

# Ready-to-Use Therapeutic Food: Current Outlook

UNICEF Supply Division

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## Ready-to-Use Therapeutic Food (RUTF) - Current Outlook May 2014

**This note reports on anticipated 2014 RUTF supply and developments in increased manufacturer diversity, highlighting actions taken to meet country requirements.**

**A more recent note covering RUTF exists. Please visit <https://www.unicef.org/supply/reports/ready-use-therapeutic-food-rutf-market-outlook>**

### 1. Summary

- UNICEF procured 34,000 MT of Ready-to-Use Therapeutic Food (RUTF) Paste in 2013, suitable to treat 2.6 million children. It represents a ~6-fold increase in procurement since 2009, following generic RUTF manufacturer entry into the market. This note primarily covers the “Paste” form of the food, although very small quantities of RUTF Biscuit have also been procured.
- The number of RUTF manufacturers and their country of origin have increased substantially. UNICEF now procures RUTF from 19 different manufacturers, 14 of which are located in countries with high levels of malnutrition.
- Despite the increase in volume and manufacturer diversity, the weighted average price (WAP) of RUTF slightly increased in 2013 due to increased quality requirements. Locally produced product also remains higher priced than international procurement.
- The safety risks of RUTF’s milk ingredient continue to be a concern due to the potential hazard of microbiological contamination. A review of microbiological specifications and increased rigour in production process, sampling and frequency of analysis is still ongoing.
- UNICEF concluded its 2014 tender in December 2013. 18 manufacturers were awarded supply arrangements for 2014 from 25 submitted offers. Additional potential new suppliers in Republic of Korea and Pakistan were identified through the tender. Their manufacturing sites were inspected in 1Q 2014, and they are implementing suggested corrective actions. UNICEF will continue to facilitate and promote increased locally produced and procured RUTF market share.
- UNICEF anticipates procuring 34,000 MT of peanut based RUTF during 2014. Demand for non-peanut based RUTF is also expected from Asian countries where peanuts are not part of the natural diet.
- In 2013, UNICEF received 3,200 MT of RUTF as in-kind donations from USAID, contributing to the therapeutic feeding needs identified in Afghanistan, Burundi, Pakistan, Somalia and Yemen. It accounted for ~10% of the annual volume.

### 2. Brief Background and Procurement History

An estimated 51 million children under-five (8% of the global under-five population) suffer from acute malnutrition (wasting) globally.<sup>1</sup> About 17 million children suffer from its most extreme form, severe acute malnutrition (SAM), and require specialised therapeutic feeding care.<sup>2</sup> An estimated one million

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<sup>1</sup> United Nations Children’s Fund, World Health Organization, The World Bank, *Joint Child Malnutrition Estimates: UNICEF/WHO/World Bank*, The World Bank, Washington, 2014, at <http://data.worldbank.org/child-malnutrition>.

<sup>2</sup> *Loc. cit.*

children die annually as a consequence of acute malnutrition.<sup>3</sup> Severe infectious diseases such as diarrhoea, measles, pneumonia, meningitis and malaria, as well as sudden onset food insecurity, are among the leading causes of severe acute malnutrition.<sup>4</sup> The development of RUTF, combined with the adoption of community-based management and treatment of acute malnutrition, has greatly increased the effectiveness and efficiency of therapeutic feeding care. It has also enabled increased access and beneficiary caseload coverage.<sup>5</sup> RUTF procured through UNICEF comes in the two forms:

- RUTF Paste: An energy dense, micronutrient paste based on a mixture of peanuts, sugar, oil and milk powder (suitable for children 6-24 months).
- RUTF Biscuits: An energy dense, nutrient-fortified wheat and oat bat (suitable for older children).

