



Department of Research,
Monitoring, Evaluation,
Accountability & Learning

INTEGRATED NUTRITION & AGRICULTURE: STOPPING THE CYCLE OF ACUTE MALNUTRITION AMONG CHILDREN UNDER-FIVE IN SOUTH SUDAN

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EXECUTIVE SUMMARY

South Sudan faces a severe and continuing nutrition and food-security emergency driven by conflict, displacement, economic shocks and climate extremes. Millions are in need of assistance: humanitarian reports estimate **over 9 million people** require assistance and **more than 2.1 million** children are projected to suffer acute malnutrition in 2025. Therapeutic feeding programs save lives, but high relapse and continued food insecurity mean treatment without linked livelihood support leaves families trapped in a seasonal cycle of wasting among children under-five years. Integrating **community therapeutic feeding (CMAM)** with **seasonal livelihood support** and **maternal and child health/nutrition services**, while prioritizing **women’s nutrition-sensitive livelihoods**, is an evidence-based strategy to reduce relapse, improve dietary diversity and build resilience.

INTRODUCTION

Why Acute Malnutrition matters in South Sudan

South Sudan has endured years of armed conflict, economic collapse, and climate shocks that have undermined health and agriculture systems. Cyclical lean seasons push millions into food insecurity, while maternal and child malnutrition remain among the highest in the world.

Acute malnutrition can be moderate or severe, and includes inadequate vitamins or minerals, normally caused by inadequate dietary intake and illnesses. Approximately 50% (half) of deaths among all children under 5 years of age are linked to acute malnutrition (WHO, 2024). The consequences of acute malnutrition are enormous and affect not only the individual but also their community and the country at large. School-aged children will generally have reduced cognitive function, poor school achievement and greater behavioral problems (Mwene-Batu, 2020). In later life, it causes chronic illnesses, and increased family, and public expenditure (Wells, 2020; Saunders, 2010). These affects a country’s economy and development trajectory.

Scale of crisis: Humanitarian monitoring and cluster reports indicate that over 9 million people require assistance in South Sudan (WFP, 2025). Approximately 7.1 million people in South Sudan are categorized in IPC Phases 3-5 (crises to famine-like conditions) (IPC, 2025) and that 1.6–2.1 million children (6–59 months) are at risk or projected to be acutely malnourished in recent IPC/UNICEF updates. These numbers reflect repeated seasonal peaks and shocks (UNICEF, 2025; IPC, 2025).

Maternal undernutrition: Maternal anaemia and poor maternal nutrition are common drivers of low birthweight and acute malnutrition among children; global WHO data underscore high anaemia burdens among women in South Sudan. Over 30% and 35% of women aged 15-49 years who were not and were pregnant suffered from anemia in 2023 respectively. Improving maternal nutrition is essential to breaking intergenerational cycles of undernutrition (WHO, 2025).

Service & systems gaps: Health, nutrition and agricultural extension services are fractured by conflict and funding shortfalls; humanitarian responses are often siloed (feeding vs. livelihoods), producing high relapse after clinical recovery. Studies show significant rates of relapse among children post-treatment where food insecurity persists (Kangas, 2023).

Vulnerable Groups:

- Children under five years have the highest risk of wasting and death.
- Pregnant and lactating women - nutrient depletion, anaemia, low birthweight children.
- Displaced households and women-headed households due to limited assets, access to land, or markets and food.

