

Project Play: Repurposing packaging into toys for play stimulation



unicef 
for every child

Supply Division

Overview

The Challenge

Play is critical for **healthy childhood development**, helping to build cognitive, social and physical skills. It is also an essential part of **severe acute malnutrition treatment**.

According to the [World Health Organization guidelines, psychosocial stimulation interventions are recommended as part of routine care to improve child development and anthropometric outcomes for children under 5 years](#). However, many children enrolled in malnutrition treatment do not have access to relevant toys. Many caregivers are also not aware of the importance of play.

Every year, UNICEF delivers thousands of tons of ready-to-use therapeutic food (RUTF), a fortified, peanut paste for treating malnutrition in children under five. [In 2023, nearly 7.5 million cardboard boxes used to transport RUTF were dispersed across the globe.](#) There is an **opportunity to repurpose** these boxes, traditionally discarded directly after use, into relevant and fun toys.

UNICEF is also working to address climate change through **sustainable procurement across all supplies**. Our environmental impact has consequences for children, their future and planet they will inherit.

The Response

Inspired by a supplier initiative, UNICEF is broadening the concept and will print and pre-cut toys in corrugated cardboard cartons, repurposing boxes into toys to **aid in malnutrition recovery and promote learning through play**. UNICEF offers a diverse catalogue of cardboard toys which help develop cognitive, motor and social skills in children aged six months to five years. The toys are **inclusive**, designed with contrast colours, tactile

features, easy grip, ensuring all children with and without disabilities can play with them. Additionally, how-to-use guides will be included for caretakers and UNICEF programming will emphasize **positive parenting and nurturing care**.

Project Play is already bringing smiles to children in several countries during **proof-of-concept testing** that started in late 2022. The initiative is currently piloted in **Uganda, Sierra Leone, and Pakistan**, within existing UNICEF-supported health centres offering RUTF treatment for children affected by wasting (too thin for their height). The learnings will inform several project parameters, such as using the supply chain for delivery, platform and modalities as well as accessibility of toys and parent engagement.

The Impact

Through this frugal innovation UNICEF will provide simple, fun and easy-to-use toys to children with severe acute malnutrition, **increasing the likelihood of recovery**. Additionally, providing toys and 'how-to-use' guides enables to **raise awareness of the importance of play**. By repurposing packaging and giving cardboard boxes a second life, UNICEF aims to **minimize waste**, contributing to a more sustainable world for future generations.

If **scaled**, this project has the potential to reach up to [7.3 million children per year – the number of children who received UNICEF-supported malnutrition treatment and care in 2022](#). If toy designs are added to the **packaging of other supplies**, UNICEF could potentially reach **tens of millions of children per year**.

Key figures

Issue:

7.5 million

In 2023, 7.5 million cardboard boxes circulated the world as part of RUTF packaging.

80 per cent

[UNICEF procures almost 80 per cent of the world's RUTE.](#)

69 countries

UNICEF delivered 1.15bn of RUTF sachets to 69 countries in 2022 .

Impact:

7.3 million children

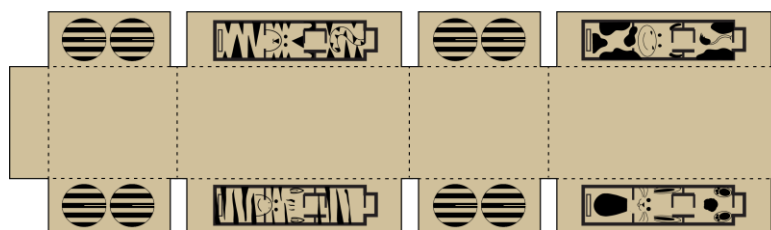
UNICEF could reach an estimated 7.3 million children with toys to support malnutrition recovery.

Tens of millions

If expanded to more supplies, UNICEF could potentially reach tens of millions of children with toys to aid development and lay a foundation for life-long learning.

Photo: A child at the Mulago National Referral Hospital in Kampala, Uganda, found an innovative use for the cardboard car-toy by turning it into a phone.

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A mockup example of malnutrition recovery relevant toys on a UNICEF RUTF box, including a **Gaze-and-roll Ball** and **Animal Stacking Blocks**. Both toys are specifically designed to support malnutrition recovery in young children through play stimulation.

While it may sound like fun and games, play is a critical part of healthy childhood development.

The first five years of life are a critical period of brain growth in every child, with learning taking place at a speed that will never be equaled. Through play children build cognitive and motor skills and learn through experimentation – figuring out how the world works for themselves. As they play together it also teaches social skills, including leadership and group skills.

When a child is malnourished, the lack of nutrients affects both their body and their brain, and it can halt critical cognitive development. By providing toys and encouraging play UNICEF can help ensure children’s brains begin to recover, in line with WHO recommendations. Just like our bodies, brains also need exercise to build back strength. The presence of toys will also help UNICEF raise awareness of the importance of play among caregivers.

UNICEF also aims to scale the project to include toy designs in more supply categories, potentially reaching tens of millions of children with developmentally relevant toys to lay a strong foundation for life-long learning.



A ball can help a child develop gross motor skills and support social and emotional learning such as how they interact, play – and share – with other children.



Stacking animal blocks or geometric tiles help promote object identification and categorization. Children also learn basic concepts, such as two squares can form a rectangle and two triangles can form a square. Blocks also help develop eye-hand coordination and balance.

Proof-of-concept testing in health centers and during emergencies



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“My son liked it so much that he was folding and unfolding the animals constantly, his mind was completely engaged.”

Sundai, a mother from the flood-affected area in Umerkot, Pakistan, as she smiles watching her 3-year-old play with cardboard toys

LEARN MORE:

- UNICEF’s product innovation: www.unicef.org/innovation/productinnovation
- Project Play: <https://www.unicef.org/innovation/project-play>

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