



**Bangladesh
Food System
Profile**

Better understanding food
systems at country level

The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) delivers research-based solutions that address the global crises of malnutrition, climate change, biodiversity loss, and environmental degradation.

The Alliance focuses on the nexus of agriculture, nutrition, and environment. We work with local, national, and multinational partners across Africa, Asia, and Latin America and the Caribbean, and with the public and private sectors and civil society. With novel partnerships, the Alliance generates evidence and mainstreams innovations to transform food systems and landscapes so that they sustain the planet, drive prosperity, and nourish people in a climate crisis.

The Alliance is part of CGIAR, a global research partnership for a food-secure future dedicated to transforming food, land, and water systems in a climate crisis.

www.alliancebioversityciat.org

www.cgiar.org

Citation:

Hernandez, R; Béné, C; Lundy, M; Chege, CGK; Wiegel, J; Achicanoy, H. Bangladesh Food System Profile. Better understanding food systems at country level. CIAT Publication No. 541. International Center for Tropical Agriculture (CIAT), Cali, Colombia. 35 p.

Cover photo: Wonderlane/Unsplash

© CIAT 2022. Some rights reserved.


This work is licensed under a Creative Commons Attribution 4.0 International License (CC-BY 4.0).

<https://creativecommons.org/licenses/by/4.0/deed.en>

December 2022

Bangladesh Food System Profile

Better understanding food systems at country level

 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
Federal Office for Agriculture FOAG



Acknowledgements

This work is funded by the Swiss Federal Office for Agriculture.

The Alliance of Bioversity International and CIAT would like to thank the participants in multi-stakeholder dialogues in Bangladesh for their support in testing and improving this analytical framework.

Contents

What is a country food system profile?	<u>6</u>
Why food system country profiles are needed	<u>7</u>
Bangladesh Food System Profile	<u>9</u>
<i>Drivers</i>	<u>10</u>
<i>Actors and activities</i>	<u>15</u>
<i>Food environment</i>	<u>20</u>
<i>Consumer behavior</i>	<u>25</u>
<i>Outcomes</i>	<u>30</u>

What is a country food system profile?

A Sustainable Food System Country Profile is a short document that synthesizes in a clear, concise, and graphic manner the critical information necessary for public and private decision-makers to obtain a holistic/systemic but synthetic overview of the components that are recognized to be critical for the sustainability of countries' food systems.

Country profiles are more than a simple compilation of national indicators. They are constructed and designed to identify hotspots of unsustainability in the food systems and prioritize interventions at multiple scales to address these through targeted actions and investments. An important feature of the country profiles is that they are co-produced with key public and private food system stakeholders engaged in both identifying the data and validating results and emerging key messages.

The use of a common framework also offers an opportunity for a global comparative analysis on food system transitions and transformations – not just at national but also international level – thus generating insights and lessons for decision-makers.



Why food system country profiles are needed

Food systems are complex, multi-dimensional and multi-sectoral. Better understanding their dynamics and assessing their performances is critical if we want to strengthen their contribution to the Sustainable Development Goals.

A flurry of initiatives has emerged in the last few years, that propose multi-indicator “compendiums” intended to describe more holistically national food systems. Many of those compendiums, however, are made of 100 or more indicators. As such, they are often overwhelming the policy-makers who they were initially intended to guide, thus defeating their own purpose.

There is a need to find a “middle ground” whereby the complexity, dynamic, and multi-sectoral nature of those food systems is still captured, but boiled down to a more manageable combination of key indicators that help prioritizing entry points for interventions.



The process of identifying those key indicators also needs to follow a clear, transparent and reproducible protocol/methodology so that comparison between countries (and over time) remains possible, yet accounts for the specificity of each country's food systems and its large socio-cultural and political context.

Finally, the process needs to remain participative, involving the main stakeholders of the country's food system and not just experts.

The objective of the Food System Country Profile project is to demonstrate the feasibility of such an approach, initially by developing and field-testing a protocol in three pilot countries: Bangladesh in Asia, Ethiopia in Africa and Honduras in Latin America, with the ambition to expand the approach to other low and middle-income countries in the near future.

The final product, which is in the form of [Food System Country Profiles](#), offers a tool to facilitate more informed and evidence-supported decisions by key stakeholders around food systems.





Bangladesh



Geographic neighbors



Countries with similar GDP per capita



Global average

Bangladesh Food System Profile

This Bangladesh food system profile is composed of three main blocks of information: (a) system drivers; (b) system components; and (c) system outcomes.

The first main block recognizes how environmental, demographic, technological, political, economic, social, and cultural drivers influence the food system—from production to consumption. The second block considers three components of the system: its actors and activities, the food environment, and consumer behavior. The third block, which is the last, corresponds to the system's outcomes in terms of the nutritional and health status of the population, food security, and the country's environmental and socioeconomic conditions.

This profile also presents a comparison of Bangladesh's data against three groups: the country's geographic neighbors (*Bhutan, India, Myanmar, and Nepal*), countries with similar GDP per capita (*Angola, India, Kenya, and Nicaragua*), and the world average.

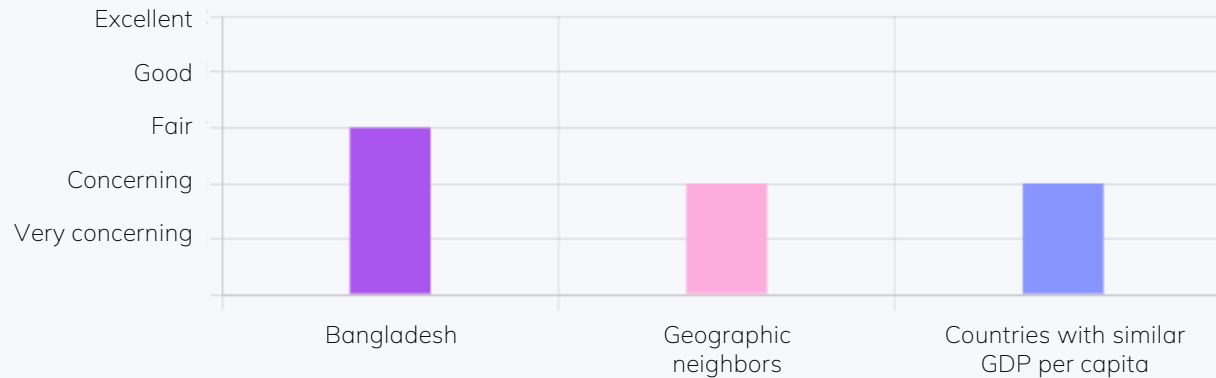
DRIVERS

Fair



Food system drivers are the major factors known to directly influence the activities or the actors of the food systems. They include factors such as technological innovations, climate change, growing concerns about food safety, population growth or urbanization, and changes in lifestyle.

Drivers - aggregated value across the 6 individual indicators*



World average



Improving

65-84% of all indicators for world average have improved or remained unchanged over the time period considered

- Bhutan, India, Myanmar, and Nepal
- Angola, India, Kenya, and Nicaragua

* Temperature change; Nitrogen fertilizer used; Food exports; Foreign direct investment (FDI) inflows to Agriculture, Forestry and Fishing; Urban population growth; GDP per capita growth.

