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## Report on global losses for the period from 1 January to 31 December 2022

### Executive summary

In 2022, WFP handled 6.3 million metric tonnes (mt) of food.<sup>1</sup> Despite challenges posed by emergencies, WFP provided high-quality food assistance to 160 million people globally while minimizing losses.

This was made possible by WFP's efficient and agile end-to-end supply chain, robust risk mitigation systems and strong management processes. While events beyond WFP's control resulted in relatively large global food losses, they were notably smaller than those of the previous year.

Overall, of the 6.3 million mt of food handled in 2022, 29,918 mt (0.48 percent) were lost, a significant decrease from the 0.70 percent lost in 2021. Pre-delivery losses of 12,444 mt (or 0.20 percent of total volume), at a value of USD 9.2 million, were the sixth largest in terms of volume and fourth largest in terms of value since 2012. Transport-related losses valued at USD 4.7 million accounted for 61 percent of pre-delivery losses.

Post-delivery losses amounted to 17,474 mt (or 0.28 percent of total volume), with a value of USD 16.9 million, the fourth smallest loss in terms of volume and fourth largest in terms of value since 2012. Eighty-five percent of post-delivery losses (14,819 mt) were attributable to reconstitution, re-bagging or repacking, pilferage or theft, transport-related problems, and improper or overlong storage.

Ten country operations accounted for 83 percent (14,577 mt) of post-delivery losses in 2022, of which 55 percent (8,016 mt) were attributable to the Democratic Republic of the Congo, Ethiopia and Haiti.

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<sup>1</sup> The amount of food handled in 2022 was 6.3 million mt. The "amount of food handled" refers to the amount of food transported by WFP intended for distribution to people that it serves. The food handled in the post-delivery loss context for a given country is the total of opening stock, food purchased in the country and all food coming into the country from outside.

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## Introduction

1. This report provides an overview of global losses of food – pre-delivery and post-delivery – in 2022 and describes recent measures for preventing or minimizing such losses. The annexes to this report detail country-specific losses and identify countries where losses were above WFP’s reporting thresholds.<sup>2</sup>
2. Pre-delivery losses are those that occur before legal title to food passes to a government, usually at the first delivery point in the recipient country.
3. Post-delivery losses are those that occur after food arrives in a recipient country and before it is distributed to people in need.
4. Within the legal framework in which WFP operates, legal title of food commodities normally passes to the government of a country where they are to be distributed at the commodities’ point of first entry into the country. WFP, however, generally retains physical possession of the commodities far beyond the time at which legal title is transferred.
5. This report does not cover unintended uses of food after distribution to beneficiaries. Unintended uses such as sharing, theft or sale are captured through monitoring and addressed accordingly.
6. Following approval by the Executive Board, the WFP self-insurance scheme was extended to cover post-delivery losses. All WFP losses are therefore covered by insurance from the moment when WFP takes possession of commodities up to their physical handover to a cooperating partner, the people WFP serves or a recipient government.<sup>3</sup>

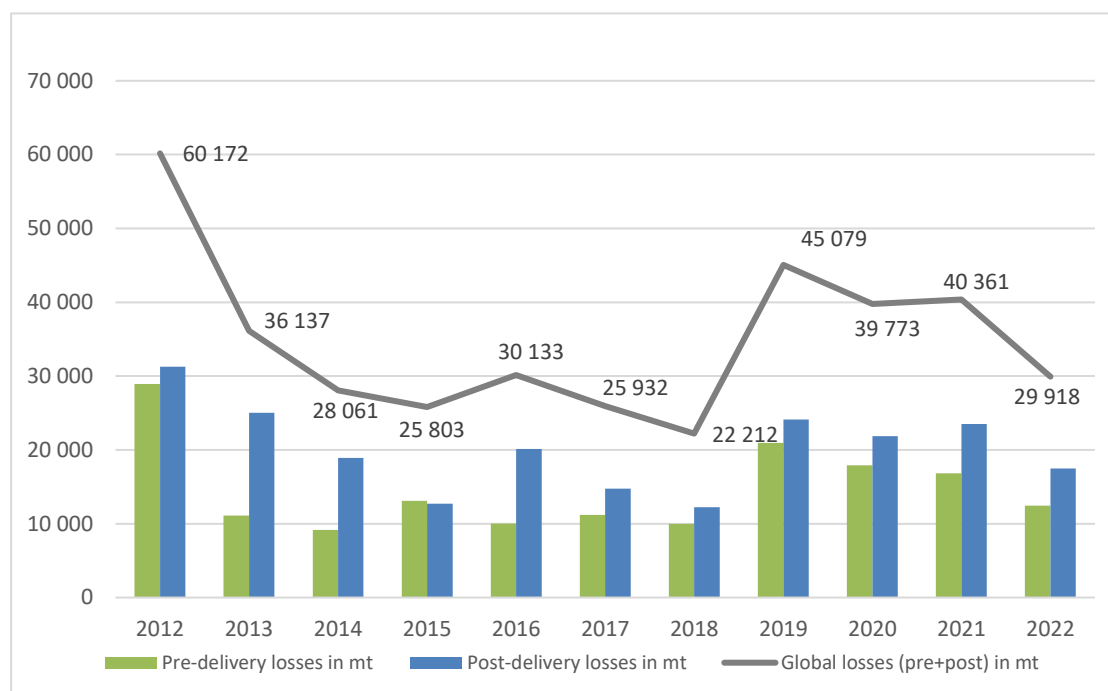
## Characteristics of global losses in 2022

7. Global food losses in 2022 are presented in this report in terms of volume (mt) and value (United States dollars – USD) and are compared against losses in previous years.
8. Significant losses beyond the control of WFP meant that the volume of global losses in 2022 amounted to 29,918 mt, a substantial decrease from 2021 and the fifth lowest since 2012 (see figure 1 and annex II).

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<sup>2</sup> These are countries where losses of a single food type amount to at least 2 percent of the volume handled and have an absolute value of at least USD 20,000 and countries where losses of a single food type have an absolute value of more than USD 100,000.

<sup>3</sup> “WFP Management Plan (2018–2020)” (WFP/EB.2/2017/5-A/1/Rev.1).

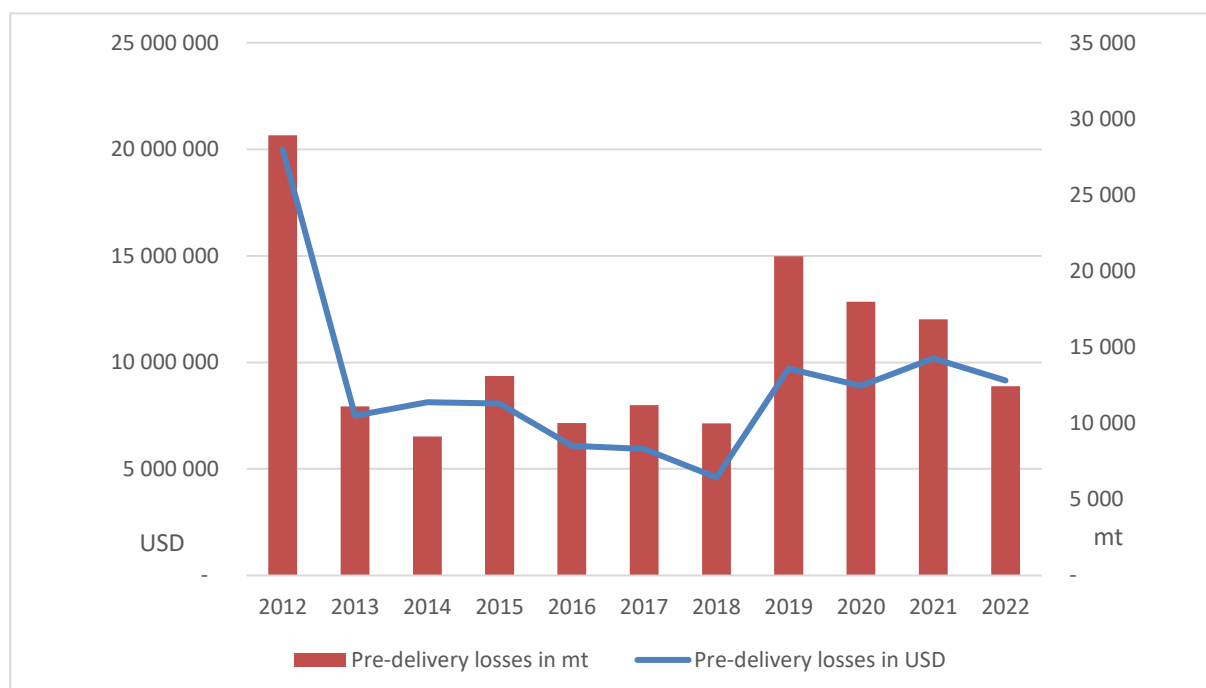
**Figure 1: Global food losses by volume, 2012–2022**

9. The value of global losses was USD 26.1 million, slightly higher than in 2021, when it was USD 24.9 million, reflecting the global increases in food prices experienced in 2022.
10. Losses of wheat, sorghum, rice, vegetable oil and maize amounted to 18,858 mt valued at USD 13.6 million, accounting for 63 percent of global losses by volume and 52 percent by value. Details of those losses are provided in table 1.

<b>TABLE 1: THE FIVE COMMODITIES FOR WHICH LOSSES WERE HIGHEST, 2022</b>				
<b>Commodity</b>	<b>Losses (mt)</b>	<b>Value (USD)</b>	<b>USD per mt</b>	<b>Losses as a percentage of total losses by volume</b>
Rice	5 567	3 513 281	631	19
Wheat	4 723	1 986 116	420	16
Sorghum/millet	3 320	1 561 442	470	11
Vegetable oil	2 815	4 714 566	1 675	9
Maize meal	2 433	1 886 040	775	8

### Characteristics of pre-delivery losses in 2022

11. Pre-delivery losses in 2022 are presented in terms of volume (mt) and value (USD) and are compared with losses in previous years in terms of volume, value and causes.
12. In 2022, pre-delivery losses amounted to 12,444 mt, the sixth highest by volume since 2012 (figure 2).
13. Pre-delivery losses were valued at USD 9.1 million, the fourth highest by value since 2012 (figure 2).

**Figure 2: Pre-delivery losses by volume and value, 2012–2022**

14. Losses of wheat amounting to 2,736 mt at an average value of USD 395/mt accounted for 22 percent of all pre-delivery losses.
15. Losses of 2,833 mt of rice at an average value of USD 716/mt accounted for 20 percent of pre-delivery losses.
16. Losses of sorghum amounting to 2,516 mt at an average value of USD 437/mt accounted for 10 percent of pre-delivery losses.

### Main reasons for pre-delivery losses

17. In 2022, 61 percent of pre-delivery losses, or 7,602 mt worth USD 4.7 million, were mainly transport-related losses.
18. Re-bagging or repacking resulted in pre-delivery losses of 2,186 mt worth USD 1.4 million. This accounted for 18 percent of all pre-delivery losses.

