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## Report on global losses for the period from 1 January to 31 December 2020

### Executive summary

In 2020, WFP handled 5.6 million mt of food. Despite unprecedented challenges posed by seven Level 3 and ten Level 2 emergencies, including the coronavirus disease (COVID-19) pandemic, which dramatically increased operational complexity, WFP provided high-quality food assistance to more than 115 million people globally while minimizing losses.

This was enabled by an efficient, agile, end-to-end supply chain, robust risk mitigation systems and strong management processes. However, events beyond WFP's control resulted in relatively high levels of global food losses.

In 2020, pre-delivery losses were 17,898 mt, with a total value of USD 8.9 million – the third highest in terms of both volume and value since 2011. Inadequate transport accounted for 47 percent of pre-delivery losses, valued at USD 4.4 million.

Post-delivery losses amounted to 21,875 mt for a total value of USD 13.5 million – the fourth highest loss in terms of volume and the sixth highest in terms of value since 2011. Eighty-six percent or 18,901 mt of post-delivery losses were attributable to reconstitution, rebagging or repacking, improper or overlong storage, deterioration due to problems at origin, inadequate transport, and pilferage or theft.

Ten country operations accounted for 18,728 mt or 86 percent of post-delivery losses in 2020, of which 68 percent or 12,664 mt were attributable to the Level 3 emergency operations in Yemen, South Sudan and the Democratic Republic of the Congo.

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## Introduction

1. This report provides an overview of global losses – pre-delivery and post-delivery – in 2020 and describes recent measures for preventing or minimizing them. The annexes detail country-specific losses and identify countries where losses were above WFP’s reporting thresholds.<sup>1</sup>
2. Pre-delivery losses are those that occur up to the point where legal title to the food passes to the government of the recipient country, usually at the first delivery point in the country.
3. Post-delivery losses are those that occur after food arrives in the 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 the recipient country at the commodities’ point of first entry into the country where they are to be distributed. However, although legal title to food commodities held in WFP warehouses in a recipient country may have passed to the government concerned, WFP generally retains possession well beyond the point at which title is transferred.
5. The 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 its 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 time when WFP takes possession up to the time of physical handover of commodities to a cooperating partner, the people WFP serves or the government of a recipient country.<sup>2</sup>

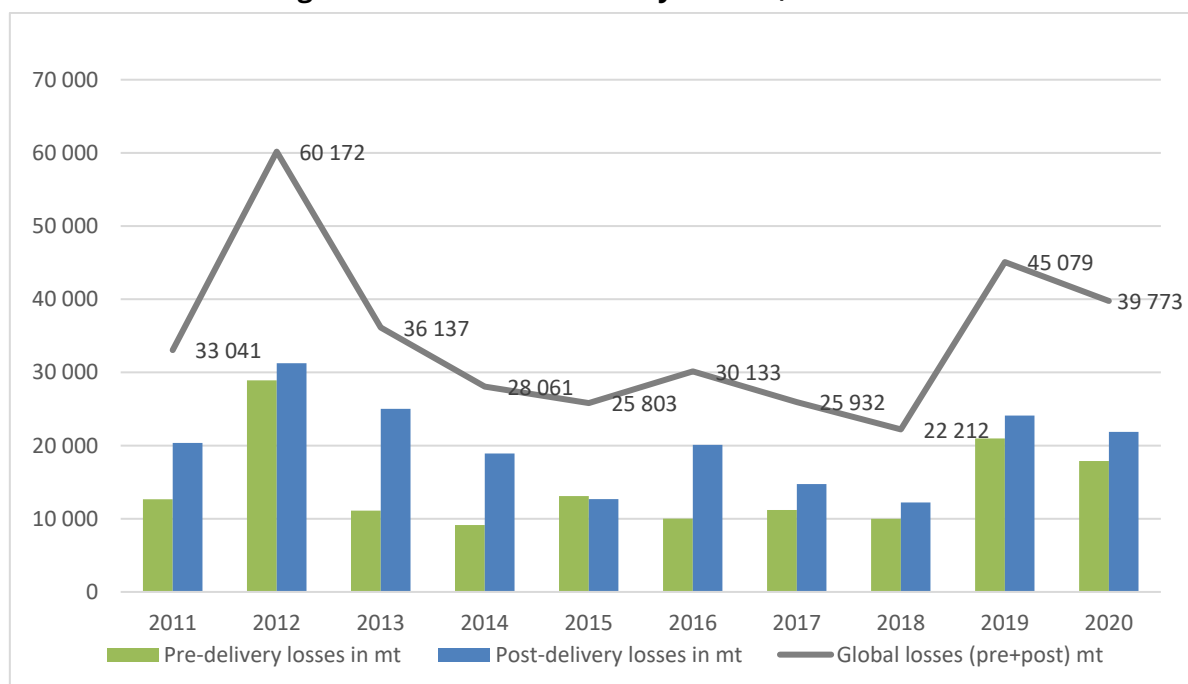
## Characteristics of global losses in 2020

7. Global losses in 2020 are presented in terms of volume (tonnage) and value (United States dollars) and are compared with losses in previous years.
8. Significant losses beyond the control of WFP meant that the volume of global losses in 2020 amounted to 39,773 mt, a slight decrease from 2019 but the third highest level since 2011 (see figure 1 and annex I).

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<sup>1</sup> These are countries where losses of a single food type amount to at least 2 percent of the tonnage 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>2</sup> WFP Management Plan (2018–2020) (WFP/EB.2/2017/5-A/1/Rev.1).

**Figure 1: Global food losses by volume, 2011-2020**

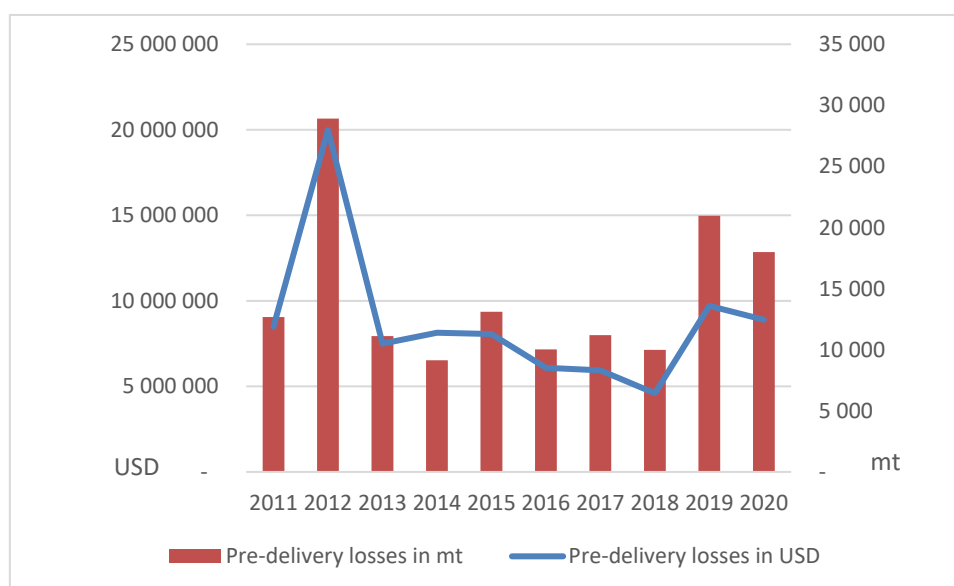
9. The value of global losses in 2020 amounted to USD 22.4 million, compared to USD 24.6 million in 2019.
10. Losses of sorghum, wheat flour, corn-soya blend, maize and rice amounted to 27,214 mt, valued at USD 12.6 million and accounting for 68 percent of global losses by volume and 56 percent by value (see details in table 1).

**TABLE 1: THE FIVE COMMODITIES FOR WHICH LOSSES WERE HIGHEST, 2020**

Commodity	Losses (mt)	Value in USD	USD per mt	Loss as a percentage of total losses by volume
Sorghum	7 633	2 552 936	334	19
Wheat flour	7 626	2 883 648	378	19
Corn-soya blend	5 263	4 402 534	836	13
Maize	4 340	1 526 221	352	11
Rice	2 352	1 251 332	532	6

### Characteristics of pre-delivery losses in 2020

11. Pre-delivery losses in 2020 are presented in terms of volume (tonnage) and value (United States dollars) and are compared with losses in previous years in terms of volume, value and causes.
12. In 2020, pre-delivery losses amounted to 17,898 mt, the third highest level by volume since 2011 (figure 2).
13. Pre-delivery losses were valued at USD 8.9 million, the third highest level by value since 2011 (figure 2).

**Figure 2: Pre-delivery losses by volume and value, 2011–2020**

14. Losses of sorghum amounting to 4,559 mt at an average value of USD 310/mt accounted for 25 percent of all pre-delivery losses.
15. Losses of 2,951 mt of corn-soya blend at an average value of USD 759/mt accounted for 16 percent of pre-delivery losses.
16. Losses of 2,149 mt of maize at an average value of USD 328/mt accounted for 12 percent of pre-delivery losses.

#### **Main reasons for pre-delivery losses**

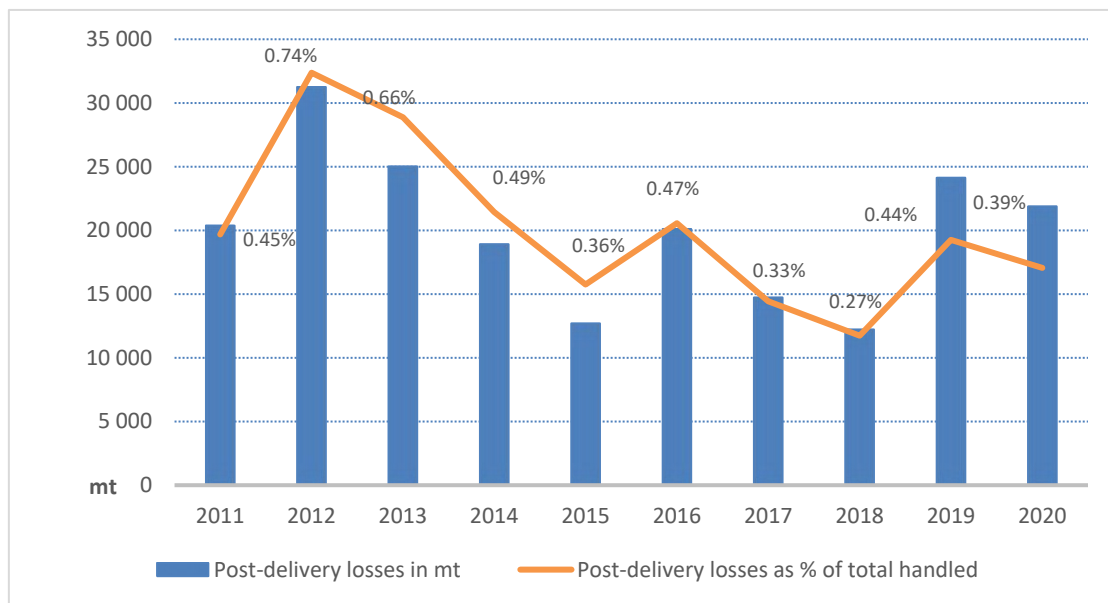
17. In 2020, 47 percent or 8,462 mt of pre-delivery losses, worth USD 4.4 million, were attributable, primarily, to inadequate transport.
18. Rebagging or repacking resulted in pre-delivery losses of 4,051 mt, worth USD 1.3 million. This accounted for 23 percent of all pre-delivery losses.

