterway (as low-energy alternatives to energy-intensive long-distance transport), to transport foods sustainably and efficiently, and thus reduce food loss and costs, making food more affordable; formulate policies to promote such transports¹³⁴

Short-term actions (2024–2026)

- Relocate wholesale markets/ hubs from central Dhaka to peri-urban areas¹³⁵
- Form farmers' group/ communal production hub, and enhance connection between production hubs and urban wholesale markets to shorten value chains¹³⁶

Long-term actions (2027–2041)

- Ensure proper, adequate, feasible and improved mass transportation system for food items and minimize the transportation time to keep up food values¹³⁷
- Incentivize green/ safe transportation, and subsidize transporting foods safely¹³⁸

Leading actor: MoRailways and DAM (MoA)

Roles for specific actors, champions, networks:

- MoRailways, MoRoadTransport&Bridges and MoPowerEnergy&MineralResources: Provide low cost environment friendly food transportation while keeping up food values
- MoPostsTelecom&IT: Expand connectivity and facilities up to rural areas
- MoFood, MoA (DAM), MoFL: Organize farmers/ producers and ensure efficient connectivity to markets

5.4 Develop clean and safe food markets (fresh/ wholesale/ supermarkets, others) and distribution that strengthen natural habitats

Immediate actions (steps in next 12 months)

- Choose location for markets based on access to water supply, sanitation, waste management, and other civic facilities¹³⁹
- Segregate dry markets from wet ones¹⁴⁰
- Provide market-workers with safety tools (apron, gloves, masks)/ facilities and promote reusable bags and shopping carts¹⁴²

Short-term actions (2024–2026)

- Enforce rules banning use of plastic bags and promote perishable bags¹⁴³
- Structure and organize fresh markets to minimize FLW¹⁴⁴

Long-term actions (2027–2041)

- Develop and implement self-sustaining nature-friendly food market models¹⁴⁵
- Initiate joint financing/ fundraising-management, and activity among govt., development and private sector for fresh market upgradation¹⁴⁶

Leading actor: CC, law enforcement agencies, and DAM

Roles for specific actors, champions, networks:

- MMC: Provide technical support to CC and ensure proper management of markets
- DAM and law enforcement agencies: Ensure safe nature-positive handling of food
- CC: Develop market infrastructure (safe and secure) and allocate space and budget for it, ensure sanitation and hygiene, segregate dry and wet markets, and improve waste disposal in markets
- Development partners: Invest in developing nature-friendly markets and market upgradation



Strengthening Dhaka's food system governance

Food and nutrition governance is a responsibility distributed across different levels in Bangladesh. At the national level, the Ministry of Food, and in particular the Food Planning and Monitoring Unit (FPMU), is responsible for policy development and implementation relating to food and nutrition security. The FPMU collaborates with 14 ministries and is supported by the Food Policy Working Group. At the subnational level, the Ministry of LGRD&C is responsible for local policy development and implementation strategies.

City Corporations (CC) are organised in different departments that each link to the food system in different ways: health, sanitation, revenue (market management), waste management and engineering, headed by administrative departments and led by the CEO. In addition, CCs can form standing committees on specific issues in their cities, such as waste management, water, electricity or urban planning. City-level policy development for food and nutrition security for all is thus, by nature, a cross-sectoral and interdisciplinary effort to embrace by city officials.

Sectoral policies provide guidance to the governance structures that operate in the different domains of the urban food system. However, the existing multis-stakeholder partnerships are not well established and often concentrated on specific domains of the food system. Considering the food system challenges that cities are facing, there is a need to have dedicated cross-sectoral multistakeholder platforms and a functioning food system governance that drive decision-making towards a sustainable, safe and inclusive food system in Dhaka.

The Dhaka Food Agenda 2041 brings stakeholders together

Food system governance is about decision-making processes regarding the food system, how these decisions are made and by whom. Multistakeholder platforms that exist in Dhaka's food system have been supporting such participatory decision-making and have propped up developing the DFA 2041. The Consultative Group for Urban Food System Strategies (CGUFSS) operates at the ministerial level and brings together representatives from other relevant ministries, city officials, private sector, development partners and knowledge institutes. The CGUFSS serves as an important linking pin between national government and the cities, has supported the development of the DFA 2041, and can guide its implementation, going forward.

At the city-level, four Food System City Working Groups (CWGs) are active to set an agenda for each of the cities – Dhaka North, Dhaka South, Narayanganj and Gazipur. CWGs are multi-stakeholder groups led by City Corporations, serving as open inclusive food system governance platforms, focused on addressing problems and sizing opportunities with innovative and urgent solutions. They leverage collaboration, organizing dialogues, setting priorities, sharing resources, coordinate decision-making, joint actions, empowerment of stakeholders, and good policy formulation.

