LDC Trade Report 2023
Improving food security
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LDC Trade Report 2023
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ABOUT THE REPORT

Trade improves the food supply of least developed countries (LDCs), but import dependence on concentrated suppliers of cereals, vegetable oils and sugar threatens their food security. In 2022, increasing food and fertiliser prices, the war in Ukraine and export restrictions depressed LDC food imports.

To boost resiliency, LDCs can improve market access for food imports, by revising tariffs and eliminating non-tariff obstacles, and tap into alternative supply sources, by diversifying suppliers and integrating into regional agrifood value chains.

The international community can play a critical role by improving market information and deterring the use of harmful export restrictions.
The LDC category was created in 1971 in response to the need for special support for countries with the most severe structural challenges to sustainable development. From the outset, the vulnerability of LDCs to external shocks and the importance of international trade were key components in the design of actions towards the growth and development of LDCs.

More than 50 years later, results for LDCs have been mixed. While some countries in the group experienced convergence, a large part of them lagged behind. Many of the structural challenges that led to the creation of the LDC category continue to exist, and the targets set out in the realm of international trade remain unmet. The low share of LDCs in world trade persists, as does their commodity dependence.

New challenges have emerged of late. In particular, the accelerated pace of global crises that affect LDCs—including the COVID-19 pandemic, war and conflict, rising cost of living, and climate change—has further underscored their vulnerability to external shocks.

At this juncture of global uncertainties, the Doha Programme of Action (DPoA) for 2022-2031 was designed to address the structural elements impairing the development of LDCs, both in LDCs themselves and at the global level. The DPoA is designed to help LDCs return to the pathway of the SDGs, overcome the aftermath of the pandemic and address climate change challenges. In particular, two of the six focus areas of the DPoA refer to enhancing international trade and regional integration and building resilience.

In this context, the International Trade Centre and the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States have joined forces to produce the LDC Trade Report 2023. This report focuses on trade and food security in LDCs, identifying areas of vulnerability, reviewing recent trends and outlining policy options for greater resilience.

The joint report on trade and food security is the first in a series that will cover trade-related matters of relevance to LDCs. It is accompanied by a free website, the LDC Trade Tracker, which allows monitoring of wider trends and patterns of LDCs’ trade through interactive and downloadable charts.

We hope this report and trade tool will be a useful input to policy discussion in LDCs, and we stand ready to continue to support LDCs in their path towards sustainable and inclusive development.
ACKNOWLEDGEMENTS

The International Trade Centre (ITC) prepared this report in collaboration with the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS).

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ACRONYMS

Unless otherwise specified, all references to dollars ($) are to United States dollars, and all references to tons are to metric tons.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AfCFTA</td>
<td>African Continental Free Trade Agreement</td>
</tr>
<tr>
<td>AMIS</td>
<td>Agricultural Market Information System</td>
</tr>
<tr>
<td>DPoA</td>
<td>Doha Programme of Action</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>HLPE</td>
<td>High level panel of experts</td>
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<td>ITC</td>
<td>International Trade Centre</td>
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<td>LDC</td>
<td>Least developed country</td>
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<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<td>UN-OHRLLS</td>
<td>United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States</td>
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<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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Note that as of January 2023, the LDC category comprises 46 countries. These are: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People’s Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, the Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, the Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Yemen and Zambia.
EXECUTIVE SUMMARY

More than 60% of the population of LDCs is exposed to food insecurity—twice as much as in other developing countries and six times as much as in developed countries.

Trade can improve people’s access to food, but it can also spread the consequences of shocks, such as conflict, climate change or shifts in international prices or trade policy.

In a context of global uncertainties, this report assesses the role of trade for food security in LDCs and outlines policy options for greater resilience.

Trade improves the food supply of LDCs…

With a lower per capita production of food than other countries, LDCs rely to a great extent on imported food. Overall, 14% of the supply of food in LDCs is sourced from net imports. In addition, for most LDCs, the supply of food is more varied than food production. This means that imports increase both the amount and the diversity of food available in LDCs.

…but makes them more vulnerable to shocks

However, a high level of food imports also bears risks: fluctuating global commodity prices or the sudden adoption of new trade policies can have detrimental effects on the nutrition of the world’s poorest.

That is particularly the case if sectors that contribute significantly to food security are dependent on imports. In LDCs, cereals, vegetable oils and sugar represent 64% of calories available. At the same time, large shares of the supply of cereals, vegetable oils and sugar in LDCs are sourced through imports, making LDCs trade dependent for food security.

The high concentration of suppliers aggravates the situation: with over 40% of these key LDC food imports originating in one of three main partners, supply chain disruptions can quickly provoke a domestic nutrition crisis.
In the first half of 2022, the food supplies of LDCs experienced strong negative impacts. In a context of already rapidly increasing food and fertiliser prices, the outbreak of the war in Ukraine in early 2022 unleashed a series of effects on food markets that threatened food security in LDCs through several channels.

First, a large part of LDC imports of wheat products (30%) and sunflower seed oil (37%) stems from the Russian Federation or Ukraine. The war caused a direct disruption in these key supplies.

Second, even if mostly sourced from other partners, foods for which the Russian Federation or Ukraine are large players in international markets experienced steep increases in prices.

Third, rounds of sanctions and countersanctions were followed by the adoption of new temporary trade measures. Globally, over 40 measures affecting the trade of food were implemented and remain active, adding further pressure on food prices.

Fourth, Belarus and the Russian Federation are large players in international markets of fertilisers, as well as key suppliers of fertilisers for LDCs. For example, they represent 44% of Mauritanian fertiliser imports. This implies disruptions and increased prices for vital inputs to the local production of food in LDCs.

During the first half of 2022, the value of LDC food imports increased by 13%, while food prices experienced a 25% surge, signalling a substantial decrease in the quantity of food imported by LDCs, according to the data currently available.