#### **Characteristics of post-delivery losses in 2020**

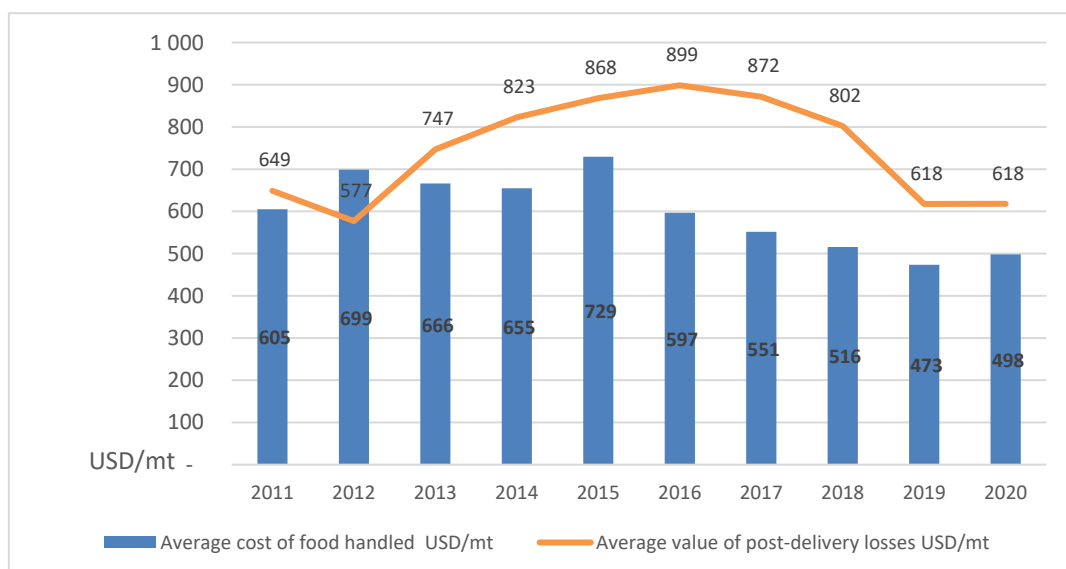
19. Post-delivery losses in 2020 are presented in terms of volume and value and are compared with losses in previous years in terms of volume, value and causes.
20. The volume of post-delivery losses in 2020 was the fourth highest since 2011 in absolute terms but the fourth lowest as a percentage of food handled.<sup>3</sup> Post-delivery losses were 21,875 mt, or 0.39 percent of the 5.6 million mt of food handled; the corresponding figures for 2019 were 24,113 mt and 0.44 percent (see figure 3 and annex X).
21. In 2020, post-delivery losses had a total value of USD 13.5 million, the sixth highest since 2011 in absolute terms. At 0.48 percent of the USD 2.82 billion of food handled, they were also the sixth highest in percentage terms. The corresponding figures for 2019 were USD 14.9 million and 0.57 percent (see figure 3 and annex X).<sup>4</sup>

<sup>3</sup> Tonnage of food handled is defined as "... opening stocks in the recipient country plus commodities received in the recipient country".

<sup>4</sup> Food items are valued according to "moving average prices", whereby the cost of each item is determined from the weighted average of the costs of similar items at the beginning of and during the period in question. The losses in this report are valued at the moving average prices as of the end of 2018.

**Figure 3: Post-delivery losses by volume, 2011–2020**

22. The average value of food handled in 2020 was USD 498/mt, compared with USD 473/mt in 2019. The average value of post-delivery losses was USD 618/mt, the same as in 2019 (see figure 4).

**Figure 4: Average cost of food handled and average value of post-delivery losses, 2011–2020**

23. Conflict-affected Yemen, with losses of 8,422 mt at an average value of USD 552/mt, accounted for 39 percent of all post-delivery losses. South Sudan, with losses of 3,143 mt at an average value of USD 668/mt, accounted for 14 percent, while Afghanistan, with losses of 1,422 mt at an average value of USD 706/mt, accounted for 6 percent.
24. Losses of 6,604 mt of wheat flour at an average value of USD 379/mt accounted for 30 percent of all post-delivery losses. Of these, 96 percent, or 6,347 mt at an average value of USD 379/mt, occurred in Yemen.

25. Losses of 3,074 mt of sorghum at an average value of USD 370/mt accounted for 14 percent of all post-delivery losses. Of these, 55 percent, or 1,705 mt at an average value of USD 412/mt occurred in South Sudan.
26. Losses of 2,312 mt of corn-soya blend at an average value of USD 935/mt accounted for 11 percent of all post-delivery losses. Some of these losses occurred as a result of an incident that took place in 2019, in which substandard Super Cereal was delivered by a particular supplier. Of all corn-soya blend post-delivery losses, 25 percent, or 568 mt at an average value of USD 846/mt, occurred in the Democratic Republic of the Congo. A further 25 percent, or 571 mt at an average value of USD 1,159/mt, occurred in South Sudan.

### Main reasons for post-delivery losses

27. In 2020, 86 percent or 18,901 mt of post-delivery losses were attributable to reconstitution, rebagging or repacking, improper or overlong storage, deterioration due to problems at origin, inadequate transport, and pilferage or theft (see figure 5). Specific details by country are provided in annex I.

**Figure 5: The five main reasons for post-delivery losses, 2020**

Reconstitution/ rebagging/ repacking	Improper/overlong storage	Inadequate transport	Deterioration of food due to problems at origin	Pilferage/theft
<ul style="list-style-type: none"> <li>• 8,026 mt</li> <li>• 0.14% of total food handled</li> <li>• 37% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 4,562 mt</li> <li>• 0.08% of total food handled</li> <li>• 21% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 2,368 mt</li> <li>• 0.04% of total food handled</li> <li>• 11% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 2,481 mt</li> <li>• 0.04% of total food handled</li> <li>• 11% of total post-delivery losses</li> </ul>	<ul style="list-style-type: none"> <li>• 1,464 mt</li> <li>• 0.03% of total food handled</li> <li>• 7% of total post-delivery losses</li> </ul>

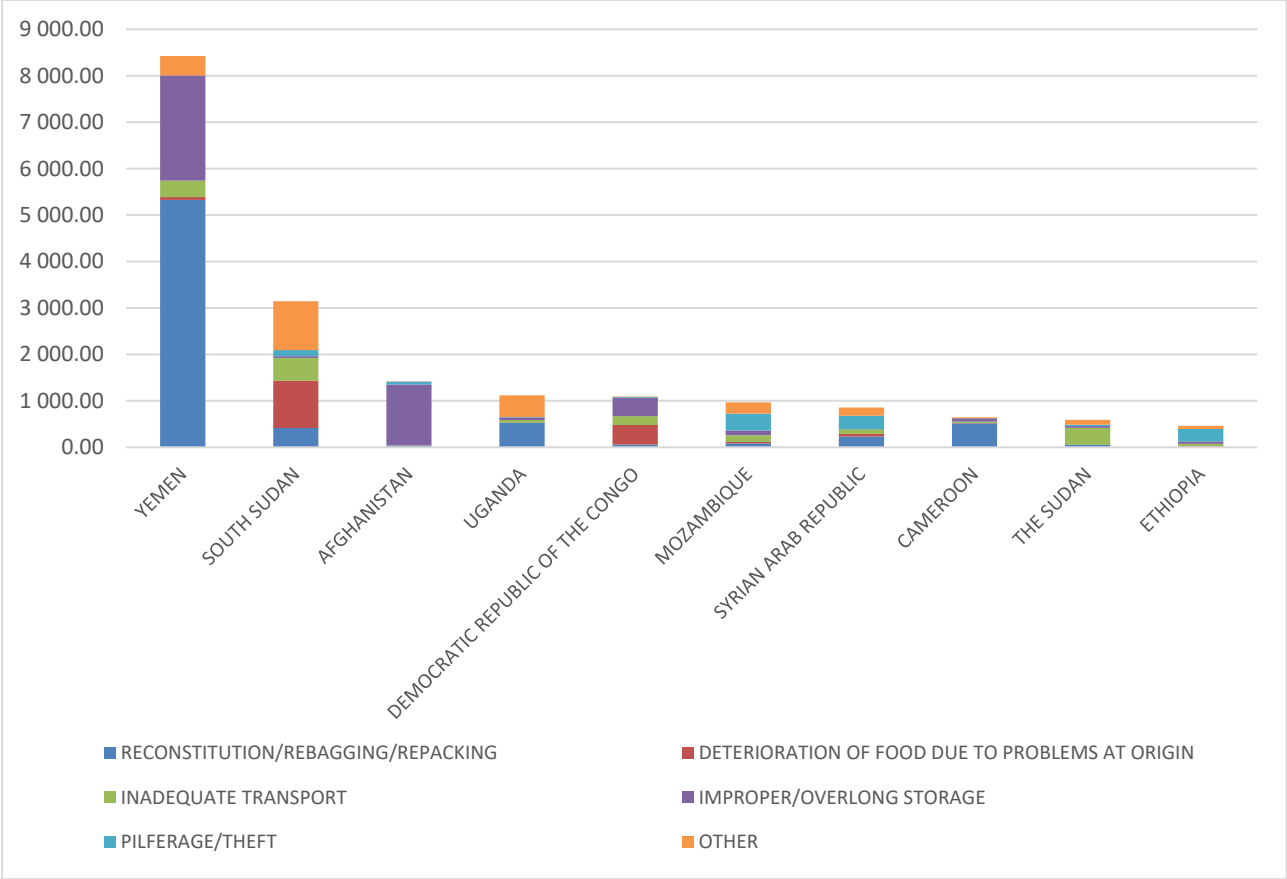
28. Problems related to reconstitution, rebagging or repacking resulted in post-delivery losses of 8,026 mt, or 0.14 percent of food handled and 37 percent of all post-delivery losses. Of these losses, 5,327 mt or 66 percent occurred in Yemen.
29. Improper or overlong storage resulted in post-delivery losses of 4,562 mt, or 0.08 percent of food handled and 21 percent of all post-delivery losses. Afghanistan and Yemen together accounted for 3,576 mt or 78 percent of these losses.
30. Food deterioration caused by problems at origin resulted in post-delivery losses of 2,481 mt, or 0.04 percent of food handled and 11 percent of all post-delivery losses. Of these losses, 1,016 mt or 41 percent occurred in South Sudan.
31. Inadequate transport accounted for 2,368 mt of losses, or 0.04 percent of food handled and 11 percent of all post-delivery losses. Of these losses, 59 percent or 1,396 mt occurred in the Democratic Republic of the Congo, South Sudan, the Sudan and Yemen.<sup>5</sup>
32. Pilferage or theft accounted for 1,464 mt, or 0.03 percent of food handled and 7 percent of all post-delivery losses. Of these losses, 920 mt or 63 percent occurred in Ethiopia, Mozambique and the Syrian Arab Republic.