The CWGs have also supported developing City Food Charters in each of the four cities, a shared vision for the direction of the city, identifying key food system challenges, prioritize actionable steps to address them, and a broad direction to move towards – through an inclusive and participatory process. City Food Charters can serve as an instrument to materialize the actions of DFA 2041 in four cities. As part of the CWGs, urban planners can play an important part to support future foresight processes and agenda development within these cities and to further update and refine the DFA 2041.

These platforms can, each in their own way, contribute to urban food system governance by looking at food from farm to fork to waste and everything that happens in between. They offer opportunities to link actors and sectors and include diverse groups of stakeholders to ensure that different perspectives and interests can be represented in decision-making processes. Linking to the action areas defined under each key direction in DFA 2041, the CWGs play a vital role in forming a hub for relevant stakeholders to meet, exchange and collaborate. With that, the CWGs can form catalysts of many of the proposed actions under each of the key directions.

To further strengthen planning and governance of urban food system, a series of action areas can be identified that support the anchoring and continuity of key food system governance platforms at the subnational and city level.

1. Continue, consolidate, and anchor the key urban food system governance platforms
2. Scale-up and replicate good practices, and create enabling environment
3. Monitor, reflect and learn, and reformulate policies and plans

1. Continue, consolidate and anchor the key urban food system governance platforms

Immediate actions (steps in next 12 months)

- Continue and anchor the City Working Groups (CWGs) as food system governance platforms at the city-level
- Consolidate and anchor the Consultative Group in Urban Food Systems Strategies (CGUFSS) as a responsible authority at the ministry level to coordinate with and engage other relevant ministries and government departments
- Support formation of a dedicated Urban Food Planning Cell (UFP) in LDG (MoLGRD&C)
- Engage in dialogue with City Corporations and LGD to seek endorsement and support to continue CWGs and CGUFSS
- Develop action plan, Terms of Reference and justification for such platforms to increase their legitimacy, allocate the necessary resources (staff, budget, time, meeting space etc.)

Short-term actions (2024–2026)

- Develop strategy for CWGs in line with DFA 2041
- Institutionalize CWGs and the recommended UFP Cell with clear mandate and positioning in the City Corporations and LGD

Long-term actions (2027–2041)

- Anchor CWGs, CGUFSS and the UFP Cell in City Corporation and LGD's policy arrangement, annual plans and budgets, making them formally acknowledged as esteemed food system governance platforms

2. Scale-up and replicate good practices, and create enabling environment

Immediate actions (steps in next 12 months)

- Explore opportunities to establish CWGs in other cities in Bangladesh and develop City Food Charters
- Scale-up good practices in each of the cities, based on experiences from the CWGs, and implement relevant actions formulated in the DFA 2041
- Strengthen engagement of private sector and civil society (incl. youth representation) in existing governance platforms such as CWGs, so they can participate in decision-making processes and integrate their views and interests in policy, planning and action by these platforms
- Invest in institutional capacity strengthening of City Corporations to further embrace food systems thinking

Short-term actions (2024–2026)

- Continue implementation of good practices and scaling up of pilots in cities, defined and led by the respective CWGs, inspired by good practices in other countries, and in close collaboration with relevant actors and networks
- Review existing policies or develop policies and by-laws that support (innovative) actions towards a safe and sustainable food system, thereby engaging relevant stakeholders and implementing agents

Long-term actions (2027–2041)

- Transfer accountability structures to relevant institutions and build necessary institutional capacities to carry out the responsibilities
- Invest in capacity building of (implementing) partners that City Corporations work with to implement the DFA 2041

3. Monitor, reflect and learn, and reformulate policies and plans

Immediate actions (steps in next 12 months)

- Build relations with cities in other countries to learn about their practices, innovations and explore how these could fit within the context of Dhaka and feed into the DFA 2041
- Develop a strategy to monitor actions defined in the City Food Charters and reflect on progress and learnings within the CWGs

Short-term actions (2024–2026)

- Develop a strategy and necessary communication channels to share data, progress and learnings on a structural basis between the City Corporations (CWGs) and LGD/ UFP Cell
- Formulate/ revise the plans and strategies in the DFA 2041 based on learnings in line with other national ambitions and strategies and to achieve food system-related SDG targets by 2030
- Acknowledge the role of youth in further updating and implementing the DFA 2041

Long-term actions (2027–2041)

- Develop a strategy and necessary communication channels to structurally share data, progress and learnings on the Dhaka's food system and implementation of the DFA 2041 with relevant stakeholders
- Integrate food system sustainability aspect in all plans, policies, and duties, across all relevant sectors and actors, in line with the DFA 2041

Stakeholder engagement strategies

The proposed actions in DFA 2041 link to a variety of levels and scales. Thus, multi-stakeholder collaboration is required for each of the action areas, for which the following strategies can be adopted:

Govt.-Govt. collaboration: At national level, there is a need to deepen the collaboration between and among ministries to implement existing policies. Liaising between those ministries and City Corporations is key to translate the policies to specific needs in the cities. This includes collaboration with other government agencies that determine and monitor food-related standards (e.g., BSTI or BFSA), or agencies that specialise in spatial planning and modelling of future scenarios (e.g., RAJUK, CEGIS, BIP).