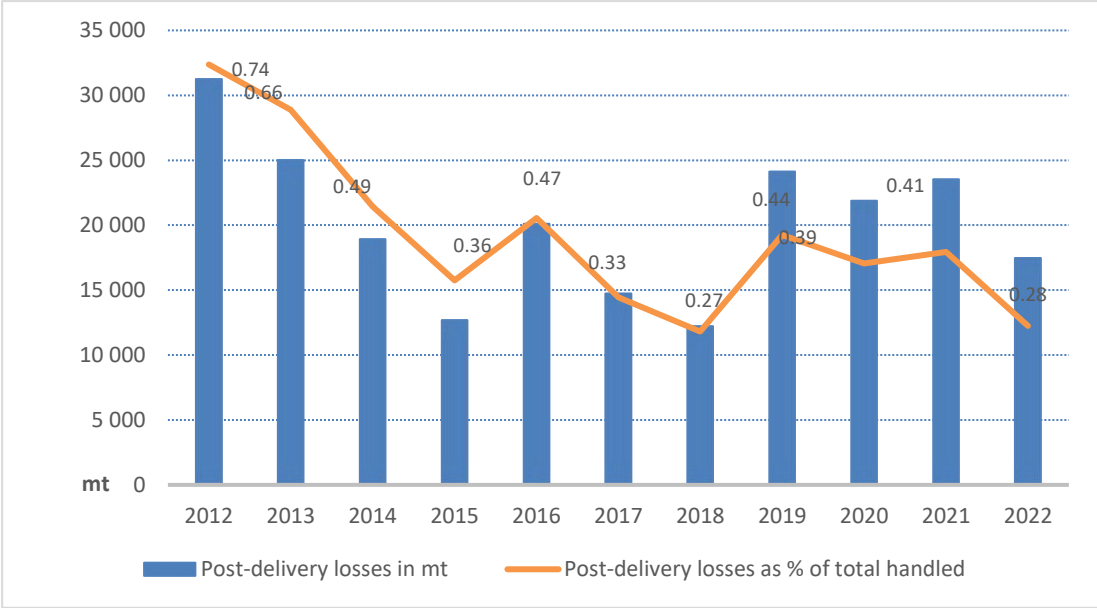
### Characteristics of post-delivery losses in 2022

19. Post-delivery losses in 2022 are presented and compared with losses in previous years in terms of volume, value and causes.
20. The volume of post-delivery losses in 2022 was the fifth lowest since 2012 in absolute terms but the second lowest as a percentage of food handled.<sup>4</sup> Post-delivery losses were 17,474 mt, or 0.28 percent of the 6.3 million mt of food handled; the corresponding figures for 2021 were 23,527 mt and 0.41 percent (see figure 3 and annex X).
21. In 2022, post-delivery losses had a total value of USD 16.9 million, the fourth highest since 2012 in absolute terms. At 0.34 percent of the USD 4.93 billion of food handled, however, it

<sup>4</sup> The amount of food handled in 2022 was 6.3 million mt. The “amount of food handled” refers to the amount of food transported by WFP intended for distribution to people it serves. The food handled in the post-delivery loss context in a given country is the total of opening stock, food purchased in the country, and all food coming into the country from outside.

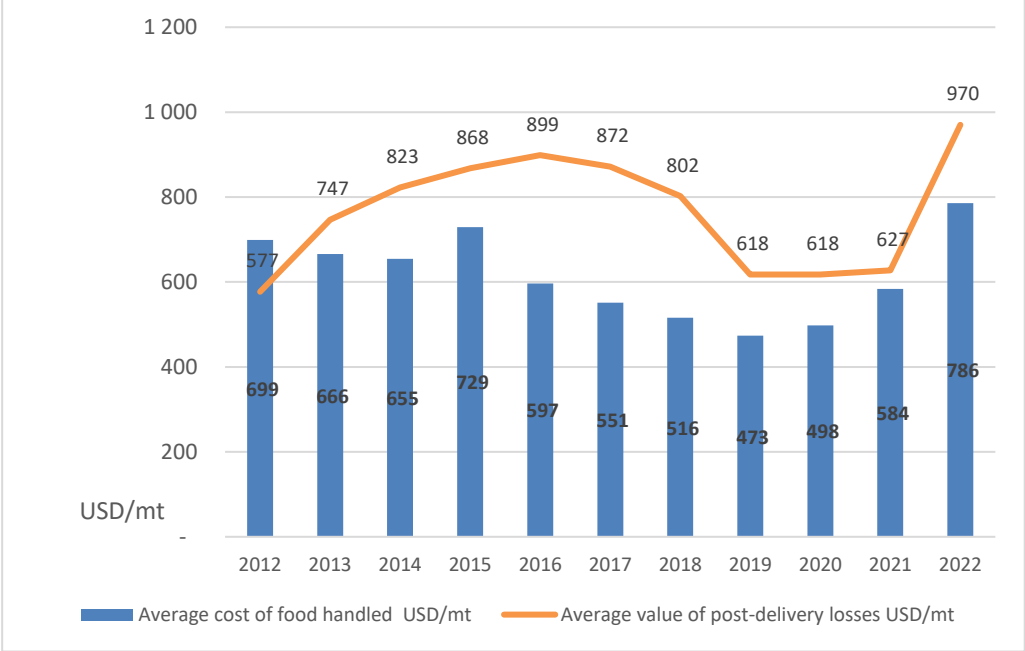
was the lowest in percentage terms in all years recorded since 2008. The corresponding figures for 2021 were USD 14.8 million and 0.44 percent (see figure 3 and annex X).

**Figure 3: Post-delivery losses by volume, 2012–2022**



22. The average value of food handled in 2022 was USD 786/mt, compared with USD 584/mt in 2021. The average value of post-delivery losses was USD 970/mt, compared with USD 627/mt in 2021 (see figure 4).

**Figure 4: Average cost of food handled and average value of post-delivery losses, 2012–2022**



**Main reasons for post-delivery losses**

23. In 2022, 90 percent of post-delivery losses (15,811 mt) were attributable to five main causes: inadequate transport, improper or overlong storage, reconstitution, rebagging or repacking, pilferage or theft and the deterioration of food commodities mainly as a result of problems at origin (see figure 5). Specific details by country are provided in annex VIII.

**Figure 5: The five main reasons for post-delivery losses, 2022**

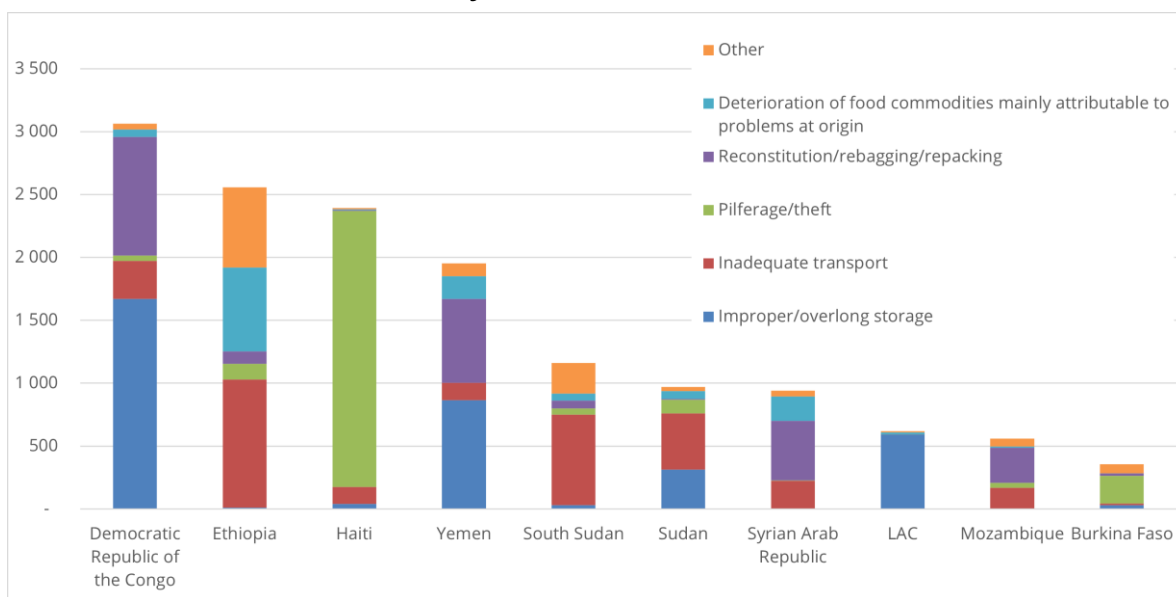
Inadequate transport	Improper/ overlong storage	Reconstitution/ rebagging/ repacking	Pilferage/theft	Deterioration of food commodities mainly attributable to problems at origin
<ul style="list-style-type: none"> <li>• 3,831 mt</li> <li>• 0.06% of total food handled</li> <li>• 22% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 3,705 mt</li> <li>• 0.06% of total food handled</li> <li>• 21% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 3,645 mt</li> <li>• 0.06% of total food handled</li> <li>• 21% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 2,963 mt</li> <li>• 0.05% of total food handled</li> <li>• 17% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 1,666 mt</li> <li>• 0.03% of total food handled</li> <li>• 10% of total post-delivery losses</li> </ul>

24. Inadequate transport resulted in post-delivery losses of 3,831 mt, or 0.06 percent of total food handled and 22 percent of all post-delivery losses. Of these losses, 57 percent or 2,187 mt occurred in Ethiopia, South Sudan and the Sudan.
25. Improper or overlong storage resulted in post-delivery losses of 3,705 mt, or 0.06 percent of total food handled and 21 percent of total post-delivery losses. Stocks for the Democratic Republic of the Congo and Yemen and pre-positioned inventory for the Latin America and the Caribbean region (LAC) together accounted for 84 percent of these losses, or 3,126 mt.
26. Problems related to reconstitution, rebagging or repacking resulted in post-delivery losses of 3,645 mt, or 21 percent of total post-delivery losses. Of these losses, 57 percent or 2,086 mt occurred in the Democratic Republic of the Congo, Yemen and the Syrian Arab Republic.
27. Pilferage or theft accounted for post-delivery losses of 2,963 mt, or 0.05 percent of total food handled and 17 percent of all post-delivery losses. Haiti accounted for 2,194 mt or 74 percent of these losses.
28. The deterioration of food commodities mainly as a result of problems at origin accounted for losses of 1,666 mt, equivalent to 0.03 percent of total food handled and 10 percent of total post-delivery losses. Ethiopia, the Syrian Arab Republic and Yemen accounted for 1,041 mt or 63 percent of these losses.

### Post-delivery losses by country

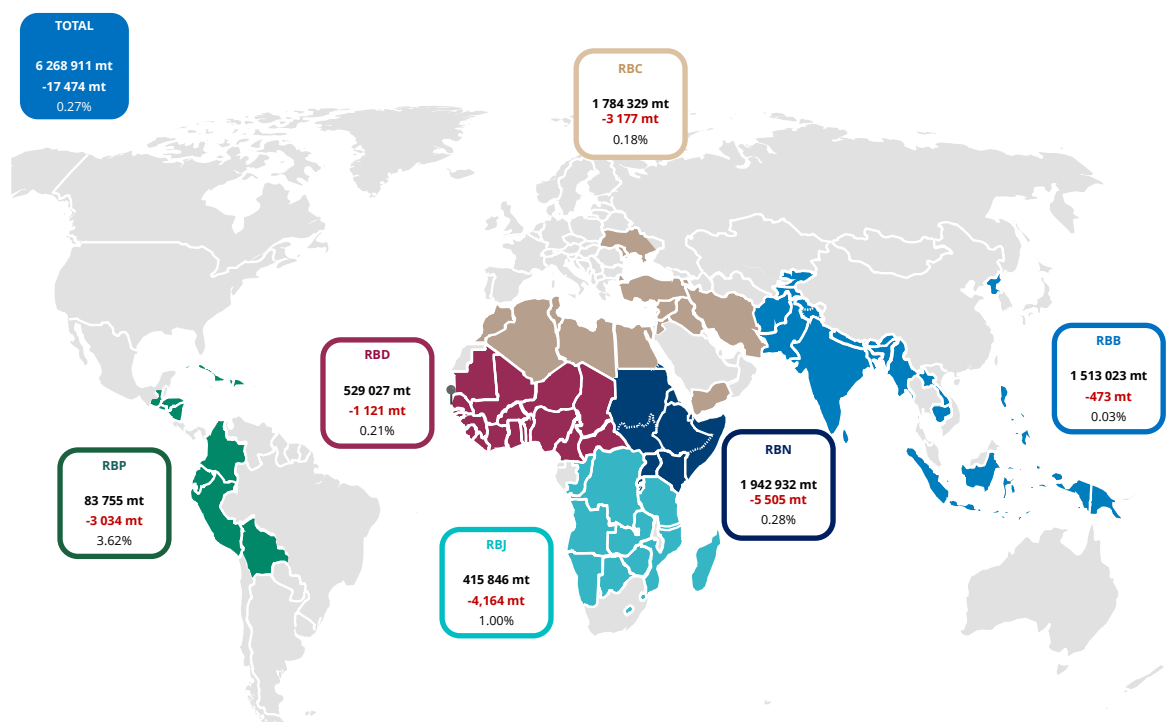
29. Ten country operations accounted for 14,577 mt or 83 percent of post-delivery losses in 2022 (see figure 6). Of these, operations in the Democratic Republic of the Congo, Ethiopia and Haiti accounted for 55 percent, at 8,016 mt.

