

Ready-to-Use Therapeutic Food: Market and Supply Update

UNICEF Supply Division

May 2023



Ready-to-Use Therapeutic Food - Current Outlook May 2023

This update provides information on ready-to-use therapeutic food demand and access to supply globally. It highlights the factors that have increased the rates of severe wasting and a surge in the demand for ready-to-use therapeutic food. UNICEF procures an estimated 75-80 per cent of global funded demand for RUTF annually. However, despite UNICEF's increase in procurement, 50-75 per cent of children suffering from severe wasting do not have access to treatment.

1. Summary

- Most ready-to-use therapeutic food (RUTF) is used in emergency response. UNICEF procures an estimated 75-80 per cent of the global demand for RUTF, averaging 50,000 metric tons (MT) per year over the last four years, suitable to treat an estimated 3.6 million children.¹ During 2022 UNICEF placed orders for 121,000 MT of RUTF, about half of that volume was placed in Q4 2022 due to the timing of availability of funding. The deliveries were meant to cover 2022 and partly 2023 demand. The industry production output could reach 68,700 MT of deliveries in 2022 calendar year, an increase of 37% on prior average annual volumes, suitable to treat up to 4.8 million children. UNICEF anticipates a similar level of demand in 2023, albeit with increased industry production levels. Other procurers like USAID source an additional five to ten per cent. However, despite these high volumes, it will not be sufficient to treat the current global estimated 13.6 million children suffering from severe wasting as a significant share of these children do not have access to treatment and mostly reside in non-humanitarian contexts, which get less attention.²
- UNICEF's RUTF supplier base has expanded substantially over the past two decades, reaching 21 different suppliers, of which 18 are located in countries with high levels of severe wasting. This resulted in global RUTF production capacity exceeding that of global funded demand. However, prior to 2022, manufacturers had only been producing at 50 per cent of their installed capacity, and RUTF supply was not sufficient to respond to the surge in funded demand in 2022.
- UNICEF's response to malnutrition during COVID-19 greatly benefitted from its local sources of supply in regions closer to the needs. The pandemic did not have an immediate impact on the RUTF industry's ability to respond to the needs, as RUTF manufacturers were often exempt from closure and lockdowns as they were considered an essential business. However, they were still constrained by the supply of raw materials and issues affecting global transport and logistics. Nevertheless, UNICEF anticipates continued economic pressures, and the current consequence of current affairs to increase malnutrition rates and strain routine health and nutrition services.^{3, 4}
- Despite the weighted average price (WAP) for RUTF having decreased by 28 per cent over the past twelve years, recent commodity price increases for ingredients and packaging materials used in RUTF production, combined with the higher cost of energy and freight, have resulted in an increase of WAP by nine per cent as of December 2022, in comparison to the previous year. Nevertheless, suppliers in concert with UNICEF have overall limited the increases in line with global trends for food inflation and raw materials costs.
- The WAP for RUTF procurement from programme countries (based in Africa and Asia) are now comparatively significantly lower than that from suppliers producing RUTF in non-programme countries. The WAP for RUTF produced in Europe is now 13 per cent higher than Asia, and 7 per cent higher than Africa, reflecting the efficiency gains achieved through several years of consistent and increasing support UNICEF and partners have given to encourage the local production of RUTF. UNICEF expects the current trend to continue through 2023 and beyond, as the production by manufacturers in Africa reaches higher economies of scale.
- The interest in non-peanut based RUTF is increasing, particularly from countries where peanuts are not a staple food in local diets. To increase the treatment of severely wasted children that have not had access to treatment, UNICEF encourages access to alternative RUTF formulations, which will be assessed for their suitability and the management of severe wasting following the updated guidelines from WHO to support their use in programmes.
- UNICEF has long-term arrangements (LTAs) with 21 manufacturers for the procurement and supply of RUTF are valid up to December 2023. UNICEF will issue a new tender in 2023 to establish new LTAs for supply starting in 2024 and beyond.

¹ One MT contains 72 cartons of RUTF. One carton (92gr. x 150 sachets) is sufficient to treat one child with 10-15 kg of RUTF over 6-8 weeks.

² UNICEF, World Health Organization, and the World Bank, [Levels and trends in child malnutrition: UNICEF/WHO/The World Bank Group joint child malnutrition estimates: key findings](#), WHO, Geneva, April 2021, p. 9.

³ UNICEF, [Severe wasting: An overlooked child survival emergency](#), UNICEF, New York, May 2022, p. 6

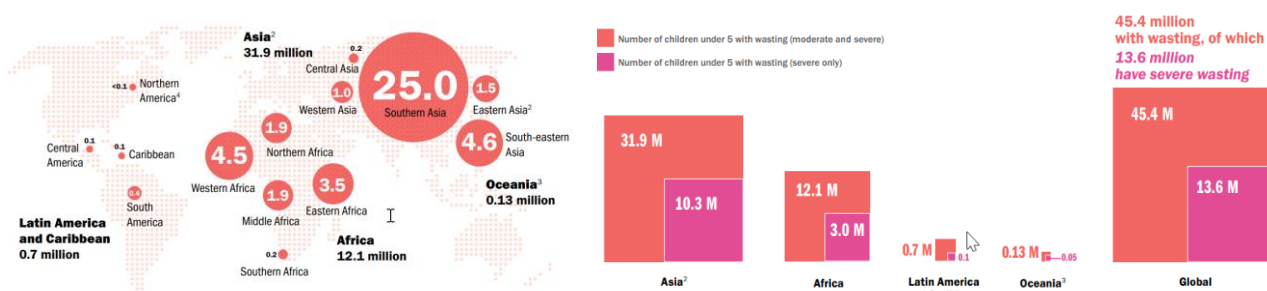
⁴ UNICEF, [Impacts of COVID-19 on Childhood Malnutrition and Nutrition Related Mortality](#) UNICEF, New York, July 2020.