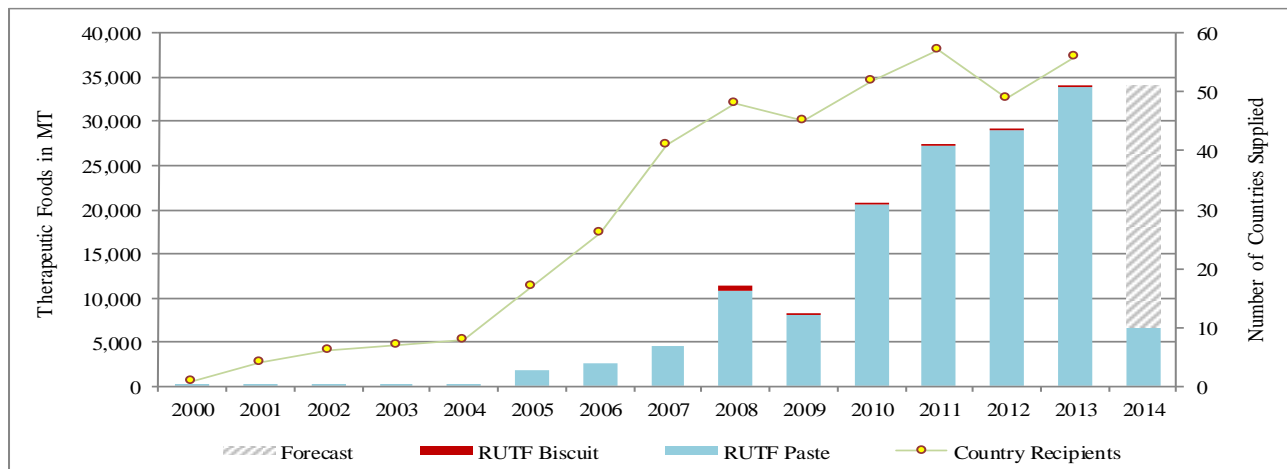
UNICEF also procures other “therapeutic feeding products” including F-75, F-100, and Complex of Minerals and Vitamins (CMV), but these products’ markets are not described here.

### 3. Current Market Situation

#### 3.1. Demand

UNICEF started procuring RUTF in 2000. The growing number of pilot programmes and the subsequent endorsement of a community-based management approach to acute malnutrition in 2007 by WHO, WFP, UNICEF and the United Nations System Standing Committee on Nutrition (UNSSCN), resulted in the demand for RUTF through UNICEF increasing to 34,000 MT in 2013 (Figure 1). The increased quantity corresponds to the treatment of more than ~2.6 million children<sup>6</sup> in 56 countries and has been driven by recent emergencies and greater programmatic acceptance. Nevertheless, current UNICEF supply only covers 15% of the estimated global caseload of SAM.

Figure 1 UNICEF RUTF Procurement, Forecast and Number of Countries Supplied 2000-2014



Source: UNICEF Supply Division.

<sup>3</sup> World Health Organization, *Community-Based Management of Severe Acute Malnutrition: A Joint Statement by the WHO, WFP, UNSSCN, UNICEF*, WHO, Geneva, May 2007, p.2 at [http://www.who.int/nutrition/publications/severemalnutrition/978-92-806-4147-9\\_eng.pdf](http://www.who.int/nutrition/publications/severemalnutrition/978-92-806-4147-9_eng.pdf).

<sup>4</sup> Emergency Nutrition Network (ENN), *Causes of Malnutrition: Fact Sheet*, Emergency Nutrition Network, Oxford, 2011, p.2 at <http://www.unicef.org/nutritioncluster/files/Module5CausesOfMalnutritionFactSheet.pdf>.

<sup>5</sup> World Health Organization, *loc. cit.*

<sup>6</sup> 1 MT contains 72 cartons of RUTF. 1 carton (92gr. x 150 sachets) treats 1 child (10-15 kg RUTF over 6-8 weeks).

UNICEF estimates 2014 RUTF demand will reach 34,000 MT. It will likely increase further due to greater demand from higher coverage rates, an improved management approach to acute malnutrition, and a growing focus on hunger and malnutrition as a result of the UN's Post 2015 development agenda.<sup>7</sup> A joint study by UNICEF, WHO and the World Bank found Africa remains the only region with increased prevalence in global acute malnutrition (GAM), which went from 9.6 million under-five children in 1990 to 13.4 million children in 2011.<sup>8</sup>

### 3.2. Supplier Base

UNICEF RUTF suppliers have increased from one (2000-2007) to currently 19 manufacturers (2014), of which 14 (74%) are local suppliers based in countries with high concentrations of malnutrition (Table 1). UNICEF expects the number of manufacturers to continue to increase in target regions and anticipates awarding supply arrangements to two new additional suppliers in Asia (Republic of Korea and Pakistan). UNICEF also actively seeks potential suppliers in programmatically strategic countries like Nigeria, Chad and DRC, or in their proximity. However, during this same period, a number of manufacturers ceased production of RUTF as a result of cost-inefficiencies in product manufacturing, geographical location and challenges to meet standards.