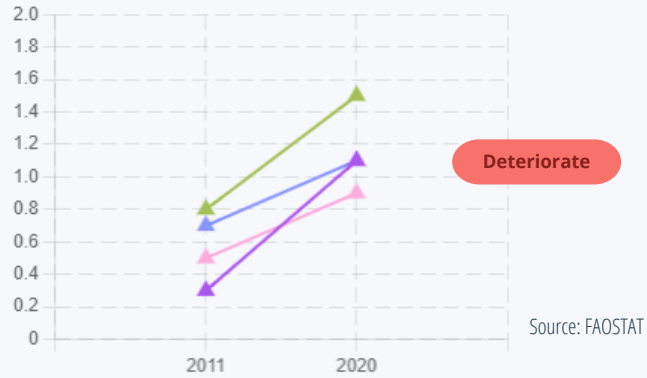
DRIVERS

Fair



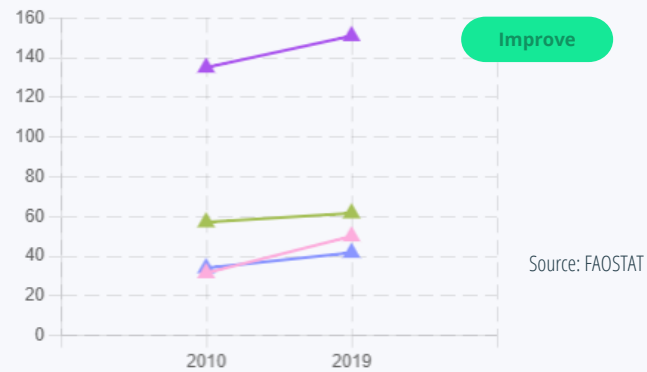
	<p>Temperature change (2011-2020) C degrees <i>Proxy for changes in climate</i></p>	<p>0.3 2011</p>	<p>1.1 2020</p>	<p>0.8 difference</p>	<p>Deteriorate <i>But doing better than the world average</i></p>
	<p>Nitrogen fertilizer used (2010-2019) Kg/Ha <i>Proxy for change in technological innovations</i></p>	<p>135 2010</p>	<p>150.9 2019</p>	<p>15.9 difference</p>	<p>Improve <i>And doing better than the world average</i></p>
	<p>Food exports (2006-2015) % of merchandise exports <i>Proxy for changes in trade policies</i></p>	<p>5.9 2006</p>	<p>2.7 2015</p>	<p>-3.2 difference</p>	<p>Deteriorate <i>And doing worse than the world average</i></p>
	<p>Foreign direct investment (FDI) inflows to Agriculture, Forestry and Fishing (2009-2018) % of total FDI <i>Proxy for changes in international private investments in food system</i></p>	<p>1.7 2009</p>	<p>0.5 2018</p>	<p>-1.2 difference</p>	<p>Deteriorate <i>And doing worse than the world average</i></p>
	<p>Urban population growth (2011-2020) Annual % growth <i>Proxy for changes in urbanization and consumer lifestyle</i></p>	<p>3.6 2011</p>	<p>3 2020</p>	<p>-0.6 difference</p>	<p>Improve <i>But doing worse than the world average</i></p>
	<p>GDP per capita growth (2011-2020) Annual % growth <i>Proxy for changes in consumer income</i></p>	<p>5.3 2011</p>	<p>2.5 2020</p>	<p>-2.8 difference</p>	<p>Deteriorate <i>But doing better than the world average</i></p>

Temperature change (2011-2020)
C degrees



Source: FAOSTAT

Nitrogen fertilizer used (2010-2019)
Kg/Ha



Source: FAOSTAT

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

DRIVERS



The current status of drivers of changes in the food system in Bangladesh is fair. One third of the drivers are moving in a positive direction. This is a similar trend that neighbor countries, and countries with similar income level, but half of the indicators are doing better than the world average.

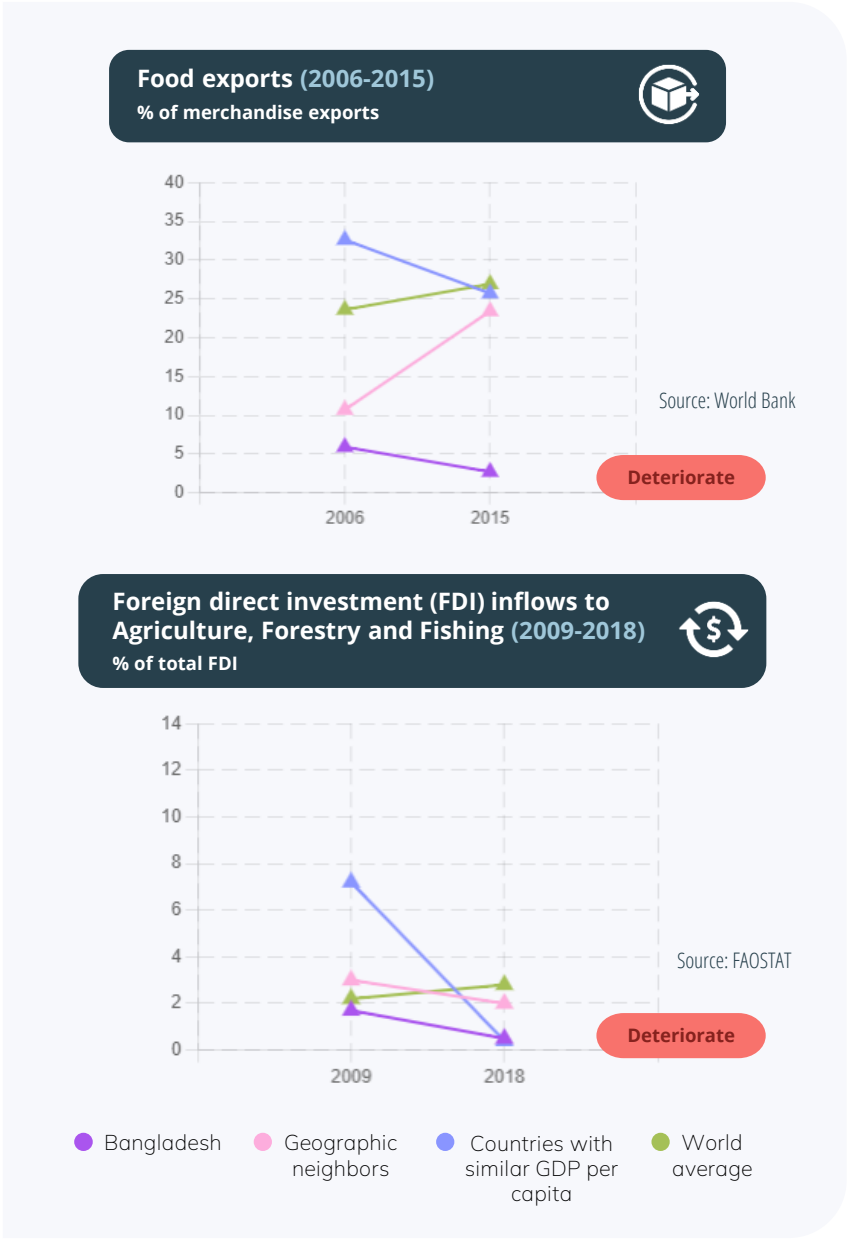
On production/supply, the average increase in temperature, a proxy for climate change in Bangladesh, has increased 0.7 °C over the past decade. The experienced changed is very similar to the comparison groups, but given Bangladesh’s geographical characteristics, this is very concerning as Bangladesh is the most climate change vulnerable country in the world. Higher temperatures, rising sea levels, saltwater intrusion, and increase of frequency and intensity of extreme weather events will have negative impacts on agriculture production and the food system.

On technological innovation (proxied by nitrogen fertilizer used), the average increase is positive, but not high. For production purposes alone, this is positive as it had produced a three-fold increase in crop yields over the past two decades, yet the increase of use of fertilizers can also be concerning as Bangladesh uses roughly three times more nitrogen fertilizers than comparison groups, but has diminished soil fertility and soil organic matter.

DRIVERS



On distribution/trade, food exports (% of merchandise exports) in Bangladesh have steadily decreased over the past decade, which is the opposite of what is happening with geographical neighbors (steady increase), and at a fifth of what other comparison groups have. This is expected given the boom of the garment sector exports in the country. FDI investments in agriculture have minimally changed over the past decade, and it is fairly similar to what has happened in other comparison groups.