2. Brief Background

There should not be any children suffering from acute malnutrition. Nevertheless, an estimated 45.4 million children under-five still suffer from wasting,⁵ globally,⁶ of which more than two thirds live in South Asia, and more than a quarter live in Africa (Figure 1).⁷

Of these, 13.6 million children suffer from its extreme form, severe wasting, and require specialised therapeutic feeding care, and an estimated one million children die annually as a consequence of wasting.⁸ Severe infectious diseases such as tuberculosis, diarrhoea, and measles, as well as sudden onset food insecurity, are among the leading causes of severe wasting.⁹

Figure 1 Estimated Cases of Wasting Globally 2021



Note: Out of the 13.6 million children affected by severe wasting, approximately half to two thirds remain untreated

Source: UNICEF, WHO, World Bank: <https://www.who.int/publications/i/item/9789240025257>

Note: More than three quarters of all children suffering from severe wasting live in Asia.

The situation is further compounded by the current ongoing conflicts and climate-related emergencies, in addition to the pandemic's economic impact on countries, which has increased these numbers, and many countries being reliant on exports from countries like Ukraine and Russia.¹⁰

Wasting is not only increasing in countries facing humanitarian crises, but also from across a variety of regions, including some of those that have been in relatively stable situations, which have seen an increase in child wasting by more than 40 per cent. In Uganda, child wasting has increased by approximately 60 per cent since 2016. Yet, even relatively small additional investments in the treatment of severe wasting could lead to exponential reductions in child deaths.¹¹

The Sustainable Development Goals (SDGs), adopted by the UN General Assembly in September 2015, seek to end all forms of malnutrition by 2030. The World Health Assembly (WHA) set a target to bring childhood wasting below five per cent and reduce stunting by 40 per cent by 2025. To achieve this, it will require the rapid expansion in both the reach and coverage of targeted feeding programmes, notably community-based management of acute malnutrition (CMAM), and the use of RUTF. The World Bank estimates nutrition interventions could save up to 3.7 million child lives and result in 65 million fewer stunted children, compared to a 2015 baseline, should programmes reach their targets by 2025.¹²

UNICEF's strategic plan 2022-2025, Goal Area 1,¹³ is to ensure that every child survives and thrives, with access to nutritious diets. The development of RUTF, combined with the adoption of community-based management and treatment of wasting, has greatly increased the effectiveness and efficiency of therapeutic feeding care. It also enabled programmes to increase their access and coverage of populations in need. UNICEF procures RUTF for country programmes and partners in two forms:

⁵ The term 'wasting' in this document incorporates severe acute malnutrition (SAM), which includes severe wasting, also known as marasmus, kwashiorkor, and marasmus kwashiorkor, with and without the presence of oedema; as well as moderate acute malnutrition (MAM).

⁶ UNICEF, World Health Organization, and the World Bank, [Levels and Trends in Child Malnutrition. UNICEF/WHO/The World Bank Group Joint Child Malnutrition Estimates](#), WHO, Geneva, April 2021, p. 9.

⁷ Ibid., p. 7.

⁸ UNICEF, the World Health Organization, the World Food Programme, the United Nations System Standing Committee on Nutrition, [Community-based Management of Severe Acute Malnutrition: A Joint Statement by WHO, WFP, the UN System Standing Committee on Nutrition, and UNICEF](#), WHO, Geneva, May 2007, p. 2.

⁹ Action Against Hunger, [Underlying Causes of Malnutrition](#), Action Against Hunger, Toronto, 2016.

¹⁰ World Food Programme, [A Global Food Crisis](#), WFP, Rome, 2023.

¹¹ UNICEF, [Child Alert: Severe Wasting](#), UNICEF, New York, May 2022.

¹² The World Bank, [Investing in Nutrition, the Foundation for Development](#), the World Bank, Washington, 2016.

¹³ UNICEF, [Strategic Plan 2022-2025. Renewed Ambition Towards 2030](#), UNICEF, New York, October 2021.

- RUTF paste: A lipid-based energy dense, micronutrient paste, using a mixture of peanuts, sugar, oil, and milk powder, suitable for children between the ages of 6-59 months.¹⁴
- RUTF biscuits: An energy dense, nutrient-fortified wheat and oat bar suitable for older children.

UNICEF procures other related nutrition products including [therapeutic milk](#) (F-75, F-100),¹⁵ [multiple micronutrient powder \(MNP\)](#),¹⁶ [vitamin A supplementation](#),¹⁷ and a complex of minerals and vitamins (CMV), which are not described in this note.

3. Innovation

Currently all RUTF procured by UNICEF is based on peanuts, sugar, milk powder (providing 50 per cent of the proteins), oil, vitamins, and minerals. It complies with the Joint Statement,¹⁸ issued in 2007 by the World Health Organization (WHO), the World Food Programme (WFP), UNICEF, and the United Nations System Standing Committee on Nutrition (UNSSCN), which endorsed CMAM. Since 2015, UNICEF has requested manufacturers to propose products based on using alternative ingredients for review and future consideration, including non-peanut-based ingredients or alternatives to milk. Not only may alternative ingredients generate cost savings in producing RUTF, but non-peanut recipes may also increase acceptability in many countries where peanut-based products are not a staple food and are relatively foreign compared to other foods. Some alternative RUTFs use different legumes and cereals instead of peanuts (typically, soy, chickpea, flour, lentils, or oats). These formulations are known and referred to under the category of “*renovation*” products, as they represent a step change in the ingredients used in RUTF, and still complied to the Joint Statement Technical annex compositional guideline.¹⁹ They have the same nutrient composition, similar texture, and shelf life compared to peanut-based paste, and they can be produced using the existing manufacturing facilities.

Out of the selection of alternative RUTF products offered to UNICEF in its 2018 tender, UNICEF prioritized the soy and chickpea variants for acceptability trialling over the next three to four years. These two ingredients were the most commonly represented products offered in the tender and were predicted to deliver cost savings of around three-five per cent.