Mixed outlook for 2023, with levelling food and fertiliser prices

While data for the second half of 2022 is still not widely available, there are some signs of relief: the implementation of the UN-led Black Sea Grain Deal, the continuous decrease in food prices after peaking in the first half of the year and a similar descent in fertiliser prices.

However, still elevated food prices (39% above pre-pandemic levels) and continued high prices for fertilisers (133% above pre-pandemic levels) and energy suggest that a combination of low yields of domestic production and high prices of imported food will remain a challenge for the availability and affordability of food in LDCs.

Safeguarding food security in LDCs requires a wide, coordinated range of policies—such as stockholding systems, biofuel policies, enhancement of agricultural productivity, support of climate change adaptation and mitigation and access to finance—hand-in-hand with trade policies.

To increase the resiliency to food trade shocks, LDCs can consider:

- Improving food market access for food imports

LDCs continue to impose significant tariffs on essential food items, such as cereals and vegetable oils. In addition, ITC business surveys on non-tariff measures show that LDC food importers still face significant inspection delays and high fees and charges.

In the midst of food crises or price spikes, LDCs can mitigate the impact on food availability and affordability by facilitating imports and re-evaluating remaining tariffs.

- Tapping into alternative sources of supply

A limited number of suppliers provide LDCs with large shares of essential food items, making them vulnerable to disruptions and sudden policy changes.

To address this, LDCs could consider establishing diversified sourcing strategies, incentivizing the production and exports of food products, and supporting the integration to regional agrifood value chains.

Regional integration initiatives—such as the African Continental Free Trade Area (AfCFTA)—provide an opportunity to improve food markets access and tap into alternative sources of supply, as they offer a chance to review tariffs, streamline procedures, revise regulation and coordinate responses.

In addition to policies LDCs can consider themselves, the international community also plays a key role. Cooperation at the multilateral level is critical to strengthen intra-regional trade, improve market information, and avoid the use of export restrictions that can further fuel world prices and harm third countries—especially poor net food-importing countries.
SECTION 1

THE IMPORTANCE OF TRADE FOR FOOD SECURİTY IN LDCs

THE IMPORTANCE OF TRADE FOR FOOD SECURITY IN LDCs

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THE IMPORTANCE OF TRADE FOR FOOD SECURITY IN LDCS

Economic, social and environmental shocks can give rise to food supply disruptions—to which least developed countries (LDCs), by their very definition, are more vulnerable than other countries. The occurrence of such shocks and accompanying disruptions, coupled with the higher vulnerability of LDCs, gives rise to threats to their food security.1

Food insecurity, which can immediately impact hunger and nutrition, is also linked to social and political unrest in the short term, developments that can affect a country’s income. In the long term, it can lower the development of human assets, making the structural challenges to sustainable development for LDCs even bigger, constituting a vicious circle.

Against a backdrop of global uncertainties, the vulnerability of LDCs to shocks and food insecurity has come to play a large role in recent decades. Repeated crises have undermined food security in LDCs, including the global food price hikes of 2007-2008 and 2010-2011, the COVID-19 pandemic and the war in Ukraine. The impending consequences of climate change can only reinforce this threat.

The good news is that trade can temper the impact of shocks on food security by shifting food surpluses to food scarce locations and allowing for broader, richer diets. However, as its importance for food security grows, it can also become the conduit for shocks. This means that trade policies that ease or restrict food trade can reinforce or weaken its influence on food security.

Acknowledging the disproportionate impact that external shocks can have on hunger and nutrition in LDCs, as well as the risk of cascading crises, the Doha Programme of Action (DPoA) clearly states the need to tackle food insecurity in LDCs and to build resilience against future shocks.2 To that effect, the DPoA also identifies key areas of action, among them food stockholding and trade. Similarly, the Ministerial Declaration on the Emergency Response to Food Insecurity, adopted as part of the “Geneva Package” during the 12th Ministerial Conference of the World Trade Organization (WTO) in June 2022, instructed the creation of a work programme to build resiliency to food instability in LDCs.3

In line with these priorities, this report assesses the role of trade for food security in LDCs in the face of global uncertainties, and it explores policy options for greater resilience.

While the report focuses on trade, it is important to note that a wide range of other policies exist to address food security in LDCs. A recent report of the Secretary-General lays them out in detail, highlighting stockholding systems among others.4
SECTION 2

TRADE AND FOOD SECURITY: A BRIEF OVERVIEW

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TRADE AND FOOD SECURITY: A BRIEF OVERVIEW

Since its inception, the concept of food security has evolved from a narrow supply-side view to a broader, multi-dimensional notion. Discussions on food security in the 1970s focused only on the volume and stability of food supplies. During the decade that followed, demand-side criteria started to be considered as well, highlighting the importance of securing access to available supplies, and distinguishing between chronic and transitory food insecurity. Later on, concerns over food safety and nutritional balance came into play, as well as over food preferences that reflect cultural differences. The evolution of the concept of food security is reflected in the definition adopted at the 1996 World Food Summit:

“Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”

In the absence of any of these features, food insecurity exists. The consequences of food insecurity for individuals and countries are dire: food insecurity can result in malnutrition and stunting, social unrest and conflict, diminished productivity and increased vulnerability to external shocks. In brief, food insecurity can have both immediate and long-lasting detrimental effects on development.

LDCs experience more food insecurity than other countries

LDCs endure more food insecurity than other countries: on average, over 60% of their population experience food insecurity, compared to less than 30% in other developing countries and 10% in developed countries (Figure 1). Unfortunately, the prevalence of food insecurity in LDCs has increased continuously in the past years, compounding other structural challenges to sustainable development. Note, however, that LDCs vary widely in this respect, with 87% of people experiencing food insecurity in Sierra Leone and 26% in Myanmar.