Fair



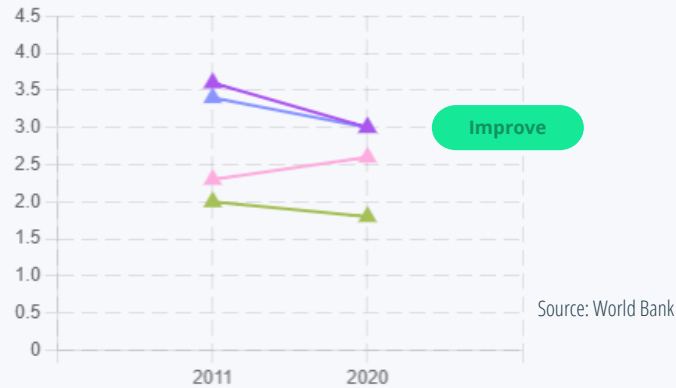
DRIVERS

On consumption/demand, urbanization growth has decreased over the past decade and shows a trend similar to other countries with similar income levels, yet its level is roughly 15% higher than neighbor countries (where urbanization growth is increasing), and roughly twice as high compared to the world. Since Bangladesh is one of the most densely populated countries of the world, this is good news, as the added pressure to feed urban population is increasing at a decreasing rate. Consumer income has decreased for all comparison groups over the past decade, yet Bangladesh's per capita GDP annual % growth has remained positive towards the end of 2020.



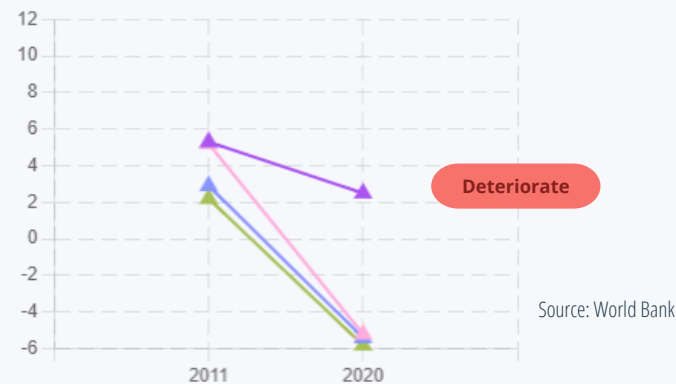
Urban population growth (2011-2020)

Annual % growth



GDP per capita growth (2011-2020)

Annual % growth



- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

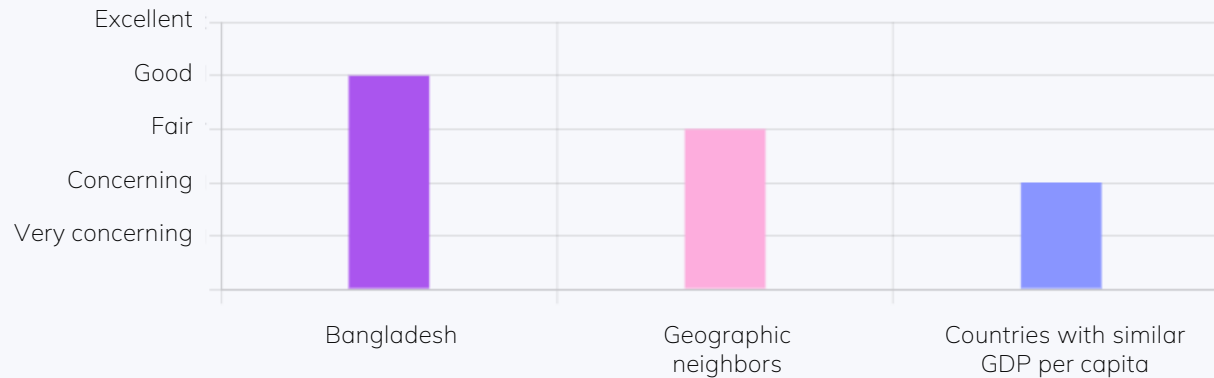
ACTORS AND ACTIVITIES

Good



Food system actors and activities include five major types of activities and their actors: food production, storage and distribution, food processing and packaging, and retail and marketing.

Actors and activities - aggregated value across the 5 individual indicators*



- Bhutan, India, Myanmar, and Nepal
- Angola, India, Kenya, and Nicaragua

* Food production index; Aquaculture production per capita; Access to electricity; Agriculture, forestry, and fishing, value added; Modern grocery retailers per 100,000 inhabitants.

World average



Improving rapidly

85-100% of all indicators for world average have improved or remained unchanged over the time period considered.

ACTORS AND ACTIVITIES

Good



Food production index (2009-2018)

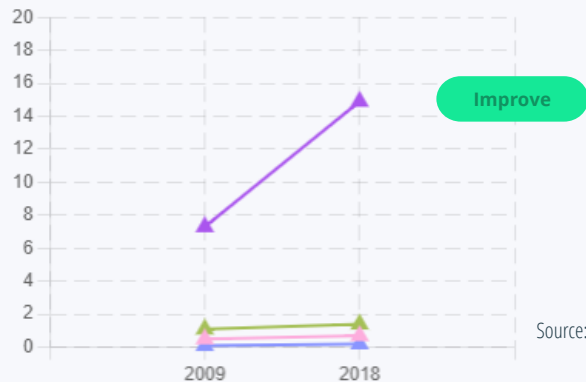
Units



Source: World Bank

Aquaculture production per capita (2009-2018)

Kgs/person



Source: World Bank

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

ACTORS AND ACTIVITIES

Good



The current status of actors and activities of the Bangladeshi food supply system is good, as four out of five indicators are trending in the right direction. Geographic neighbors are experiencing similar behavior, but below the excellent trends exhibited by countries with similar income level, yet, Bangladesh is performing better than the world average.

On food production, Bangladesh has remarkable progress on aquaculture production for domestic consumption, fish is the main source of animal protein and micronutrients, and it is the second most important food item other than rice. The per capita production has doubled over the past decade and it has an upward trend, while other comparison groups have remained static over the same period, in 2018, the available aquaculture kg/person in Bangladesh was between 10 to 70 times higher than the other comparison groups. This is a very positive change, as fish has become an affordable and available nutritious product for Bangladeshi consumers. Furthermore, overall food production has increased, and it has a similar upward trend than the comparison groups.



Photo: Tarek Suman-an/Unsplash

ACTORS AND ACTIVITIES

Good

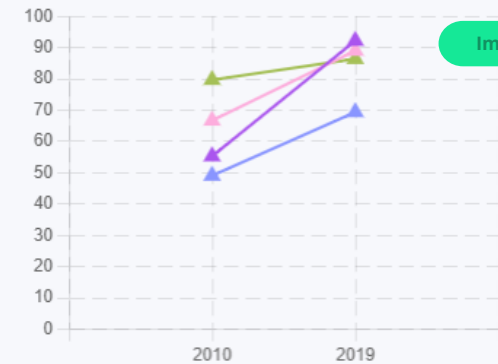


On food storage and distribution, there has been tremendous progress on the electricity coverage in the country, the vast majority of the population has access to electricity (a 34% increase from 2009), which has increased households' ability to store food, this upward trend has increased a lot more than any other comparison group.

Although the level of food processing (as share of GDP) seems to be decreasing over time, this is more of an effect of the massive increase of the garment sector share of the GDP, overall, Bangladesh has a similar trend with other countries with similar income levels, although currently, the level is roughly half of neighboring countries.