Table 1 UNICEF Supply Arrangements for RUTF in 2014

|    | Supplier                                      | Type of supply | Start    | End      | Product      |
|----|---|----------------|----------|----------|--------------|
| 1  | Compact AS, Norway                            | Global         | Tbc      | Tbc      | RUTF Biscuit |
| 2  | Compact Pvt. Ltd, India                       | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 3  | Diva Nutritional Products (Pty) Ltd, RSA      | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 4  | Edesia, USA                                   | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 5  | Hilina, Ethiopia                              | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |
| 6  | InnoFaso, Burkina Faso                        | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |
| 7  | Insta Products Ltd, Kenya                     | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 8  | Mana Nutritive Aid Products Inc., USA         | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 9  | MTK, Haiti*                                   | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |
| 10 | Nutriset SAS, France                          | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 11 | NutriVita Foods Pvt. Ltd, India               | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 12 | Power Foods, Tanzania                         | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 13 | Project Peanut Butter, Malawi                 | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |
| 14 | Project Peanut Butter, Sierra Leone           | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |
| 15 | Samil Industry, Sudan*                        | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |
| 16 | Société JB, Madagascar                        | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 17 | Société de Transformation Alimentaire, Niger* | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |
| 18 | Tabatchnick Fine Foods Inc., USA              | Global         | 01.01.14 | 31.12.14 | RUTF Paste   |
| 19 | Valid Nutrition, Malawi                       | Local          | 01.01.14 | 31.12.14 | RUTF Paste   |

Note\*: Companies that will trial small international supply shipping in 2014.

Source: UNICEF Supply Division.

<sup>7</sup> Deen, Thalif, *Keeping Food Security Central to UN's Post-2015 Agenda*, IPS News Agency, Rome, 14 June 2013 at <http://www.ipsnews.net/2013/06/keeping-food-security-central-to-u-n-s-post-2015-agenda/>.

<sup>8</sup> Onis, Mercedes de, David Brown, Monika Blössner, et al., *Levels and Trends in Child Malnutrition: UNICEF-WHO-The World Bank Joint Child Malnutrition Estimates*, WHO, Geneva, 2012, p. 17 at [http://www.who.int/nutgrowthdb/jme\\_unicef\\_who\\_wb.pdf](http://www.who.int/nutgrowthdb/jme_unicef_who_wb.pdf).