Other pipeline products, categorized as “*novel*” products, are new RUTF formulations that replace milk protein with other protein sources. They may also include other formula deviations such as increased iron and vitamin C, or novel ingredients such as green banana powder,²⁰ compared to the standard composition. Some manufacturers have also formulated products that fall into the “*innovation*” category, which use alternative sources of protein to milk in formulations that may be more culturally adapted and increase local acceptance. These include using different animal sourced proteins such as fish or egg powder. Both the “*novel*” and “*innovation*” product categories require efficacy trials and considerable investment before being considered for scale-up into CMAM programmes, as they do not comply with WHO’s recommendations for milk protein content and the recently approved RUTF codex guideline. The procurement of these alternative formulations will be subject to an assessment of their suitability for the management of severe wasting following the updated guidelines from WHO to support their use in programmes.

4. Regulation and Guideline updates

The Codex Alimentarius Commission adopted on the 1st of November 2022 the codex guidelines for RUTF.²¹ The guidelines stipulate the nutritional, food safety, and contextual use of RUTF and contains several important updates to the now superseded UN Joint statement ‘Technical annex’. The guidelines provide a framework for new formulae made from seeds, cereals, and legumes that could be sourced locally or regionally.²² The codex also provides a tool for

¹⁴ Lipids are a class of organic compounds, such as fatty acids or derivatives, and include natural oils that are insoluble in water but soluble in organic solvents.

¹⁵ UNICEF, [Therapeutic Milk Market and Supply Update](#), UNICEF, Copenhagen, June 2020.

¹⁶ UNICEF, [Multiple Micronutrient Powder Supply and Market Outlook](#), UNICEF, Copenhagen, June 2020.

¹⁷ UNICEF, [Vitamin A Supplementation: Market and Supply Update](#), UNICEF, Copenhagen, June 2018.

¹⁸ UNICEF, WHO, WFP, UNSSCN. [Community-based Management of Severe Acute Malnutrition: A Joint Statement by WHO, WFP, the UN System Standing Committee on Nutrition, and UNICEF](#).

¹⁹ UNICEF, WHO, WFP, UNSSCN. [Community-based Management of Severe Acute Malnutrition: A Joint Statement by WHO, WFP, the UN System Standing Committee on Nutrition, and UNICEF](#), p. 6.

²⁰ Chen RY, Mostafa I, Hibberd MC, et al., [A Microbiota-directed Food Intervention for Undernourished Children](#), The New England Journal of Medicine 384(16), April 2021, p. 1517-1528.

²¹ The Codex Alimentarius Commission is an intergovernmental body that seeks to implement the joint UN Food and Agriculture Organization (FAO) and World Health Organization (WHO) food standards programme.

²² Food and Agriculture Organization, [Report of the Forty second Session of the Codex Committee on Nutrition and Foods for Special Dietary Use](#), FAO, Rome, November 2021.

governments to implement appropriate regulation and monitoring as manufacturers scale up their local production to tackle malnutrition levels affecting millions of children, especially in Africa, South Asia, and Southeast Asia.

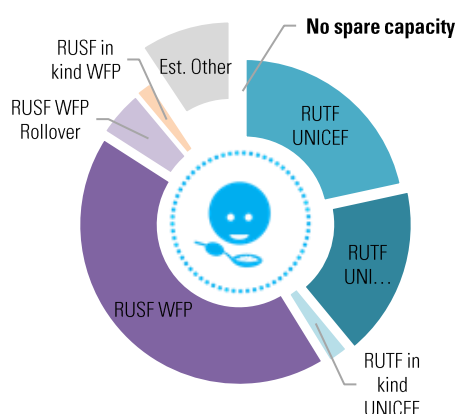
The World Health Organization initiated their review of the guidelines on the treatment and prevention of wasting in 2021 to update their existing guidelines with the latest scientific understanding. The World Health Organization commissioned 23 systematic reviews for the four main areas related to the treatment and prevention of wasting, including on infants with growth failure and wasting under six months of age. The guideline meetings were held throughout 2022, and will continue into 2023, and will lead to updates in the use and target groups for RUTF and ready-to-use supplementary food (RUSF), and the dosing of RUTF. In addition, the guideline development group (GDG) will also review the evidence for small quantity lipid-based supplements (SQ-LNS) as part of the review of evidence to prevent wasting. For more information, see [here](#).²³

5. Current Market Situation

UNICEF is the main procurer of RUTF, procuring up to 75-80 per cent of global funded demand. Other procurers are the United States Agency for International Development's (USAID) and Médecins Sans Frontières (MSF). The World Food Programme procures approximately twice the volume of Lipid based Nutrient Supplements (LNS) products compared to RUTF volume, which principally includes Ready-to-Use Supplementary Food (RUSF) and medium quantity LNS (MQ-LNS) with lower volumes of small quantity LNS (SQ-LNS).

The United States Agency for International Development's Bureau for Humanitarian Assistance (BHA) has been providing in-kind contributions of RUTF to UNICEF since 2012. These donations have been supporting the therapeutic feeding needs of 25 countries in Africa, in addition to Afghanistan, Bangladesh, Haiti, Myanmar, Pakistan, and Yemen. The USAID/BHA contribution of RUTF to UNICEF and of LNS to WFP accounts for an additional five to ten percent of the global procurement of RUTF and LNS products. The remaining global volumes are procured directly by governments, other UN agencies, such as the UN High Commissioner for Refugees (UNHCR) and WHO, as well as other organizations such as Action Against Hunger (AAH), the International Committee of the Red Cross (ICRC), and MSF. In 2022 the total volume of RUTF and other supplementary lipid-based nutrition products procured reached an estimated 308,000 MT. This volume represents approximately 100 per cent of the current total global estimated installed production capacity of this product group (Figure 2).

Figure 2 Estimated Global Installed RUTF Production Capacity 2022



UNICEF manages RUTF as a non-stock item that is made to order due to several factors, including its shelf life of 24 months, typically large order sizes, high number of orders, product bulkiness, and the cost of holding finished product inventory. It is to be emphasised that the estimated installed production capacity of manufacturers is different from their estimated operational production capacity. The industry has been operating below their optimum capacity because previous funded demand was met using only 50 per cent of their installed production capacity. In order for manufacturers to increase their operational capacity to meet increased demand, they require additional staff, work shifts, extended production days, and scale up time.