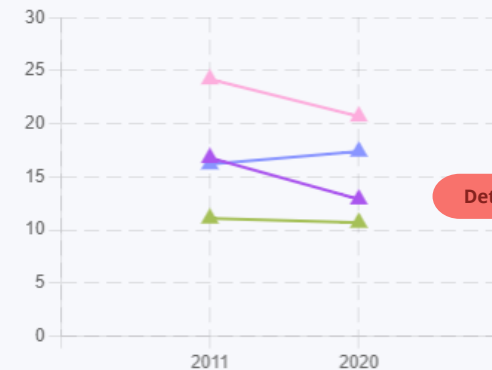
Access to electricity (2010-2019) % of population



Improve

Source: World Bank

Agriculture, forestry, and fishing, value added (2011-2020) % of GDP



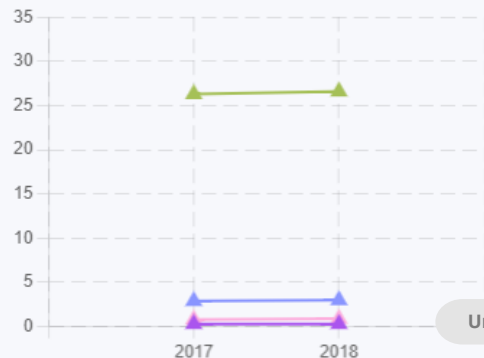
Deteriorate

Source: World Bank

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

Modern grocery retailers (2017-2018)

Number per 100,000 inhabitants



Source: GAIN and Johns Hopkins University

Unchanged

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

On retail and marketing, Bangladesh relies heavily on traditional markets, there are very few food modern retail outlets, which is 1/3 of the level of geographical neighbors, 1/10 of GDP PC comparable countries, and 88 times lower than the global average.

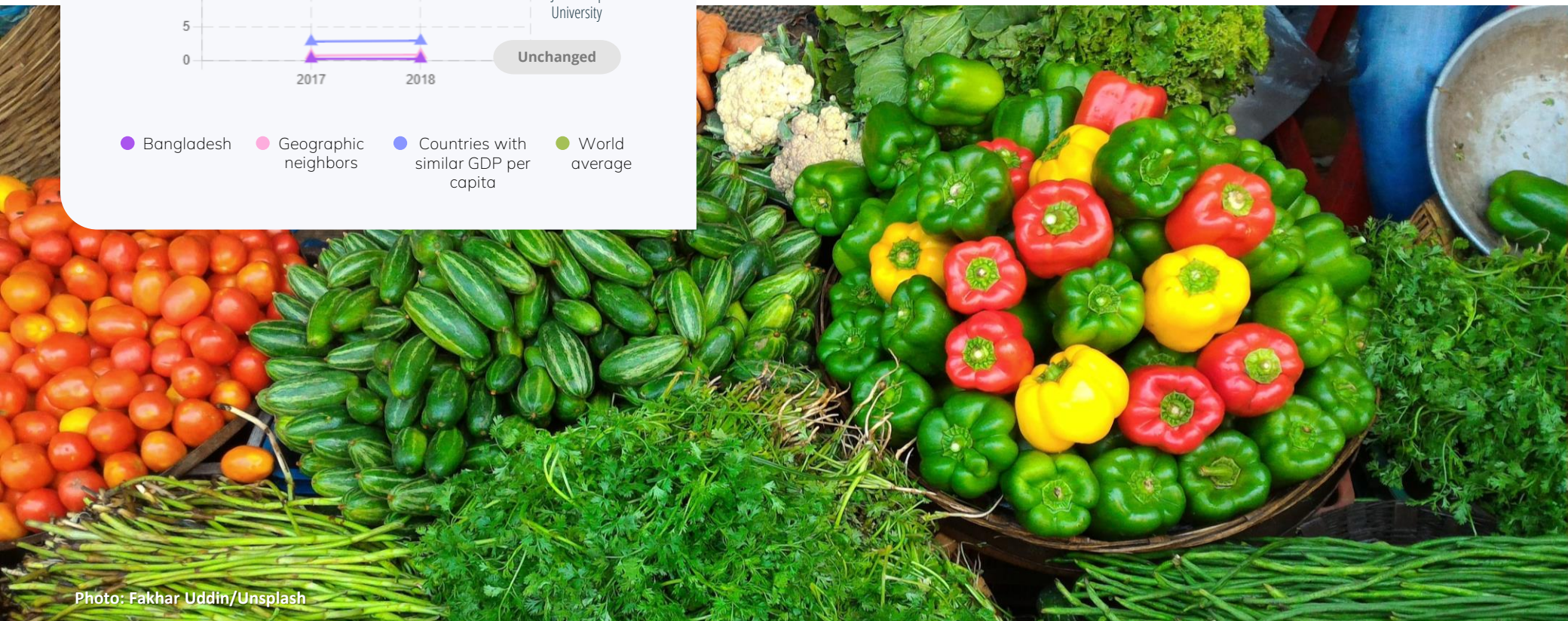


Photo: Fakhar Uddin/Unsplash

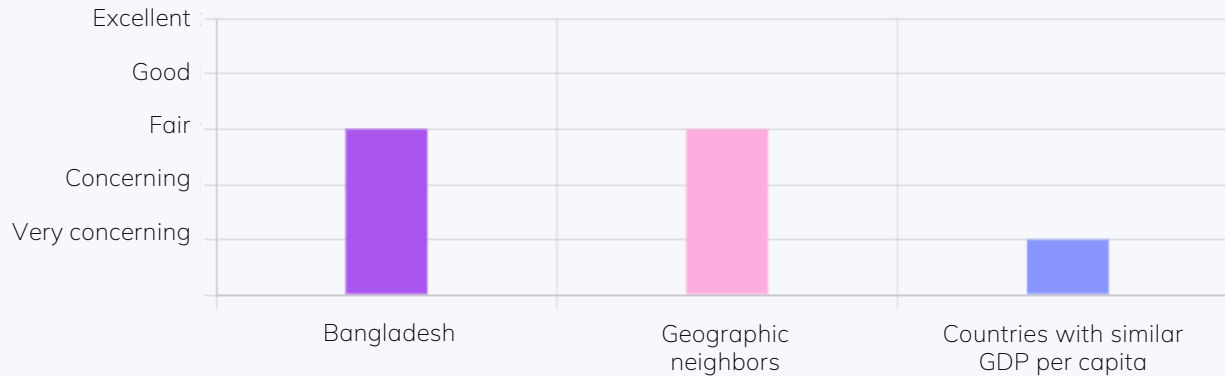
FOOD ENVIRONMENT

Fair



Food Environment refers to the different interacting processes that directly influence key characteristics of food, including their availability, quality, affordability or safety.

Food environment - aggregated value across the 6 individual indicators*



- Bhutan, India, Myanmar, and Nepal
- Angola, India, Kenya, and Nicaragua

* Average dietary energy supply adequacy; Consumer Prices, Food Indices (2015 = 100) -the average for all the months from January to December; Retail value of packaged foods per capita; Food safety score; Government commitment to improved Nutritional Standards; Food loss- Total food waste as a percentage of total domestic food supply.