Figure 1: Over 60% of people in LDCs experience food insecurity

Note: The prevalence of food insecurity is the percentage of people that live in households classified as food insecure. Average from 2019 to 2021. The middle line of the box represents the median, the x the mean, the bottom of the box the first quartile, and the top the third quartile. The lines extend to the minimum and maximum values. The dots are outliers.

Source: Based on FAO (2022b).

In line with the higher prevalence of food insecurity they experience, LDCs accounted for close to 70% of all registered food crises between 2011 and 2022. In addition, the number of food crises in LDCs increased continuously over the past four decades. The recurrence of such crises both stems from and reinforces some of the structural challenges that define LDCs, in particular their vulnerability.
Trade and food security are connected by complex links

Four pillars are commonly used to analyse food security:

- **Availability of food**: the physical availability of food captures the supply side of food security.
- **Access to food**: economic and physical access to food refers to the affordability of food for individuals and households, as well as their market access.
- **Food utilization**: this refers to several factors, such as feeding practices, food preparation, intra-household distribution of food and, importantly, the diversity of diets.
- **Stability of the first three pillars**: this can be determined by weather conditions, political context, and economic factors such as unemployment or price shocks, among others.10

International trade can have positive and negative impacts on any of the pillars of food security, as Figure 2 illustrates. The availability, or supply, of food is determined by local food production, food stock level changes and net imports of food (i.e., imports minus exports of food). International prices of food can drive local prices of food, determining access to food. Food imports can differ from locally produced varieties, contributing to the diversity of diets (utilization). However, profitable exportable cash crops may crowd out other local foods, reducing the variety of food available. Lastly, trade can be the source of shocks to stability, or a force that counterbalances them. For example, sudden export bans from usual food suppliers can temporarily threaten the availability of food, or droughts that hit local food production can be offset by imports.

In terms of time span, these effects can occur in the short term, for example as immediate changes in supplied or demanded quantities in reaction to shocks in prices, or in the long term, for example as the changes in the land use or production structure of a country.

Figure 2: Trade can have positive and negative effects on food security

<table>
<thead>
<tr>
<th>Availability</th>
<th>Access</th>
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<tbody>
<tr>
<td>✔ increased food supply through imports</td>
<td>✔ lower prices of food and inputs to food production through imports</td>
</tr>
<tr>
<td>✗ diminished food supply through exports</td>
<td>✗ higher prices for exportable food products</td>
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<th>Utilization</th>
<th>Stability</th>
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<tbody>
<tr>
<td>✔ greater variety of foods available through imports</td>
<td>✔ imports smooth shocks to local production of food</td>
</tr>
<tr>
<td>✗ less variety of local foods available if exportable products crowd out other crops</td>
<td>✔ dependence on food imports increases vulnerability to shocks in production abroad, prices or trade policy</td>
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**Source**: Based on FAO (2015).

Whether the net effect of trade on food security is positive or negative varies greatly across countries and contexts, since it is determined by the interaction of a wide range of factors—such as resource endowments, comparative advantages, the role of agriculture in the economy, the composition of production and the global context.11
SECTION 3

TRADE IMPROVES THE FOOD SUPPLY OF LDCs

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TRADE IMPROVES THE FOOD SUPPLY OF LDCs

In the short term, trade can improve food availability, access, utilization and stability by shifting food from locations with a food surplus to those with a food deficit. In the medium to long term, trade can improve all pillars of food security by allowing for greater specialization, and with it, increased productivity.

For LDCs, trade improves the food supply by, for example, complementing the insufficient local food production and contributing to greater food diversity.

Trade increases food availability in LDCs

The availability or supply of food is determined by the local production of food, the food made available from food stocks, and exports and imports of food. Between 2015 and 2019, the average production of food per capita in LDCs was smaller than in other developing and developed countries (Figure 3, left)—and the average amount of food made available from stocks was smaller in LDCs than elsewhere (Figure 3, right).

*Figure 3: Per capita food production and food stocks lag behind in LDCs*

![Production and Food from Stocks Graph](image)

*Note: Average from 2015 to 2019. Positive values of food available through food stocks refer to decreases in food stocks, and negative values to increases in them.*

*Source: Based on FAO (2022b).*

The low levels of food production and food from stocks suggest that trade can play a key role in making more food available in LDCs. While still insufficient to offset the relative shortcomings in food production and food stocks identified, the net imports of food of LDCs do play a larger role in their food supply than elsewhere (Figure 4). Between 2015 and 2019, net imports of food were an average 14% of the total supply of food in LDCs, compared to 10% in other developing countries and -1% in developed countries.

For most LDCs, trade plays a key positive role in their supply of food. For example, net imports of food represent over 90% of the food supply in Djibouti, 66% in Yemen and 51% in the Gambia. However, for a few LDCs, such as Kiribati, Solomon Islands and Uganda, trade actually reduces the supply of food through exports, although this need not have a detrimental effect on food security.
Trade can improve the diversity of food supply in LDCs

In addition, for most LDCs, the diversity in their food supply is larger than the diversity in their food production. This indicates that, in the short term, net food imports increase the diversity of foods available—a measure that contributes to the utilization pillar of food security (Figure 5). However, in the long run, this pattern could also result from a concentration of agricultural production in exportable sectors, which might eventually lead to lower food production for domestic consumption.

Note: Diversity refers to the equivalent number of food groups. The equivalent number of food groups is the number of food groups that would generate the existing concentration of food groups, if all groups had the same share in production/supply. Food supply is the sum of food produced, net imports, and decreases in food stocks. Food groups refer to items in FAO (2022b). Dots above the line represent LDCs for which trade improves the diversity of the food supply. Only LDCs for which trade diminishes the diversity of the food supply are labelled.