**Figure 6: The 10 countries with the highest post-delivery losses in 2022, by cause of loss (mt)**



30. WFP’s 10 largest operations in terms of volume of food handled in 2022 were, in descending order, Afghanistan, Ethiopia, Yemen, the Syrian Arab Republic, South Sudan, the Sudan, Ukraine, Kenya, Somalia and the Democratic Republic of the Congo. These operations handled 4.9 million mt of food. See figure 7 for an overview of operations and losses by WFP region.

**Figure 7: WFP operations by region – food handled (mt) and post-delivery losses (mt and percentage of total food handled in the region)**



The boundaries and names shown, and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. The final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

**Abbreviations:** RBB = Regional Bureau for Asia and the Pacific; RBC = Regional Bureau for the Middle East, Northern Africa and Eastern Europe; RBD = Regional Bureau for Western Africa; RBJ = Regional Bureau for Southern Africa; RBN = Regional Bureau for Eastern Africa; RBP = Regional Bureau for Latin America and the Caribbean.

31. In 2022, WFP operations in 20 countries had above-threshold post-delivery losses, which totalled 13,471 mt (see annex I). Of these countries, five were in WFP's Eastern Africa region, accounting for 29 percent of all above-threshold post-delivery losses; four were in WFP's Southern Africa region, accounting for 26 percent; four were in WFP's Middle East, Northern Africa and Eastern Europe region, accounting for 20 percent; two were in WFP's Latin America and the Caribbean region, accounting for 22 percent; two were in WFP's Asia and the Pacific region, accounting for 2 percent; and three were in WFP's Western Africa region, accounting for 1 percent.

## **Measures for preventing and mitigating losses**

### **Food procurement and safety and quality in WFP operations**

32. WFP is committed to reducing food losses through its supply chain operations. Robust processes for procuring food and ensuring its safety and quality, complemented by monitoring at all levels, are key to this.
33. In 2022, the Food Procurement Unit implemented a variety of measures to prevent and mitigate food losses. For example, the unit continued its use of an early release clause for all wheat contracts, a procedure that ensures maximum quality assurance and full vendor accountability through the introduction of a "recall and replace" clause. The clause enables the Food Procurement Unit to mitigate potential reputational risks resulting from quality issues, shifting charges associated with quality compliance (such as re-testing and detention and demurrage charges) to vendors.
34. Regarding "deliver at place" and "free carrier" contracts, cartons transported on loaded trucks or wagons now have inner protective materials and bindings applied to minimize damage during transport. It should be noted, however, that, due to multiple transloading issues and the poor application of the aforementioned measures, some damage still occurred in 2022 under deliver at place contracts in Afghanistan. For newly awarded contracts, the importance of adhering to these measures will be emphasized to vendors through inspection companies.
35. The Food Procurement Unit, in close collaboration with the Food Safety and Quality Assurance Branch, requested inspection companies to strengthen checks of empty bags. This entailed ad hoc desk reviews of bag-related documents and drop tests on bags to reduce the likelihood of bags breaking at discharge ports.
36. For wheat, the Food Procurement Unit specified fumigation with recirculation in all its tenders. This ensures adequate fumigation during shipping, reducing the risk of live insects arriving at destinations. This method, which involves re-fumigation through pipes, has been used effectively with purchases made under the Black Sea Grain Initiative, the terms of which required Joint Coordination Centre inspections and top-up fumigation in Istanbul.
37. For sorghum, the Food Procurement Unit collaborated closely with the Food Safety and Quality Assurance Branch to align tender documents and sorghum specifications with sorghum market trends.
38. For specialized nutritious foods, WFP continued to implement the same measures as in 2021. Leakage from lipid-based nutrient supplement sachets above the accepted WFP standard was still observed, however, and WFP implemented 100 percent checks with some suppliers. Compliance with required standards was ensured through continuous monitoring of the production process for suppliers who had previously experienced leaks. For new suppliers of corn soya blend WFP held pre-contract implementation meetings to explain all aspects of contract execution and quality requirements, while for some corn soya blend suppliers more demanding inspection protocols were maintained. Those protocols provided for, among other things, laboratory testing to ensure that no micro toxins were present in raw materials used to produce food intended for WFP beneficiaries.



### **Tracking and monitoring of food**

39. The Logistics Branch conducted face-to-face training sessions to build and refresh fundamental skills for supply chain employees in the field, focusing on topics such as logistics contracting and warehouse management. These sessions empower staff to carry out appropriate operational practices, deepen their understanding of corporate tools and procedures, bolster their confidence, and promote a network for sharing lessons learned and best practices. In the first eight months of the initiative, sessions were conducted in all regions and at headquarters, in English, French and Spanish, for more than 200 employees. Supporting online training modules were also developed and will soon be made available to all staff through the WeLearn online learning platform.
40. In 2022, the Food Safety and Quality Assurance Branch performed 156 supplier audits, which facilitated preventive action to ensure that procured food was safe and of high quality. More than 3,000 internal and external personnel were trained in areas such as food safety, food quality, best practices and capacity building.
41. The branch managed 241 food-related incidents and performed 229 laboratory compliance tests across 39 suppliers and 28 commodities worldwide. In addition, 80 food specifications were approved, further strengthening the framework that ensures that food procured for WFP's operations is of high quality.
42. To address repeated reports of regulatory incidents and risks, and in response to donor requests, the Food Safety and Quality Assurance Branch in late 2022 launched a project to examine local standards. With strong support from all regional bureaux, 30 priority country offices were reviewed. In the context of those reviews, the branch examined 192 foods, relevant national food and labelling standards, and related regulatory risks and made a number of recommendations.
43. In 2022, the branch approved a total of 80 food specifications, including 52 developed by country offices and regional bureaux. This number was unprecedented, reflecting the increased operational demand for locally purchased food and the need to mitigate the risk that food will be rejected for import owing to regulatory violations.
44. The branch performed significant groundwork on strengthening the packaging requirements for Super Cereal Plus and Super Cereal sachets to prevent bulging at high altitudes and on lipid-based nutrient supplement packaging to identify the causes of leaks and determine mitigation measures that suppliers can take to address that issue. FOSTER, a digital platform that can be used to track and analyse food procurement inspection data, was used in inspections in 46 country offices across five regional bureaux in 2022. The platform facilitates early action on deviations and provides access to a vast repository of data that allows for tracking, risk assessment and overall loss mitigation. For example, the Regional Bureau for the Middle East, Northern Africa and Eastern Europe started the implementation and rollout of the FOSTER system to facilitate quality and quantity inspections in Lebanon, the Syrian Arab Republic, Ukraine and Yemen. This facilitated the formulation of clear acceptance criteria for in-kind food assistance and the formal assessment of deviations by the Food Safety and Quality Branch.

### **Regional bureau initiatives for minimizing losses**

45. In 2022, regional bureaux supported country offices in their efforts to minimize losses. This support took many forms, including oversight and compliance missions and training, technical assessments and audits of suppliers, and guidance on incident management and the mitigation of food safety and quality risks. These measures aimed to ensure that WFP best practices in food management and logistics were applied consistently in all operations.

46. The Regional Bureau for the Middle East, Northern Africa and Eastern Europe continued to monitor best-before dates of stocks through the Logistics Execution Support System (LESS) in order to minimize food losses resulting from the overlong storage and expiration of food commodities. In November 2022, the regional bureau carried out a support mission to the Algeria country office, performing a comprehensive review of the operations setup in LESS and how it facilitated implementation of the ongoing field level agreement. A team visited the warehouse to ensure that food handling and warehouse management practices conformed to expected standards, and several recommendations to mitigate losses were made.
47. Furthermore, in coordination with the Risk Management Division, the regional bureau appointed a third party to monitor and supervise loading procedures in Egypt in order to identify any gaps in tallying, transport and shipping processes that could contribute to cargo shortages at destination. The exercise identified a number of gaps stemming from the fact that cargoes were inspected at multiple check points, because access was granted to cargoes at customs points for sampling, and because of issues relating to the supervision and inspection of seals at various points from the supplier's warehouse to the point of loading.
48. In May 2022, the regional bureau provided commodity accounting training to raise awareness of the importance of data management and accuracy in loss recording. It also provided training on best transport contracting practices to over 40 participants from several WFP regions. The training session covered operational risk management and processes for the disposal of damaged cargo, including salvage options.
49. The Regional Bureau for Western Africa initiated monthly comparisons of physical inventories with system-held data to mitigate losses and quickly detect potential issues. A number of reports examining best-before dates, terminal disbursement dates and stocks in transit are shared monthly to minimize losses in stores and to facilitate the tracking of trucks in transit in order to avoid transport-related losses.
50. The regional bureau also organized a commodity accounting training session for all country office focal points in the region in order to improve monitoring and data analysis and to minimize delays in data recording.
51. Finally, the regional bureau appealed to several supply chain specialists in the region to help the Benin country office clear administrative backlogs and to provide training in port operations, commodity accounting and warehouse management to logistics staff to support the country office's operational scale-up.
52. The Regional Bureau for Latin America and the Caribbean included best-before dates in its daily stock reports and analysed stock rotations, alerting to relevant sub-offices and the country office programme unit when rotation rates were deemed to be too low. That information enabled programme teams responsible for planning food baskets and distributing food to prioritize food distribution, thereby eliminating all losses arising from best-before dates being reached before distribution.
53. The regional bureau also monitored the terminal obligation dates and terminal disbursement dates of grants and the best-before dates of stored commodities, alerting country offices so that they could prioritize the distribution of commodities that were approaching their best-before dates and the expiry of their grants, thus minimizing post-delivery losses.
54. The regional bureau managed the distribution of food commodities electronically, with commodities tracked by batch number. The LESS "last mile" application is being rolled out across the region to improve commodity tracking and lead times, providing WFP employees and management with the information they need to make informed decisions.

55. The regional bureau also conducted logistics capacity assessments to help country offices improve food deliveries by making use of suitable trucks and the most suitable routes for delivery. Those assessments helped to minimize transport-related losses across the region. The regional bureau emphasized the importance of truck inspections before loading at all WFP warehouses to ensure that trucks used were clean and free from infestation. WFP also increased its presence and follow-up with clearing and forwarding agents during border crossing operations on the borders of Colombia and for pre-positioning for LAC.
56. Finally, the regional bureau conducted training sessions on food safety and quality assurance for country office supply chain employees to increase awareness of food safety practices and prevent food safety and quality-related incidents. It also developed training modules for cooperating partners, monitors and retailers involved in voucher operations to minimize post-delivery losses resulting from the delivery of commodities that fail to meet WFP standards.

**ANNEX I****Above-threshold losses, by country**

1. This annex presents post-delivery losses that exceed WFP thresholds for country-level post-delivery losses of a single food type, either valued at USD 20,000 or more and accounting for at least 2 percent of volume handled or valued at USD 100,000 or more. In 2022, such losses amounted to 13,470.60 mt (see table A1). In terms of volume, above-threshold post-delivery losses in 2022 were 31.3 percent lower than in 2021. It should be noted, however, that above-threshold losses occurred in 20 countries in 2022, but in only 14 countries in 2021.

<b>TABLE A1: OPERATIONS IN COUNTRIES WITH ABOVE-THRESHOLD POST-DELIVERY LOSSES</b>	
<b>Country</b>	<b>Above-threshold post-delivery losses (mt)</b>
Democratic Republic of the Congo	2 919
Haiti	2 373
Ethiopia	2 087
Yemen	1 773
Syrian Arab Republic	830
Sudan	801
South Sudan	788
WFP pre-positioned inventory for LAC	594
Mozambique	410
Burundi	223
Pakistan	186
Eswatini	110
Chad	89
Jordan	75
Madagascar	58
Ukraine	46
Burkina Faso	30
Somalia	28
Central African Republic	27
Bangladesh	25

**Bangladesh**

2. The Bangladesh country office incurred a loss of 25 mt due to milling losses. The country office received 217 mt of whole lentils (in their husks) from the United States of America. However, the local population targeted for WFP assistance was unfamiliar with lentils in that form and was not accustomed to consuming them. To address that challenge the lentils were milled, leading to the loss of 25 mt of husks and dust. In the future the country office will communicate with donors in advance to ensure that commodities received are in line with local preferences.
3. In 2022, the country office visited the port and arranged meetings with clearing and forwarding agents, transporters, labourers and surveyors to clarify their roles and responsibilities. A number of corrective actions were taken, including deducting the value of lost commodities, conducting timely follow-ups, ensuring adequate deployment of staff during the removal of cargo from containers and improving loading processes. Due to these mitigation measures, post-delivery losses in 2022, apart from the aforementioned milling losses, fell by 86.5 percent compared with 2021.