Note *: Spare capacity refers to operational capacity, not installed capacity, as industry currently operates below this level.

Source: UNICEF Supply Division

The global COVID-19 pandemic resulted in an initial increase in demand as programmes built up buffer stocks in anticipation of production problems and logistical constraints. The RUTF industry was less affected by lockdowns and border closures than other sectors as RUTF and food manufacturers were exempt and considered as essential businesses. UNICEF has also greatly benefitted from having established sources of supply locally in programme countries nearer to the demand. UNICEF has also noted that there is growing evidence that the economic consequences of the

²³ Global Action Plan for Child Wasting, [Updating and Developing Wasting Guidelines and Tools](#), Child wasting, Geneva, 2022.

pandemic, in addition to the reductions in routine health and nutrition services, are resulting in an increased malnutrition level.^{24, 25}

UNICEF and WFP’s partnership framework seeks to address wasting in children globally.²⁶ They have joined forces to scale up the prevention and treatment of child wasting.²⁷ The two agencies are leading the adaptation and scale up nutrition programmes. Based on respective mandates, comparative advantages, and operational capacity, UNICEF and WFP work in coordination with national/sub-national governments and nutrition sector/cluster coordination platforms to support the design and scale-up of context-specific simplified approaches for the early detection and treatment of child wasting.

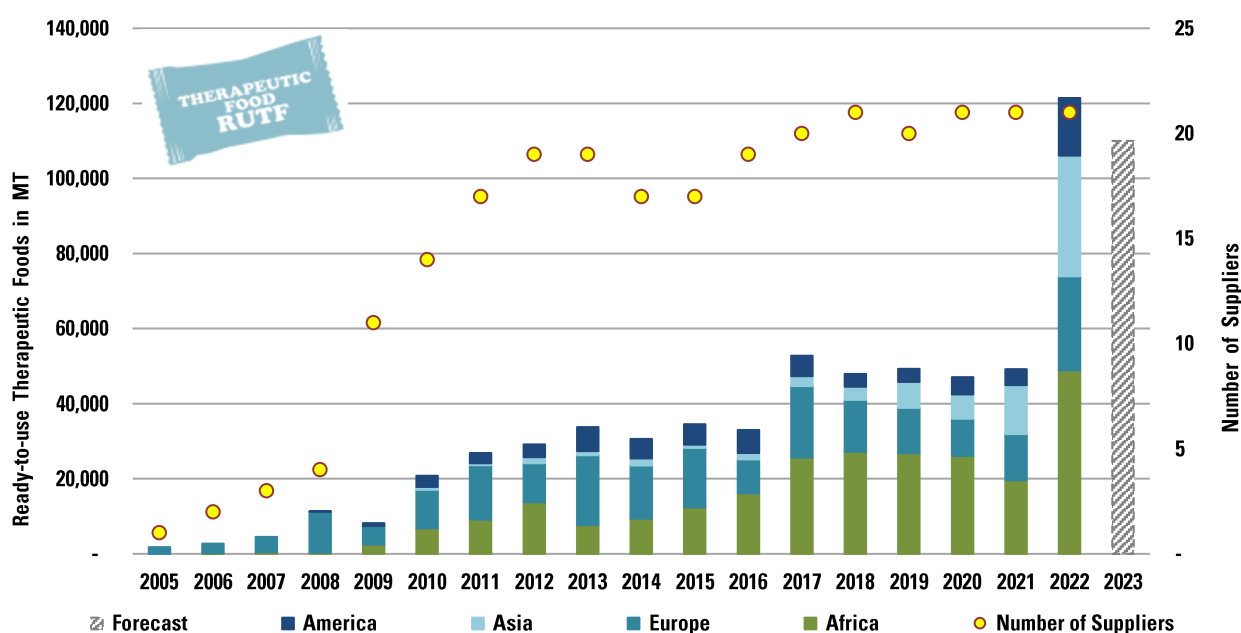
Both agencies have intensified their efforts to strengthen the capacity of mothers and caregivers to detect and monitor their children’s nutritional status using low-literacy/numeracy tools including mid-upper arm circumference (MUAC) tapes.

On the supply side, both agencies, together with USAID, are working together to ensure sufficient supply availability and align their prioritization of manufacturer production capacity. Stakeholders held a joint industry consultation to support industry to scale up RUTF and LNS supply in August 2022 and UN inter agency collaboration is ongoing to ensure that the limited supply capacity shared between RUTF and LNS is effective and has the maximum impact on the prevention and treatment of severe wasting.

The surge in the demand for acute malnutrition interventions has contributed to supply constraints for RUTF and LNS products, especially for SQ LNS used for prevention. The production of both a 92g sachet of RUTF and a 20g sachet of SQ LNS requires the same unit production time and resource requirements per unit with the exception of ingredients. The production of RUTF has been prioritized over SQ-LNS, as this product requires more production capacity for the same volume of RUTF or RUSF.

5.1 Demand

Figure 3 UNICEF RUTF Procurement, and Number of suppliers 2005-2022



Source: UNICEF Supply Division

The funded demand of RUTF reached an unprecedented high of 120,000 MT, in 2022-2023 which is a sharp increase over previous years. By September of 2022, UNICEF had already procured 62,000 MT of RUTF, 20% more than the annual average of the previous four years, (50,000 MT). In the fourth quarter of 2022, the remaining orders were placed

²⁴ UNICEF and the World Food Programme, [Nutrition Crisis Looms as More than 39 billion In-school Meals Missed Since Start of Pandemic](#), UNICEF, New York, 27 January 2021.

²⁵ UNICEF, [Impacts of COVID-19 on Childhood Malnutrition and Nutrition Related Mortality](#) UNICEF, New York, July 2020.

²⁶ UNICEF and the World Food Programme, [Addressing Wasting in Children Globally: UNICEF and WFP Partnership Framework](#), the Emergency Nutrition Network, Kidlington, October 2020.