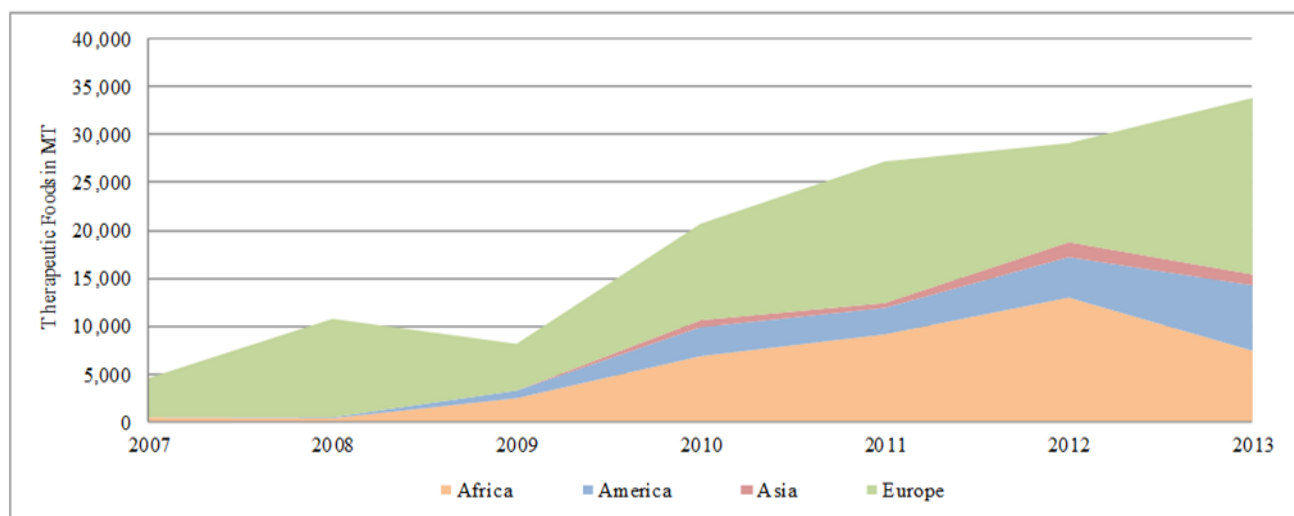
Despite growing UNICEF RUTF procurement share from manufacturers based in Africa reaching 45% in 2012, procurement decreased by half (to 25% share) in 2013 on account of more stringent quality control requirements for finished products. Supplementary imports procured from Europe compensated for local procurement temporarily (Figure 2). The RUTF WAP also modestly increased in 2013 compared to the previous year (~\$0.70) (Figure 3). The cost of procuring RUTF from local manufacturers is comparatively higher than from international manufacturers by 14% (Figure 4). Local production requires the importation of most ingredients and packaging materials from international suppliers. In many cases, import duties on ingredients and materials contribute to the higher pricing, rendering the landed cost of international imports less expensive than locally produced varieties.

However, increased local availability, cultural appreciation, supply chain management cost efficiency and reduced delivery lead time are key advantages to be had from local increased production capacity. UNICEF hosted a consultative workshop to explore RUTF local production in Abuja, Nigeria, during 2013. Key issues presented at the workshop are presented below (Table 2).

Table 2 UNICEF Consultative Workshop in Nigeria 20 November 2013

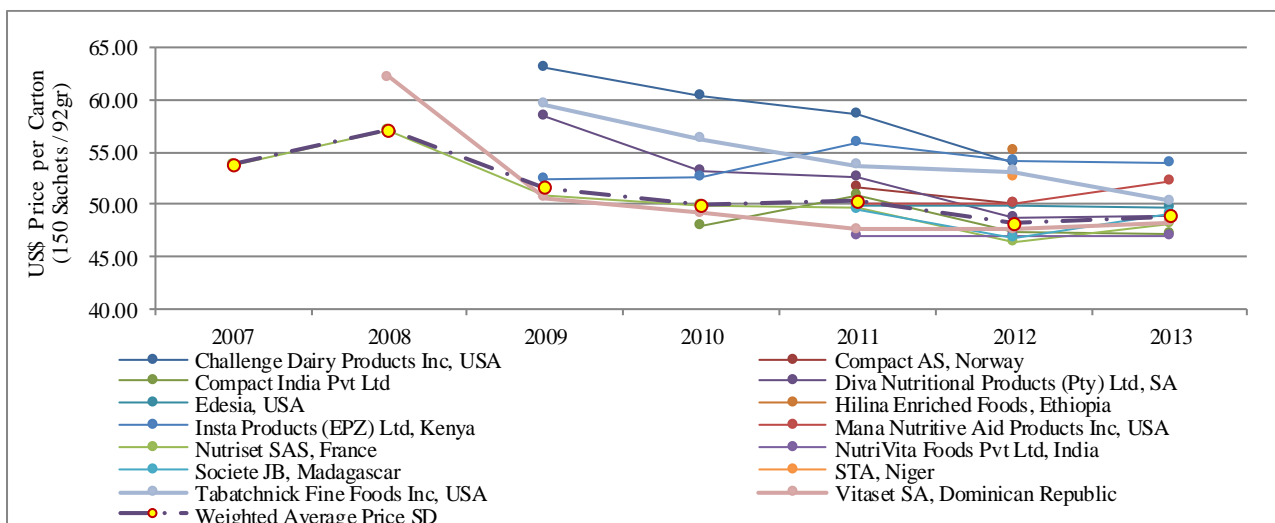
| Workshop discussions                           | Purpose   |
|--|---|
| RUTF demand in Nigeria                         | <ul style="list-style-type: none"> <li>To address the challenges of meeting national and regional requirements and plans for scale up through increased local production capacity. Demand is to increase over 5 years to reach 1.1 million children (3.7 x current coverage levels) out of 3 million suffering from acute malnutrition requiring RUTF.</li> <li>UNICEF’s strategic objective is to procure 50% of RUTF from local programmatic countries. Nigeria and Pakistan are the two priority countries identified to establish new production capacity.</li> </ul> |
| UNICEF requirements for RUTF manufacturers     | <ul style="list-style-type: none"> <li>UNICEF will evaluate potential suppliers against the following criteria:               <ul style="list-style-type: none"> <li>- Legal capacity.</li> <li>- Ethical principles.</li> <li>- Financial viability.</li> <li>- <a href="#">Product specifications.</a></li> <li>- Manufacturing standards.</li> <li>- Quality control mechanisms.</li> </ul> </li> </ul>  |
| Facilitate and nurture stakeholder networking. | <ul style="list-style-type: none"> <li>To foster and nurture partner and stakeholder (Government, NGOs, private sector, donors) network interaction and facilitate the exchange of support, advice, guidance, funding and technical assistance.</li> </ul>  |