Source: Based on FAO (2022b).
SECTION 4

TRADE DEPENDENCE CAN INCREASE THE RISK OF FOOD INSECURITY IN LDCs

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TRADE DEPENDENCE CAN INCREASE THE RISK OF FOOD INSECURITY IN LDCs

Trade can threaten food security through several channels. In the short term, by spreading quantity or price shocks from global food markets. In the long term, by excessively diverting food production to exports, increasing the vulnerability of income to external shocks and diminishing the variety of local foods.\textsuperscript{12}

The net food trade position of LDCs is more negative than that of other developing or developed countries (Figure 6), making their food supply more vulnerable to external shocks, such as disruptions in international trade, sudden changes in trade policies and commodity price surges.\textsuperscript{13} The exposure of LDCs to such shocks varies widely by food sector, and not all of them are equally relevant for food security.

\textbf{Figure 6: LDCs are more often and more strongly net food importers than others}

\textit{Note:} Average from 2017 to 2021. The net trade position is the ratio (exports - imports) / (exports + imports). Its value ranges from -1 to 1, with negative values reflecting a net importing position, and positive ones a net exporting position. The middle line of the box represents the median, the x the mean, the bottom of the box the first quartile, and the top the third quartile. The lines extend to the minimum and maximum values.

\textit{Source:} Based on ITC (2023a).
Import dependence is strongest for cereals, vegetable oils and sweeteners

Figure 7 shows that, in terms of dollars per capita, imports of cereals, vegetable oils and sweeteners, are more than double the size of imports of other sectors. The importance of these sectors in the food imports of LDCs signals that they are likely significant for the food security of LDCs.

To better assess the potential impact of sectoral imports on food security, it is important to take into account quantities imported rather than values, to consider also how local production in each sector compares to imports and to what extent sectors contribute to food security.

We can consider that food security is import dependent when, in sectors that contribute significantly to nutrition, large shares of the supply are imported.\textsuperscript{14}

Figure 7: Cereals, vegetable oils and sweeteners are the top food imports of LDCs

Note: Average from 2017 to 2021. The definition of sectors corresponds to the FAO Food Balances (2010-) in FAO (2022b).

Source: Based on ITC (2023a) and UN DESA (2022).
Just how dependent is LDC food security on imports of various sectors? To explore this question, Figure 8 shows the share of imports in the supply of each sector and the share of each sector in the supply of calories per capita. For example, consider the following two extremes:

- **Miscellaneous foods**: over 90% of the supply is sourced via imports in LDCs, but it represents just over 0.1% of per capita calories available. Thus, despite the importance of imports in the supply of miscellaneous foods, it is unlikely that they will affect LDC food security.

- **Starchy roots**: only 6% of the supply is sourced via imports in LDCs, but it represents 13% of per capita calories available. Thus, disturbances in the trade of starchy roots could affect LDC food security.

The sector that ranks high in both categories is cereals. About 36% of its supply is sourced from imports, and it represents almost 50% of the calories per capita available in LDCs—making it a critical sector for LDC food security. The sectors that follow, in terms of high shares of supply sourced from imports and high shares in the supply of calories, are vegetable oils and sweeteners—confirming the top sectors of Figure 7.

**Figure 8: Cereals, vegetable oils and sweeteners are key to the supply of calories in LDCs**

If we drill down further into the cereals sector, we find that the top three items are rice (53% of imports; 21% of calories); maize (16% of imports; 11% of calories); and wheat products (88% of imports; 11% of calories (Figure 9).
SECTION 4 – TRADE DEPENDENCE CAN INCREASE THE RISK OF FOOD INSECURITY IN LDCS

Figure 9: Among cereals, rice, maize and wheat imports are vital for LDC food security

Note: Average from 2015 to 2019. Food supply is the sum of food produced, net imports, and decreases in food stocks. Shares derived from quantities. The definition of sectors corresponds to the FAO Food Balances (2010-) in FAO (2022b).

Source: Based on FAO (2022b).

In the case of the vegetable oils sector, the essential imports are palm oil, soybean oil and sunflower seed oil (Figure A.4), and raw sugar in the case of sweeteners.
An additional source of vulnerability through trade is the concentration of food imports in only a few suppliers. While on average LDCs import food from 77 distinct suppliers, other developing countries source their food from 117 partners, and developed countries from 163 partners (Figure 10).

Figure 10: Food imports of LDCs are concentrated in fewer suppliers than elsewhere

Note: Average from 2017 to 2021.
Source: Based on ITC (2023a).

A limited number of suppliers in some sectors may not be a problem for food security. For example, Canada is one of the main suppliers of pulses to LDCs, with over 30% of these imports in Asian and Pacific LDCs and 13% in African LDCs and Haiti. Thus, shocks to Canadian exports of pulses might affect LDC imports of pulses, but not necessarily their food security: only 3% of the supply of pulses in LDCs is imported and pulses only represent 4% of the supply of calories of LDCs (Figure A.3).

On the other hand, a limited number of suppliers in the sectors that have been identified as trade dependent could be a risk for food security. Figure 11 shows that for all trade dependent food sectors, over 40% of LDC imports originate in one of three main partners. For example, Indonesia and Malaysia supply over 80% of all imports of palm oil to LDCs, and India is the source of 44% of the rice imports of African LDCs and over 80% of the rice imports of Asian LDCs.17
Figure 11: Between 40% and 95% of key food imports are sourced in one of three main partners

Note: Average from 2017 to 2021. The figure features the top three partners for LDC imports in each sector. To facilitate visualization, Haiti is included among African LDCs, and Kiribati, Solomon Islands and Tuvalu are included among Asian LDCs.