²⁷ UNICEF and the World Food Programme, [Supporting Children's Nutrition during the Covid-19 Pandemic](#), UNICEF, Copenhagen, April 2020.

and majority of that was intended to be delivered in 2023. Orders placed in 2022 was more than twice any previous year since UNICEF began procuring RUTF in 2000. The endorsement of CMAM in 2007 by WHO, WFP, UNICEF, and UNSSCN, resulted in the demand for RUTF through UNICEF to increase to a yearly average of between 30,000-35,000 MT from 2013 to 2016. This volume corresponded to the treatment of approximately 2.1 to 2.5 million children in over 60 countries, driven by emergencies and programmatic acceptance (Figure 3).

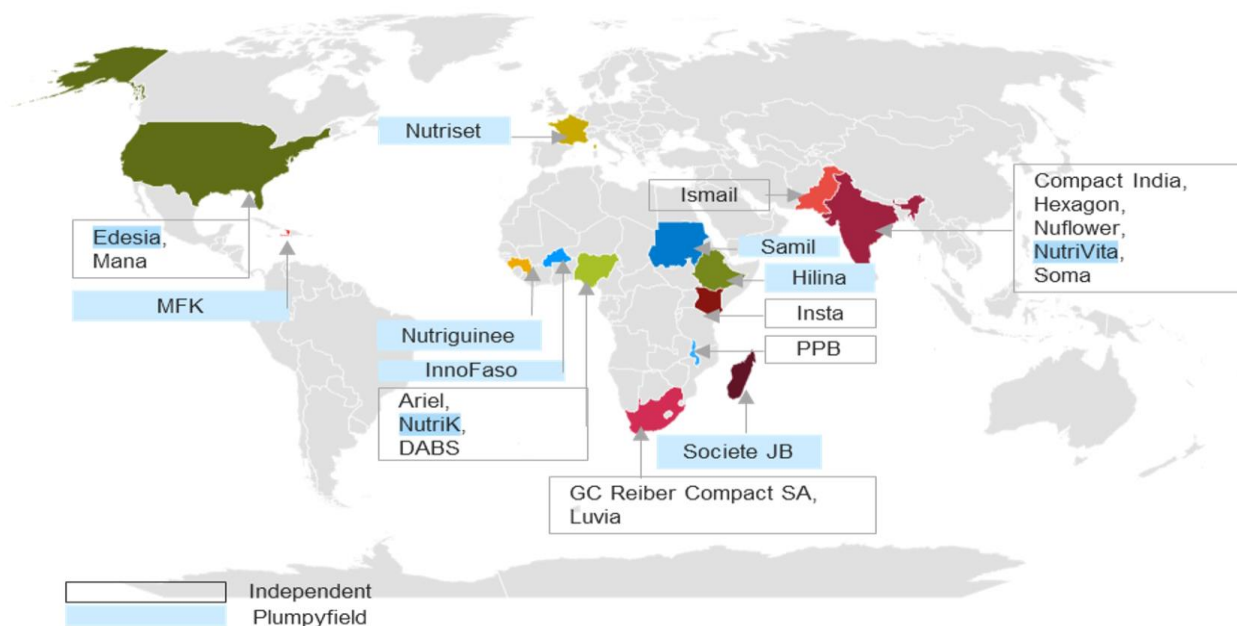
In 2017, the demand spiked to reach 52,620 MT due to multiple emergencies occurring in the Horn of Africa, Nigeria, South Sudan, and Yemen, amongst others. The high level of procurement continued through 2020 to reach 46,900 MT, averaging 50,000 MT a year over the last four years, suitable to treat 3.5 million children. The funded demand has since increased to over 121,400 MT in 2022, and an estimated 110,000 MT in 2023, and 120,000 MT in 2024 and 2025, suitable to treat up to approximately 7.9 to 8.6 million children a year. However, despite the high volumes through UNICEF, and other procurers also sourcing an additional five to ten per cent, notably from USAID, MSF, amongst others, it will still not be sufficient to treat the global estimated 13.6 million children suffering from severe wasting.

The emergency nature of programmes that address malnutrition with the widespread use of RUTF can make country forecasting exercises challenging and imprecise. UNICEF’s RUTF rolling demand forecast is continuously reviewed and fine-tuned to align with the dynamic needs of country needs. It helps countries to improve country demand forecasting to project supply requirements and ensure timely delivery. UNICEF maintains a nutrition forecast and supply allocation dashboard that consolidates forecasts and supply availability data to help address any challenges in tracking and monitoring supplies. It is used to collect and strengthen nutrition supply information, and is used to support programme management, advocacy, and mobilize resources. As wasting is perceived as a humanitarian problem, it currently receives up to 90 per cent of its funding from humanitarian budget allocations. However, in reality, the condition is more prevalent in non-emergency contexts, globally, in which a significant share of children in need go untreated, as they reside in non-humanitarian, stable development environments, and do not have access to treatment, as they get less attention. *In other words, most children suffering from severe wasting, globally, remain untreated.*²⁸

UNICEF’s RUTF procurement forecast for 2023 to 2025 will depend on the level of donor support. Up to 90 per cent of the funding for RUTF comes from donors, and the predictability of funding directly determines the procurement forecast. Based on the high epidemiologic, socio-economic, and environmental factors that underpin severe wasting, and which are likely to increase, the needs are still high. In 2023, UNICEF expects to procure 110,000 MT of RUTF, and it anticipates three procurement forecast scenarios for 2024 to 2025. The low, medium, and high funding scenarios will directly inform the procurement forecast per year. UNICEF anticipates a low, medium and high procurement of 70,000 MT, 90,000 MT, and 110,000MT, respectively.

5.2 Supplier Base

Figure 4 Geographic Locations UNICEF’s Sources of RUTF Supply in 2019-2023



Source: UNICEF Supply Division

²⁸ UNICEF, [Severe wasting: An overlooked child survival emergency](#), UNICEF, New York, May 2022, p. 6.