<sup>5</sup> Contractual provisions for recovering post-delivery losses from service providers and the selection and review of service providers are crucial for minimizing food losses. Poorly performing service providers receive warnings or are removed from the list of suppliers. Performance indicators for transporters include amounts lost in transit.

**Post-delivery losses by country**

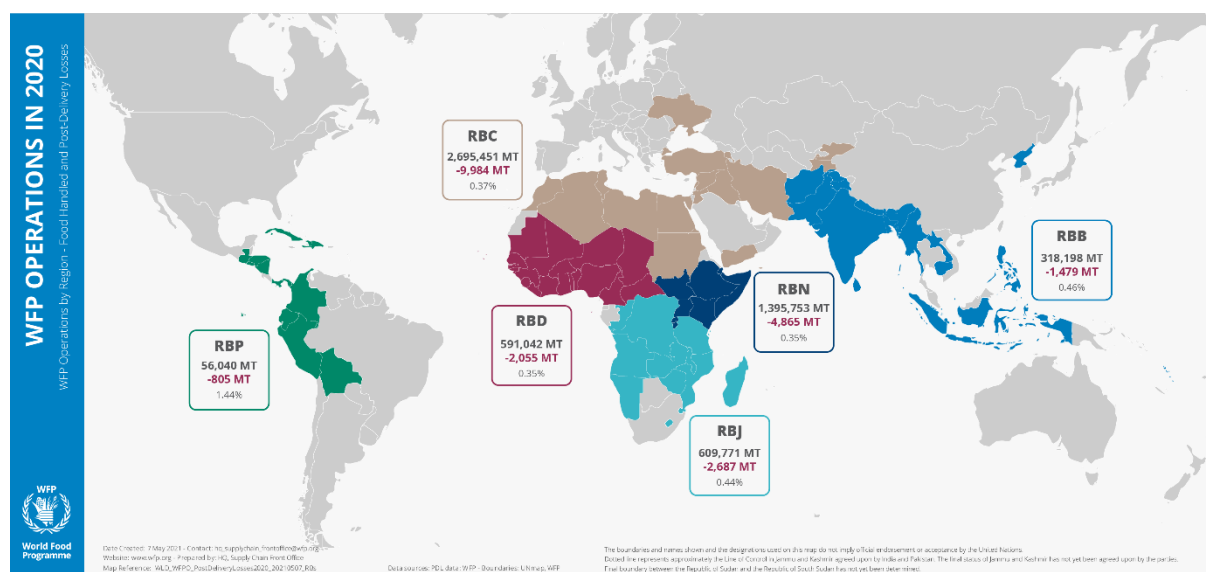
33. Ten country operations accounted for 18,728 mt or 58 percent of post-delivery losses in 2020 (see figure 6). A total of 12,664 mt or 68 percent of those losses occurred in the context of Level 3 emergency operations in the Democratic Republic of the Congo, South Sudan and Yemen.

**Figure 6: The ten countries with the highest post-delivery losses in 2020, by cause of loss (mt)**



34. WFP’s ten largest operations in terms of volume of food handled in 2020 were, in descending order, Yemen, the Syrian Arab Republic, Ethiopia, the Sudan, South Sudan, Zimbabwe, Afghanistan, Uganda, Somalia and Burkina Faso. These operations handled 4.4 million mt of food, or 78 percent of the total, and accounted for 16,473 mt or 75 percent of all post-delivery losses (see figure 7 for an overview by region).

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



**Abbreviations:** RBB = Regional Bureau for Asia and the Pacific; RBC = Regional Bureau for the Middle East and Northern Africa; 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.

35. In 2020, WFP operations in 21 countries had above-threshold post-delivery losses, which totalled 17,214 mt (see annex I). Of these countries, three were in the Middle East and Northern Africa region, accounting for 46 percent of all above-threshold post-delivery losses, two were in Eastern Africa, accounting for 22 percent; four were in Southern Africa, accounting for 12 percent; seven were in Western Africa, accounting for 9 percent; one was in the Asia and the Pacific region, accounting for 7 percent; and four were in the Latin America and the Caribbean region, accounting for 4 percent.<sup>6</sup>

## Measures for preventing and mitigating losses

### Improving food procurement and ensuring food safety and quality in WFP operations

36. 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 minimizing losses.
37. WFP made increasing use of smaller packaging (1.5 kg bags) for Super Cereal in 2020. Smaller and better packaging (stronger laminated film and use of secondary packaging) guarantees a longer shelf-life (18 months instead of 12 months) and was used in the transport and distribution of 60 percent of the product.
38. In July 2020, the Food Safety and Quality Assurance Unit introduced new packaging specifications for polypropylene woven bags – with and without polyethylene inner liners – in order to improve the robustness of the packaging used in WFP supply chains and minimize food losses. Improved packaging is now used for cereals, pulses and certain types of Super Cereal.

<sup>6</sup> These are post-delivery losses that exceed WFP's thresholds for country-level post-delivery losses of single food types: valued at USD 20,000 or more and accounting for at least 2 percent of the tonnage handled or valued at USD 100,000 or more.



39. As part of a project to reduce plastic waste, WFP is working in partnership with the International Committee of the Red Cross and the Office of the United Nations High Commissioner for Refugees to identify packaging that could be used as an alternative to regular polypropylene bags. The project includes a research and development phase to help identify new environmentally friendly materials with enhanced loss mitigation properties.
40. New packaging specifications for vegetable oil were adopted in February 2020. To be eligible to bid for international tenders, suppliers must now ensure that vegetable oil is supplied in bottles, jerrycans and cartons that meet more stringent standards. As a result, there have been few reports of leakage or loss of vegetable oil from destination countries. WFP continues to monitor the effectiveness of its enhanced packaging specifications.
41. The Kenya country office received and bagged the first ever bulk shipment of sorghum, totalling approximately 4,000 mt, in Mombasa. By tipping the containers and feeding the sorghum directly into a hopper, the cargo is transported directly by conveyor belt to bagging stations. This innovative approach reduced overall handling through stuffing, transport, de-stuffing and shunting into trucks and warehouses and significantly reduced spillage.
42. To transport shipments from Turkey to the Syrian Arab Republic, WFP continued to use pallets and to cross stack sunflower oil containers, which significantly improves load stability during transport and handling. As a result, reported losses in 2020 were minimal.
43. For cross-border operations into the Syrian Arab Republic, the Food Procurement Unit sourced 36,442 mt of wheat flour in 15 kg bags, in addition to 19,455 mt in standard 50 kg bags. Using bags of various sizes facilitated the conservation of wheat flour, a commodity that is particularly prone to infestation when apportioned or incorrectly handled.

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

44. The Food Procurement Unit, in coordination with the Food Safety and Quality Assurance Unit, has adopted stringent quality control measures for the sourcing of sorghum, including enhanced cleaning and sieving requirements and an inspection statement of work. This has reduced the percentage of defective grains and impurities, reducing potential quality issues and the risk that commodities will be rejected at destination. It has also facilitated access to new markets, including Australia and India, and the implementation of WFP's pre-positioning plan.
45. Supply chain units and country offices conducted weekly reviews of specific requirements for high-volume wheat and wheat flour shipments. By monitoring the specific documentary requirements in recipient countries, including Ethiopia, the Sudan and Yemen, such as import permits and phytosanitary certificates, the risk of rejection has been reduced. The standardization of food quality specifications has increased flexibility and facilitated commodity rotation in the case of rejection or country funding shortages and has therefore facilitated the purchase of Global Commodity Management Facility stocks. Marking requirements and clearing processes have also been strengthened to reduce the risk of rejection by local authorities.
46. WFP closely monitored quality management records, documents and trends, in accordance with guidelines established by the Food Safety and Quality Assurance Unit for suppliers of Super Cereal, with a view to understanding production trends, assessing performance and proactively addressing potential quality issues.
47. Alert systems for best-before use dates have been developed by the Logistics Data, Budgets and Systems Execution Unit to support efforts by country offices to dispatch commodities prior to expiry dates. The Logistics Data, Budgets and Systems Execution Unit has also

provided training, conducted oversight missions and provided support with a view to clearing backlogs and compiling data in the Western Africa, Southern Africa and the Latin America and the Caribbean regions.

48. Enhanced guidance on stock counting and reconciliation strengthened the capacity of country offices to ensure that stocks are counted on a monthly, quarterly and end-of-year basis.
49. Quarterly exercises were, moreover, conducted to monitor physical inventories and losses in order to provide the Risk and Insurance Unit with data on the types of losses occurring and further strengthen loss mitigation efforts.

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

50. In 2020, 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 the mitigation of food safety and quality risks and the management of incidents. These measures aimed to ensure that WFP best practices in food management and logistics were applied consistently in all operations.
51. The Regional Bureau for Eastern Africa conducted oversight missions that focused on warehouse management, transport modalities, packaging and training. Through those missions, the regional bureau, inter alia, supported efforts by country offices to ensure that expiry dates for cargo received at warehouses were checked and that any discrepancies were reported immediately. The missions also supported efforts by country offices to implement best practices in commodity accounting, contracting and warehouse management.
52. To minimize transport-related losses, the Regional Bureau for Eastern Africa assessed the performance of transporters in order to ensure that only transporters that complied with best practices were contracted. In collaboration with the Food Safety and Quality Assurance Unit, the regional bureau also trained staff in the handling of specialized nutritious foods.
53. The regional bureau supported refresher training courses on food safety and quality for warehouse staff and on integrated pest management and food handling, including loading, receiving, dispatch and quality inspection, for support staff.

#### **Example of regional bureau support**

During the hurricane season, staff from the Regional Bureau for Latin America and the Caribbean were present at every transport operation during food distribution in areas affected by Hurricanes Eta and Iota. By providing crucial oversight, the regional bureau played a key role in minimizing losses during food transport and delivery to beneficiaries.

54. The Regional Bureau for Asia and the Pacific conducted regular inspections to ensure that country offices used best practice warehouse management procedures. These procedures included the monitoring of warehouse conditions on a regular basis, especially just before the rainy season, daily checks of stacked commodities, stock rotation or restacking for overlong stored food, the use of optimal stacking methods and pallets to prevent damage to stocks and the use of cold stores for cold chain commodities.

55. Standard operating procedures for food planning, programming, purchase, storage and distribution were introduced in 2020 by the Regional Bureau for Asia and the Pacific. These include procedures for local food procurement that reduce storage periods for wheat flour by splitting total contracted tonnage into lots, with the volume of each lot determined in accordance with the project implementation forecast. Wheat flour suppliers thus deliver only the volumes required for immediate distribution. This reduces the likelihood that large volumes of

commodities will need to be stored in warehouses, where they may expire if not distributed in a timely fashion.