Govt.-Private sector collaboration: The role of private sector is essential in implementing the actions proposed, not only in DFA 2041 but also in all other development commitments of the government at sub-national, national, regional and global level. Partnership with the private sector is key to upgrade and regulate markets, ensure food safety, traceability, and support the desired enabling policy and regulatory effort, as industry has a large influence and opportunity to bring new ideas forward.

Govt.-Academia collaboration: Enhanced collaboration with research and educational institutes is required to review existing education programmes and policies at all levels, ensure evidence-based policy formulation, innovation, and effective technology transfer.

Govt.-Civil Society/ NGO collaboration: National and city governments can form collaborative structures with consumers' associations and development partners in designing and implementing interventions to raise awareness, strengthen SBCC initiatives, develop pilots and align efforts towards the actions formulated in this agenda.

Way forward for the Dhaka Food Agenda 2041



What is the way forward to further the DFA 2041? How can the agenda play a central role for accompanying and steering the transformation of the urban food system of Dhaka further? Dhaka's food system and therefore its agenda are dynamic. This requires ongoing adaptation and systems' leadership. City Corporations, jointly with the Ministry of LGRD&C, RAJUK, and urban planners can play an important part in supporting future foresight processes and agenda development. Dhaka's decision makers can use the existing platforms and policy processes to review the agenda, inform changes, and iterate stakeholder processes. The collection and validation of data to serve the policy processes can be pathways to explore, monitor, evaluate and learn together. The Dhaka Food Agenda 2041 seeks to tap into international developments on urban food policy planning to establish the relevant mechanism.

Keeping key stakeholders involved in this process is essential to create ownership and co-creation capacity. However, stakeholder engagement alone is not sufficient to strengthen urban food system governance. The actions in each of the five domains are formulated in general terms and require further action and careful deliberation at the level of the City Corporations to translate them to concrete actions for their respective constituencies. Only when governance platforms can bring key stakeholders and necessary evidence to the table, effective and inclusive decision-making can take place.

Develop a Plan of Action (PoA) for implementation of DFA 2041 with clear delegation of responsibilities, disaggregation of activities with more fragmented timeline, strategies for implementation and institutionalization among ministries, resource requirement and mapping, technical supports, and reporting/ monitoring and evaluation mechanism

Review the DFA 2041 at given regular intervals (e.g. every five years) to keep it relevant and make it a dynamic living document, considering the future challenges and uncertainties

Following are the stakeholder recommendations for the way forward with DFA 2041:

- Keep the City Corporations as the central implementing authority for DFA 2041, engaging Ward Councillors actively to bring it at the closest local level for constituencies
- Emphasize on the role of women and underprivileged segments of society to explore alternative strategies to improve their access to safe, healthy and nutritious foods, in implementing DFA 2041
- Seek potential investors and collaborative opportunities, and develop new patterns of relationships with the development partners to work together to realize the DFA 2041
- Engage Civil Society Organizations (CSOs) with government in all initiatives under DFA 2041
- Identify and adapt/ formulate necessary policies to take DFA 2041 forward, and endorse or embed the recommendations of DFA 2041 into government policies or acts as needed, through for example, inter-ministerial consultations
- Emphasize educational institutions as key stakeholders and make teachers/ academic instructors, students, and youths aware of the desired actions from them today for a better future, as today's children will be the leaders of tomorrow (2041)
- Develop an Plan of Action (PoA) for implementation of DFA 2041 with clear delegation of responsibilities, disaggregation of activities with more fragmented timeline, strategies for implementation and institutionalization among ministries, resource requirement and mapping, technical supports, and reporting/ monitoring and evaluation mechanism
- Review the DFA 2041 at given regular intervals (e.g. every five years) to keep it relevant and make it a dynamic living document, considering the future challenges and uncertainties