World average



Improving

65-84% of all indicators for world average have improved or remained unchanged over the time period considered

FOOD ENVIRONMENT

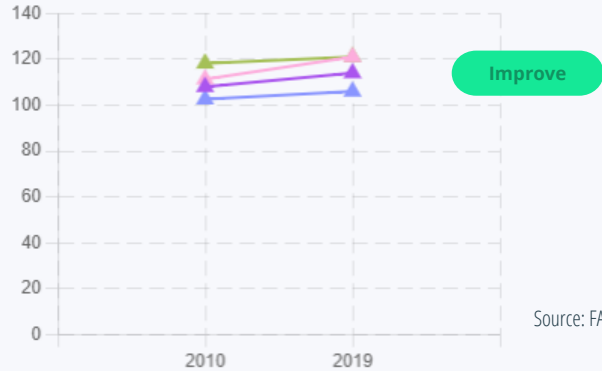
Fair



	<p>Average dietary energy supply adequacy (2010-2019) % (three-year average) <i>Proxy for in-country food availability</i></p>	<p>108 2010</p>	<p>114 2019</p>	<p>6 difference</p>	<p>Improve <i>But doing worse than the world average</i></p>
	<p>Consumer Prices, Food Indices (2015 = 100) -the average for all the months from January to December (2011-2022) Units <i>Affordability of food</i></p>	<p>81 2011</p>	<p>139.9 2020</p>	<p>58.9 difference</p>	<p>Deteriorate <i>But doing better than the world average</i></p>
	<p>Retail value of packaged foods per capita (2017-2018) USD spent on food/person/year <i>Proxy for convenience foods available</i></p>	<p>30.2 2017</p>	<p>32.5 2018</p>	<p>2.3 difference</p>	<p>Improve <i>But doing worse than the world average</i></p>
	<p>Food safety score (2012-2020) Units (0-100 score) <i>Proxy for food safety</i></p>	<p>43.8 2012</p>	<p>56.4 2020</p>	<p>12.6 difference</p>	<p>Improve <i>But doing worse than the world average</i></p>
	<p>Government commitment to improved Nutritional Standards (2012-2021) Units (0-100 score) <i>Proxy for promotion of healthy food</i></p>	<p>76.5 2012</p>	<p>100 2021</p>	<p>23.5 difference</p>	<p>Improve <i>And doing better than the world average</i></p>
	<p>Food loss- Total food waste as a percentage of total domestic food supply (2012-2021) % of total domestic food supply <i>Food loss and waste</i></p>	<p>5.3 2012</p>	<p>4.8 2021</p>	<p>-0.5 difference</p>	<p>Improve <i>And doing better than the world average</i></p>

Average dietary energy supply adequacy (2010-2019)

% (three-year average)



Source: FAOSTAT

Consumer Prices, Food Indices (2015 = 100) (2011-2020)

Units



Source: FAOSTAT

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

FOOD ENVIRONMENT

Fair



Overall, the food environment in Bangladesh has a fair performance, five out of six indicators are trending in the right direction. The behavior is similar with neighbor countries, and better than countries with similar income level, but only three out of six indicators are doing better than the world average.

On food availability, Bangladesh has made significant progress in achieving food security, there is enough food to meet the local demand, and the availability is increasing. Yet, the level is lower than geographical neighbors, and the world, but higher than countries with similar income levels.

On affordability, food is becoming slightly less affordable over the past decade, with similar levels and trend as neighbor countries, but with gentler upward slope compared to the world and countries with similar income levels.



Photo: Md. Golam Murshed/Unsplash

FOOD ENVIRONMENT

Fair



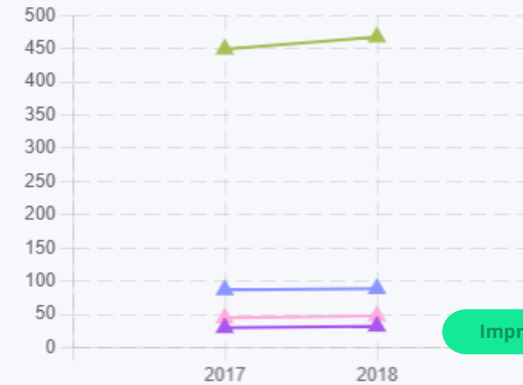
On convenience, Bangladeshis consume low levels of packaged foods, 75% of the level of neighbor countries, roughly 1/3 of countries with similar incomes, and roughly 15 times lower than the world average.

Food safety (measured with food safety score) had steadily improved from 2012 to 2018, then sharply decreased until 2020. Its current level is similar to neighbors and comparable income level countries, but 15% lower than the world average.



Retail value of packaged foods per capita (2017-2018)

USD spent on food/person/year

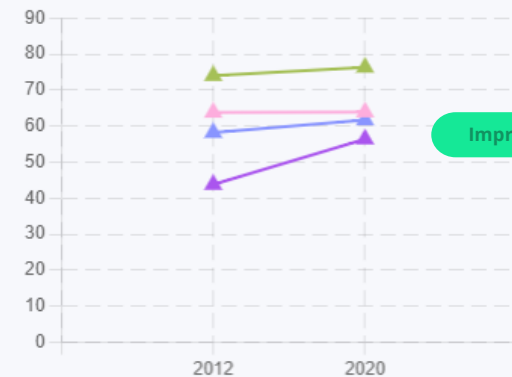


Source: GAIN and Johns Hopkins University.

Improve

Food safety score (2012-2020)

Units (0-100 score)



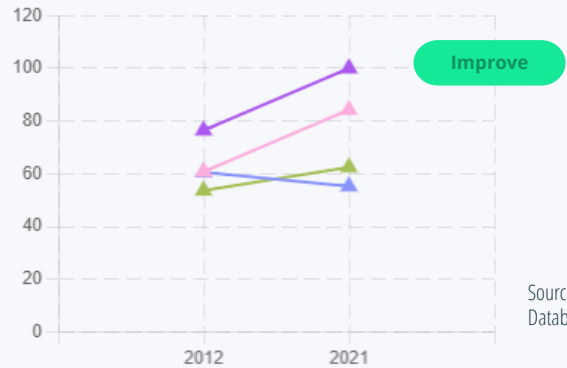
Source: EIU GFSI Database (FAO)

Improve

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

Government commitment to improved Nutritional Standards (2012-2021)

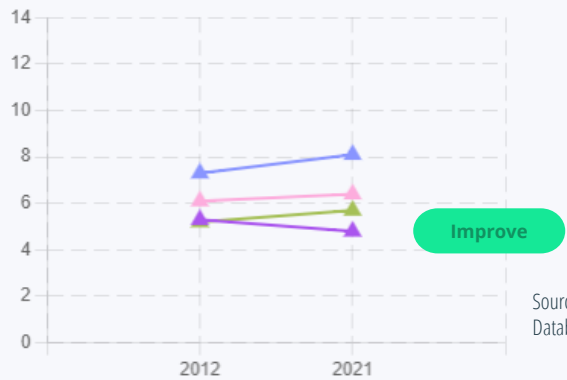
Units (0-100 score)



Source: EIU GFSI Database (FAO)

Food loss- Total food waste as a percentage of total domestic food supply (2012-2021)

% % of total domestic food supply



Source: EIU GFSI Database (FAO)

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

FOOD ENVIRONMENT

Fair



The government of Bangladesh has a strong commitment to improve the nutritional standards in the country, and it is way above the other comparison groups.

Food loss and waste is, and has remained, very low over the past five years, and at levels well below the world, and other comparison groups.



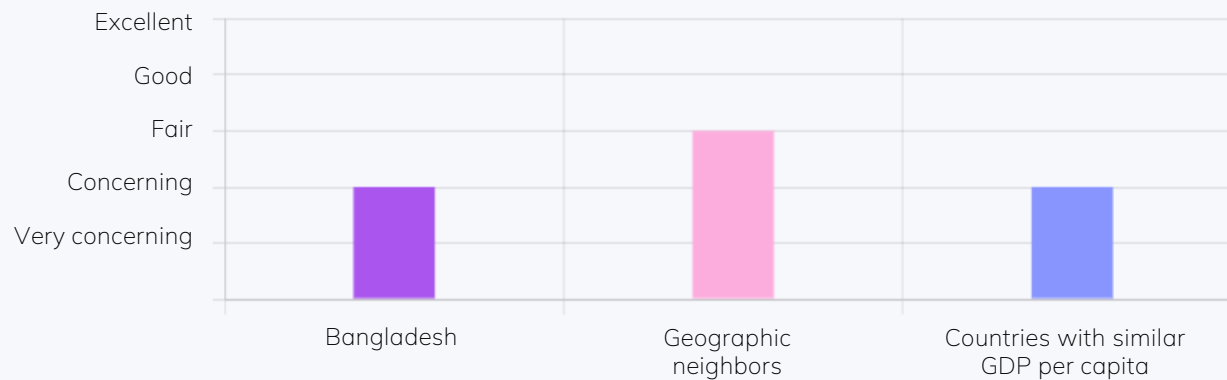
Photo: Radowan Nakif Rehan/Unsplash

CONSUMER BEHAVIOR

Concerning

Consumer behavior refers not only to what people choose to buy and to eat but also people's taste and preference, their socio-economic characteristics (for instance their income or education level) as well as their cultural identities ("who they are")

Consumer behavior - aggregated value across the 5 individual indicators*



World average



Improving rapidly

85-100% of all indicators for world average have improved or remained unchanged over the time period considered.