Source: Based on ITC (2023a).
SECTION 5

FOOD TRADE POLICY IN LDCs

LDC TARIFFS ON FOOD IMPORTS CONTINUE TO BE HIGH ................................................................. 22
NON-TARIFF MEASURES CAN ALSO BE A HURDLE FOR LDC FOOD IMPORTS ........................................... 24
FOOD TRADE POLICY IN LDCs

Trade policies aimed at improving food security can target the short term, medium term or long term. The shorter-range trade policies typically address transitory challenges to food availability or its affordability, such as scarcities related to extreme weather events or temporary price hikes. These policies can take the form of temporary tariff reductions, export restrictions (see Box 1), or the removal of non-tariff measures (NTMs), among others.

The longer-term policies typically focus on enhancing the links between trade and food security by addressing factors such as agricultural productivity, the role of agriculture in structural transformation and integration into regional agrifood value chains.18

LDC tariffs on food imports continue to be high

Reducing tariffs on food to address food scarcity or high food prices can only have an effect if tariffs on food are significant.

Currently, LDCs impose an average 17% average tariff on food imports—close to the 15% levy for other developing countries but about double that of developed countries (8%). The range of tariffs on food among LDCs is quite broad, from a low of 3% in Timor-Leste to a high of 37% in Bhutan, with only Kiribati opting not to enforce tariffs on food imports.19

There is also a big variation in tariff rates among food import sectors, from a low of 8% for sugar crops to a high of 28% for alcoholic beverages (Figure 12). As for the tariffs imposed on sectors identified as import dependent and key for food security—13% for cereals, 12% for vegetable oils and 16% for sweeteners—they are not among the highest ones imposed but they are significant.

This indicates that, when faced with a food security crisis, most LDCs can evaluate and, if appropriate, reduce tariffs on imports of products that are key for food security. While this policy can ease a threat to food security, countries also need to weigh its impact on fiscal revenue.
Figure 12: LDCs impose significant tariffs on food imports

Note: Trade weights are based on the average trade from 2017 to 2021. Tariffs correspond to 2022. The definition of sectors corresponds to the FAO Food Balances (2010-) in FAO (2022b).

Source: Based on ITC (2023b).
Non-tariff measures can also be a hurdle for LDC food imports

Not only tariffs, but also NTMs and procedural obstacles to trade can make imports of food more challenging and expensive. Evidence from ITC business surveys collected in 17 LDCs between 2010 and 2022 suggests that regulatory and procedural obstacles also pose hurdles for LDC food importers.

More than half (57%) of all interviewed food importers in LDCs reported being affected by restrictive regulations or procedural obstacles, compared to 34% in other developing countries and 11% in developed countries. The problem seems to be home-grown, with most reported hurdles originating in local regulations or procedures. Less than 7% of the difficulties reported by LDC food importers refer to challenges faced in partner countries, transit countries or due to private standards.

In terms of regulations, LDC food importers are the most troubled by charges, taxes and price control measures—notably, problems with customs valuations, customs surcharges and merchandise handling or storing fees (Figure 13). Other challenges relate to complying with conformity assessments, such as product certification and testing, and with entry formalities, such as pre-shipment inspections.

Figure 13: Charges, taxes and price controls are the most frequent NTMs for LDC food importers

In many instances, for example in Tanzania, Ethiopia and Bangladesh, importers reported their biggest difficulties were related to the procedures they must follow to comply with regulations, rather than to the regulations themselves. The procedural obstacles faced by LDC food importers at home are most often delays (27%), unusually high fees for required certificates (15%) and informal payments (14%).

With the aim of improving food security, several LDCs have already made significant progress in tackling specific NTMs. For example, Bangladesh has reduced NTMs on rice imports to ensure affordability. But plenty of challenges remain in LDCs and tackling them could reduce delays and costs, helping to quickly channel essential items to where they are most needed.

Box 1: How food export restrictions are used

When international food prices increase significantly, or food supplies or stocks are scarce, countries may be inclined to restrict food exports—whether by export taxes, quotas or even bans—to try to stabilize their domestic markets.

In the short term, restricting exports can limit increases in domestic prices. But in the medium or long term, local producers have fewer incentives to produce more food, the local supply of food suffers, and with it, local food prices.

In addition, export restrictions reduce global food supplies, increase the volatility of international markets and put further pressure on global prices, possibly turning a difficult situation into a full-blown crisis. Exactly how the restrictions affect global prices depends on how many countries adopt them, whether these countries are large players in the food markets, and how sensitive global demand is to price changes. The potential effects of export restrictions on world prices and third countries, especially poor net food-importing countries, can be serious.

During the 2007-2008 global food price crisis many countries restricted exports, including many large grains exporters. For example, Argentina, Kazakhstan, the Russian Federation, and Ukraine restricted wheat exports, and Viet Nam, India, and China limited rice exports. While export restrictions were less widespread in the 2010-2011 food price crisis, the Russian Federation and Ukraine still imposed temporary bans, quotas and other restrictions on exports of wheat and other grains. Even at the onset of the COVID-19 pandemic—under favourable conditions in world food markets and no immediate signs of serious market failures—multiple importers and exporters resorted to the use of export restrictions.

For the most part, export restrictions in these crises were not the main driver of price hikes, although studies show they did exert additional upward pressure on them. The exception was the dramatic increase in the price of rice in 2007-2008, which was largely propelled by export restrictions and precautionary imports.

Based on these experiences, the international community has become increasingly aware of the importance of information, transparency, free trade flows in international food markets, and more generally, coordinated action to avoid unnecessary food export restrictions.

As part of this, the Agricultural Market Information System (AMIS)—an inter-agency platform—was launched in 2011 to enhance food market transparency and coordinate policy responses on food security in times of uncertainty.