56. The Regional Bureau for the Middle East and Northern Africa monitored 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. The regional bureau also reduced transportation-related losses by supporting country offices in tracking the movement of food and improving the percentage of transactions captured in real time in LESS.
57. In 2020, the use of the logistics key performance indicator dashboard, which encompasses asset management efficiency and data reliability indicators, contributed to improving the performance of country offices and the reliability of commodity reports.
58. The Regional Bureau for Southern Africa provided training for third-party stevedoring and for warehouse managers on commodity handling and accounting, warehouse best practices related to cleanliness and hygiene and timely rebagging and reconstitution. Monthly inspections of third-party warehouses were conducted and action was taken to strengthen transporter oversight to ensure that commodities were handled appropriately and maximum axle loads were not exceeded. Regular monitoring helped to reduce transportation-related losses at the country office level.
59. As was the case in previous years, the Regional Bureau for Latin America and the Caribbean provided training in 2020 for a wide range of stakeholders including transporters, non-governmental organizations, suppliers and government ministry staff involved in food distribution and handling. Due to COVID-19-related movement restrictions, oversight and training was conducted online, with actions focused specifically on internal control mechanisms and commodity quality control.
60. Furthermore, the regional bureau implemented a new local purchasing mechanism providing for the delivery of commodities directly to partner facilities. The aim of the new mechanism was to reduce costs related to storage, transport, and pest control in warehouses. Warehouse management and pest control training, provided in coordination with pest control companies, was successful in reducing losses due to rodent damage and weevil infestation in Honduras.

## ANNEX I

**Above-threshold losses, by country**

1. This annex presents information on post-delivery losses that exceed WFP's 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 the volume handled or valued at USD 100,000 or more. In 2020, such losses amounted to 17,214 mt from 22 projects in 21 countries (see table A1).

<b>TABLE A1: OPERATIONS IN COUNTRIES WITH ABOVE-THRESHOLD POST-DELIVERY LOSSES</b>	
<b>Country</b>	<b>Above-threshold post-delivery losses (mt)</b>
Yemen	7 882
South Sudan	2 864
Afghanistan	1 316
Uganda	907
Democratic Republic of the Congo	859
Mozambique	738
The Sudan	449
Cameroon	426
Nicaragua	304
Haiti	250
Syrian Arab Republic	222
Congo	204
Nigeria	189
Malawi	149
Honduras	131
Central African Republic	108
Chad	58
Mali	50
Dominican Republic	47
Guinea	37
Burkina Faso	26

**Afghanistan**

2. In Afghanistan, the aforementioned above-threshold losses of 1,316 mt refer to a 2019 stock loss of wheat-soya blend that was recorded in the first quarter of 2020. Following a food incident, distribution of the commodity in question was halted and a comprehensive investigation was launched. The investigation found that the commodity had been contaminated during production, and the stocks were deemed unfit for human consumption. Authorization was granted for the wheat-soya blend stocks to be disposed of, and the stocks were destroyed.

## **Burkina Faso**

3. Burkina Faso registered above-threshold losses of vegetable oil amounting to 26 mt. In 2019, the country received a vegetable oil shipment but after receiving the stock, it was noted that some cartons had already reached their expiry dates.
4. To mitigate that post-delivery loss, the country office liaised with Société Nouvelle Huilerie et Savonnerie (SN Citec), an agro-industry firm, which agreed to exchange the expired vegetable oil for vegetable oil in good condition. The exchange process required considerable time to complete as WFP had to ensure that the vegetable oil supplied met established quality standards. The process was concluded in early 2020. The outstanding above-threshold loss of 26 mt was shared between two project activities.
5. To minimize such losses in the future, warehouse staff have been advised to be more vigilant when receiving cargo and to ensure that the best-before date is checked on each and every package, particularly for Super Cereal and vegetable oil, before it is stored.

## **Cameroon**

6. The aforementioned above-threshold losses of 426 mt in Cameroon refer to part of a donation of sorghum received in May 2019 that had been contaminated with genetically modified organism (GMO) corn. The cargo was sieved to remove the corn and other impurities, resulting in the aforementioned loss. Following discussions with the Minister of Agriculture and Rural Development, approval for the distribution of the sorghum was granted on the condition that all GMO corn was first removed from the stock. In 2020, it was decided to dispose of the GMO corn.

## **Central African Republic**

7. The Central African Republic country office incurred above-threshold post-delivery losses of 108 mt of Super Cereal and BP-5 emergency ration biscuits in 2020.
8. Losses of Super Cereal were due to overlong and otherwise improper storage in the warehouse of a partner that has now ceased operations in the country. The BP-5 emergency ration biscuits were found to have already passed their expiry dates and were identified during the inspection of a shipment of emergency ration biscuits upon its arrival.
9. In order to reduce such losses in the future, the country office intends to establish an alert report for best before dates, which will facilitate the timely distribution of commodities before they expire. To limit losses at cooperating partners' warehouses, regular physical inventories of stocks will be carried out.

## **Chad**

10. The country office in Chad incurred above-threshold losses of 58 mt of beans in 2020. Of these, 30 mt were declared unfit for human consumption after they were discovered to be infested with pests and subsequently fumigated. In general, beans are prone to rapid infestation in countries with high temperatures. General food distributions in some areas in Chad do not take place on a regular basis, and commodities sometimes reach certain areas of the country only after the completion of distribution cycles. Once the stock in question reached the warehouse for distribution, it tested unfit for human consumption.
11. The remaining post-delivery losses were predominantly due to underweight 100 kg bags of beans being received and distributed. The bags were locally purchased, received, dispatched and distributed without strict supervision of unit weight. The weight issue was detected only at the end of the distribution cycle.

12. The country office has taken measures to prevent such losses in the future. Quality and quantity inspections will be reinforced and checks made to ensure that weighing machines used by suppliers are calibrated correctly. The purchase of commodities in 100 kg bags will be avoided and care taken to avoid the overlong storage of beans. Furthermore, beans will, in future, be lent for other activities if there is a risk that they could deteriorate prior to distribution. In addition, a food technologist has been hired by the country office. The process to recover the total amount stemming from post-delivery losses from insurance is ongoing.

## **Congo**

13. An above-threshold post-delivery loss of 204 mt of rice was reported in Congo in July 2020. The loss occurred during transportation when a road accident led to a large quantity of rice becoming wet and therefore unusable. The value of the loss was deducted from the carrier's invoice.
14. Transporting commodities over long distances and over bad roads that deteriorate further during the rainy season poses constant challenges to WFP operations.

## **Democratic Republic of the Congo**

15. The Democratic Republic of the Congo country office registered a total of 859 mt above-threshold post-delivery losses in 2020. Of these, a batch of 296 mt of locally procured rice was deemed unfit for human consumption. The specific batch was delivered to WFP's Butembo warehouse in December 2019, but did not pass an additional quality test carried out by the Office Congolais de Contrôle (OCC). OCC identified the presence of mesophilic bacteria and coliforms, which, as they do not survive the cooking process, are not specified for action in the Codex Alimentarius for rice and are thus rarely tested for by WFP.
16. The remaining losses were related to two lots of Super Cereal totalling 563 mt. These were dispatched in the country but not distributed. It was found that they contained high levels of fumonisin mycotoxins and were therefore deemed unfit for human consumption. In accordance with established procedures, WFP headquarters was informed and approved the disposal of the contaminated commodities. The value of the loss will be recovered through insurance.
17. For losses caused by suppliers, the country office works systematically with the Supply Chain Risk and Insurance Unit at WFP headquarters to recover amounts lost through insurance. For transport losses, the value of the lost commodity is recovered directly from transporters. In order to minimize those losses, regular meetings are held with transporters, strict performance evaluations are conducted and poorly performing transporters are removed from the list of approved transporters.
18. For warehouse losses, country office staff systematically inspect shipments upon unloading and throughout the period in which stock remains in storage. Handlers are trained in the proper handling of cartons and bags. Standard operating procedures are shared with all staff, while mitigation measures such as fumigation, ventilation and the transfer of stacked goods from one location in warehouses to another are recommended. In addition, a memorandum on food incident management will be shared with all logistics staff and appropriate action will be taken to follow up on recommendations made. A food technologist will be hired in 2021 to strengthen efforts to reduce food losses and train staff.

## **Dominican Republic**

19. Above-threshold losses in the Dominican Republic were related to an incident in 2019, whereby 47 mt of Super Cereal were deemed unfit for human consumption. While WFP instructions to destroy substandard stocks of Super Cereal were received by most regions in 2019, the Latin America and the Caribbean region received authorization for the destruction of those stocks only in 2020. In the meantime, to prevent any contamination of other stocks by the substandard Super Cereal, it was kept securely isolated from other stocks in WFP warehouses.

## **Guinea**

20. Above-threshold losses in Guinea concerned rice totalling 37 mt. That rice was to be distributed to vulnerable households as part of the Government's economic response to the COVID-19 health crisis, which is being coordinated by L'Agence Nationale d'Inclusion Economique et Sociale (ANIES) (National Agency for Economic and Social Inclusion). The stock was declared unfit for human consumption and returned by the supplier for replacement. Replacement has yet to occur, however, and the gap between the theoretical stock and the stock that is actually present remains outstanding in the inventory.
21. As the loss was due to the actions of a supplier, WFP has advised its partners to conduct a quality control exercise with suppliers when purchasing food. In addition, WFP has recommended laboratory analysis of all shipments provided by partners for distribution by WFP.

## **Haiti**

22. Above-threshold losses of 250 mt of maize occurred in the country when the maize in question was erroneously milled into flour instead of into maize grits by a contracted milling company. The maize was therefore rejected by the country office. The milling company agreed to replace the maize flour in-kind, and the flour was sold by the miller as animal feed.
23. Due to the local unavailability of maize, the miller reimbursed WFP for the total value of the 250 mt of maize lost, at a value of USD 120,296. The matter was resolved with the support of the Supply Chain Risk and Insurance Unit at WFP headquarters.

## **Honduras**

24. Above-threshold post-delivery losses in Honduras were related to an incident with a supplier in 2019, when 131 mt of Super Cereal stock were deemed unfit for human consumption. Authorization for the disposal of that stock was only granted in 2020, however, in accordance with instructions from WFP headquarters.
25. A number of measures have been taken to minimize such losses in the future. These include providing training to country office staff on pest identification and control, inventory management, food handling and warehouse oversight.

## **Malawi**

26. In Malawi, above-threshold losses of 149 mt of maize were recorded in 2020. These included 134 mt of maize used as collateral to borrow from the National Food Reserve Agency (NFRA) to fill pipeline breaks during the 2019 flood emergency. The stock was significantly damaged, and the Director of the Supply Chain Risk and Insurance Unit at WFP headquarters approved its disposal in December 2020.
27. Furthermore, three waybills for 15 mt of maize were captured in the system as dispatched during backlog recovery, following offline commodity movements during the flood response in April 2019. It was later ascertained that, in the context of post-loading operations, the

three waybills had been withdrawn and the transporter had offloaded at the WFP warehouse on the same day. However, the reversal had not been registered in LESS and the maize was therefore registered as missing. After a thorough investigation and the country director's approval in March 2020, 15 mt of maize were registered as a loss. The remaining post-delivery losses were caused by inadequate transport and poor handling.