**Burkina Faso**

4. The Burkina Faso country office registered a loss of 30 mt in 2022, which stemmed primarily from a delivery of Super Cereal Plus at the Dori field office. In January, during loading of the stock for delivery, the best-before date displayed on the packaging was between 1 and 6 February 2022, which was inconsistent with the date in WFP's system. The affected stock could not be delivered before the imminent expiry date, and 29 mt remained in storage beyond that date. An investigation revealed that confusion had occurred at the point of loading at the port or at the supplier, and unfortunately the discrepancy was not noticed during unloading at the warehouses.
5. To avoid continued distribution of Super Cereal Plus beyond its best-before date the country office identified and isolated all affected Super Cereal Plus batches; collected a 1.5 kg bag per lot to be sent to Ouagadougou for analysis; and inquired of WFP colleagues in other cities whether they were still stocking Super Cereal Plus batches with best-before dates between 1 and 6 February.
6. Although laboratory analysis revealed that the affected batches of Super Cereal Plus complied with relevant standards, the country office felt it could not recommend those batches for human consumption, particularly given the volatile situation in Burkina Faso and the potential reputational risk posed by distribution.

**Burundi**

7. The Burundi country office incurred a loss of 223 mt of maize meal in 2022, which originated from a maize stock of 800 mt purchased locally in June 2021. Laboratory analysis suggested that the maize meal contained high levels of aflatoxins, and after discussions with the service provider and with guidance from the WFP Food Safety and Quality Assurance Branch the stock was destroyed and recorded as a warehouse loss in March 2022.
8. Prior to the collection of the maize from the supplier, sample testing results indicated that it complied with WFP standards. Following its delivery to WFP warehouses, however, 280 mt of the maize was sent to a milling facility to be processed, which resulted in the production of 222 mt of maize meal. Subsequent tests performed on the meal revealed elevated levels of aflatoxins rendering it unfit for human or animal consumption.
9. The country office concluded that the high levels of aflatoxins had probably resulted from contamination at the supplier facility as a result of poor storage conditions. An investigative team discovered that the storage facility, which had a tiled roof with an opening, was very overcrowded, with goods stacked nearly to the ceiling. In addition, the milling facility was located in a cold area of the country, which may have further worsened the quality of the

stock. To mitigate the risk of future losses, stocks will now be collected immediately following the milling process, to avoid long periods of storage by the supplier, and will be sent for immediate testing.

### **Central African Republic**

10. The Central African Republic country office registered a loss of 27 mt of Super Cereal in 2022. The loss was attributed primarily to poor road conditions that impeded delivery to distribution sites, a lack of partners able to complete the distribution process and severe insecurity issues following the intensification of armed conflict towards the end of 2021. As a result, many stocks could not be distributed prior to their best-before dates.
11. To facilitate the distribution of stocks prior to their best-before dates it was proposed that stocks be transported to sites where they could be transferred to beneficiaries through cash-based transfer programmes. While distributions were under way, however, armed groups attacked the Bambari area office region, prompting a temporary relocation of WFP staff to Bangui and leaving a significant quantity of stock with a best-before date of 31 January 2022 undistributed.
12. In order to mitigate future losses, improved monitoring of best-before dates has been introduced, with weekly alerts now issued to relevant staff to warn them that specific food stocks are approaching their best-before dates. This provides an opportunity for staff to identify appropriate solutions. In addition, measures have been introduced to ensure that commodities transferred to remote and hard-to-reach regions have long shelf lives to minimize losses. A pre-positioning strategy has also been implemented to allow for the transport of food during the dry season when poorly maintained and badly deteriorated roads are most usable. This will minimize the risk of accidents. Where markets and the security situation permit, assistance will be provided in the form of cash or vouchers. Finally, storage conditions in Bambari will be improved through the construction of a concrete platform on which mobile storage units can be erected in order to mitigate the significant risks to foodstuffs posed by high humidity levels and pest infestation.

### **Chad**

13. The Chad country office incurred a loss of 88 mt due to warehousing and transport issues. A total of 75 mt of stock was declared unfit for human consumption due to a mismatch between the country office needs-based plan and the Global Commodity Management Facility (GCMF), which resulted in long storage times, infestation and the degradation of stock, while 10 mt was lost through fumigation, winnowing and repackaging.
14. A total of 3 mt of losses occurred due to challenges associated with transporting stock during the rainy and humid seasons. This resulted in frequent infestation and stocks becoming wet due to insufficient protection from the rain.
15. To mitigate future losses, the country office will increase the number of inspections and promote the segregation by best-before date of all nutritional foods upon their receipt at WFP warehouses. An alert will be issued if any inconsistencies are detected. Furthermore, relevant staff will be alerted if stock is within six months of its best-before date and ongoing monitoring will take place until that stock is distributed. The country office will also complete manual and electronic tracking of stocks, use calibrated scales when receiving local purchases, ensure that staff receive training so that they can identify potential issues related to local purchases, and procure tools, to be strategically positioned in warehouses where local purchases are made, that can be used to assess the quality of commodities.
16. Transporters will continue to operate during the rainy season, while implementing measures to protect cargo from infestation. For example, trucks and equipment will be equipped with tarpaulins and plastic sheets to protect cargo when in transit and during storage. As an additional measure, transporters will also pay closer attention to respecting the correct load

flow and avoid loading third-party equipment on trucks loaded with WFP food. Due to the availability of vehicles in the local market transporters still use third-party trucks, but the country office ensures that WFP and non-WFP cargo is not mixed on the same trucks. This close follow-up is done for both inland and overland services.

### **Democratic Republic of the Congo**

17. In 2022, the Democratic Republic of the Congo recorded 2,025 mt of above-threshold losses attributable to congestion at the Port of Matadi since 2020 following abrupt changes to regulations that were introduced during the coronavirus disease 2019 (COVID-19) pandemic. The congestion resulted in large losses of food, much of which expired prior to distribution. Most of the losses (1,364.385 mt) were attributed to 93 containers of maize meal that were to be transferred to Kinshasa for distribution in Kasai. The approval to proceed with the transfer from Matadi to Kinshasa was delayed by local bureaucracy, which resulted in the fumigation and repackaging being completed less than three months before the best-before date. The repackaging process was also deemed faulty, leading to high infestation levels.
18. A further 893 mt of losses occurred in 2021. Due to the longstanding and complex nature of the issues leading to these losses, however, they were finally accounted for in 2022. The combined total losses amounted to 2,918 mt.
19. The country office is working to recover lost donor contributions and funds from insurers for losses over which the country office had no control. For transport losses, the value of lost food was recovered directly from transporters. Regular meetings with transporters will be held, with strict performance evaluations and the removal of poorly performing transporters from the roster of approved transporters.
20. To reduce the risk of congestion at the Port of Matadi the size of arriving loads has been limited to 30 containers per bill of lading. A new superintendent of the port has been hired to ensure close oversight of port arrivals and operations and provide more vigorous follow-up and reporting of losses.
21. The country office has taken measures to improve freight forwarding services by engaging with new service providers, hiring a contracting expert and increasing contracting oversight. To reduce lead times in the western corridor, a transshipment facility in Tshikapa has been set up. This allows WFP to oversee dispatches to Kananga. The country office is also striving to uphold quality standards by only hiring transporters that are subject to WFP oversight.
22. Continuous efforts are being made to strengthen the relationship between the country office and the Office Congolais de Contrôle and align relevant bureaucratic procedures. WFP has also established alternate corridors and cross-border supply routes to avoid having to transport food along roads where trucks are at high risk of being attacked or looted.

### **Eswatini**

23. The Eswatini country office incurred above-threshold losses of 110 mt of rice. Upon receipt of a consignment of 241 mt of rice in October and November 2022, and during import permit processing, all accompanying documents and certificates affirmed that the commodity was fit for human consumption. During distribution, however, the operations team received complaints regarding discolouration, the presence of foreign material, an unpleasant odour and the appearance of the commodity. This necessitated further inspections, which were carried out in collaboration with the regional bureau food safety and quality team. The inspections revealed the poor quality of the consignment, and it was decided to halt distribution of the rice and recall it. The results of the inspections were shared with the Regional Bureau for Asia and the Pacific, which oversees the procurement of rice, so that appropriate measures could be taken with the supplier.

24. The aforementioned losses were probably related to upstream operational and administrative gaps. The clearly visible problems with the consignment call into question the actions taken by the supplier and inspection company, and it is likely that fraud occurred, particularly in view of the amount of foreign matter that was discovered in the commodity upon re-inspection. To avoid future losses the country office will closely collaborate with the regional bureau operations team to detect any commodity quality issues at an early stage. The country office will, moreover, send a staff member to participate in the sampling and testing of commodities at overland ports and storage facilities. The country office will also augment local procurement chains to minimize quality risks associated with overland transport.

### **Ethiopia**

25. The Ethiopia country office incurred total above-threshold losses of 2,086.55 mt, which were attributed to transport and warehousing problems. The main causes of these losses included road accidents resulting from poor road conditions, commodity leakage, infestation and looting, the last of which occurred, primarily, in the context of the ongoing conflict in the north of the country. Some losses were also caused by the seepage of rainwater through tarpaulins into trucks.
26. To mitigate future losses, warehouse staff will inspect cargo immediately upon its arrival to ensure that its quantity and quality meet specifications. If damage is identified its extent will be quantified and reconditioning or reconstitution will take place to mitigate losses. Any cargo that cannot be reconditioned or reconstituted will be recorded on relevant waybills and the cost will be recovered from transporter invoices. For losses incurred during transport by WFP fleet trucks, cost recovery will be sought through the WFP self-insurance mechanism.

### **Haiti**

27. The Haiti country office incurred above-threshold post-delivery losses of 2,373 mt in 2022. Losses occurred primarily as a result of the unstable political and social situation in the country, which continued to deteriorate in 2022. Security and access were of particular concern, and a number of truck lootings targeting WFP cargoes occurred. Two major cases of warehouse looting also occurred, in September 2022.
28. In the warehouse, repacking and reconstitution processes were completed for 117 mt of mixed commodities, of which 5 mt was lost as a result of water damage and leakage. A total of 38 mt of vegetable oil was also lost when it proved impossible to distribute it prior to its expiry date. Furthermore, 88 mt of mixed commodities were lost due to gang activity in the south of the capital that prevented all movement to the southern peninsula and between WFP's warehouse in the capital and the port in Saint Louis. To address that challenge WFP contracted a door-to-quay charter vessel to transport 1.3 mt from Port-au-Prince to Saint Louis du Sud. Furthermore, 44 mt of rice was looted in Canaan during overland transport between Port-au-Prince and Gonaives in May 2022.
29. A total of 2,159 mt of various commodities were lost due to the looting of WFP warehouses in Les Cayes and Gonaives by the local population during a period of civil unrest. The commodities looted accounted for 95 percent of total post-delivery losses. The country office will continue to implement measures to prevent looting at the warehouse and during transport. Those measures include deploying security guards on-site 24 hours a day, installing additional lighting and enforcing standard operating procedures for warehouse access. WFP recently reinforced its security unit and established a new unit to facilitate humanitarian access negotiations in order to promote and coordinate the secure transport of commodities.



30. To further limit the risks associated with storing commodities in-country, the country office is establishing a contingency warehouse in Santo Domingo in the Dominican Republic. From there, pre-positioned commodities can be transported by road via three border crossing points to reach Port-au-Prince and Cap Haitian. The establishment of the corridor will create a more agile supply chain, allowing WFP to respond more effectively to the country's needs.