In 2022, the Ministerial declaration on the emergency response to food insecurity, a part of the MC12 “Geneva package”, underscored the need for agrifood trade to flow. It also reaffirms the importance of minimizing food trade distortions, especially given the potential impact on LDCs and other developing countries.
SECTION 6

FOOD IMPORT TRENDS IN LDCs

THE VOLATILE 2022 CONTEXT AFFECTED LDC FOOD IMPORTS THROUGH SEVERAL CHANNELS .......... 29

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FOOD IMPORT TRENDS IN LDCs

Over the past 15 years, there have been several bouts of volatile international food prices—2007-2008, 2010-2011 and 2021. For LDCs, in each instance, the value of food imports per capita grew at a slower pace than the price of food, especially in the case of cereals (Figure 14). This indicates that the quantities of food LDCs imported during these periods were smaller than before. Without an increase in food production, or additional food made available from stocks, to mitigate lower food imports, food scarcity prevailed. In 2007-2008 and 2010-2011 this led to social uprisings and riots in several LDCs, among them Bangladesh, Burkina Faso, Mauritania, Senegal, and Yemen.

Figure 14: Prices have outpaced LDC per capita food imports in several instances since 2001

Note: Areas shaded in grey correspond to increases in food prices above 15%.
Source: Based on ITC (2023a), FAO (2023a) and UN DESA (2022).
The volatile 2022 context affected LDC food imports through several channels

In recent years, global food markets have experienced great instability. The COVID-19 pandemic affected regional and global food supply chains, some of them crucial to LDCs. Lockdowns, volatile restrictions, and temporary trade measures around the world disrupted access to food inputs—and hindered food production, transportation and distribution, especially in the initial months of the pandemic.

Global trade started recovering by mid-2020, and a full-blown rebound was underway for most countries and sectors by the end of the year, which continued through 2021. The recovery fuelled demand, and global food prices started rising, increasing by 32% between December 2019 and December 2021—a development that prompted some countries to adopt export restrictions on items such as wheat, beef, palm oil and fertilizers.

Against this backdrop, the outbreak of the war in Ukraine in late February 2022 triggered a new bout of uncertainty in international food markets, which affected the food supply to LDCs through several channels.

Direct disruptions in the supply of wheat, sunflower oil and fertilisers

One channel is the direct impact of supply chain disruptions or shortages experienced by countries or sectors sourcing food in the Russian Federation or Ukraine.

On average, 6% of the imports of food of LDCs come from the Russian Federation or Ukraine, compared to 7% for other developing countries and 2% for developed countries. However, for some sectors and regions, the importance of the Russian Federation and Ukraine as food suppliers rendered food value chains particularly vulnerable to direct disruptions and shortages once the war started.

That was the case for some key products like sunflower seed oil and wheat products, with 37% and 29%, respectively, of their imports sourced in the Russian Federation and Ukraine (Figure 11). For some LDCs, almost all of their imports of these products originated in these countries—for example, 94% of sunflower seed oil imports in Sudan, and 60% of imports of wheat products in the United Republic of Tanzania.

In addition, over 6% of the imports of fertilisers of LDCs are sourced in Belarus, the Russian Federation or Ukraine, with a much larger share in some LDCs (Figure 15). Disruptions in the supplies of fertilisers from countries involved in the conflict may lead to lower agricultural yields and diminished domestic food production.

Figure 15: Belarus and the Russian Federation are key suppliers of fertilisers for many LDCs

Note: Average from 2017 to 2021.
Source: Based on ITC (2023a).
Increasing food and fertiliser prices

A second channel is the impact of steeply rising food prices. Propelled initially by the post-pandemic recovery and then boosted by the war, increasing international food prices made access to all food more challenging, even if not sourced from Ukraine or the Russian Federation.

From May 2020 until they peaked in March 2022, food prices increased by 75%. While they have since come down, in December 2022 food prices were still 39% higher than their 2019 average. Furthermore, local prices have not always followed the global downward trend of the second half of 2022. For example, prices for maize and sorghum in South Sudan only shot up after May 2022 and have remained high since then.

The evolution of fertiliser prices was similar—if more drastic—starting to increase in June 2020 and peaking in April 2022, with a total 282% increase. After declining during the second half of 2022, they were still 133% higher in December 2022 than in 2019.

More than 30 temporary trade measures on food trade were adopted globally

A third channel is the adoption of temporary trade measures. After the conflict broke out, several countries decided to adopt temporary trade measures against Belarus and the Russian Federation as part of their sanction packages. In response, the Russian Federation adopted counter-sanction packages that also included temporary trade measures.

In turn, additional countries adopted temporary trade measures in hopes of safeguarding their domestic markets from international fluctuations. While many of these measures excluded food trade flows, not all of them did.

Since the beginning of the war, over 160 temporary trade measures have been adopted, with 140 of them still currently active. More than 20 countries have adopted at least 30 measures affecting food sectors (Figure 16). These measures have mostly been restrictive ones, but some have been liberalising.
Among the countries directly involved in the war or in sanctions, Ukraine implemented export restrictions on cereals, meat and livestock, which were partially lifted from April onwards. Canada, the European Union, the United Kingdom and the United States enacted a wide suspension of levies on imports from Ukraine, including food imports. The Russian Federation adopted export restrictions on agricultural products and fertilisers, along with an embargo on imports of foodstuffs that originated in countries that supported sanctions. Belarus imposed restrictions on exports of cereals, animal feed, rice, pasta, and other food products—many of which were lifted by October, although some remained.

Other countries not directly involved in the war or sanctions also adopted temporary trade measures, generally aimed at stabilizing local food markets. For example, Brazil, Dominican Republic and El Salvador liberalised imports of food products. Further, some countries adopted measures to try to guarantee supplies for the domestic market and control its prices—for example, Algeria, Azerbaijan, Hungary, India, Lebanon, Malaysia, and Serbia restricted their exports of food products, in particular, wheat, soy, pasta, rye, flour, lentils, oats, maize, meat, barley, oil seeds and cooking oil.