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ABBREVIATIONS AND ACRONYMS

A2i Access to Information Programme	LGD Local Government Division
AIGA Alternative Income Generating Activity	mil Million
BADC Bangladesh Agricultural Development Corporation	MMC Market Management Committee
BARC Bangladesh Agricultural Research Council	MoA Ministry of Agriculture
BCCSAP Bangladesh Climate Change Strategy and Action Plan	MoCommerce Ministry of Commerce
BDP2100 Bangladesh Delta Plan 2100	MoDMR Ministry of Disaster Management and Relief
BFSA Bangladesh Food Safety Authority	MoEducation Ministry of Education
BIDA Bangladesh Investment Development Authority	MoEFCC Ministry of Environment, Forests and Climate Change
BIP Bangladesh Institute of Planners	MoFinance Ministry of Finance
BIRTAN Bangladesh Institute of Research and Training on Applied Nutrition	MoFL Ministry of Fisheries and Livestock
BLRI Bangladesh Livestock Research Institute	MoFood Ministry of Food
BNBC Bangladesh National Building Code	MoForeignAffairs Ministry of Foreign Affairs
BNNC Bangladesh National Nutrition Council	MohFW Ministry of Health and Family Welfare
BSTI Bangladesh Standards & Testing Institution	Mol Ministry of Land
CAB Consumers Association of Bangladesh	MoLE Ministry of Labour and Employment
CBO Community-based Organizations	MoLGRD&C Ministry of Local Government, Rural Development & Cooperatives
CC City Corporation	MoP Ministry of Planning
CEGIS Center for Environmental and Geographic Information Services	MoPostsTelecom&IT Ministry of Posts, Telecommunications and Information Technology
CEO Chief Executive Officer	MoPowerEnergy&MineralResources Ministry of Power, Energy and Mineral Resources
CGIAR Consultative Group on International Agricultural Research	MoRailways Ministry of Railways
CGUFSS Consultative Group in Urban Food Systems Strategies	MoRoadTransport&Bridges Ministry of Road Transport and Bridges
CSO Civil Society Organizations	MoSW Ministry of Social Welfare
CWG Food System City Working Group	MoWCA Ministry of Women and Children's Affairs
DAE Department of Agricultural Extension	MP Member of Parliament
DAM Department of Agricultural Marketing	MRL Maximum Residue Limit
DDM Department of Disaster Management	MSME/ SME Micro, Small and Medium Enterprises
DFA Dhaka Food Agenda	MVMT My Village My Town
DFS Dhaka Food System	NARS National Agricultural Research System
DGHS Directorate General of Health Services	NFNSP National Food and Nutrition Security Policy
DLS Department of Livestock Services	NFS Nutrition and Food Security
DLS Department of Livestock Services	NNS National Nutrition Services
DMA Dhaka Metropolitan Area	NPAN2 2 nd National Plan of Action for Nutrition
DNCRP Directorate of National Consumer Rights Protection	NPO Non-profit Organization
DoE Department of Environment	NSSS National Social Security Strategy of Bangladesh
DoF Department of Fisheries	OMS Open Market Sale
DRM Disaster Risk Management	PLW Pregnant and Lactating Women
EPB Export Promotion Bureau	PoA Plan of Action
FAO Food and Agriculture Organization of the UN	PP2041 Perspective Plan 2021-2041
FLW Food Loss and Waste	RAJUK Rajdhani Unnayan Karttripakkha
FM Fresh Markets	SDG Sustainable Development Goals
FPMU Food Planning and Monitoring Unit	SOP Standard Operating Procedures
FVC Food Value Chains	TVC Television Commercial
GAHP Good Animal Husbandry Practices	Urban Food Planning Cell (UFP)
GAP Good Agricultural Practices	USD United States Dollar
GDP Gross Domestic Product	WASH Water, Sanitation and Hygiene
GHG Greenhouse Gas	WCDI Wageningen Centre for Development Innovation
GOB Government of the People's Republic of Bangladesh	WUR Wageningen University & Research
(i)NGO (international) Non-government Organisation	ZEO Zonal Executive Officer
IPM Integrated Pest Management	

¹The scenarios were quantified using the agri-food tailored macro-economic model MAGNET and the Spatial Simulation of Income Change (SSID) model, which uses a spatial microsimulation approach to create subnational projections of income and food security indicators. The main data sources of MAGNET are GTAP and FAO statistics. The main source of the SSID database is the most recent Bangladesh Household Income and Expenditure Survey (HIES 2016).

It is assumed that the baseline follows the IPCC-based 'middle-of-the-road' shared socio-economic pathway (SSP2) up to 2040, meaning that the Bangladesh economy as a whole is expected to face moderate social and economic climate challenges over the coming decades, as suggested by the assumed GDP and population growth rates.

² NPAN2, NFNSP 2020

³ NFNSP 2020, NPAN2, Food Safety Act 2013, Packaged Food Labelling Act 2017

⁴ NFNSP 2020

⁵ 2 nd National Plan of Action for Nutrition - NPAN2 (2016-2025)

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⁷ Food Safety Act 2013, Dept. of Livestock Services Quality Control Laboratory Policy 2021

⁸ NPAN2

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¹³ NFNSP 2020, National Food Policy 2006

¹⁴ National Urban Health Strategy 2020

¹⁵ NPAN2

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