28. All losses incurred during transportation are deducted from transporters' invoices, and the loss percentage is used as a performance criterion that may be taken into consideration when drawing up the list of approved WFP transport service providers.
29. For quality issues related to stocks provided by suppliers, staff are encouraged to reject low-quality stocks and communicate any relevant issues to procurement staff prior to offloading stock into warehouses, regardless of any agreed delivery terms.
30. To minimize warehouse losses, staff are urged to comply with best practice warehouse management procedures. These relate to the maintenance of warehouses, the use of optimal stacking methods and pallets to prevent damage to stocks, proper ventilation, regular fumigation, pest control and daily inventory checks. In addition, the real-time use of LESS has been emphasized to ensure stock visibility. This facilitates the early detection of any anomalies in stock figures, which may not be possible when there are backlogs to be cleared.
31. Finally, the country office is making use of the "Last Mile" application, which is being piloted in a refugee camp prior to its roll-out in other contexts. The application facilitates efforts to monitor stock in transit to cooperating partners and the early detection of delayed deliveries so that timely follow-up can be undertaken with transporters. This reduces the risk of transport losses and stock diversion.

## **Mali**

32. A total of 50 mt of above-threshold losses of rice were recorded in Mali in 2020, equivalent to 38 percent of all rice handled in that year. Most of those losses stemmed from an attack by armed groups carried out while the stock was being transferred from Mopti to Gao along the Douentza-Timbuktu axis, where over 80 percent of losses in Central Mali occur. In accordance with established procedures, the transporters will reimburse WFP for the losses incurred, with the total value of the losses to be deducted from their invoices. In order to mitigate such risks in the future, commodity transfers from Mopti to Gao will be avoided while some commodities will be transferred directly from Lomé Port to the Gao suboffice. Furthermore, the country office has drawn up procedures whereby local purchases of commodities will be made in Gao, rather than in Mopti (with the commodities then being transported on to Gao).

## **Mozambique**

33. In Mozambique, above-threshold losses in 2020 amounted to 738 mt. Theft by armed attack and fires in partner warehouses were the main causes for the losses of maize in 2020, which amounted to 543 mt. Some losses were due to overlong storage of food in warehouses and inadequate transport.
34. Post-delivery above-threshold losses also included 195 mt of Super Cereal that was determined to contain high levels of fumonisin mycotoxins and was therefore deemed unfit for human consumption. In the light of that loss, a fumonisin specification test has been added to the mandatory list of laboratory commodity quality checks.
35. To minimize future losses, third-party warehouses managing WFP stocks are reminded on a regular basis to respect WFP's warehouse management standards and procedures. To promote compliance, WFP now maintains a regular staff presence at these warehouses.



36. Security assessments for all warehouses were conducted in collaboration with the United Nations Department of Safety and Security and country office security focal points. Recommendations regarding improvements to infrastructure are being followed up on. Those recommendations included changing all door locks, installing security cameras, carrying out a review of entry and exit procedures at warehouse facilities and hiring more warehouse security guards.
37. To reduce losses resulting from infestation and spoilage, the country office has signed a fumigation and pest control contract with a fumigation company, which carries out spraying and fogging exercises on the first day of every month in all warehouses. The company also undertakes weekly warehouse stock inspections.
38. The country office is monitoring the movement, storage and best-before dates of stocks in LESS in order to minimize food losses resulting from overlong storage and the expiration of best-before dates. Commodity age monitoring alerts and stock position reports are shared with warehouses on a weekly basis.

## Nicaragua

39. In Nicaragua, above-threshold losses of 304 mt of Super Cereal are attributable to an incident in 2019 that resulted in stock being put on hold and deemed unfit for human and animal consumption. Authorization for the disposal of the stock was received in 2020, and it was subsequently destroyed.

## Nigeria

40. Above-threshold losses for 2020 in Nigeria amounted to 189 mt of vegetable oil, of which 180 mt were confiscated by the Nigeria Customs Service in two separate incidents and held until the vegetable oil expired. The first incident occurred in February 2020, when five trucks transporting 150 mt of vegetable oil from the port were seized by customs authorities in Owerri while they were on their way to Maiduguri. The second incident took place in April 2020, when another truck carrying 30 mt of vegetable oil was seized by customs authorities in Owerri.
41. In March 2020, WFP contacted the Deputy Comptroller-General of the Nigeria Customs Service in Abuja to inform the Customs Service of the first incident. WFP provided the Service with a copy of the import duty exemption certificate that had been issued by the Federal Ministry of Finance and a copy of the waiver issued by the Office of the President of Nigeria. WFP subsequently met with the Comptroller-General of the Nigeria Customs Service, who informed WFP that the vegetable oil constituted "contraband" and that the Customs Service did not intend to release the detained trucks or the vegetable oil they had been transporting.
42. In May 2020, WFP sent a note verbale to the Minister of Humanitarian Affairs, Disaster Management and Social Development, in which the ministry's intervention to resolve the two incidents was requested with a view to facilitating WFP's ongoing efforts to provide necessary food assistance in Nigeria. However, despite WFP's repeated attempts to resolve the matter with Customs Service Headquarters, the customs authorities in Owerri and the Ministry of Humanitarian Affairs, Disaster Management and Social Development, neither the vegetable oil nor the trucks were returned to WFP.
43. In August 2020 WFP sent a note verbale to the Chief of Staff to the President of Nigeria, requesting the Chief of Staff's assistance in facilitating the return of WFP commodities so that they could be immediately distributed to those requiring humanitarian assistance. The Chief of Staff to the President then sent a note verbale to the Comptroller-General of the Nigeria Customs Service in which he urged the service to review WFP's request and provide an update.

44. WFP has followed up on this matter with the Customs Service multiple times. To date, however, no satisfactory response has been received. The only information so far provided by the Customs Service relates to a court order – which was not transmitted to WFP directly and whose origins and grounds remain unclear – advising that the 180 mt of vegetable oil belonging to WFP was distributed to other humanitarian agencies.

## **South Sudan**

45. In 2020, the South Sudan country office incurred above-threshold losses of 114 mt of rice, 1,636 mt of sorghum, 313 mt of split peas, 534 mt of Super Cereal, 207 mt of vegetable oil and 60 mt of nutrient supplements, amounting to total losses of 2,864 mt.
46. Many factors contributed to those losses in the context of the complex L3 emergency operation in the country. These included looting, theft, flooding, road blockages, commodities that were deemed to be of poor quality, transport challenges and limited capacity of cooperating partners.
47. Sorghum losses in the country were primarily caused by looting and quality issues at origin that were attributable to the supplier. Losses of Super Cereal related to stock that arrived in the country in July 2020 and was subsequently deemed unfit for human consumption. With regard to the other commodities, the main causes were theft, inadequate transport, poor handling, spillage, poor packaging quality and floods.
48. In the case of transport losses, the value is deducted from transporters' invoices. In the case of mishandling by cooperating partners, costs are recovered from those partners. To minimize future flood-related losses, cocoon storage is now being used. Regular refresher training courses, which have been moved online because of COVID-19-related restrictions, are conducted to strengthen the capacity of cooperating partners.
49. To prevent losses due to looting, the country office has launched an online warehouse risk mitigation tool. A weekly warehouse inspection report is also issued so that timely corrective measures can be taken at WFP warehouses.
50. Food safety and quality assurance teams at WFP headquarters and in South Sudan are strengthening the inspection of commodities throughout the entire delivery process, from suppliers to ports of transit to food distribution.
51. Where insecurity is the main challenge to WFP operations, WFP takes appropriate action in coordination with security and access units, which in turn work with local actors on the ground. No movement of stocks is allowed unless authorization is granted or an escort provided.

## **Sudan**

52. Above-threshold losses in the Sudan amounted to 415 mt of sorghum and 34 mt of Super Cereal. Those losses were due, primarily, to water contamination during transport, particularly during the rainy season, which occurred because transporters did not use adequate waterproof tarpaulins to cover their cargos. In accordance with established procedures, transport losses were recovered from transporters' invoices.
53. In general, inspections to determine the quantity and quality of commodities are carried out upon delivery. If anomalies are observed they are reported or flagged in the waybills and are subsequently captured in LESS.
54. The remaining post-delivery losses were caused by spillage during the handling of commodities because of poor stitching or rough surfaces in lorries that caused tears in the bags used in transit.

55. In order to reduce such losses, the Sudan country office compiles daily, weekly and monthly inspection reports, carries out regular morning meetings with contractors and has enhanced its supervision of bagging contractors.

### **Syrian Arab Republic**

56. In the Syrian Arab Republic, post-delivery losses of rice amounted to 222 mt. Most of those losses resulted from warehouse activities such as inappropriate repacking, rebagging and reconstitution and from weight variances of the commodity itself. Commodity transportation between WFP warehouses and the warehouses operated by cooperating partners contributed to further losses. In that regard, it should be noted that rice is initially transferred to WFP warehouses from a point of origin, such as the port, and, after kitting (where multiple items are combined into one package), is transferred to cooperating partner warehouses.
57. Losses occurring during production and transport are the responsibility, respectively, of service providers and transporters; the value of any lost commodities is therefore deducted from their invoices. WFP warehouse staff supervise the production process and they perform random checks on produced commodities and during inventory counts. WFP ensures that all commodities to be transported are loaded onto trucks and that each truck is sealed before leaving the warehouse.
58. Furthermore, innovative and automated modalities for repacking and rebagging are under consideration, with the aim of reducing human error.
59. Approximately 117 mt of the aforementioned losses occurred while the commodities were in the custody of cooperating partners, with theft accounting for 89 percent of those losses. The remaining losses were due to fire and other minor incidents of pilfering.
60. In order to avoid and mitigate such losses warehouse management training is generally conducted on a yearly basis for all cooperating partner warehouse staff. As a result of COVID-19-related restrictions, however, no training sessions could be conducted in 2020. As an alternative, oversight visits to the premises and warehouses of cooperating partners were conducted. In addition, manuals in Arabic on warehouse management were distributed to cooperating partners.