### **Jordan**

31. The Jordan country office registered above-threshold losses of 75 mt. In 2022, the country office received an in-kind donation of 650 mt of dates from Saudi Arabia through the King Salman Humanitarian Aid and Relief Center. On the basis of preliminary test results the dates were cleared for delivery, as they were found to have met relevant quality standards, and on 7 April 2022, they were dispatched from the factory in Saudi Arabia.
32. All the trucks transporting the dates arrived at the Jordanian border and were inspected by the Jordanian customs authorities and the Ministry of Agriculture. Five trucks, carrying 125 mt of dates, were refused entry because the dates were found to contain dead insects in numbers exceeding the limit set by the Jordanian authorities. Of the 375 mt that arrived in-country, the tests conducted by the Jordan Food and Drug Administration indicated that 75 mt was unfit for human consumption. An additional 0.124 mt was also recorded as a loss. The quantity in question had either been removed as test samples by the Jordanian authorities or had gone missing while the dates were being handled by the supplier. Total losses amounted to 75 mt.
33. During a lessons learned exercise conducted by the Gulf Cooperation Council it was suggested that, to prevent similar losses in the future, the standards set by the Jordanian authorities should be communicated to donors in advance so that they can ensure that in-kind donations will be allowed to enter Jordanian territory.

### **Madagascar**

34. The Madagascar country office incurred above-threshold losses of 58 mt during the reporting period, comprising 40 mt of pulses and 18 mt of vegetable oil. From November 2021 the country office scaled up its food distribution operations from 3,000 mt to 10,000 mt per month to meet increased need in the country. Although necessary to meet operational needs, that rapid increase in volume posed challenges in terms of stock management, including with regard to registration and issuance of documents and the management of stock references during loading and unloading. As a result, there were mismatches between recorded stock levels and the stock actually present in the warehouse in December 2021 and January 2022.
35. To ensure that the stock records accurately reflected the stock actually held, the country office worked with WFP headquarters to review and correct mistakes in stock records pertaining to the movement of food stocks between Fort-Dauphin and Amboasary, reconciling the records with the actual stocks present.
36. To prevent future losses the country office formed a task force consisting of representatives of various WFP divisions, including Human Resources and Supply Chain Operations. Pursuant to the recommendations of the task force, stronger standard operating procedures have been implemented for warehouse operations. In addition, committees have been established in all field offices and a staffing review is under way to ensure that the number of employees is in line with operational needs. Staff training and awareness-raising activities, including LESS training, were also conducted in Amboasary and other WFP warehouses.

### **Mozambique**

37. The Mozambique country office registered an above-threshold loss of 410 mt. A food loss of 43 mt was attributed to the third-party-managed WFP warehouse in Nacala, with the value of the loss to be recovered from the service provider. A loss of 213 mt was attributable to a

WFP employee verbally issuing loading plans to a service provider without using system printed work orders. While the service provider provided delivery note copies signed by the transporter and its staff as evidence that the food had been loaded, corresponding system-printed waybills were not issued, or were issued with inaccurate truck details and quantities that did not match those reported by the service provider as having been loaded. When the matter was investigated the transporter contested the driver's signature and denied loading the trucks.

38. As part of continued reconciliation efforts pertaining to tonnage discrepancies that occurred in connection with the 2020 post-Cyclone Idai response, the country office recorded a loss of 5 mt, the relevant documentation for which has not been traced.
39. A loss of 127 mt was attributed to transport issues. The amount to be recovered will be deducted from the transporter's invoice.
40. To mitigate the incurred losses the country office held face-to-face meetings with all transporters that had transit stocks still registered to be loaded into certain trucks, for reconciliation purposes. Warning letters were issued to transporters that refused to accept and carry out the dispatches that were planned (i.e., that had WFP system-generated waybill copies). A mission was conducted to the above-mentioned service provider for further face-to-face meetings in order to reconcile stock records and reach consensus on the quantity of stock that had gone missing and the value to be recouped. The country office will strengthen its efforts to monitor operations in Nacala on a regular basis, including through the issuance of joint standard operating procedures by WFP and the service provider in order to streamline stock handling operations.
41. Additional measures being taken to prevent future losses include conducting daily and monthly reconciliations between WFP systems and service provider physical stock records; continuing strict monthly physical inventory reconciliation exercises and immediately reconciling any discrepancies found; reinforcing adherence to best practices in warehouse management at all warehouses; closely monitoring the weight of stock received from suppliers; performing regular preventive pest control, especially during the hot season; conducting regular training exercises for warehouse staff, with particular attention given to newly-recruited staff members; conducting regular visits to warehouses managed by third parties; taking additional measures to protect stored cargo during the cyclone season; raising the awareness of transporters of how best to protect cargo during the rainy season; recovering losses from service provider invoices; closely monitoring stock movements at all warehouses; underscoring the importance of upholding best practices by all stakeholders involved in WFP operations; taking steps to consolidate the number of storage locations; and increasing the number of staff for critical operations.

## **Pakistan**

42. The Pakistan country office registered a loss of 186 mt of wheat flour during the flood response launched by WFP in 2022. There were four cases of looting of trucks that were on the way to or at distribution sites. Those cases occurred in Khairpur (8 mt), Kashmore (85 mt), Jaffarabad (33 mt) and Naseerabad (15 mt). One truck overturned due to bad road conditions in an area affected by floods in Sanghar and 5 mt of wheat flour was irreparably spoiled as a result. In addition, heavy rain and wind caused the loss of 34 mt held in a WFP mobile storage unit in Dera Ghazi Khan.
43. The looting-related losses occurred primarily because of poor crowd management and a lack of coordination with a cooperating partner during the flood response. Security issues were prevalent at distribution sites due to insufficient staff, which made the unloading of stock for distribution particularly challenging. Distribution was further impeded by poor road conditions and flood-affected infrastructure. Inadequate drainage systems, for example, resulted in water damage to mobile storage units.

44. Wherever possible and appropriate, losses will be recovered from cooperating partners and transporters. Action will also be taken to strengthen the capacity of the cooperating partner. Those actions will include capacity building for staff relevant to food distribution and crowd management; improving coordination between the coordinating partner and government authorities; Improving the security of commodities during transportation and distribution, ensuring that the registration and distribution of stock occurs over several days; and capacity building for staff relevant to warehouse management and food handling.

### **Somalia**

45. The Somalia country office incurred above-threshold transport and warehouse losses of 28 mt. A total of 19 mt was accounted for as a transport-related loss, which occurred when stock dispatched from the Mogadishu warehouse went missing on the way to the Jowhar final delivery point: the stock was never received by the partner. One batch, dispatched in June 2022 by a WFP transporter, was reportedly confiscated by a non-state armed group while in transit to the final delivery point. A total of 9 mt was accounted for as a warehouse loss, which resulted from food safety and quality issues such as damaged cartons, leaking sachets, faded markings, batches with mixed best-before dates and boxes without clear best-before dates printed on them. The losses came to light following a segregation exercise undertaken by WFP in Berbera.
46. With regard to the confiscated commodities, WFP's terms and conditions stipulate that losses should be fully recovered from a cash security bond or bank guarantee of USD 50,000 and/or unpaid invoices. In this case, however, the country office considered the confiscation to be a force majeure event beyond the transporter's capacity to prevent or mitigate. As for the warehouse losses in Berbera, the stock was not recovered; the possibility of re-exporting the commodities for destruction is being explored.
47. To mitigate other incurred losses a number of measures are being taken. These include inspecting cargo upon arrival at warehouses and ensuring that system dates reflect printed dates, changing them when necessary while also coordinating with dispatching hubs. Long-term solutions include the adoption of internal control systems whereby warehouse teams are required to flag any physical and system date mismatch identified during receipt so that corrective measures can be taken; ensuring that commodities with damaged packaging are repackaged, correctly labelled and stacked appropriately in warehouses; tracking the best-before dates of incoming stocks to ensure their timely distribution and consumption; and reassessing high-risk routes, with cargo dispatched by air if necessary.

### **South Sudan**

48. The South Sudan country office registered an above-threshold loss of 788 mt, which included stocks of Super Cereal Plus and sorghum. A total of 645 mt of sorghum was lost when the boat transporting it capsized. A looting incident also occurred along the road from Lare, across the border in Ethiopia, which has become unsafe due to a lack of security in the area. These losses were recovered from the transporter. Insecurity and the establishment of checkpoints along the river continue to make the transport of commodities very challenging, and the country office is working on measures to facilitate WFP operations in that area.
49. In December 2021, complaints were received about the taste of Super Cereal Plus and the physical effects of its consumption. An analysis completed by February 2022, including testing conducted at a laboratory in Rome, suggested it was reaching its expiry date, and it was subsequently declared unfit for human consumption. Meetings were held at the country office level to minimize losses, and WFP was subsequently able to save 300 mt of Super Cereal Plus by carrying out extensive visual inspections. A loss of 143 mt was recorded.

50. As part of its loss mitigation measures, the country office held a warehouse management refresher training course between September 2022 and February 2023. The course focused on pest control and management, food incident management, food disposal procedures, hygiene and commodity handling. The course reinforced staff knowledge of warehouse best practices to be followed when handling food, which can help prevent losses in downstream operations. Further training courses will be conducted on a needs basis and particular attention will be given to onboarding new staff and to training employees on the use of new technologies.

### **Sudan**

51. The Sudan country office recorded above-threshold losses of 2.4 mt of micronutrient powder, 401 mt of sorghum/millet, 368 mt of vegetable oil and 25 mt of lentils, totalling 801 mt. The losses were mainly due to the expiry of short shelf-life stock in WFP warehouses, delays in school feeding projects, transport-related issues and looting.
52. The country office recovered all transport-related losses incurred by transporters in connection with issues such as missing stock and stock contaminated with water or other materials. Furthermore, the country office took steps to underscore the responsibilities of transporters in respect of WFP stock and the need for timely communication regarding any pertinent issues. To address the challenges posed by stock with a short shelf life, WFP entered into negotiations with relevant authorities on the adoption of WFP shelf-life standards and appropriate food importation clearance procedures to facilitate the rapid delivery of food commodities.
53. To minimize future losses the country office conducted warehouse and commodity management training, including systems training, in March 2023, in order to train all partner staff on WFP standards and provide them with all necessary information on the transportation and storage of food commodities.

### **Syrian Arab Republic**

54. The Syrian Arab Republic country office recorded a total above-threshold loss of 830 mt in 2022. A total of 96 mt of date bars were lost due to a best-before date issue in the warehouse and were deemed unfit for human consumption. Losses of 421 mt of rice and 116 mt of chickpeas occurred for reasons including the manual repacking of commodities, re-bagging, inadequate transport, and sampling operations. A total of 197 mt of nutrient supplement was also lost when the delivered cargo was found to be spoiled and deemed unfit for human consumption.
55. A number of measures have been implemented by the country office to reduce the likelihood of future losses. For example, quality checks are now conducted on stored commodities at least once a week. Physical commodities are checked against those in LESS. Quality issues, infestations, stock damage and looting are all reported to the head of the supply chain and food safety and quality units so that appropriate measures can be taken, including resampling and analysis.
56. Warehouse service providers will be responsible for any losses that occur during production (including as a result of repacking and kitting), during handling or during the period in which they are responsible for the cargo. Transport-related losses will be debited from transporter invoices in accordance with relevant observation remarks made on signed waybills.
57. The country office has planned a number of training sessions for employees of cooperating partners and will strengthen its training modules on WFP warehouse management procedures. In addition, the country office has begun to conduct oversight missions involving programming and logistics staff to identify ways in which partners can improve their warehouse management.

## Ukraine

58. The Ukraine country office recorded a loss of 45 mt of canned meat in 2022. A total of 37 mt was posted as an inventory difference because no documentation on the delivery of the stock could be found in the system. The country office noted that in the first months of the emergency a large administrative backlog had accumulated, primarily as a result of a lack of staff and expertise in the warehouses and country office; a backlog of ex-Turkey dispatches relating to transport contracted by headquarters at the onset of the emergency owing to the absence of a WFP country office in Ukraine; and incomplete lists of vendors and customers, which impeded the entry of data into the LESS platform. The remaining 8 mt comprised transport and warehouse-related losses.
59. Almost all stock was reconciled, and the backlog was cleared accordingly. The situation in Ukraine has normalized, and WFP data reliability is now above 90 percent. With regard to transport and warehouse losses, mitigation measures have been put in place in line with the agreements concluded with service providers. Transport losses are now ascribed to transporters, while warehouse losses are ascribed to warehouse service providers since WFP's warehouses are managed by third parties. The country office is also planning to conduct training sessions with cooperating partners to strengthen their awareness of appropriate warehousing procedures. The LESS Last Mile application will be rolled out in the coming months.