From 2000-2007, the RUTF market had a single qualified international supplier producing RUTF for export, from which UNICEF sole-sourced supply to meet demand. In response to growing country programme demands and programme preferences for locally produced RUTF for in-country use, and for reasons of economic development and supply chain efficiencies, Nutriset established several local franchises across Africa, the Americas, and Asia. This coincided with increased demand from a growing number of countries. The franchises increased local supply availability and supported broader economic and development goals by providing employment and technology transfer, in addition to increasing global production capacity. UNICEF also sought to diversify the supply base beyond local franchises, and encouraged independent quality suppliers, particularly in programme countries to enter the market. To measure progress, UNICEF adopted a supply outcome target to source 50 per cent of RUTF procurement from suppliers located in programme countries by 2016, which was achieved.

To facilitate these efforts, UNICEF developed manufacturing and product standards as well as a strong quality assurance system to help mitigate the risks of microbiological contamination associated with peanut- and milk-based products (i.e. Enterobacteriaceae, especially *Salmonella*). UNICEF also strengthened country demand forecasts and used competitive bidding in tenders to improve market efficiency and leverage competition. UNICEF apportioned total forecasted quantities among suppliers with production facilities that meet good manufacturing practice (GMP) standards and product specifications, while balancing evaluation criteria between pricing (including landed cost), quality, and the capacity to respond to demand to maintain a healthy market. As a result, the number of UNICEF RUTF paste suppliers increased from one supplier in 2007 to reach 21 suppliers from 2018 to 2022 (Figure 4), of which 18 (86 per cent) are suppliers based in countries with high burden of severe wasting.

UNICEF expects to continue to be a major buyer of RUTF for the near future, as it is an essential and core product in the treatment of wasting at community level. However, the price of RUTF is limiting the generation of additional demand even though the market has a sufficient number of suppliers. UNICEF’s procurement strategy is to meet programme needs with quality-assured products acceptable to beneficiaries, at the lowest acceptable price, while sustaining a healthy, diverse, and geographically well-spread, responsive market and production capacity. UNICEF’s 2018 tender, which concluded with contracts for the period April 2019-April 2021, was extended twice, initially up to April 2022. In 2022 following the global nutrition crisis and UNICEF’s call on industry to scale up production, UNICEF extended the existing supply agreements until the end of December 2023.

UNICEF is making good progress towards stabilizing the global WAP following the high price volatility in RUTF raw material prices. The disruptions caused by the pandemic, unprecedented droughts, and conflicts have hindered progress, causing a nine per cent increase in RUTF’s WAP in 2022 compared to 2021.

5.3 Sustainable Procurement



Sustainable Procurement Considerations

In implementing sustainable procurement, UNICEF will seek to include green manufacturing quality management system and social considerations, sustainable procurement criteria in tender commercial evaluations, and specific supply targets to develop local industry capacity in programme countries.

In applying sustainable procurement, many UNICEF procurement decisions will face trade-offs between sustainable procurement’s three (economic, social, and environmental) pillars, and present key operational challenges, especially between environmental and social considerations, with the latter often being more difficult to quantify.

The absence of any evidence to make informed trade-off decisions will be part of the challenge. The other challenge will be the difficulty to make value judgments to prioritize one pillar over the other. However, solutions will be situation specific, and priorities based on readiness, market influence, and targeted objectives.

Some sustainable procurement elements, notably under the social pillar, may put some pressure on short-term costs that generate longer-term savings, such as investments in fairer employment working conditions, or health and safety, which would be offset by increased motivation, productivity, and reductions in work-related injury and absenteeism. To achieve higher tangible economic benefits and VfM, UNICEF and industry will strive to manage procurement decisions based on longer-term perspectives, considering the advantages of environmentally, socially sound products and services, and better performing staff, bring in the long-term.

Sustainable procurement is an approach to procurement that incorporates the three sustainability pillars of social, economic, and environmental impact considerations. It goes beyond the more familiar “green” public procurement, to ensure that all products and services procured support local economic and social development, with the least environmental impact, and the best value for money (VfM).

In February 2018, UNICEF released its procedure on sustainable procurement ([SUPPLY/PROCEDURE/2018/001](#)). The procedure constitutes UNICEF’s policy on sustainable procurement and is applicable across all UNICEF offices engaged

in supply planning and procurement, wherever feasible and applicable, whether for goods or services, or for programmes or office assets.²⁹

Through its tenders, UNICEF documents the RUTF industry’s sustainability practices and collects information it can use to establish a baseline with a focus on the three pillars. To support the many initiatives already planned and implemented by RUTF manufacturers, UNICEF will monitor progress on sustainability with due consideration for the health of the market and the finished product’s affordability.

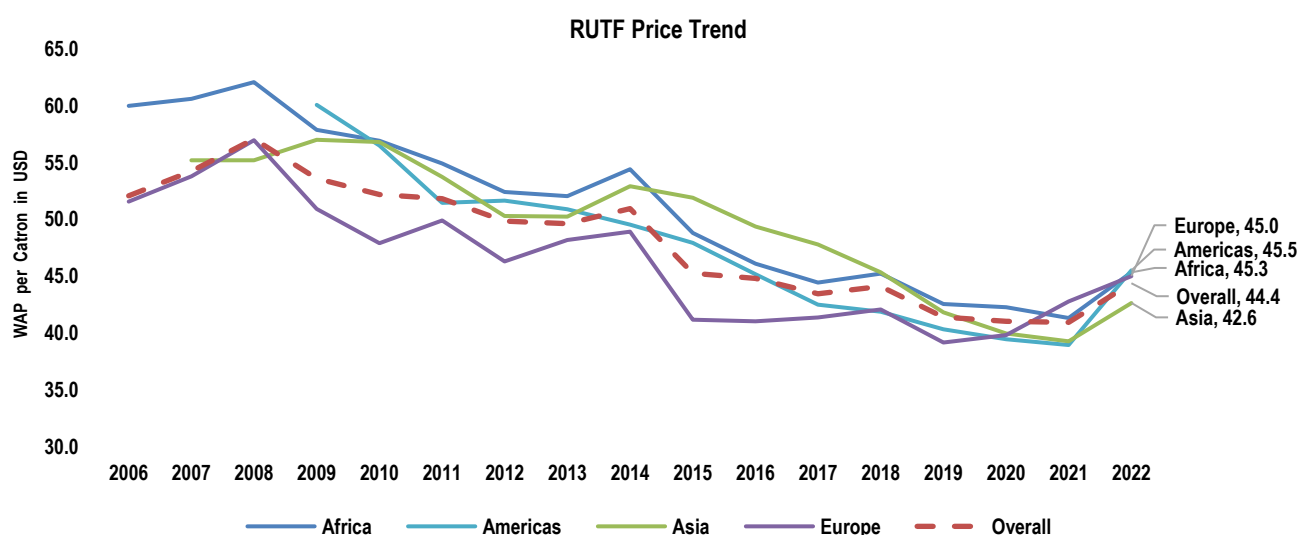
UNICEF’s share of RUTF procurement from suppliers based in programme countries has steadily increased from what was 52 per cent in 2012 to reach 67 per cent in 2022 (Figure 3). The key advantages programmes can have from increased local production capacity include improved local availability and acceptability, government endorsement, and it contributes to supply chain cost efficiency, as well as reduced delivery lead-times. Having a diversified supplier base has proved to be critically useful over the past two years when the global freight industry was disrupted by the COVID-19 pandemic, and from which effects it is still recovering. The average annual deliveries times for RUTF prior and during the pandemic remains the same due to UNICEF having a diversified supplier base spread across all major regions, of which 18 out of the 21 suppliers are based in programme countries close to the demand.