### **Uganda**

61. In 2020, the Uganda country office incurred above-threshold losses of 907 mt of maize. Of these, 301 mt were part of a loss that occurred in 2018/2019 but was only recorded in LESS in January 2020. The total affected quantity that was entered in LESS was 683 mt, of which around 382 mt was reported in 2019. In late 2018 and early 2019, during the South Sudan pre-positioning activity, a large quantity of food was stacked outdoors due to a shortage of indoor storage space. The commodity was subsequently damaged by rainwater and, despite attempts to dry it out, suffered significant discoloration and was hence deemed unfit for human consumption.
62. A loss of 312 mt of maize was recorded in a consignment of 8,900 mt of locally purchased maize that was delivered to the Kampala warehouse in early 2020: in June 2020, warehouse staff noticed that bags containing maize were heating up and called in inspectors. The maize was found to be significantly discoloured and contained mouldy and rotten grains. The inspectors concluded that most of the loss was due to a warehouse roof leak resulting from inadequate maintenance on the part of the lessor. The remaining losses were caused by problems at origin attributable to a supplier and weight discrepancies stemming from moisture content loss during storage.

63. Transport- and cooperating-partner-related losses have been recovered from transporters and partners, respectively. Training sessions on commodity management, accountability and quality control have been held for warehouse staff and cooperating partners. Moreover, standard operating procedures have been enforced through regular compliance checks. Storage capacity has been increased so that it is no longer necessary to store commodities outdoors. In addition, discussions are taking place with a view to recovering the value of the losses resulting from the warehouse roof leakage from the warehouse landlord.
64. A new food safety and quality post has been created in the country office. The creation of the post will help ensure that food procured meets WFP standards and enhance the guidance provided to suppliers, staff and cooperating partners on all matters related to food safety and quality.

## Yemen

65. In 2020, total above-threshold post-delivery losses in Yemen amounted to 7,882 mt. Some 80 percent of those losses were of wheat flour.
66. When WFP changed its cooperating partner in Hajjah, the local authorities subsequently prevented the distribution by the new cooperating partner of 1,972 m of wheat flour, 10 mt of lentils and 65 mt of ready-to-use supplementary food. After two months the commodities were returned by the cooperating partner, but were found to be heavily infested with pests. Although WFP fumigated the commodities, the local authorities insisted on their destruction.
67. WFP is taking steps to strengthen its coordination with local authorities and the Secretary-General of the Supreme Council for the Management and Coordination of Humanitarian Affairs and International Cooperation before selecting a new cooperating partner; back-up cooperating partners will be selected for emergency deployment. When a new cooperating partner is selected, WFP will make every effort to ensure that the handover and transition proceed smoothly.
68. WFP had traditionally provided white wheat flour to beneficiaries. However, due to a change in the extraction ratio, the colour of the wheat flour provided by WFP changed from white to light brown. The light brown flour was not accepted by beneficiaries and local authorities. As a result, most cooperating partners rejected the commodity and it was returned to WFP's warehouses in Aden. Although WFP shared the clearance certificate issued by the Yemen Standardization, Metrology and Quality Control Organization with cooperating partners and local authorities, they refused to accept the wheat flour, and trucks transporting it had no alternative but to return to the warehouses in Aden. Some trucks were detained at checkpoints for long periods on their return journey to Aden. As a result some of the flour became infested with pests while other stocks expired. Subsequently, the commodity was rejected in its total amount of 2,774 mt.
69. To avoid such losses in the future, the milling process extraction rate was reduced from 90 percent to 80–85 percent.
70. Damaged or discoloured vegetable oil, split peas and bean stocks that were deemed unfit for human consumption also resulted in losses. Wherever possible, WFP minimized food losses by segregating and inspecting damaged or infested commodities. With regard to nutrient supplements that were found to be discoloured and caked, the country office, working with the Operational Risk Mitigation Service and the Food Safety and Quality Assurance Unit, sent samples for confirmatory laboratory analysis in France and Italy. The results will help assess the likely cause of the discoloration and caking and prevent a recurrence of the same issues.

71. WFP implements nutrition activities in partnership with the Ministry of Public Health and Population, which regulates all nutrition interventions, and with non-governmental organizations. Between January and March 2019, during the initial stages of activity scale-up, WFP encountered delays in concluding field-level agreements. This in turn delayed implementation. Even once those agreements were signed a number of operational challenges arose. Those challenges stemmed primarily from a lack of transport capacity, which delayed the dispatch of commodities from warehouses. The problems encountered were further aggravated by cooperating partners' limited capacity to accept commodities, which resulted in some being returned to WFP warehouses in Aden. In June 2019, the Secretary-General of the Supreme Council for the Management and Coordination of Humanitarian Affairs and International Cooperation issued a directive requiring customs clearance for cargo moving from areas controlled by the internationally recognized government to areas controlled by the de facto authorities. The directive had the effect of doubling customs clearance procedures for WFP commodities, as shipments of those commodities were already cleared at their points of entry into the country at Aden and Shahan. In August 2019, the Ministry of Public Health and Population issued a directive to all international and national organizations prohibiting them from distributing food for malnutrition prevention and treatment with a shelf-life of less than four and six months, respectively. The directive carried out by the Supreme Council for the Management and Coordination of Humanitarian Affairs (SCMCHA) and the Yemen Ministry of Public Health (MOPHP) Aden meant that a large quantity of nutritional commodities could neither be distributed in the south of the country in the context of WFP nutrition programmes nor moved to the north because of the new customs procedures. This resulted in a total loss of 840 mt of nutrient supplements and vegetable oil.
72. To minimize such losses in the future, the country office has increased absorption capacity for nutritional commodities by allocating some as general food assistance for immediate distribution. The country office has, moreover, adopted a two-pipeline strategy for the north and the south of the country to prevent any further accumulation in Aden of stocks that cannot be consumed prior to their expiry dates. Lastly, commodity requirements have been more closely aligned with the ability of cooperating partners to accept stocks.
73. The remaining above-threshold post-delivery losses occurred as a result of the ongoing armed conflict, fire, transport challenges and water damage to commodities stored in warehouses.

## ANNEX II

## Global losses

2020 GLOBAL LOSSES REPORT - LOSSES BY COMMODITY			
Commodity	Commodity description	Sum of net mt	Sum of USD
CERBAR	Barley	7.550	2 034.26
CERMAZ	Maize	4 340.000	1 526 221.40
CERMML	Maize meal	584.087	370 830.00
CERPAS	Pasta	281.393	150 986.27
CERRIC	Rice	2 352.424	1 251 332.34
CERSOR	Sorghum/millet	7 633.455	2 552 936.04
CERWBG	Bulgur wheat	44.521	22 106.21
CERWHE	Wheat	1 836.832	514 101.79
CERWHF	Wheat flour	7 625.585	2 883 648.01
DAIDSP	Plain dried skimmed milk	3.992	12 611.72
DAIUHT	UHT milk	0.684	746.52
FRUDFR	Dried fruits	27.746	41 343.15
FSHCFI	Canned fish	1.478	7 431.01
MEACHK	Canned chicken	0.171	306.44
MIXBP5	BP5 emergency rations	10.892	39 954.69
MIXCSB	Corn soya blend	5 263.263	4 402 533.74
MIXHEB	High energy biscuits	57.869	88 425.88
MIXLNS	Lipid-based nutrition supplement (LNS)	493.654	1 212 875.49
MIXRSF	Ready-to-use supplementary food	207.443	551 934.97
MIXRTF	Ready-to-use therapeutic food	0.069	203.86
MIXWSB	Wheat soya blend	1 888.881	1 377 045.35
MSCHAL	Halawa	0.610	1 618.89
MSCMNP	Micronutrient powder	0.886	12 076.51
MSCSAL	Iodised salt	46.936	10 151.36
MSCSPC	Spices	0.053	70.09
MSCSUG	Sugar	530.652	239 991.94
MSCTOM	Processed tomato	0.106	-
MSCYEA	Yeast	1.247	2 712.77
OILOLV	Olive oil	0.029	76.67
OILVEG	Vegetable oil	1 657.645	2 090 009.00
PPFRTN	Rations	191.455	141 221.02
PULBEA	Beans	764.432	619 968.20
PULCKP	Chickpeas	519.106	325 237.44

<b>2020 GLOBAL LOSSES REPORT - LOSSES BY COMMODITY</b>			
<b>Commodity</b>	<b>Commodity description</b>	<b>Sum of net mt</b>	<b>Sum of USD</b>
PULCPU	Canned pulses	0.460	516.33
PULCVE	Canned vegetables	0.062	64.75
PULLEN	Lentils	751.308	416 980.43
PULPEA	Peas	182.317	102 420.43
PULSLN	Split lentils	898.869	569 611.01
PULSPE	Split peas	1 564.682	880 425.40
		<b>39 772.844</b>	<b>22 422 761.35</b>

## ANNEX III

2020 PRE-DELIVERY LOSSES REPORT - LOSSES BY COMMODITY				
Commodity	Commodity description	Pre-delivery losses (mt)	Pre-delivery losses (USD)	% losses (USD)
CERMAZ	Maize	2 149.551	704 527.70	7.92
CERMML	Maize meal	308.029	206 111.64	2.32
CERPAS	Pasta	258.777	140 015.46	1.57
CERRIC	Rice	951.003	498 192.39	5.60
CERSOR	Sorghum/millet	4 559.560	1 412 761.91	15.88
CERWBG	Bulgur wheat	2.891	1 476.79	0.02
CERWHE	Wheat	1 790.283	463 957.47	5.22
CERWHF	Wheat flour	1 021.026	381 878.67	4.29
DAIDSP	Plain dried skimmed milk	0.567	1 922.90	0.02
FRUDFR	Dried fruits	5.178	8 073.50	0.09
FSHCFI	Canned fish	0.870	4 401.58	0.05
MEACHK	Canned chicken	0.010	17.80	0.00
MIXBP5	BP5 emergency rations	0.073	281.46	0.00
MIXCSB	Corn soya blend	2 950.816	2 240 383.43	25.19
MIXHEB	High energy biscuits	7.396	10 831.53	0.12
MIXLNS	LNS	100.190	268 603.77	3.02
MIXRSF	Ready-to-use supplementary food	8.302	23 528.24	0.26
MIXWSB	Wheat soya blend	1.698	1 350.45	0.02
MSCMNP	Micronutrient powder	0.010	156.10	0.00
MSCSAL	Iodised salt	2.024	389.48	0.00
MSCSUG	Sugar	286.879	128 386.09	1.44
MSCYEA	Yeast	0.304	652.88	0.01
OILVEG	Vegetable oil	533.978	624 194.19	7.02
PPFRTN	Rations	14.049	7 165.12	0.08
PULBEA	Beans	247.696	193 807.99	2.18
PULCKP	Chickpeas	451.613	284 145.12	3.19
PULCPU	Canned pulses	0.002	2.26	0.00
PULCVE	Canned vegetables	0.001	1.03	0.00
PULLEN	Lentils	605.390	335 750.10	3.77
PULPEA	Peas	47.786	27 744.56	0.31
PULSLN	Split lentils	846.012	534 623.20	6.01
PULSPE	Split peas	746.102	390 330.40	4.39
<b>Grand total</b>		<b>17 898.066</b>	<b>8 895 665.21</b>	