- Bhutan, India, Myanmar, and Nepal
- Angola, India, Kenya, and Nicaragua

* Urban population; Literacy rate, adult total; Poverty headcount ratio at \$1.90 a day (2011 PPP); Share of dietary energy supply derived from cereals, roots and tubers; Retail value of ultra-processed food sales per capita.

CONSUMER BEHAVIOR

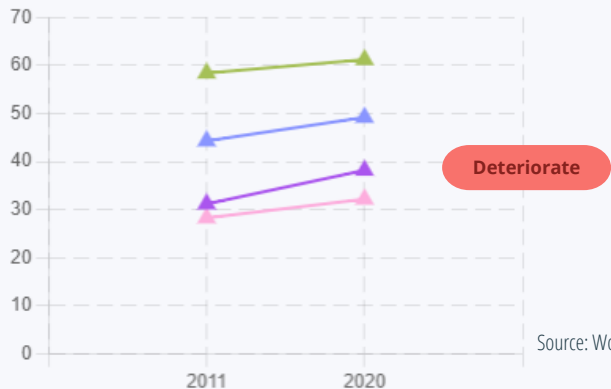
Concerning



	<p>Urban population (2011-2020) % of population <i>Characteristics of consumers (proportion of rural dwellers)</i></p>	<p>31.2 2011</p>	<p>38.2 2020</p>	<p>7 difference</p>	<p>Deteriorate <i>But doing better than the world average</i></p>
	<p>Literacy rate, adult total (2011-2020) % of people >=15 years old <i>Proxy for education level of the population</i></p>	<p>58.8 2011</p>	<p>74.9 2020</p>	<p>16.1 difference</p>	<p>Improve <i>But doing worse than the world average</i></p>
	<p>Poverty headcount ratio at \$1.90 a day (2011 PPP) (2007-2016) % of population <i>Proxy for economic structure of the population</i></p>	<p>25.1 2007</p>	<p>14.3 2016</p>	<p>-10.8 difference</p>	<p>Improve <i>But doing worse than the world average</i></p>
	<p>Share of dietary energy supply derived from cereals, roots and tubers (2008-2017) % <i>Proxy for consumption of healthy diets</i></p>	<p>20 2008</p>	<p>78 2017</p>	<p>-2 difference</p>	<p>Unchanged <i>But doing worse than the world average</i></p>
	<p>Retail value of ultra-processed food sales per capita (2017-2018) USD/Person/Year <i>Proxy for consumption of processed foods</i></p>	<p>13.3 2017</p>	<p>14.3 2018</p>	<p>1 difference</p>	<p>Deteriorate <i>But doing better than the world average</i></p>

Urban population (2011-2020)

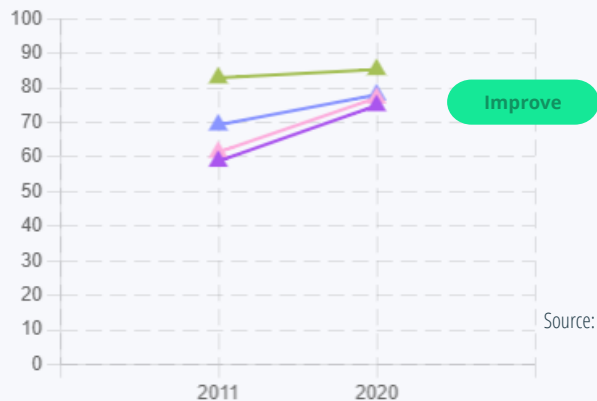
% of population



Source: World Bank

Literacy rate, adult total (2011-2020)

% of people >=15 years old



Source: World Bank

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

CONSUMER BEHAVIOR

Concerning

The current status of consumer behavior in Bangladesh is concerning, three out of five indicators are exhibiting a positive trend. This is similar behavior with neighboring countries, but below the performance of countries with similar income level, yet only two indicators are performing better than the world average.

On socio-economic characteristics we can observe that Bangladeshi consumers are mostly rural, and three-fourths of adults can read and write.



Photo: Amjad Rana/Unsplash

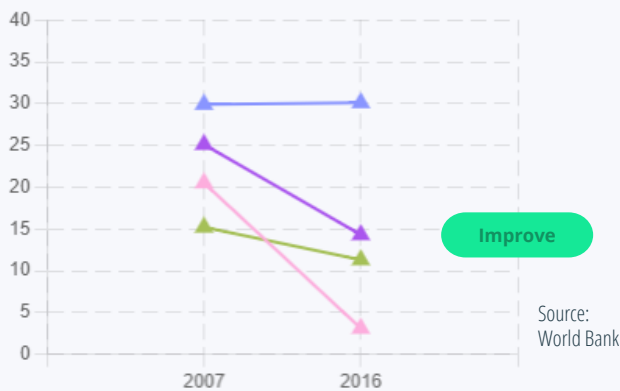
CONSUMER BEHAVIOR

Concerning



The country has made remarkable improvements on reducing their poverty rate over the past decade. Although there has been significant progress on the reduction of poverty, Bangladesh still has a higher share of poor inhabitants than the world, and geographical neighbors, but lower than countries with similar income levels.

Poverty headcount ratio at \$1.90 a day (2011 PPP) (2007-2016)
% of population



Improve

Source: World Bank

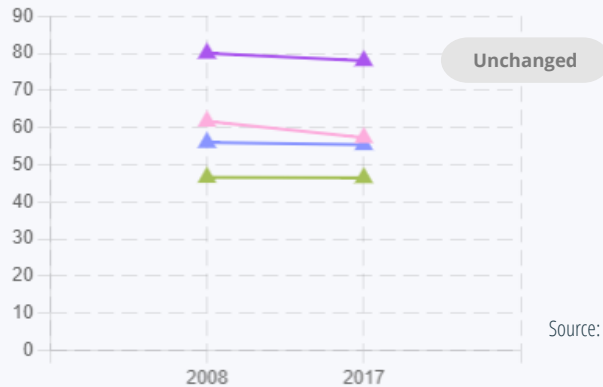
- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average



Share of dietary energy supply derived from cereals, roots and tubers (2008-2017)



%



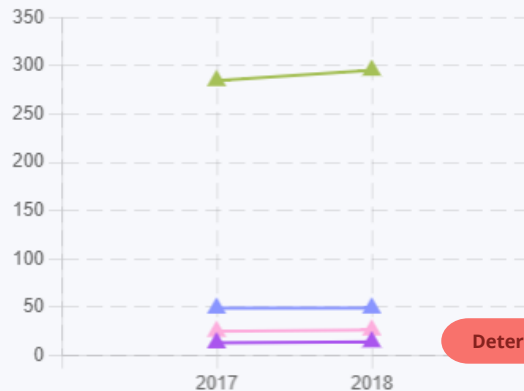
Unchanged

Source: FAOSTAT

Retail value of ultra-processed food sales per capita (2017-2018)



USD/Person/Year



Deteriorate

Source: GAIN and Johns Hopkins University, 2020.