Figure 2 UNICEF RUTF Procurement by Production Origin



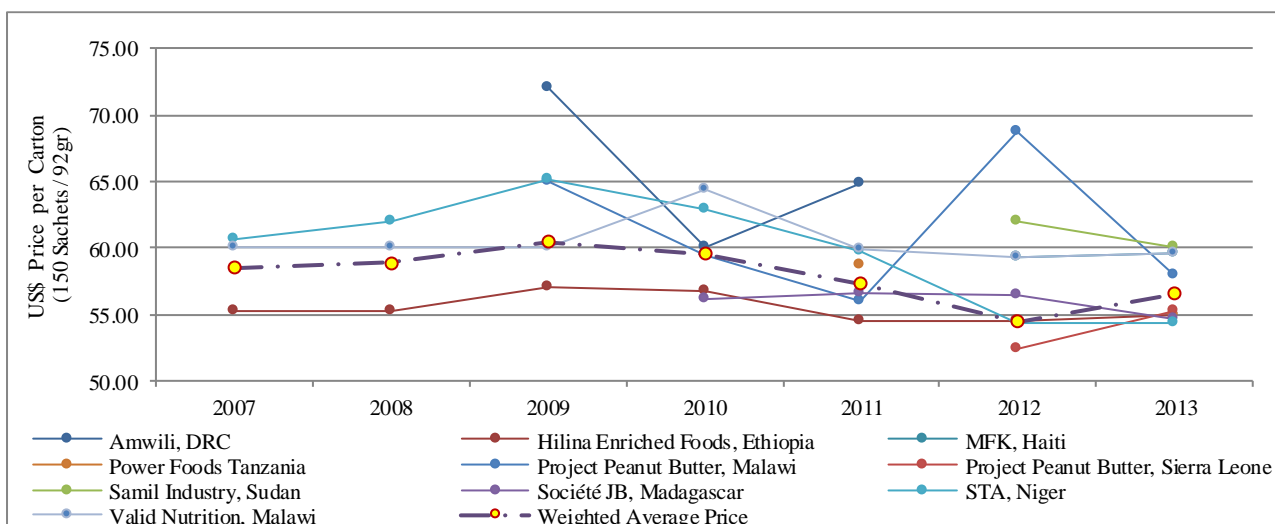
Source: UNICEF Supply Division.

Figure 3 UNICEF Price for RUTF<sup>9,10</sup>



Source: UNICEF Supply Division.

Figure 4 UNICEF RUTF Price for Local Manufacturers<sup>11</sup>



Source: UNICEF Supply Division.