## WFP pre-positioned inventory for Latin America

60. WFP registered a loss of 594 mt of beans. In May 2019, under the terms of WFP's multi-country limited emergency operation for Latin American countries, WFP purchased 1,098 mt of black beans that had been pre-positioned in Colombia for use in responding to the humanitarian crisis.

## Yemen

61. The Yemen country office incurred 1,773 mt of post-delivery losses in 2022. Those losses comprised wheat (267 mt), wheat flour (333 mt), vegetable oil (256 mt) and lipid-based nutrient supplement (917 mt). The wheat loss occurred due to a high level of impurities, which were caused by inadequate and overlong storage at milling facilities. Milling, which commenced in 2018, was interrupted several times, with missing quantities and weighbridge differences reported. The wheat flour lost was heavily infested due to improper and overlong storage by the de facto authorities in July 2019, inadequate storage by the transporter and damaged wheat flour bags, with damage caused by excessive stacking pressure at the bottom of stacks of bags being carried in the holds of vessels. Losses also occurred as a result of sampling.
62. The authorities rejected 195 mt of the 256 mt of vegetable oil lost because it was approaching its expiry date. Inadequate transport, poor handling, losses during delivery at warehouses and sampling accounted for the remaining 61 mt of vegetable oil lost. The lipid-based nutrient supplement stock losses were due to leaks caused by inappropriate packaging provided by the supplier. The product received from the supplier was subject to recall because of issues with taste and packaging. Inadequate transport and poor handling and sampling were also contributing factors.
63. The country office has taken several actions to prevent the recurrence of some of the losses realized in 2022. As stated in the 2021 global losses report, the country office ceased to receive cargo from millers close to the frontline in the conflict. A case for the suspension of the transporter until the contracting period ending on 10 November 2021 for both tariff and competitive bidding violations was presented to the local transport committee.
64. WFP will continue to train local authorities to prevent any undue rejection of commodities delivered prior to their best-before dates, with full cost recovery applied for all quantities lost

or damaged while in the custody of transporters or warehouse operators or for which they are otherwise liable. Warehouse management training sessions will, moreover, be conducted jointly by WFP and cooperating partners to prevent cases of infestation and reduce the risks associated with poor handling. Lipid-based nutrient supplement will only be sourced from a specific supplier that has consistently provided a high-quality product. Finally, the country office is working closely with headquarters to strengthen the Turkey milling operation and to minimize losses by providing timely feedback on cargoes received in-country

## ANNEX II

## Global losses

2022 GLOBAL LOSSES REPORT – LOSSES BY COMMODITY			
Commodity	Commodity description	Sum of net <i>mt</i>	Sum of <i>USD</i>
CERBAR	Barley	5.800	3 386.23
CERBRE	Bread	0.041	42.19
CERMAZ	Maize	1 206.433	536 318.07
CERMML	Maize meal	2 432.683	1 886 040.08
CERPAS	Pasta	19.202	18 480.65
CERRIC	Rice	5 566.665	3 513 280.65
CERSOR	Sorghum/millet	3 319.933	1 561 441.77
CERWBG	Bulgur wheat	33.641	25 340.57
CERWHE	Wheat	4 723.395	1 986 115.55
CERWHF	Wheat flour	1 139.225	650 623.40
DAIDSP	Plain dried skimmed milk	0.217	1 077.46
DAIDWM	Dried whole milk	0.203	927.49
DAIUHT	UHT milk	0.488	522.16
FRUDFR	Dried fruits	88.468	129 550.51
FSHCFI	Canned fish	6.520	38 092.63
MEACHK	Canned chicken	0.116	216.06
MEAMEA	Canned meat	46.346	179 998.32
MIXBP5	BP-5 emergency rations	0.003	11.07
MIXCSB	Corn soya blend	1 039.739	1 345 827.86
MIXHEB	High energy biscuits	116.098	212 181.73
MIXLNS	Lipid-based nutrition supplement	1 720.809	4 578 863.74
MIXRSF	Ready-to-use supplementary food	64.215	197 464.90
MIXWSB	Wheat soya blend	61.337	56 740.68
MSCAPI	Api cereals	0.006	16.28
MSCHAL	Halawa	0.010	33.50
MSCMNP	Micronutrient powder	2.710	35 194.07
MSCMNT	Micronutrient tablets	0.155	3 578.88
MSCSAL	Iodised salt	136.705	21 459.78
MSCSPC	Spices	0.175	228.99
MSCSUG	Sugar	200.011	143 312.90
MSCTOM	Processed tomato	0.108	305.44
MSCYEA	Yeast	0.532	1 289.74
OILOLV	Olive oil	0.024	75.35
OILVEG	Vegetable oil	2 815.355	4 714 565.68

<b>2022 GLOBAL LOSSES REPORT – LOSSES BY COMMODITY</b>			
<b>Commodity</b>	<b>Commodity description</b>	<b>Sum of net <i>mt</i></b>	<b>Sum of <i>USD</i></b>
PPFRTN	Rations	59.308	65 889.43
PULBEA	Beans	1 369.025	1 093 076.22
PULCKP	Chickpeas	923.890	954 437.59
PULCPU	Canned pulses	1.594	2 387.85
PULCVE	Canned vegetables	0.046	52.59
PULLEN	Lentils	268.542	277 897.03
PULPEA	Peas	274.703	175 315.49
PULSLN	Split lentils	3.514	2 889.14
PULSPE	Split peas	2 259.626	1 681 791.88
TUBFRS	Tubers – fresh	10.250	8 958.34
<b>Grand total</b>		<b>29 917.866</b>	<b>26 105 299.94</b>



## ANNEX III

2022 PRE-DELIVERY LOSSES REPORT – LOSSES BY COMMODITY				
Commodity	Commodity description	Pre-delivery losses (mt)	Pre-delivery losses (USD)	% losses (USD)
CERMAZ	Maize	935.512	406 956.23	4.45
CERMML	Maize meal	169.460	137 016.44	1.50
CERPAS	Pasta	6.199	5 758.69	0.06
CERRIC	Rice	2 152.909	1 200 296.85	13.11
CERSOR	Sorghum/millet	1 790.150	814 714.25	8.90
CERWBG	Bulgur wheat	21.654	13 804.46	0.15
CERWHE	Wheat	2 736.423	1 079 596.57	11.79
CERWHF	Wheat flour	415.261	226 211.87	2.47
DAIDWM	Dried whole milk	0.025	110.70	0.00
FRUDFR	Dried fruits	12.998	28 080.17	0.31
FSHCFI	Canned fish	0.161	832.98	0.01
MEAMEA	Canned meat	0.609	2 579.51	0.03
MIXCSB	Corn soya blend	208.539	247 902.32	2.71
MIXHEB	High energy biscuits	8.085	14 925.66	0.16
MIXLNS	Lipid-based nutrition supplement	398.916	1 001 906.05	10.94
MIXRSF	Ready-to-use supplementary food	4.644	13 682.24	0.15
MIXWSB	Wheat soya blend	9.173	11 529.92	0.13
MSCHAL	Halawa	0.010	33.50	0.00
MSCMNP	Micronutrient powder	0.002	29.57	0.00
MSCSAL	Iodised Salt	9.467	1 458.48	0.02
MSCSUG	Sugar	157.870	111 553.95	1.22
MSCTOM	Processed tomato	0.057	146.83	0.00
MSCYEA	Yeast	0.189	458.28	0.01
OILVEG	Vegetable oil	1 560.680	2 277 847.05	24.88
PPFRTN	Rations	12.210	11 193.95	0.12
PULBEA	Beans	44.233	39 817.04	0.43
PULCKP	Chickpeas	798.415	810 004.05	8.85
PULCPU	Canned pulses	0.091	116.89	0.00
PULLEN	Lentils	73.047	75 489.16	0.82
PULPEA	Peas	73.718	49 951.02	0.55
PULSLN	Split lentils	0.695	778.27	0.01
PULSPE	Split peas	842.804	569 498.60	6.22
<b>Grand total</b>		<b>12 444.206</b>	<b>9 154 281.55</b>	

**ANNEX IV**

<b>2022 PRE-DELIVERY LOSS REPORT – LOSSES BY REASON</b>		
<b>Reason for loss</b>	<b>Pre-delivery losses (mt)</b>	<b>Pre-delivery losses (USD)</b>
Deterioration of food commodities mainly attributable to problems at origin	1 322.233	1 912 121.53
Deterioration of packaging materials	9.589	9 068.19
Improper/overlong storage	192.214	436 106.18
Inadequate transport	7 602.043	4 783 980.30
Loss due to fire	38.250	24 010.24
Loss due to sampling food analysis	33.153	36 717.80
Loss during civil strife	168.244	54 119.77
Pilferage/theft	400.704	263 322.84
Poor handling	491.170	218 082.46
Processing/transformation of commodity	0.150	82.81
Reconstitution/rebagging/repacking	2 186.456	1 416 669.43
<b>Grand total</b>	<b>12 444.206</b>	<b>9 154 281.55</b>

## ANNEX V

2022 POST-DELIVERY LOSS REPORT – LOSSES BY REASON		
Reason for loss	Post-delivery losses (USD)	% of total loss
Attack by termites	14 088.855	0.08
Broken during loading	30 873.004	0.18
Deterioration of food commodities mainly attributable to problems at origin	1 773 462.444	10.46
Deterioration of packaging materials	46 160.006	0.27
Flooding and other natural disasters	130 060.339	0.77
Improper/overlong storage	5 026 560.859	29.65
Inadequate transport	2 859 314.162	16.87
Infestation	51 949.464	0.31
Loss due to fire	16 497.641	0.10
Loss due to over scooping	30 475.347	0.18
Loss due to sampling food analysis	60 945.439	0.36
Loss during civil strife	520 997.891	3.07
Pilferage/theft	2 598 244.196	15.33
Poor handling	261 364.817	1.54
Processing/transformation of commodity	11 684.511	0.07
Reconstitution/rebagging/repacking	3 261 589.181	19.24
Short-delivered	16 927.105	0.10
Unauthorized distribution	107 716.567	0.64
Variance in weight	81 898.029	0.48
Wet bags	17 661.659	0.10
Wet by oil	438.800	0.00
Wet by water	32 108.080	0.19
<b>Grand total</b>	<b>16 951 018.394</b>	

**ANNEX VI**

<b>2022 POST-DELIVERY LOSS REPORT QUANTITIES AND VALUES BY REGION</b>								
	<b>2022 Opening stock</b>		<b>Received in recipient country</b>		<b>Total handled</b>		<b>Post-delivery losses</b>	
<b>RBB</b>	75 588	58 157 985	1 437 435	1 337 147 588	1 513 023	1 395 305 573	473	429 067
<b>RBC</b>	171 724	142 873 053	1 612 604	1 367 039 247	1 784 329	1 509 912 300	3 177	5 221 720
<b>RBD</b>	95 870	88 207 408	433 157	371 131 528	529 027	459 338 936	1 121	985 366
<b>RBJ</b>	72 958	64 376 440	342 888	237 618 384	415 846	301 994 824	4 164	3 561 080
<b>RBN</b>	206 466	140 791 104	1 736 466	1 017 890 864	1 942 932	1 158 681 968	5 505	4 274 055
<b>RBP</b>	22 094	21 875 797	61 661	79 489 756	83 755	101 365 553	3 034	2 479 731
<b>Grand total</b>	<b>644 701</b>	<b>516 281 787</b>	<b>5 624 211</b>	<b>4 410 317 366</b>	<b>6 268 911</b>	<b>4 926 599 153</b>	<b>17 474</b>	<b>16 951 018</b>
							0.28%	0.34%

*Abbreviations:* RBB = Regional Bureau for Asia and the Pacific; RBC = Regional Bureau for the Middle East, Northern Africa and Eastern Europe; RBD = Regional Bureau for Western Africa; RBJ = Regional Bureau for Southern Africa; RBN = Regional Bureau for Eastern Africa; RBP = Regional Bureau for Latin America and the Caribbean.