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

CONSUMER BEHAVIOR

Concerning



On preferences and taste, the share of dietary energy supply derived from cereals is trending in the right direction (decreasing), but still has very high level (78%), and this is concerning, as cereals are not a good source of proteins, and other important micronutrients to have in a healthy diet. Bangladesh dependency on cereals is 20-30% higher than any other comparison group. A positive sign in the country is that Bangladeshis are not consuming a lot of ultra-processed foods compared to other comparison groups, ultra-processed, energy-dense, nutrient-poor food items are not part of the Bangladeshi diet. They consume roughly half of what countries with similar income levels consume, 1/4 of neighbor countries, and 5% of the average consumption in the world.



Photo: Rahabi Khan/Unsplash

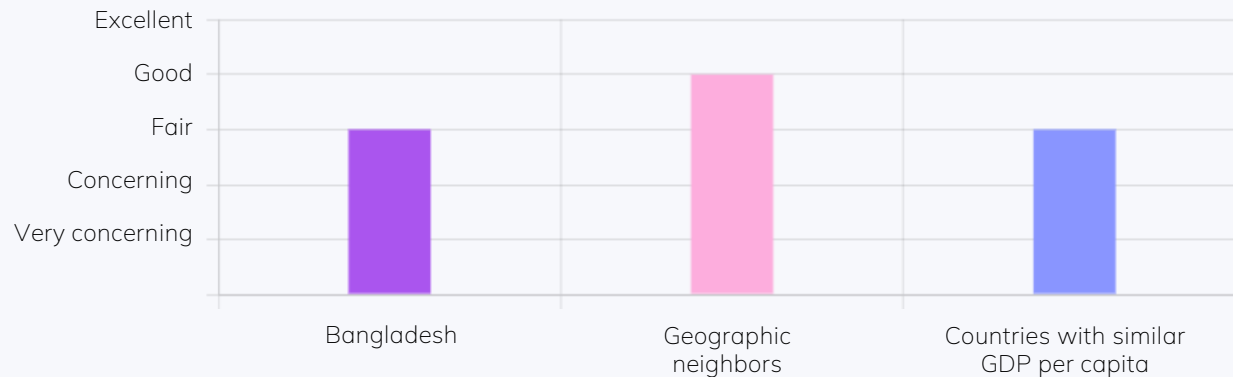
OUTCOMES

Fair



Food system outcomes can be grouped into four major categories: the environmental, nutrition and health, economic and social impacts of food systems. Those different outcomes are generally characterized by trade-offs and many of the key decisions that are made by policy makers need to account for those trade-offs to avoid unintended consequences.

Outcomes - aggregated value across the 8 individual indicators*



- Bhutan, India, Myanmar, and Nepal
- Angola, India, Kenya, and Nicaragua

* Emissions (CO₂ equivalent), Agriculture total (gigagrams=1000 MT/Ha); Percent of national land area with tree cover; Prevalence of undernourishment (3-year average); Prevalence of obesity in the adult population; Agriculture, forestry, and fishing, value added; Agriculture, forestry, and fishing, value added per worker; Gini index; CPIA gender equality rating.

World average



Uncertain

50-64% of all indicators for world average have improved or remained unchanged over the time period considered.

OUTCOMES

Fair



	<p>Emissions (CO₂ equivalent), Agriculture total (2009-2018) Gigagrams/Ha <i>Proxy for contribution of the food system to climate change</i></p>	<p>7.9 2009</p>	<p>8.7 2018</p>	<p>0.8 difference</p>	<p>Deteriorate <i>And doing worse than the world average</i></p>
	<p>Percent of national land area with tree cover (2011-2020) % of national land area <i>Proxy for pressure of the food system on land</i></p>	<p>13.6 2011</p>	<p>12.5 2020</p>	<p>-1.1 difference</p>	<p>Deteriorate <i>And doing worse than the world average</i></p>
	<p>Prevalence of undernourishment (3-year average) (2010-2019) % of population <i>Contribution of the food system to food and nutrition security</i></p>	<p>15.2 2010</p>	<p>9.7 2019</p>	<p>-5.5 difference</p>	<p>Improve <i>And doing better than the world average</i></p>
	<p>Prevalence of obesity in the adult population (2007-2016) % of people >=18 years old <i>Impacts of the food system on consumer health</i></p>	<p>2 2007</p>	<p>3.6 2016</p>	<p>1.6 difference</p>	<p>Deteriorate <i>But doing better than the world average</i></p>
	<p>Agriculture, forestry, and fishing, value added (2011-2020) % of GDP <i>Proxy for the contribution of the food system to national economy</i></p>	<p>16.8 2011</p>	<p>12.6 2020</p>	<p>-4.2 difference</p>	<p>Deteriorate <i>But doing better than the world average</i></p>
	<p>Agriculture, forestry, and fishing, value added per worker (2010-2019) Constant 2015 USD/worker <i>Proxy for financial performance of the food system</i></p>	<p>928.8 2010</p>	<p>1284.2 2019</p>	<p>355.4 difference</p>	<p>Improve <i>But doing worse than the world average</i></p>
	<p>Gini index (2007-2016) Units (0-100 score) <i>Proxy for the contribution of the food system to economic inclusion</i></p>	<p>33.2 2007</p>	<p>32.4 2016</p>	<p>-0.8 difference</p>	<p>Unchanged <i>And doing better than the world average</i></p>
	<p>CPIA gender equality rating (2011-2020) Units (1-6 score) <i>Proxy for the impacts of the food system on gender equality</i></p>	<p>3.5 2011</p>	<p>3 2020</p>	<p>-0.5 difference</p>	<p>Deteriorate <i>And doing worse than the world average</i></p>

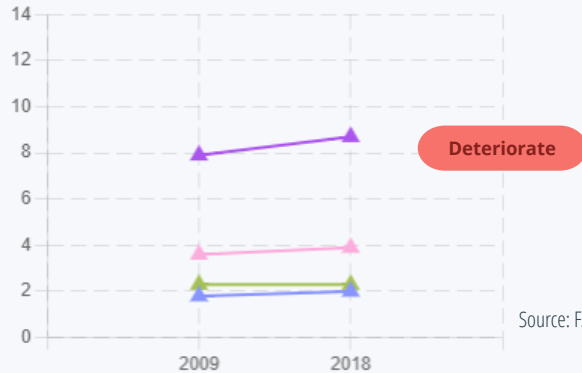
Fair

OUTCOMES



Emissions (CO₂ equivalent), Agriculture total (2009-2018)

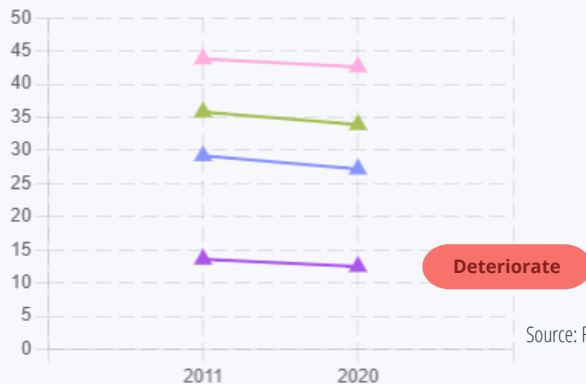
Gigagrams/Ha



Source: FAOSTAT

Percent of national land area with tree cover (2011-2020)

% of national land area



Source: FAOSTAT

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

Food system outcomes in Bangladesh are exhibiting a fair behavior, three out of eight indicators are trending in the right direction, and the performance of food system outcomes is below the other comparison groups, yet half of the outcome indicators are performing better than the world average.