By sourcing supplies close to programme countries in emergency response, UNICEF eliminates the need to use air freight, as it sources a greater share of its supply nearer the areas of need, which contributed to cost reductions in USD per MT, as supply relies on cheaper overland and sea freight costs, rather than far more expensive international air freight. The reduction in freight cost per MT in turn contributes to a reduction in carbon emissions.

UNICEF has also seen how the effects of sourcing an increasing share of supply from local manufacturers stimulate local markets. The social and economic impact and benefit of relying on local production strengthens a wider vision and understanding of sustainability through using, and leveraging, UNICEF’s supply function. The supply base for RUTF has been diversified cutting down carbon dioxide (CO₂) emissions previously attributed to international transport and shipping using airfreight in response to emergencies. Local production and procurement allow UNICEF to deliver faster, as critical products are sourced close to where it’s needed. Having diversified its supplier base from 1 manufacturer in France to now 21 manufacturers across 15 countries in 4 continents has also empowered local producers, suppliers, and workers to benefit from the whole value chain of RUTF. The return in benefits from this approach go beyond measure we only assessed against the direct impact of nutrition programmes Over 65 per cent of RUTF is now procured from suppliers based in countries where severe wasting is a critical public health issue.

5.4 Pricing

Figure 5 UNICEF Weighted Average Price for RUTF Paste Procurement 2007-2022 per Continent^{*}, †, §



Source: UNICEF Supply Division

Note *: One carton contains 150 sachets of 92 gr. 72 cartons make up 1 MT.

Note †: UNICEF local WAP based on ex-works (EXW) local production prices.

Note §: UNICEF international WAP based on Free Carrier (named place) (FCA) export prices. Euro-based FCA export WAP is recalculated on an aggregate of USD value procurement.

²⁹ UNICEF, [Sustainable Procurement](#), UNICEF, Copenhagen, September 2018.

The overall WAP for RUTF has decreased steadily since its highest peak in 2007 of USD 57.00 per carton to reach USD 40.9 in 2021, representing a decrease of 28 per cent over twelve years. During the first quarter in 2022, the overall WAP started to surge at an unprecedented rate that could have potentially reached 16 per cent by the end of last year. However, UNICEF worked closely with industry and was able to restructure pricing, by closely monitoring the raw material indexes as it represents approximately 70 per cent of the cost price of RUTF. By the end of 2022, there had been a nine per cent increase in RUTF's overall WAP, despite the unprecedented fluctuations in raw material prices. A decade ago (2013-2014), when UNICEF implemented specification changes on product safety and quality requirements, it resulted in WAP fluctuations compared to previous years. The sharp decreases in WAP (2013 - 2014) were largely due to a global oversupply of dry skimmed milk and high fluctuations in the USD and Euro foreign exchange rates (Figure 5).

The cost of raw materials account for about 70 per cent of the total cost of RUTF production.³⁰ Recent global events have caused price fluctuations in RUTF raw materials (peanuts, sugar, oil, and milk powder). The price increase in vegetable oils in 2021 and 2022 were due to the combined influence of raised biofuel production, the limited access to sunflower oil from Ukraine, and the increased production costs from higher energy prices.

With the current market complexity combining the recovery from the COVID-19 pandemic simultaneously with the effects of regional conflicts, climate-related emergencies, and risks to food insecurity affecting vulnerable communities in crisis, UNICEF had expected the price of RUTF to surge.

For further information, UNICEF publishes a [list of RUTF prices](#) for each supplier having held or holding a long-term arrangement (LTA) with UNICEF. Published prices include discounts and scale pricing suppliers offer to UNICEF.³¹

The WAP for RUTF procurement from programme countries (based in Africa and Asia) are comparatively significantly lower than the that from suppliers producing RUTF in non-programme countries. This new trend reflects the efficiency gains having been achieved through several years of consistent and increases support UNICEF and partners have given to encourage the local production of RUTF. UNICEF expects the current trend to continue through 2023 and beyond, as the production by manufacturers in Africa reaches higher economies of scale. The WAP for RUTF produced in Europe is now 13 per cent higher than Asia, and 7 per cent higher than Africa. Similarly, the WAP of RUTF produced in America is 9 per cent higher than the WAP of programme continents and 2 per cent for Asia and Africa. Whilst all manufacturers have several challenges, the ones based in programme countries are faced with the additional challenges of high import duties and limited access to capital, amongst others. Their effort to maintain a low WAP in addition to the unprecedented increase in scale of production, will result in helping make RUTF accessible to those in need, while building local industries.