**ANNEX VII**

<b>2022 POST-DELIVERY LOSS REPORT – LOSSES BY COMMODITY</b>				
<b>Commodity</b>	<b>Commodity description</b>	<b>Total handled (USD)</b>	<b>Post-delivery losses (USD)</b>	<b>Losses in USD as % of total handled</b>
CERBAR	Barley	1 003 959.31	3 386.23	0.34
CERBHW	Buckwheat	15 231.75	-	0.00
CERBRE	Bread	16 846 964.63	42.19	0.00
CERMAZ	Maize	62 390 260.32	129 361.84	0.21
CERMML	Maize meal	70 109 583.43	1 749 023.64	2.49
CEROAT	Oat	368 077.61	-	0.00
CERPAS	Pasta	17 667 005.03	12 721.96	0.07
CERRIC	Rice	295 286 873.25	2 312 983.80	0.78
CERSOR	Sorghum/millet	353 102 974.06	746 727.52	0.21
CERWBG	Bulgur wheat	4 535 220.55	11 536.11	0.25
CERWHE	Wheat	339 234 732.01	906 518.98	0.27
CERWHF	Wheat flour	1 023 628 232.73	424 411.53	0.04
DAIDSP	Plain dried skimmed milk	1 295 618.94	1 077.46	0.08
DAIDWM	Dried whole milk	2 620 006.25	816.79	0.03
DAIUHT	UHT milk	1 162 952.33	522.16	0.04
FRUDFR	Dried fruits	4 813 360.17	101 470.34	2.11
FSHCFI	Canned fish	14 531 362.18	37 259.65	0.26
MEACHK	Canned chicken	126 119.70	216.06	0.17
MEAMEA	Canned meat	37 875 020.02	177 418.81	0.47
MIXBIS	Biscuits	180 427.74	-	0.00
MIXBP5	BP-5 emergency rations	64 725.19	11.07	0.02
MIXCSB	Corn soya blend	260 311 996.61	1 097 925.54	0.42
MIXHEB	High energy biscuits	69 155 082.60	197 256.07	0.29
MIXLNS	Lipid-based nutrition supplement	346 599 548.36	3 576 957.69	1.03
MIXRSF	Ready-to-use supplementary food	56 427 361.72	183 782.66	0.33
MIXRTF	Ready-to-use therapeutic food	6 157.26	-	0.00
MIXWSB	Wheat soya blend	112 751 710.44	45 210.76	0.04
MSCAPI	Api cereals	1 086.00	16.28	1.50
MSCHAL	Halawa	844.56	-	0.00
MSCMNP	Micronutrient powder	1 338 075.38	35 164.50	2.63
MSCMNT	Micronutrient tablets	97 881.73	3 578.88	3.66

2022 POST-DELIVERY LOSS REPORT – LOSSES BY COMMODITY				
Commodity	Commodity description	Total handled (USD)	Post-delivery losses (USD)	Losses in USD as % of total handled
MSCSAL	Iodised salt	4 887 798.41	20 001.30	0.41
MSCSPC	Spices	253.85	228.99	90.21
MSCSUG	Sugar	5 613 809.02	31 758.95	0.57
MSCTOM	Processed tomato	21 032.89	158.61	0.75
MSCYEA	Yeast	420 621.87	831.46	0.20
OILOLV	Olive oil	82 963.39	75.35	0.09
OILVEG	Vegetable oil	683 522 710.71	2 436 718.63	0.36
PPFRTN	Rations	405 091 357.50	54 695.48	0.01
PULBEA	Beans	87 851 216.00	1 053 259.18	1.20
PULCKP	Chickpeas	54 480 872.33	144 433.54	0.27
PULCPU	Canned pulses	8 221 720.95	2 270.96	0.03
PULCVE	Canned vegetables	30 289.39	52.59	0.17
PULLEN	Lentils	36 815 268.32	202 407.87	0.55
PULPEA	Peas	36 284 156.35	125 364.47	0.35
PULSLN	Split lentils	1 146 046.41	2 110.87	0.18
PULSPE	Split peas	508 424 401.86	1 112 293.28	0.22
TUBFRS	Tubers - fresh	156 181.99	8 958.34	5.74
<b>Grand total</b>		<b>4 926 599 153.07</b>	<b>16 951 018.39</b>	<b>0.34</b>

Total handled = opening stocks plus food received in-country.

## ANNEX VIII

2022 POST-DELIVERY LOSS REPORT						
Quantities and values by recipient country						
Region	Recipient country	Total handled		Post-delivery Losses		% losses USD vs. total handled USD
		Net mt	USD	Net mt	USD	
RBB	Afghanistan	1 241 420.0	898 089 484.8	126.5	106 276.5	0.01
	Bangladesh	21 653.4	26 587 006.4	27.0	32 270.3	0.12
	Cambodia	4 420.0	3 765 561.1	1.9	1 904.9	0.05
	Kyrgyzstan	6 491.4	3 860 807.4	0.0	13.7	0.00
	Lao People's Democratic Republic	6 900.1	6 285 175.8	7.3	8 976.3	0.14
	Myanmar	102 814.4	86 330 879.7	7.2	7 728.7	0.01
	Nepal	6 494.6	6 099 243.2	14.0	11 281.4	0.18
	Pakistan	96 149.8	66 886 373.3	249.7	229 689.3	0.34
	Philippines	1 155.0	774 105.2	19.6	10 376.5	1.34
	Sri Lanka	16 301.3	291 170 142.9	4.1	13 303.8	0.00
	Tajikistan	6 762.1	3 658 733.7	14.9	6 437.6	0.18
	Timor-Leste	2 460.5	1 798 059.1	1.2	807.7	0.04
<b>RBB total</b>		<b>1 513 022.5</b>	<b>1 395 305 572.7</b>	<b>473.5</b>	<b>429 066.7</b>	<b>0.03</b>
RBC	Algeria	19 441.9	16 997 341.0	23.8	21 914.1	0.13
	Armenia	276.6	158 958.2	-	-	0.00
	Egypt	652.8	1 489 809.2	-	-	0.00
	Iran (Islamic Republic of)	4 135.3	3 274 131.4	25.3	17 240.8	0.53
	Iraq	4 004.5	2 932 881.2	0.1	81.2	0.00
	Jordan	2 563.1	4 120 671.0	75.3	101 482.2	2.46
	Lebanon	48 282.4	65 831 039.3	15.3	17 793.6	0.03
	Libya	4 487.9	4 588 308.3	15.2	18 465.4	0.40
	State of Palestine	9 238.5	7 901 027.4	0.1	662.6	0.01
	Syrian Arab Republic	548 556.6	482 693 038.7	939.8	1 193 372.3	0.25
	Tunisia	592.9	546 021.9	-	-	0.00
	Ukraine	172 786.7	233 497 139.5	130.3	257 440.0	0.11
	Yemen	969 309.5	685 881 933.3	1 951.7	3 593 268.3	0.52
<b>RBC total</b>		<b>1 784 328.6</b>	<b>1 509 912 300.3</b>	<b>3 177.0</b>	<b>5 221 720.3</b>	<b>0.35</b>

2022 POST-DELIVERY LOSS REPORT						
Quantities and values by recipient country						
Region	Recipient country	Total handled		Post-delivery Losses		% losses USD vs. total handled USD
		Net mt	USD	Net mt	USD	
RBD	Benin	28 331.8	16 975 635.3	17.3	13 352.1	0.08
	Burkina Faso	110 120.1	86 910 910.9	357.0	256 121.2	0.29
	Cameroon	46 094.5	29 171 542.9	158.9	108 242.7	0.37
	Cabo Verde	1 109.2	1 044 285.0	0.0	8.6	0.00
	Central African Republic	41 504.6	38 557 737.7	225.6	212 482.0	0.55
	Chad	61 570.0	58 404 482.0	173.4	163 576.4	0.28
	Côte d'Ivoire	4 799.6	4 115 409.1	0.1	166.5	0.00
	Gambia	1 486.1	1 375 343.5	0.6	496.8	0.04
	Guinea	6 038.0	4 839 762.5	2.9	2 923.0	0.06
	Guinea-Bissau	2 880.5	3 685 238.3	16.1	20 863.3	0.57
	Liberia	4 231.1	2 442 450.4	23.7	12 837.1	0.53
	Mali	9 073.2	14 501 113.5	17.1	29 249.1	0.20
	Mauritania	7 133.1	5 955 765.9	1.2	1 024.3	0.02
	Niger	91 094.9	76 809 063.6	6.6	8 035.8	0.0
	Nigeria	105 780.4	107 357 506.3	80.4	130 724.7	0.12
	Sao Tome and Principe	431.1	469 272.2	-	-	0.00
	Senegal	618.8	1 227 429.7	1.3	3 269.8	0.27
	Sierra Leone	6 641.9	5 396 181.6	38.6	21 992.7	0.41
	Togo	88.1	99 805.2	-	-	0.00
<b>RBD total</b>		<b>529 027.0</b>	<b>459 338 935.7</b>	<b>1 120.9</b>	<b>985 366.0</b>	<b>0.21</b>
RBJ	Angola	1 729.8	1 750 963.4	2.0	5 085.2	0.29
	Congo	11 163.3	9 046 089.2	35.9	33 784.1	0.37
	Democratic Republic of the Congo	123 877.8	118 098 310.7	3 062.8	2 678 298.2	2.27
	Eswatini	4 080.1	2 499 920.6	111.8	55 423.8	2.22
	Lesotho	2 210.1	3 091 609.1	1.1	1 028.3	0.03
	Madagascar	104 320.6	72 331 200.1	321.4	336 123.9	0.46
	Malawi	1 273.0	816 890.4	1.8	1 026.1	0.13
	Mozambique	72 736.9	45 104 335.1	559.9	407 402.4	0.90



2022 POST-DELIVERY LOSS REPORT						
Quantities and values by recipient country						
Region	Recipient country	Total handled		Post-delivery Losses		% losses USD vs. total handled USD
		Net mt	USD	Net mt	USD	
	United Republic of Tanzania	40 559.1	18 466 230.7	63.4	40 045.3	0.22
	Zambia	136.6	70 771.7	0.0	2.0	0.00
	Zimbabwe	53 758.6	30 718 502.6	3.6	2 860.3	0.01
<b>RBJ total</b>		<b>415 845.9</b>	<b>301 994 823.6</b>	<b>4 163.7</b>	<b>3 561 079.7</b>	<b>1.18</b>
RBN	Burundi	15 725.3	14 753 414.5	226.0	114 446.3	0.78
	Djibouti	6 930.4	4 627 048.4	2.1	3 135.1	0.07
	Ethiopia	1 037 653.8	542 678 091.6	2 558.5	1 599 049.3	0.29
	Kenya	127 122.1	89 045 618.6	198.0	113 461.6	0.13
	Rwanda	8 084.2	6 911 586.1	8.1	11 207.2	0.16
	Somalia	126 184.9	115 332 157.0	121.9	183 417.2	0.16
	South Sudan	269 479.4	189 409 069.5	1 162.3	1 061 133.9	0.56
	Sudan	261 245.2	136 937 788.9	971.9	1 019 799.2	0.74
	Uganda	90 506.6	58 987 193.2	256.0	168 405.1	0.29
<b>RBN total</b>		<b>1 942 931.9</b>	<b>1 158 681 967.9</b>	<b>5 505.0</b>	<b>4 274 054.9</b>	<b>0.37</b>
RBP	Colombia	13 240.4	18 350 421.7	6.8	10 429.8	0.06
	Cuba	4 000.2	7 377 394.2	0.4	1 015.1	0.01
	Dominican Republic	116.9	184 151.2	0.0	15.5	0.01
	Ecuador	69.8	177 345.0	0.2	616.0	0.35
	Guatemala	5 457.0	7 480 527.1	-	-	0.00
	Haiti	17 186.5	15 271 805.2	2 394.2	2 016 963.5	13.21
	Honduras	9 262.6	9 779 090.1	12.6	12 022.5	0.12
	Nicaragua	9 563.8	11 053 383.6	0.3	261.3	0.00
	LAC pre-positioned inventory	24 858.2	31 691 434.7	619.0	438 407.0	1.38
<b>RBP total</b>		<b>83 755.4</b>	<b>101 365 552.9</b>	<b>3 033.6</b>	<b>2 479 730.8</b>	<b>2.45</b>
<b>Grand total</b>		<b>6 268 911.3</b>	<b>4 926 599 153.1</b>	<b>17 473.7</b>	<b>16 951 018.4</b>	<b>0.34</b>

Total handled = opening stocks plus food received in-country.