#### 4. Issues and Challenges

- Since 2007, the entry of new manufacturers into the market has resulted in a modest drop in WAP, whether procured locally or internationally. However, the cost of RUTF is still considered too high

<sup>9</sup> Prices based on FCA export prices.

<sup>10</sup> Euro-based FCA export prices recalculated on an aggregate of USD value procurement.

<sup>11</sup> Prices based on EXW local manufacturing prices.

to mainstream the product in programmes.<sup>12</sup> WAP for locally manufactured RUTF remains particularly high compared to RUTF manufactured in industrialized countries.

- Even though UNICEF RUTF procurement volume has increased and is sufficient to cover the needs of 2.6 million children,<sup>13</sup> there is scope for programme coverage to be scaled-up further, generating potential increase in future demand.
- The presence of possible microbiological contaminants (Salmonella and Enterobacteriaceae) poses potential hazards given the nature and health status of the beneficiary target groups.<sup>14</sup> Current microbiological standards follow the latest expert advice from FAO and WHO, but further review of microbiological standards and specifications for the manufacturing of RUTF is required.
- RUTF consignment delivery schedules substantially improved during 2013. Consignments delivered on time by manufacturers increased from 65% in 2012 to 88% in 2013. Delays caused by the introduction of additional quality checks were resolved.

## 5. Steps Forward

- UNICEF concluded its 2014 tender with a continued focus on peanut-based RUTF products and systematic finished product testing.
- UNICEF will work with manufacturers to reduce local WAP further by looking at increasing volumes through local procurement and improved planning.
- UNICEF will continue to refine its procurement strategy to support and increase the availability of RUTF as more countries adopt and scale-up the treatment of SAM. UNICEF anticipates awarding supply arrangements to two new additional suppliers in Asia (Republic of Korea and Pakistan) during 2014.
- UNICEF will continue actively seeking potential suppliers in programmatically strategic countries like Nigeria, Chad and DRC or in their proximity.
- Efforts will also include continued work on strengthening national capacity and management of increased RUTF volumes via all stages to include storage and distribution. Supply chain optimization is considered a key component to reduce programme costs.
- In order to increase the confidence level in RUTF products, UNICEF, WHO, FAO and WFP are engaged in reviewing product specifications and developing an appropriate testing sampling plan and strategy to monitor and control the presence of Salmonella and Enterobacteriaceae in ingredients, production processes, production environment and finished products. A follow-up meeting is scheduled for 3Q 2014.
- UNICEF will continue to encourage further studies to establish and set acceptable levels for such bacteria and clear testing protocols.
- UNICEF will also support the development of alternative formulations of RUTF that are appropriate for particular countries.

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<sup>12</sup> United Nations Children's Fund, *Evaluation of Community Management of Acute Malnutrition (CMAM): Global Synthesis Report*, UNICEF, New York, May 2013, p. xvi at

[http://www.unicef.org/evaldatabase/files/Final\\_CMAM\\_synthesis\\_FINAL\\_VERSION\\_with\\_ExSum\\_translations.pdf](http://www.unicef.org/evaldatabase/files/Final_CMAM_synthesis_FINAL_VERSION_with_ExSum_translations.pdf).

<sup>13</sup> United Nations Children's Fund, *Global SAM Management Update: Summary of Findings*, UNICEF, New York, 2013, p. 13 at <http://www.cmamforum.org/Pool/Resources/Global-SAM-Management-Update-2013.pdf>.

<sup>14</sup> 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 at [http://www.unicef.org/supply/files/5\\_S\\_Cahill\\_P\\_Embarek\\_-\\_FAO\\_WHO\\_-\\_Microb.\\_Safety\\_of\\_Lipid\\_based\\_RUTF\\_03.2013.pdf](http://www.unicef.org/supply/files/5_S_Cahill_P_Embarek_-_FAO_WHO_-_Microb._Safety_of_Lipid_based_RUTF_03.2013.pdf).

- In 2014, UNICEF will receive 3,400 MT of in-kind RUTF donations from USAID, contributing to the needs identified in Afghanistan, Angola, Burundi, Central African Republic, Chad, DRC, Kenya, Pakistan, Somalia and Sudan, and accounting for ~10% of the annual volume.

For further questions or additional information, please contact:

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