LDCs did not apply restrictions on food trade themselves. However, other countries’ export restrictions affected them, directly in some instances, but mostly through the additional upward pressure they put on food prices.
LDC food imports were significantly outpaced by food prices in the first half of 2022

Analysing the evolution of LDC food imports in recent years, particularly in 2022, presents two challenges. First, the rapid food price increase makes it less straightforward to understand the meaning of higher import values. To address this partially but simply, we compare the evolution in import values to that of prices.

The second challenge stems from incomplete data: many LDCs report their trade only irregularly. Usually, when direct data is not available, mirror data is used. However, the Russian Federation and Belarus stopped reporting trade data when the war began, meaning that the analysis based on mirror data lacks some of the components of trade expected to have experienced some of the largest impacts. For that reason, we assess the evolution of general food imports using mirror data from 67 countries, representing 72% of LDC trade, and we tentatively explore specific points on imports of key products using data provided by the handful of LDCs that have reported information beyond February 2022 at the time of writing. Note that mirror data does include Ukrainian data.

LDC food imports plateaued for some months as the pandemic started, but later increased as much as prices until April 2021 (Figure 17). Since then, they have lagged with respect to the growth in food prices, particularly in the first half of 2022.

Figure 17: LDC food imports started lagging food prices in 2021

Note: Based on mirror data from 67 countries that represent 72% of LDC trade.
Source: ITC (2023a) and FAO (2023a).
In total, while LDC food imports outpaced food prices in 2020, they came up short in 2021 and the first half of 2022 (Figure 18). In 2021, LDC food imports increased by 22%, compared to a 28% growth in food prices. In the first half of 2022, the increase in LDC food imports was 13%, against a 25% surge in food prices.\textsuperscript{27}

Figure 18: Real LDC food imports decreased in 2021 and 2022

\textbf{Note}: Results for 2022 are based on mirror data from 67 countries that represent 72% of LDC trade.

\textbf{Source}: ITC (2023a) and FAO (2023a).

The decrease in real food imports is particularly striking when comparing the first half of 2022 to pre-pandemic levels: LDC food imports increased by 33%, while food prices increased by over 60%. Less imported food, coupled with higher prices, is bound to have affected food security in LDCs (Figure 18).
Among key products, only imports of maize and rice kept up with prices in some LDCs

What happened with the key sectors or products that both contribute significantly to the supply of calories in LDCs and are also largely imported to LDCs? Data from Madagascar and Uganda, the only LDCs to report trade up to or beyond June 2022, show that among these key products, only maize and rice imports increased more than prices in comparison to pre-pandemic levels. Imports of palm oil, soybean oil, sunflower seed oil, and wheat were outpaced by their prices.

Figure 19: For some LDCs, imports of key products grew less than their prices, except for maize and rice

Fertiliser imports also lagged behind

As for fertilisers, LDC import values rose 97% for the first half of 2022 compared to the previous year, while fertiliser prices increased by 116%—in other words, quantities fell—according to available mirror data. But the actual drop in imports was likely larger, as data from Belarus and the Russian Federation, which restricted their exports, are not included in these results.

Towards the end of 2022, fertiliser prices decreased—and some LDCs, such as Uganda, report higher fertiliser flows from the Russian Federation since October 2022. But even if these signs of relief continue, the reduction of fertiliser supplies experienced in 2022 could affect agricultural yields, and with them domestic food production, in the years ahead.
SECTION 7

POLICY OPTIONS

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POLICY OPTIONS

Trade can increase the availability, affordability and variety of food in LDCs, but also make them more vulnerable to global fluctuations. Policy options to foster food security and resiliency in LDCs will need to take these two realities into account. At the same time, they will need to be tailored to a context of global uncertainties, such as COVID-19, war and conflict, climate change and cost-of-living increases. The best hope lies in short- and long-term policies that address not only emergencies but also the underlying causes of vulnerabilities.

This report suggests that, in coordination with other essential policies—such as stockholding systems, biofuel policies, enhancement of agricultural productivity, support of climate change adaptation and mitigation, and access to finance—LDCs could consider the following trade policies.

Improving market access for food security

Revise food tariffs
LDCs currently impose a broad range of tariffs on food imports. Some of the sectors essential for food security in LDCs still bear significant tariffs when imported, such as cereals (13%), vegetable oils (12%) or sweeteners (16%).

LDCs could re-evaluate existing tariffs on foodstuffs, consider temporary or definitive suspensions as appropriate and establish mechanisms that allow for flexibility and rapid action on food tariffs when faced with higher prices or external shocks.

Facilitate food imports
Similarly, LDCs could critically review food import procedures and charges—such as conformity assessments, pre-shipment inspections and customs valuations and surcharges—to avoid unnecessary delays, unusually high fees and informal payments.

Some of the trade facilitation measures to be considered in this regard are the simplification of processes and the implementation of single-window systems.
Avoid export restrictions and other trade distortions

Although export restrictions can limit increases in domestic prices, they can also disincentivize local food production and increase pressure on international prices.

When evaluating the adoption of export restrictions, LDCs should keep in mind that these restrictions could have a negative impact on domestic and global markets.

In light of this, LDCs should also continue to advocate for the unrestricted trade of food in multilateral fora.

Tapping into alternative sources of food supplies

Diversify providers

Large shares of LDC imports that are essential for food security continue to be sourced from a very limited number of suppliers. For example, over 80% of all imports of palm oil to LDCs is supplied by Indonesia and Malaysia.

LDCs could establish diversified sourcing strategies to reduce dependency and circumvent sudden policy, price or quantity changes by traditional suppliers.

Strengthen domestic and regional agrifood value chains

LDCs could incentivize the production and exports of food products, particularly products other than the main cash crops.

LDCs could support deeper integration into regional agrifood markets, which can provide alternative food sources and larger markets.