## ANNEX IX

2022 POST-DELIVERY LOSS REPORT									
Commodities with post-delivery losses									
greater than 2 percent in tonnage and value over USD 20,000 or value greater than USD 100,000									
Region	Country	Project	WBS	Commodity	Total handled net <i>mt</i>	Total handled <i>USD</i>	Post-delivery losses net <i>mt</i>	Post-delivery losses <i>USD</i>	% losses <i>mt</i> vs. total handled
RBB	Bangladesh	BD02	BD02.01.011.URT1	PULLEN	533.14	530 879.85	25.39	29 704.01	4.76
RBB	Pakistan	PK01	PK01.01.011.URT1	CERWHF	56 828.99	24 388 504.11	186.16	113 182.90	0.33
RBC	Jordan	JO02	JO02.01.011.URT1	FRUDFR	500.00	493 545.00	75.02	100 946.40	15.00
RBC	Syrian Arab Republic	SY03	SY03.01.011.SMP1	MIXHEB	4 780.18	9 656 764.52	80.38	145 839.68	1.68
RBC	Syrian Arab Republic	SY03	SY03.01.011.URT1	CERRIC	8 357.58	6 667 929.13	420.51	287 814.49	5.03
RBC	Syrian Arab Republic	SY03	SY03.01.011.URT1	MIXHEB	483.76	874 807.00	15.95	29 839.21	3.3
RBC	Syrian Arab Republic	SY03	SY03.01.011.URT1	PULCKP	9 646.09	10 168 874.00	115.56	135 171.66	1.20
RBC	Syrian Arab Republic	SY03	SY03.02.031.NPA1	MIXLNS	4 777.49	11 655 667.16	197.33	505 060.15	4.13
RBC	Ukraine	UA01	UA01.01.011.URT1	MEAMEA	7 588.31	37 875 020.02	45.71	177 418.81	0.60
RBC	Yemen	YE01	YE01.01.011.URT1	CERWHE	49 493.81	24 222 810.14	267.30	117 603.27	0.54
RBC	Yemen	YE01	YE01.01.011.URT1	CERWHF	704 230.15	372 157 908.65	332.73	208 510.81	0.05
RBC	Yemen	YE01	YE01.01.011.URT1	OILVEG	59 967.20	107 521 391.14	255.78	656 173.79	0.43
RBC	Yemen	YE01	YE01.02.021.NTA1	MIXLNS	23 501.41	62 675 717.24	917.08	2 519 971.19	3.9
RBD	Burkina Faso	BF02	BF02.02.031.NTA1	MIXCSB	497.89	620 779.38	30.06	36 445.62	6.04
RBD	Central African Republic	CF01	CF01.01.011.NTA1	MIXCSB	1 200.29	1 310 683.64	27.08	28 417.82	2.2
RBD	Chad	TD01	TD01.01.011.URT1	PULBEA	1 612.98	1 451 919.24	57.73	49 762.39	3.58

<b>2022 POST-DELIVERY LOSS REPORT</b> <b>Commodities with post-delivery losses</b> <b>greater than 2 percent in tonnage and value over USD 20,000 or value greater than USD 100,000</b>									
Region	Country	Project	WBS	Commodity	Total handled net <i>mt</i>	Total handled <i>USD</i>	Post-delivery losses net <i>mt</i>	Post-delivery losses <i>USD</i>	% losses <i>mt</i> vs. total handled
RBD	Chad	TD01	TD01.01.021.SMP1	PULBEA	66.60	52 413.39	30.95	20 041.41	46.47
RBJ	Democratic Republic of the Congo	CD02	CD02.01.011.NPA1	OILVEG	398.93	628 860.95	21.69	39 398.43	5.44
RBJ	Democratic Republic of the Congo	CD02	CD02.01.011.NTA1	MIXCSB	8 895.23	8 526 645.43	210.31	217 264.75	2.36
RBJ	Democratic Republic of the Congo	CD02	CD02.01.011.URT1	CERMML	65 937.33	49 050 878.50	1 977.55	1 606 360.59	3.00
RBJ	Democratic Republic of the Congo	CD02	CD02.01.011.URT1	PULBEA	3 048.76	2 469 919.12	265.31	217 376.89	8.70
RBJ	Democratic Republic of the Congo	CD02	CD02.01.011.URT1	PULSPE	19 652.49	14 851 062.05	380.59	319 427.88	1.94
RBJ	Democratic Republic of the Congo	CD02	CD02.01.021.SMP1	CERRIC	1 604.19	1 087 315.42	39.08	29 855.17	2.44
RBJ	Democratic Republic of the Congo	CD02	CD02.01.021.SMP1	OILVEG	400.59	635 926.70	24.46	57 605.84	6.11
RBJ	Eswatini	SZ02	SZ02.05.031.SMP1	CERRIC	609.01	300 167.15	109.62	54 566.87	18.00
RBJ	Madagascar	MG02	MG02.01.023.SMP1	OILVEG	611.01	1 112 580.00	17.59	31 530.81	2.88
RBJ	Madagascar	MG02	MG02.01.023.SMP1	PULSPE	923.81	433 812.07	40.59	22 750.21	4.39
RBJ	Mozambique	MZ01	MZ01.01.021.URT1	CERRIC	23 981.89	12 230 056.13	384.83	211 945.80	1.60
RBJ	Mozambique	MZ01	MZ01.01.021.URT1	MIXLNS	155.85	313 707.43	16.62	37 224.89	10.66
RBJ	Mozambique	MZ01	MZ01.01.021.URT1	MIXRSF	9.34	32 058.68	8.74	29 947.04	93.57

2022 POST-DELIVERY LOSS REPORT									
Commodities with post-delivery losses									
greater than 2 percent in tonnage and value over USD 20,000 or value greater than USD 100,000									
Region	Country	Project	WBS	Commodity	Total handled net <i>mt</i>	Total handled <i>USD</i>	Post-delivery losses net <i>mt</i>	Post-delivery losses <i>USD</i>	% losses <i>mt</i> vs. total handled
RBN	Burundi	BI01	BI01.01.021.SMP1	CERMML	344.56	171 882.04	222.70	110 427.62	64.63
RBN	Ethiopia	ET02	ET02.01.011.NTA1	MIXCSB	44 508.81	68 279 642.16	77.80	136 863.67	0.17
RBN	Ethiopia	ET02	ET02.01.011.URT1	CERWHE	492 097.75	189 927 606.57	1 373.14	622 289.02	0.28
RBN	Ethiopia	ET02	ET02.01.011.URT1	OILVEG	16 455.25	28 705 847.94	78.93	142 105.57	0.48
RBN	Ethiopia	ET02	ET02.01.011.URT1	PULSPE	45 533.78	24 945 823.38	180.41	119 523.85	0.40
RBN	Ethiopia	ET02	ET02.01.011.URT3	CERWHE	75 473.23	23 492 498.67	255.93	118 425.65	0.34
RBN	Ethiopia	ET02	ET02.01.023.SMP1	CERRIC	2 317.05	1 519 916.16	108.77	76 790.90	4.69
RBN	Ethiopia	ET02	ET02.01.023.SMP1	OILVEG	541.75	964 700.01	11.57	23 441.81	2.14
RBN	Sudan	SD02	SD02.01.011.SMP1	MSCMNP	19.80	282 338.62	2.36	29 974.78	11.91
RBN	Sudan	SD02	SD02.01.011.URT1	CERSOR	203 175.09	75 400 465.23	401.45	152 791.12	0.20
RBN	Sudan	SD02	SD02.01.011.URT1	OILVEG	8 256.37	13 686 576.21	367.82	610 828.78	4.45
RBN	Sudan	SD02	SD02.02.021.SMP1	PULLEN	403.95	389 564.82	29.05	30 201.26	7.19
RBN	Somalia	SO02	SO02.01.021.NPA1	MIXLNS	1 277.76	3 195 827.50	27.96	72 260.29	2.19
RBN	South Sudan	SS01	SS01.01.011.URT1	CERSOR	151 776.23	78 434 886.68	644.95	356 956.94	0.42
RBN	South Sudan	SS01	SS01.01.011.URT2	MIXCSB	941.37	1 587 458.61	29.85	50 507.98	3.17
RBN	South Sudan	SS01	SS01.02.021.NTA1	MIXCSB	14 210.75	23 703 553.31	113.41	207 384.29	0.80
RBP	Haiti	HT02	HT02.01.011.URT1	CERRIC	6 487.13	4 933 123.29	1 487.38	1 090 751.69	22.93
RBP	Haiti	HT02	HT02.01.011.URT1	OILVEG	486.37	922 636.33	135.47	246 578.86	27.85
RBP	Haiti	HT02	HT02.01.011.URT1	PULBEA	215.54	283 793.06	85.70	96 370.03	39.76

2022 POST-DELIVERY LOSS REPORT									
Commodities with post-delivery losses									
greater than 2 percent in tonnage and value over USD 20,000 or value greater than USD 100,000									
Region	Country	Project	WBS	Commodity	Total handled net <i>mt</i>	Total handled <i>USD</i>	Post-delivery losses net <i>mt</i>	Post-delivery losses <i>USD</i>	% losses <i>mt</i> vs. total handled
RBP	Haiti	HT02	HT02.01.011.URT1	PULPEA	608.76	368 984.72	89.90	54 406.73	14.77
RBP	Haiti	HT02	HT02.01.011.URT1	PULSPE	712.85	625 490.23	242.38	212 678.02	34.00
RBP	Haiti	HT02	HT02.01.021.SMP1	CERRIC	4 547.16	3 519 252.06	207.80	137 920.39	4.5
RBP	Haiti	HT02	HT02.01.021.SMP1	OILVEG	428.87	880 028.33	19.88	34 572.45	4.63
RBP	Haiti	HT02	HT02.01.021.SMP1	PULBEA	884.98	1 052 760.41	63.68	68 719.27	7.20
RBP	Haiti	HT02	HT02.01.021.SMP1	PULLEN	856.34	737 353.04	18.32	23 856.80	2.14
RBP	Haiti	HT02	HT02.03.031.SMP1	OILVEG	162.67	291 608.74	22.83	38 075.46	14.03
RBP	LAC pre-positioned inventory	XA02	XA02.01.011.URT1	PULBEA	727.22	503 040.23	593.51	410 550.39	81.61
<b>Grand total</b>					<b>2 133 745.63</b>	<b>1 312 805 261.58</b>	<b>13 470.60</b>	<b>13 312 412.41</b>	

Total handled = opening stocks plus food received in-country.

**ANNEX X**

<b>POST-DELIVERY LOSSES 2008-2022</b>						
<b>Year</b>	<b>Total volume handled (mt)</b>	<b>Volume of losses (mt)</b>	<b>Losses as a percentage of total volume handled</b>	<b>Total value handled (USD)</b>	<b>Value of losses (USD)</b>	<b>Losses as a percentage of total value handled</b>
2008	4 831 067	21 699	0.45	2 604 005 060	11 388 899	0.44
2009	5 567 314	21 187	0.38	2 755 152 374	10 131 966	0.37
2010	5 508 365	17 128	0.31	2 915 989 860	10 180 080	0.35
2011	4 517 972	20 371	0.45	2 734 427 882	13 217 691	0.48
2012	4 201 302	31 251	0.74	2 936 389 248	18 033 222	0.61
2013	3 770 209	25 016	0.66	2 511 094 911	18 684 094	0.74
2014	3 898 691	18 921	0.49	2 553 059 658	15 563 533	0.61
2015	3 559 176	12 694	0.36	2 596 324 005	11 019 934	0.42
2016	4 234 149	20 109	0.47	2 527 081 008	18 070 937	0.72
2017	4 457 644	14 733	0.33	2 458 337 114	12 841 501	0.52
2018	4 554 062	12 218	0.27	2 347 637 426	9 803 775	0.42
2019	5 515 651	24 113	0.44	2 611 217 157	14 894 532	0.57
2020	5 666 255	21 875	0.39	2 820 742 753	13 527 096	0.48
2021	5 783 894	23 527	0.41	3 377 115 417	14 758 530	0.44
2022	6 268 911	17 474	0.28	4 926 599 153	16 951 018	0.34