Environment

On the environment, agriculture is the main contributor of greenhouse gas emissions, and unfortunately it is trending in the wrong direction (increasing), Bangladesh has higher roughly 4 times higher emissions than countries with similar income levels, 3 times higher than the world average, and twice as much emissions per hectare than neighboring countries. Furthermore, the food system, through its agricultural production is putting pressure on the environment by reducing the share of land covered with trees. Bangladesh has the lowest level of land area with tree cover compared to any of the comparison groups.

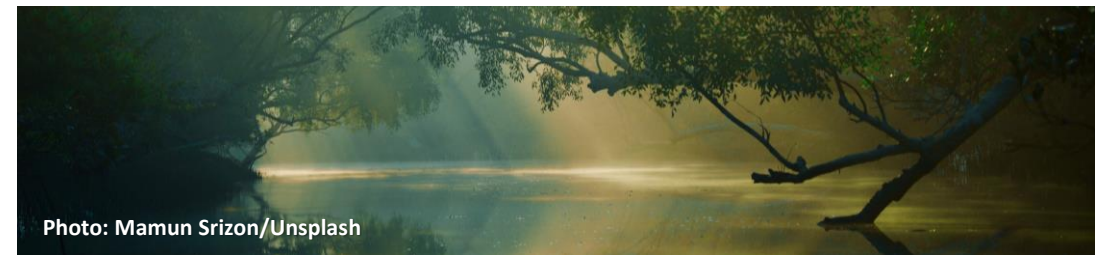


Photo: Mamun Srizon/Unsplash

OUTCOMES

Fair



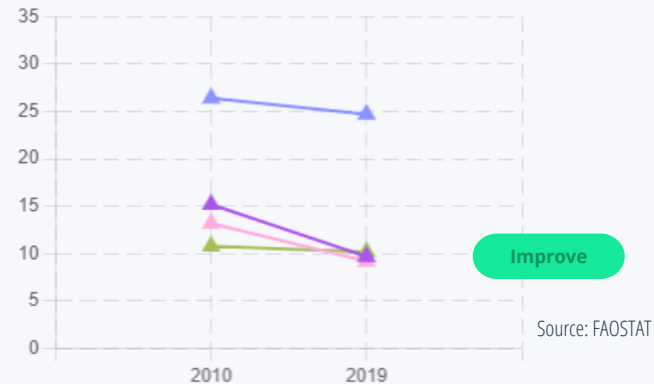
Health

On food and nutrition outcomes, Bangladesh has mixed results. On one hand, there has been remarkable progress on reducing the share of the population that is undernourished, but on the other hand, there is an increase in the share of the population who are obese. On undernourishment, Bangladesh is achieving similar results as neighbor countries and the world, and doing way better than countries with similar GDP. On obesity, although the rate is increasing, the country is doing way better than any other comparison group.



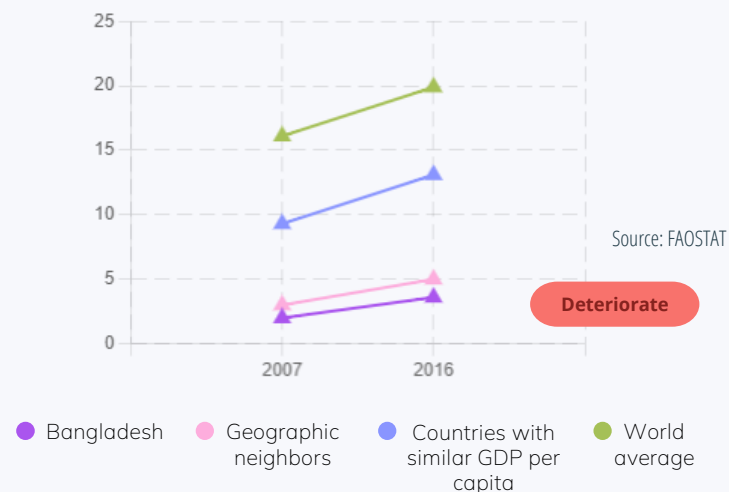
Photo: Theodore Goutas/Unsplash

Prevalence of undernourishment (3-year average) (2010-2019) % of population



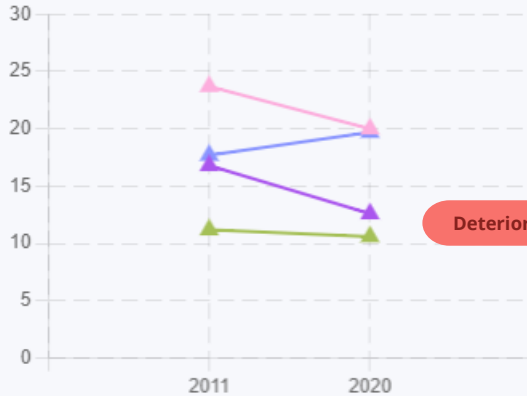
Source: FAOSTAT

Prevalence of obesity in the adult population (2007-2016) % of people >=18 years old



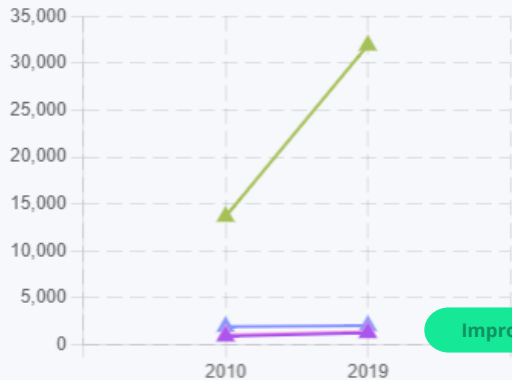
Source: FAOSTAT

Agriculture, forestry, and fishing, value added (2011-2020)
% of GDP



Source: World Bank

Agriculture, forestry, and fishing, value added per worker (2010-2019)
Constant 2015 US/worker



Source: World Bank

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average

OUTCOMES

Fair



Economic dimension

On economic outcomes, the contribution to the national economy is trending downwards, but as explained before, this is not a bad result, but rather the effect of the massive increase of the garment sector in the country. The food system contribution is higher than the world average, but lower than geographical neighbors and countries with similar income levels. Furthermore, the added value per worker is increasing, which is a positive sign of the contribution of the food system. The added value per worker is similar to neighbor and similar income level countries, but less than 5% of the world average.



Photo: Mumtahina Tanni/Unsplash

OUTCOMES

Fair



Social dimension

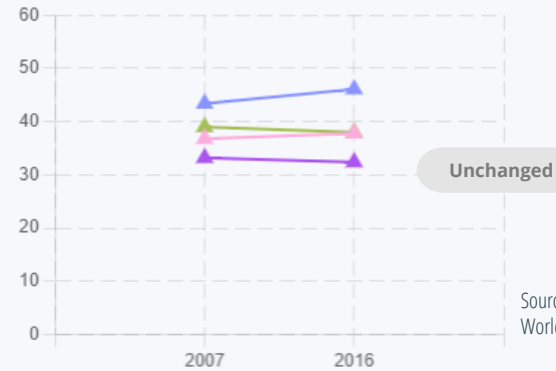
On social aspects, we also have mixed outcomes. On the one hand, income inequality is reducing and doing better than any other comparison group. But on the other hand, gender equality is low and trending in the wrong direction, below the world average, and other comparison groups.

Photo: Simon Reza/Unsplash



Gini index (2007-2016)

Units (0-100 score)



Source: World Bank

CPIA gender equality rating (2011-2020)

Units (1-6 score)



Source: World Bank

- Bangladesh
- Geographic neighbors
- Countries with similar GDP per capita
- World average



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
Federal Office for Agriculture FOAG



The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) is part of CGIAR, a global research partnership for a food-secure future.

Bioversity International is the operational name of the International Plant Genetic Resources Institute (IPGRI).

Headquarters

Via di San Domenico, 1
00153 Rome
Italy
Tel. (+39) 06 61181

www.alliancebioversityciat.org
www.cgiar.org