**ANNEX IV**

<b>2020 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	2 872.240	1 993 895.71
Deterioration of packaging materials	4.176	2 800.48
Flooding and other natural disasters	589.172	357 077.85
Improper/overlong storage	1 236.632	473 526.10
Inadequate transport	8 462.464	4 439 396.23
Loss due to fire	18.150	7 608.01
Loss due to sampling food analysis	70.455	44 649.03
Loss during civil strife	1.320	567.17
Pilferage/theft	10.456	3 802.91
Poor handling	111.297	58 990.49
Processing/transformation of commodity	75.117	55 743.61
Reconstitution/rebagging/repacking	4 051.020	1 339 521.55
Short-delivered	222.964	70 709.56
Short-landed	170.753	46 534.72
Variance in weight	1.850	841.79
<b>Grand total</b>	<b>17 898.066</b>	<b>8 895 665.21</b>

## ANNEX V

2020 POST-DELIVERY LOSS REPORT - LOSSES BY REASON		
Reason for Loss	Post-delivery losses (USD)	% of total loss
Attack by termites	12 610.29	0.09
Broken during loading	6 925.45	0.05
Deterioration of food commodities mainly attributable to problems at origin	1 490 349.54	11.02
Deterioration of packaging materials	24 381.80	0.18
Flooding and other natural disasters	167 883.86	1.24
Improper/overlong storage	2 588 929.71	19.14
Inadequate transport	1 554 214.46	11.49
Infestation	109 651.21	0.81
Loss due to fire	250 810.97	1.85
Loss due to over-scooping	20 649.50	0.15
Loss due to sampling food analysis	73 699.35	0.54
Loss during civil strife	499 027.13	3.69
Pilferage/theft	918 409.22	6.79
Poor handling	517 437.37	3.83
Processing / transformation of commodity	4 381.40	0.03
Reconstitution/rebagging/repacking	5 072 621.01	37.50
Short-delivered	32 005.08	0.24
Unauthorized distribution	121 959.09	0.90
Variance in weight	38 996.45	0.29
Wet bags	1 812.73	0.01
Wet by gasoil	1 142.53	0.01
Wet by oil	2.97	0.00
Wet by water	19 195.00	0.14
<b>Grand total</b>	<b>13 527 096.14</b>	

## ANNEX VI

2020 POST-DELIVERY LOSS REPORT								
Quantities and values by region								
Region	2020 Opening stock		Received in recipient country		Total handled		Post-delivery losses	
	Quantity (mt)	Value (USD)	Quantity (mt)	Value (USD)	Quantity (mt)	Value (USD)	Quantity (mt)	Value (USD)
<b>RBB</b>	42 315	29 957 946	275 883	156 399 507	318 198	186 357 452	1 479	1 050 948
<b>RBC</b>	450 730	223 131 711	2 244 721	1 017 929 802	2 695 451	1 241 061 512	9 984	5 516 227
<b>RBD</b>	79 870	59 869 591	511 172	285 763 928	591 042	345 633 520	2 055	1 658 883
<b>RBJ</b>	80 763	60 118 128	529 008	263 718 405	609 771	323 836 533	2 687	1 781 674
<b>RBN</b>	265 709	145 150 944	1 130 044	530 262 479	1 395 753	675 413 423	4 865	2 937 738
<b>RBP</b>	11 115	8 493 617	44 926	39 946 695	56 040	48 440 312	804	581 625
<b>Grand total</b>	<b>930 502</b>	<b>526 721 938</b>	<b>4 735 754</b>	<b>2 294 020 815</b>	<b>5 666 255</b>	<b>2 820 742 753</b>	<b>21 875</b>	<b>13 527 096</b>

RBB = Regional Bureau for Asia and the Pacific; RBC = Regional Bureau for the Middle East and Northern Africa; 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

2020 POST-DELIVERY LOSS REPORT - LOSSES BY COMMODITY				
Commodity	Commodity description	Total handled (USD)	Post-delivery losses (USD)	Losses in USD as % of total handled
CERBAR	Barley	1 086 137.33	2 034.26	0.19
CERBHW	Buckwheat	5 707.76	-	0.00
CERMAZ	Maize	134 543 406.59	821 693.70	0.61
CERMML	Maize meal	86 548 242.39	164 718.36	0.19
CERPAS	Pasta	3 065 696.08	10 970.81	0.36
CERRIC	Rice	206 882 311.83	753 139.95	0.36
CERSOR	Sorghum/millet	312 571 071.40	1 140 174.13	0.36
CERWBG	Bulgur wheat	29 100 489.70	20 629.42	0.07
CERWHE	Wheat	144 432 828.07	50 144.32	0.03
CERWHF	Wheat flour	405 668 513.67	2 501 769.34	0.62
DAIDSP	Plain dried skimmed milk	4 361 787.44	10 688.82	0.25
DAIUHT	UHT milk	1 374 006.25	746.52	0.05
FRUDFR	Dried fruits	5 958 334.94	33 269.65	0.56
FSHCFI	Canned fish	15 882 579.77	3 029.43	0.02
MEABEF	Canned beef	416 395.83	-	0.00
MEACHK	Canned chicken	297 802.71	288.64	0.10
MIXBIS	Biscuits	64 887.58	-	0.00
MIXBP5	BP5 emergency rations	292 124.29	39 673.23	13.58
MIXCSB	Corn soya blend	229 006 135.05	2 162 150.31	0.94
MIXHEB	High energy biscuits	56 079 370.94	77 594.35	0.14
MIXLNS	LNS	204 579 915.01	944 271.72	0.46
MIXPWB	Pea wheat blend	419 897.68	-	0.00
MIXRSF	Ready-to-use supplementary food	45 026 549.57	528 406.73	1.17
MIXRTF	Ready-to-use therapeutic food	207 106.87	203.86	0.10
MIXWSB	Wheat soya blend	48 780 467.22	1 375 694.90	2.82
MIXWSF	Wheat soy flour	90 505.00	-	0.00
MSCHAL	Halawa	3 142.81	1 618.89	51.51
MSCMNP	Micronutrient powder	1 130 294.74	11 920.41	1.05
MSCSAL	Iodised salt	3 944 730.25	9 761.88	0.25
MSCSPC	Spices	10 480.52	70.09	0.67
MSCSUG	Sugar	18 268 391.04	111 605.85	0.61
MSCTOM	Processed tomato	3 038.74	-	0.00

<b>2020 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>
MSCYEA	Yeast	849 889.67	2 059.89	0.24
OIOLV	Olive oil	99 621.28	76.67	0.08
OILVEG	Vegetable oil	378 905 341.34	1 465 814.81	0.39
PPFRTN	Rations	186 772 519.10	134 055.90	0.07
PULBEA	Beans	100 320 948.92	426 160.21	0.42
PULCKP	Chickpeas	10 512 812.73	41 092.32	0.39
PULCPU	Canned pulses	516 413.08	514.07	0.10
PULCVE	Canned vegetables	68 341.61	63.72	0.09
PULLEN	Lentils	41 952 519.14	81 230.33	0.19
PULPEA	Peas	36 777 714.79	74 675.87	0.20
PULSLN	Split lentils	2 785 558.51	34 987.81	1.26
PULSPE	Split peas	100 190 082.04	490 095.00	0.49
TUBCAF	Cassava flour	23 400.00	-	0.00
TUBFRS	Tubers - fresh	865 241.24	-	0.00
<b>Grand total</b>		<b>2 820 742 752.51</b>	<b>13 527 096.14</b>	<b>0.48</b>

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

## ANNEX VIII

2020 POST-DELIVERY LOSS REPORT						
Quantities and values by recipient country						
Region	Recipient country	Total handled		Post-delivery losses		% losses USD vs. total handled USD
		mt	USD	mt	USD	
RBB	Afghanistan	136 884.5	74 001 496	1 421.6	1 003 432	1.36
	Bangladesh	77 120.7	49 836 691	9.3	9 140	0.02
	Cambodia	6 080.5	4 950 692	10.6	5 259	0.11
	DPR Korea	11 797.7	6 322 212	-	0	0.00
	Lao PDR	4 040.1	3 836 638	4.3	3 927	0.10
	Myanmar	42 939.8	19 590 990	30.2	26 447	0.13
	Nepal	5 843.8	4 448 330	2.7	1 979	0.04
	Pakistan	33 310.4	22 798 594	0.7	764	0.00
	Philippines	23.9	16 404	-	0	0.00
	Sri Lanka	157.1	555 404	-	0	0.00
<b>RBB total</b>		<b>318 198.3</b>	<b>186 357 452.2</b>	<b>1 479.4</b>	<b>1 050 948.0</b>	<b>0.56</b>
RBC	Algeria	31 476.7	12 300 887	32.0	19 906	0.16
	Armenia	2 512.2	1 922 997	-	0	0.00
	Egypt	14.2	29 309	-	0	0.00
	Iran (Islamic Rep. of)	5 566.9	2 536 976	21.5	6 180	0.24
	Iraq	5 073.9	2 642 799	2.8	1 440	0.05
	Jordan	1 860.1	2 737 513	7.0	9 821	0.36
	Kyrgyzstan	7 867.8	4 177 604	2.4	835	0.02
	Lebanon	16 637.3	6 874 638	13.7	5 333	0.08
	Libya	12 278.6	9 032 769	35.5	21 276	0.24
	State of Palestine	9 029.6	6 218 690	0.5	327	0.01
	Sudan	597 184.5	202 712 119	590.0	286 449	0.14
	Syrian Arab Republic	701 672.2	396 772 463	856.2	518 182	0.13
	Tajikistan	8 045.1	3 901 455	0.4	214	0.01
Yemen	1 296 231.6	589 201 292	8 422.3	4 646 266	0.79	
<b>RBC total</b>		<b>2 695 450.9</b>	<b>1 241 061 512.3</b>	<b>9 984.4</b>	<b>5 516 227.4</b>	<b>0.44</b>
RBD	Benin	20 448.7	8 475 887	43.7	23 273	0.27
	Burkina Faso	108 729.5	53 206 082	319.9	251 359	0.47
	Cameroon	59 913.9	29 627 019	647.5	279 977	0.95