Over the last few years, there has been a growing interest by donors and other partners to invest in innovative and catalytic [supply financing](#).³² The aim is to increase domestic resource allocations for the treatment of child wasting and to improve financing predictability, as currently, this product is used primarily in humanitarian operations, and therefore relies on humanitarian emergency budgets, which account for up to 80 per cent of its funding. The Nutrition Match Fund,³³ encourages countries to invest domestic resources in RUTF procurement, to reduce dependency on external funding, by matching domestically mobilized spending on RUTF dollar for dollar.

6. Issues and Challenges

- The economic impact of COVID-19, combined with unprecedented climate shocks and conflicts, has affected an estimated 30 million children with wasting in 15 countries, and eight million children with its severest form.³⁴ UNICEF's call to industry to scale up all its production capacity to meet the needs underscored some of the underlying challenges faced by the industry.³⁵ These include limited access to working capital necessary to access higher quantities of raw materials, hire and train new staff, and to operationalize additional production shifts to increase production, which in turn interrupted UNICEF's ability to scale up access to nutrition services where they were needed.
- Unpredictable sources of funding for longer-term planning in this market resulted in a major challenge. Most funding sources, which account for 96 per cent, for RUTF are limited to short term emergency donor contributions. This makes

³⁰ Suri, D.J., et al. (2016). Costs of ready-to-use therapeutic foods for the treatment of severe acute malnutrition: a systematic review. *Maternal & Child Nutrition*, 12(3), 529-542.

³¹ UNICEF, [Pricing Data](#), UNICEF, Copenhagen, February 2021.

³² UNICEF, [Supply Financing](#), UNICEF, Copenhagen, February 2021.

³³ UNICEF, [New Fund Aims to Unlock \\$1 Billion for Children's Nutrition](#), UNICEF, New York, April 2015.

³⁴ World Health Organization, [Urgent Action Needed as Acute Malnutrition Threatens the Lives of Millions of Vulnerable Children](#), WHO, Geneva, 12 January 2023.

³⁵ UNICEF, [LNS and RUTF Industry Consultation](#), UNICEF, Copenhagen, August 2022.

it difficult to forecast requirements without firm funding commitments, which also results in making manufacturers hesitant to invest in critical commitments necessary to scale sufficient production capacity to meet sudden surges in demand.

- The raw materials that make up RUTF account for up to 70 per cent of the cost of production. Manufacturers of RUTF access these essential ingredients competitively with other food industries. This limits the flexibility industry has on negotiating and reducing price thresholds and is linked with unpredictability of funding also causes potential for raw material planning lags which are then lost to the market and paid for by Unicef and other buyers.
- The need to maintain the highest product quality standards is critical for RUTF due to the inherent risk of microbiological contaminants in peanut- and milk-based foods, especially due to the nature and health status of the intended beneficiary children.³⁶ This is a challenge because major incidence of some form of contamination may lead to temporary closure of manufacturing operations for investigations, support, resolution and confirmation of resumption of necessary quality standards.

7. Steps Forward

- UNICEF, in its efforts to support RUTF manufacturers to scale up production, has provided variable advance payments for RUTF procurement orders against strict criteria including ensuring this results in additional capacity, to boost the liquidity available to manufacturers to cover the increasing costs associated with increasing production. Moreover, UNICEF will prioritize and scale up additional tools to provide manufacturers firm order commitments, including the use of innovative solutions to secure access to raw materials.
- Following the extended tender period, UNICEF will seek to maintain a healthy supplier base in programme countries close to beneficiaries, as well as to increase coverage by making RUTF more affordable and more acceptable with alternative formulations. It will continue to focus on cost reductions by encouraging manufacturers to source local ingredients as well as by expanding ingredient varieties, to achieve better economies of scale, and enhanced competition. In 2023, several new ingredients for RUTF will be assessed for their viability and suitability for scaling in new formulations. UNICEF also encourages RUTF suppliers to broaden their product inventory to reach consumer markets with nutrition products for longer term business sustainability and reduced reliance on external funding.
- UNICEF expects continuous product improvement from suppliers to achieve higher quality products, and it will continue to focus on quality assured and traceable raw materials and production process controls.
- In line with UNICEF's food safety policy, UNICEF, together with partners, including AAH, FAO, ICRC, MSF, USAID, WFP, and WHO, will continue to review product specifications and quality standards. UNICEF and partners will also work on appropriate testing sampling plans and strategies to monitor and control the presence of food safety risks in ingredients, production processes, production environments, and finished products.
- To increase access and enable increased quality and coverage of nutrition programmes used to prevent and treat malnutrition, UNICEF will continue to advocate for countries to include RUTF and other essential nutrition commodities, such therapeutic milk and MNP into their essential list of medicines, as well as other applicable essential health product lists, and classify RUTF as a product used for a special medical purpose. Furthermore, UNICEF will continue to advocate countries to fully integrate these products into their health system's supply chain. UNICEF and WHO have prepared a joint submission the WHO Essential Medicines List (EML) review committee to consider RUTF to be included into the EML at the next committee meeting in Q2 2023.
- UNICEF will host the [Nutrition Supply Forum](#) bringing together manufacturers, partner organizations, UNICEF staff, donors and academia, to exchange ideas, best practices, and updates on supplies and procurement for nutrition programmes.

³⁶ The World Health Organization and Food and Agriculture Organization, [Microbial Safety of Ready-to-Use Lipid Based Therapeutic and Supplementary Foods: Conclusions and Recommendations of an FAO/WHO Technical Meeting](#), UNICEF, New York, March 2013.

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Other UNICEF information notes can be found at: [Market notes and updates | UNICEF Supply Division](#)

UNICEF issues market and information notes on products and supplies that are essential for the needs of children, and by extension their families. While some products are easily available and affordable, the availability of others can be limited, or in some instances, non-existent in the quality and price required. UNICEF places a strategic focus on these supplies to shape healthy markets. UNICEF seeks to influence the market to achieve greater coverage, affordable prices, diversified supplier bases, competitive market landscapes, and product quality that is fit for purpose and in the right form for children.