Regional integration initiatives—such as the African Continental Free Trade Area (AfCFTA)—provide an opportunity to address many of the points above, as they are an instance to review tariffs, streamline procedures, revise regulation, and coordinate responses and actions.

Finding global solutions to address food security in LDCs

The policy options mentioned so far focus on actions that LDCs can consider and adopt themselves to address their food security concerns. However, the role of the international community in improving the link between trade and food security in LDCs is vital.

The international community should cooperate at the multilateral level to strengthen intra-regional trade, improve market information and avoid the unnecessary use of export restrictions that can have a disproportionate negative effect on net food importing countries.
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1 As of January 2023, the LDC category comprises 46 countries. These are: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People’s Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, the Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, the Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Yemen and Zambia.

2 United Nations (2022a).

3 WTO (2022).

4 United Nations (2022b).

5 For a detailed overview of the evolution of the concept of food security, please see FAO (2003).

6 FAO (1996). The definition was later refined to reflect “…physical, social, and economic access to sufficient, safe and nutritious food…” (emphasis added).

7 The average prevalence of food insecurity in LDCs stood at 55% in 2014-2016 (based on FAO, 2022b).

8 For reference, the highest level of food insecurity experienced in developed countries is 16%, in Bulgaria (based on FAO, 2022b).

9 United Nations (2022b).

10 Recently, the four-pillar framework was extended to acknowledge two additional dimensions: agency and sustainability (HLPE, 2020).

11 For an exhaustive analysis of the links between trade and food security, please see FAO (2015).

12 This effect is well documented in discussions on commodity dependence. Currently, 19 LDCs are classified as dependent on agricultural exports (UNCTAD, 2021).

13 The net trade position is the ratio \((\text{exports} - \text{imports}) / (\text{exports} + \text{imports})\). Its value ranges from -1 to 1, with negative values reflecting a net importing position, and positive ones a net exporting position. For the evolution of the net food trade position of LDCs, please see Figure A.1.

14 Supply is the sum of local production, net imports, and decreases in food stocks.

15 For additional details on the composition of food supply by sector in LDCs, please see Figure A.2.

16 Miscellaneous foods includes infant food and various food preparations, such as soup and protein concentrates.

17 For details on the main partners by sector, see Figure A.5.

18 For an exhaustive typology and analysis of trade policies related to food security and to agricultural trade more broadly, see FAO (2015) and FAO (2022a).

19 For details by country, see Figure A.6.

20 Based on the FAO (2023a).

21 For details by country, see Figure A.7.

22 Based on FAO (2023a), World Bank (2023) indicates additional increases in April and May 2022, for a total increase of 86% since May 2020 and December 2022 prices 56% higher than their 2019 average.

23 FAO (2023b).

24 Based on World Bank (2023).

25 The updated catalogue of all measures adopted is available through ITC Market Access Map, at https://m.macmap.org/ukraine.

26 The LDCs that have reported trade data after February 2022 are Cambodia (April), Zambia (May), Uganda (October) and Madagascar (November).

27 These trends are also present in the data of direct LDC reporters (Figure A.8).

28 For a detailed overview of options for stockholding systems, as well as alternative means to address food insecurity in LDCs at the global, regional and sub-regional levels, please see United Nations (2022b).

29 Anania (2013) conducts a thorough review of studies analysing the effects of export restrictions in the 2007-2008 and 2010-2011 crises.

30 https://www.amis-outlook.org
APPENDICES

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APPENDIX I
Additional Figures

Figure A.1: LDCs have been net food importers for decades

Note: The net trade position is the ratio (exports - imports) / (exports + imports). Its value ranges from -1 to 1, with negative values reflecting a net importing position, and positive ones a net exporting position.

Source: Based on ITC (2023a).
Figure A.2: Net imports represent between 36% and 56% of the supply of cereals, vegetable oils and sweeteners in LDCs

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<td>Stimulants</td>
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Note: Averages from 2015 to 2019. Food supply is the sum of food produced, net imports, and decreases in food stocks.

Source: Based on FAO (2022b).
Figure A.3: In many sectors, imports do not play a large role for food security in LDCs

**Note:** Average from 2015 to 2019. Food supply is the sum of food produced, net imports, and decreases in food stocks. The definition of sectors corresponds to the FAO Food Balances (2010-) in FAO (2022b). For the sectors featured, imports are a small part of supply and/or they do not make a large contribution to the supply of calories per person.

**Source:** Based on FAO (2022b).

Figure A.4: Among vegetable oils, imports of palm oil sunflower seed oil and soyabean oil are key to food security in LDCs

**Note:** Based on averages between 2015 and 2019. Food supply is the sum of food produced, net imports, and decreases in food stocks.
Figure A.5: Most LDC imports are sourced from one of three suppliers

Source: Based on FAO (2022b).

Note: Average from 2017 to 2021. The figure features the top three partners for LDC imports in each sector. To facilitate visualization, Haiti is included among African LDCs and Kiribati, Solomon Islands and Tuvalu are included among Asian LDCs.

Source: Based on ITC (2023A).
Figure A.6: Most LDCs still impose significant tariffs on imports of food

Source: Based on ITC (2023b).
Figure A.7: The Russian Federation or Ukraine are key suppliers of many food products for some LDCs

![Bar chart showing the percentage of food products supplied by the Russian Federation or Ukraine to various LDCs.]

Note: Based on 2017-2021 averages. The sectoral definition is that of FAO Food balances (2010-).

Source: Based on ITC (2023a).

Figure A.8: Food imports in 2022 lagged food prices for most direct reporters

![Line chart showing the percentage change in food imports and food prices for various countries.]

Note: Data for Cambodia reflects the period Jan-Mar, Madagascar to Jan-Nov, Uganda to Jan-Oct, and Zambia to Jan-May.

Source: ITC (2023a) and FAO (2023a).