2020 POST-DELIVERY LOSS REPORT						
Quantities and values by recipient country						
Region	Recipient country	Total handled		Post-delivery losses		% losses USD vs. total handled USD
		mt	USD	mt	USD	
	Central African Republic	43 931.6	29 838 740	231.9	241 184	0.81
	Chad	94 636.3	54 759 439	194.1	200 598	0.37
	Côte d'Ivoire	7 526.3	4 539 269	0.4	274	0.01
	Gambia	1 143.8	623 244	0.0	2	0.00
	Guinea	8 637.0	5 537 356	70.0	40 988	0.74
	Guinea-Bissau	2 638.4	3 094 267	0.3	318	0.01
	Liberia	29 258.9	15 011 819	15.3	8 394	0.06
	Mali	11 539.7	9 971 847	119.6	87 374	0.88
	Mauritania	7 844.5	4 393 980	3.1	2 366	0.05
	Niger	84 758.1	56 119 882	24.8	14 213	0.03
	Nigeria	100 599.0	65 552 273	360.9	497 960	0.76
	Senegal	211.0	513 836	0.0	81	0.02
	Sierra Leone	9 051.2	4 262 324	23.2	10 521	0.25
	Togo	174.0	106 256	-	0	0.00
<b>RBD total</b>		<b>591 041.8</b>	<b>345 633 519.6</b>	<b>2 054.7</b>	<b>1 658 883.2</b>	<b>0.48</b>
RBJ	Angola	1 180.1	442 484	4.5	3 578	0.81
	Congo (the)	12 096.5	9 046 374	218.1	108 502	1.20
	Dem. Rep. of the Congo	101 195.2	86 220 555	1 098.7	939 410	1.09
	Lesotho	4 220.3	3 514 922	7.2	6 779	0.19
	Madagascar	28 136.3	14 510 007	43.6	30 669	0.21
	Malawi	7 889.8	4 958 203	156.0	47 616	0.96
	Mozambique	50 926.7	31 628 708	965.7	549 530	1.74
	Namibia	13 812.5	7 643 428	-	0	0.00
	Swaziland	4 993.7	2 583 658	0.2	100	0.00
	United-Republic of Tanzania	59 639.9	26 537 096	105.4	51 439	0.19
	Zambia	6 877.1	4 086 932	1.7	1 105	0.03
	Zimbabwe	318 802.6	132 664 165	86.0	42 946	0.03
<b>RBJ total</b>		<b>609 770.6</b>	<b>323 836 533.2</b>	<b>2 687.1</b>	<b>1 781 674.3</b>	<b>0.55</b>
RBN	Burundi	33 871.0	24 597 727	15.9	15 371	0.06
	Djibouti	10 227.7	5 088 949	8.4	8 373	0.16
	Ethiopia	666 696.0	257 252 671	463.4	294 342	0.11

2020 POST-DELIVERY LOSS REPORT						
Quantities and values by recipient country						
Region	Recipient country	Total handled		Post-delivery losses		% losses USD vs. total handled USD
		mt	USD	mt	USD	
	Kenya	73 733.9	42 657 094	63.1	25 862	0.06
	Rwanda	6 952.3	4 968 930	0.9	772	0.02
	Somalia	126 446.0	93 640 519	50.4	62 048	0.07
	South Sudan	346 666.7	188 282 955	3 143.2	2 099 192	1.11
	Uganda	131 159.7	58 924 579	1 119.6	431 777	0.73
<b>RBN total</b>		<b>1 395 753</b>	<b>675 413 423</b>	<b>4 865</b>	<b>2 937 738</b>	<b>0.43</b>
RBP	Bahamas	8.0	64 493	-	0	0.00
	Colombia	12 291.3	15 699 180	5.5	5 934	0.04
	Cuba	3 097.1	2 828 417	0.1	119	0.00
	Dominican Republic	1 185.9	864 742	47.3	25 126	2.91
	Guatemala	497.0	528 045	-	0	0.00
	Haiti	17 384.1	10 439 323	295.7	154 666	1.48
	Honduras	14 302.5	11 681 319	149.0	81 805	0.70
	Nicaragua	7 274.5	6 334 794	306.9	313 974	4.96
<b>RBP total</b>		<b>56 040</b>	<b>48 440 312</b>	<b>804</b>	<b>581 625</b>	<b>1.20</b>
<b>Grand total</b>		<b>5 666 255.4</b>	<b>2 820 742 752.5</b>	<b>21 874.8</b>	<b>13 527 096.1</b>	<b>0.48</b>

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



## ANNEX IX

2020 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 (mt)	Total handled (USD)	Post-delivery losses (mt)	Post-delivery losses (USD)	% losses (mt) vs. total handled
RBB	Afghanistan	AF01	AF01.02.031.NPA1	MIXWSB	7 662.93	5 425 033.58	1 315.62	952 472.11	17.17
RBD	Burkina Faso	BF02	BF02.04.041.ACL1	OILVEG	230.28	378 148.19	26.05	34 183.55	11.31
RBJ	Dem. Rep. of the Congo	CD01	CD01.01.011.URT2	CERRIC	2 564.97	2 000 148.44	296.23	237 107.64	11.55
RBJ	Dem. Rep. of the Congo	CD01	CD01.02.021.NPA1	MIXCSB	5 377.89	3 887 153.26	297.13	246 837.67	5.53
RBJ	Dem. Rep. of the Congo	CD01	CD01.02.021.NTA1	MIXCSB	4 059.46	2 901 599.98	265.45	230 566.23	6.54
RBD	Central African Republic	CF01	CF01.01.011.URT1	MIXBP5	62.55	219 869.29	8.40	32 416.23	13.43
RBD	Central African Republic	CF01	CF01.01.011.URT1	MIXCSB	2 426.57	1 651 237.02	77.02	70 114.59	3.17
RBD	Central African Republic	CF01	CF01.02.021.NPA1	MIXCSB	63.52	81 578.68	22.17	28 517.70	34.90
RBJ	Congo	CG01	CG01.01.011.URT1	CERRIC	4 732.73	2 668 638.42	203.77	96 384.48	4.31
RBD	Cameroon	CM01	CM01.01.011.URT1	CERSOR	9 571.95	3 313 197.73	426.45	159 586.06	4.46
RBP	Dominican Republic	DO02	DO02.02.021.CSI1	MIXCSB	1 130.50	739 345.52	47.32	25 126.22	4.19
RBD	Guinea	GN02	GN02.01.021.URT1	CERRIC	1 465.65	844 096.34	36.65	21 107.47	2.50
RBP	Honduras	HN01	HN01.02.021.NPA1	MIXCSB	1 222.80	1 056 184.25	130.86	70 856.76	10.70
RBP	Haiti	HT02	HT02.01.021.SMP1	CERMAZ	250.00	124 237.50	250.00	124 237.02	100.00
RBD	Mali	ML02	ML02.01.021.SMP1	CERRIC	131.20	69 310.89	49.85	26 819.63	38.00
RBJ	Malawi	MW01	MW01.01.011.URT1	CERMAZ	1 546.45	447 693.33	148.73	43 422.13	9.62
RBJ	Mozambique	MZ01	MZ01.01.021.URT1	CERMAZ	22 502.48	8 492 950.54	543.04	186 947.16	2.41

2020 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 (mt)	Total handled (USD)	Post-delivery losses (mt)	Post-delivery losses (USD)	% losses (mt) vs. total handled
RBJ	Mozambique	MZ01	MZ01.01.021.URT1	MIXCSB	2 940.81	1 818 239.18	195.01	128 308.21	6.63
RBD	Nigeria	NG01	NG01.01.011.NPA1	OILVEG	918.54	1 471 349.33	70.63	139 767.24	7.69
RBD	Nigeria	NG01	NG01.01.011.URT1	OILVEG	4 869.76	6 500 691.81	117.90	234 993.17	2.42
RBP	Nicaragua	NI02	NI02.01.011.SMP1	MIXCSB	1 100.58	858 672.26	303.84	311 384.34	27.61
RBC	Sudan	SD02	SD02.01.011.URT1	CERSOR	279 311.73	69 909 838.29	415.01	108 407.77	0.15
RBC	Sudan	SD02	SD02.01.011.URT1	MIXCSB	33.98	37 590.20	33.98	37 590.20	100.00
RBN	South Sudan	SS01	SS01.01.011.URT1	CERRIC	1 479.20	1 351 515.46	114.12	22 985.96	7.72
RBN	South Sudan	SS01	SS01.01.011.URT1	CERSOR	189 254.52	69 816 324.07	1 636.08	668 845.54	0.86
RBN	South Sudan	SS01	SS01.01.011.URT1	OILVEG	13 730.58	15 695 164.36	206.97	243 759.47	1.51
RBN	South Sudan	SS01	SS01.01.011.URT1	PULSPE	16 693.70	9 039 775.79	312.66	195 966.80	1.87
RBN	South Sudan	SS01	SS01.02.021.NTA1	MIXCSB	20 618.79	23 129 526.32	533.67	623 698.67	2.59
RBN	South Sudan	SS01	SS01.02.021.NTA1	MIXLNS	9 585.69	23 869 317.57	50.81	137 368.42	0.53
RBN	South Sudan	SS01	SS01.02.021.NTA1	MIXRSF	398.58	1 099 677.03	9.79	29 338.59	2.46
RBC	Syrian Arab Republic	SY02	SY02.01.011.URT1	CERRIC	52 611.06	23 323 953.96	221.56	113 133.95	0.42
RBD	Chad	TD01	TD01.01.011.URT1	PULBEA	2 912.57	1 442 768.34	58.25	47 603.05	2.00
RBN	Uganda	UG01	UG01.01.011.URT1	CERMAZ	70 708.33	22 417 658.71	906.53	306 746.17	1.28
RBC	Yemen	201068	201068.F.1	CERWHF	88.85	44 185.97	67.38	36 640.75	75.83
RBC	Yemen	201068	201068.F.1	OILVEG	114.33	101 158.14	113.46	100 671.33	99.24
RBC	Yemen	201068	201068.F.1	PPFRTN	56.46	133 202.24	12.22	28 143.10	21.65

2020 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 ( <i>mt</i> )	Total handled ( <i>USD</i> )	Post-delivery losses ( <i>mt</i> )	Post-delivery losses ( <i>USD</i> )	% losses ( <i>mt</i> ) vs. total handled
RBC	Yemen	201068	201068.F.1	PULSPE	320.87	165 630.18	68.08	33 582.93	21.22
RBC	Yemen	YE01	YE01.01.011.URT1	CERWHF	905 263.19	286 865 464.60	6 279.58	2 371 908.63	0.69
RBC	Yemen	YE01	YE01.01.011.URT1	MIXLNS	9.67	23 860.19	9.67	23 860.19	100.00
RBC	Yemen	YE01	YE01.01.011.URT1	MIXWSB	68.13	46 525.67	68.13	46 525.67	100.00
RBC	Yemen	YE01	YE01.01.011.URT1	OILVEG	96 727.02	111 043 021.44	121.44	130 374.34	0.13
RBC	Yemen	YE01	YE01.01.011.URT1	PULBEA	36 033.75	37 027 392.88	166.55	177 066.90	0.46
RBC	Yemen	YE01	YE01.01.011.URT1	PULLEN	2 261.68	1 274 404.73	65.17	32 792.53	2.88
RBC	Yemen	YE01	YE01.01.011.URT1	PULSPE	63.26	26 518.50	43.38	20 781.34	68.58
RBC	Yemen	YE01	YE01.02.021.NTA1	MIXLNS	17 976.66	39 621 494.34	252.07	584 713.74	1.40
RBC	Yemen	YE01	YE01.02.021.NTA1	MIXRSF	160.36	412 999.41	160.36	412 999.41	100.00
RBC	Yemen	YE01	YE01.02.021.NTA1	MIXWSB	32 871.68	24 992 745.27	454.93	342 553.20	1.38

Total handled = opening stocks plus food received in-country

**ANNEX X**

<b>POST-DELIVERY LOSSES 2008-2020</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