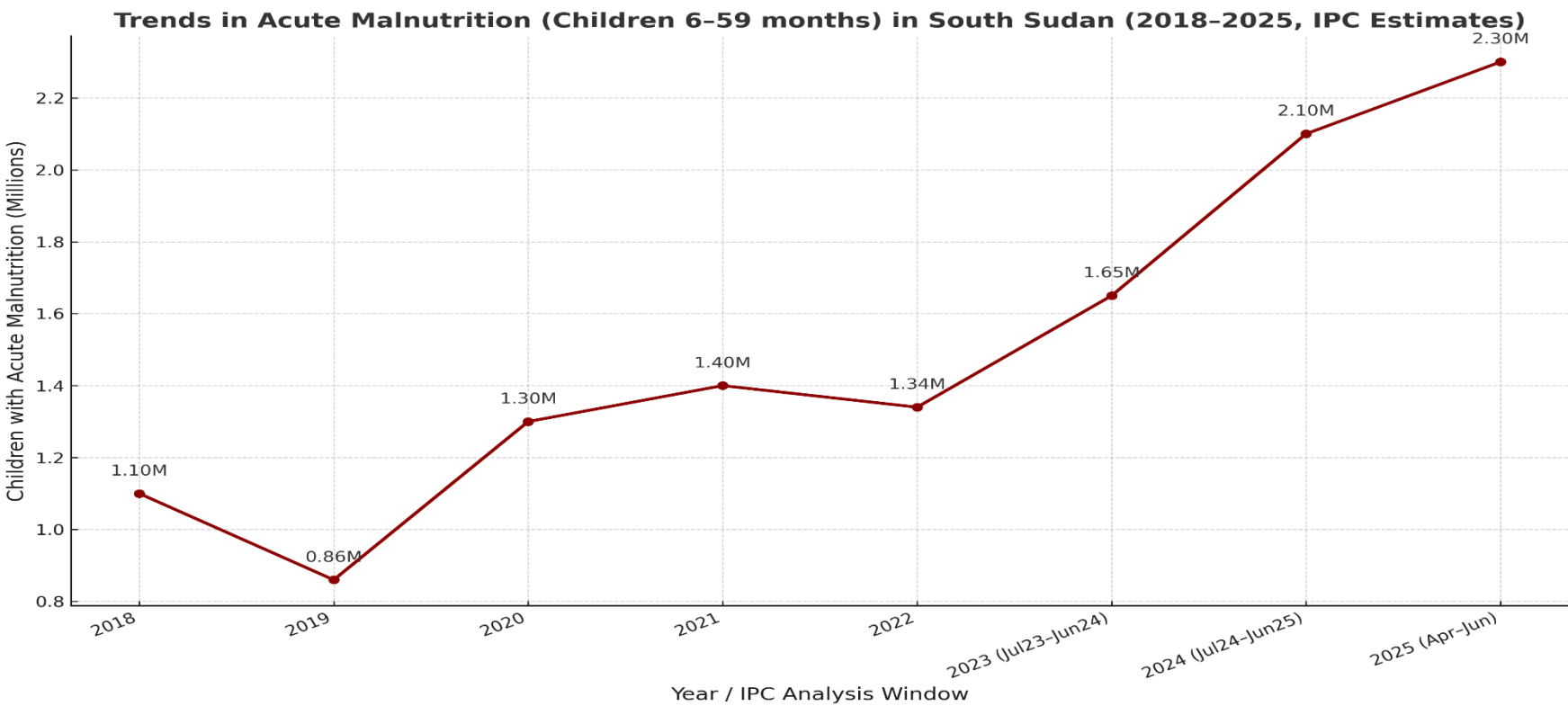


Table 1: Year-by-year table (best available IPC / UN estimates)

Period	Estimated children 6-59 months with acute malnutrition	SAM (where reported)	Sources
2018 (calendar)	1.10 million (estimate / national reporting)	SAM admissions treated in 2018: 206,673.	UNICEF 2018 Annual Report (country office) / WHO region notes.
2019 (calendar)	0.86 million children acutely malnourished	SAM admissions Jan–Nov 2019: 221,893	UNICEF Nutrition Briefing (Dec 2019). (UNICEF)
2020 (projection for 2020)	1.30 million children (projected)	Projected SAM ~292,000 (2020 projection).	IPC / UNICEF projections (IPC-AMN & FSNMS; ReliefWeb summary Feb-May 2020). (ReliefWeb)
2021 (Apr–Jul 2021 window)	1.40 million children acutely malnourished	313,391 children with SAM (estimate used in HAC 2021).	UNICEF HAC / country analysis 2021. (UNICEF)
2022 (Feb–Jul 2022 / IPC AMN)	1.34 million children (IPC-AMN estimates)	302,163 SAM estimated (IPC/UN reporting).	IPC AMN 2022; UNICEF SitRep (June 2022). (IPCInfo)
2023 (Jul 2023–Jun 2024 IPC window)	1.65 million children (projected for Jul 2023–Jun 2024)	480,000 SAM (component of the 1.65M).	IPC country analysis (July 2023–June 2024). (IPCInfo)
2024 (Jul 2024–Jun 2025 IPC window)	2.10 million children (projection Nov 2024 IPC TWG)	700,000 SAM (approx: MAM 1.4M + SAM 0.7M reported).	IPC TWG / GRFC country brief (Nov 2024). (IPCInfo)
2025 (Apr–Jun 2025 projection update)	2.30 million children (IPC update Apr–Jun 2025) — +10.5% vs earlier 2.1M	714,000 SAM (IPC update figure).	IPC April–June 2025 update; ReliefWeb summary; UN agency statements. (IPCInfo)

EVIDENCE & ANALYSIS — WHAT WORKS AND WHY IT SHOULD BE SCALED-UP

1. Community Management of Acute Malnutrition (CMAM) saves lives but relapse is a problem

CMAM (outpatient Therapeutic Feeding Program, Supplementary Feeding program, and active case finding) dramatically reduces mortality and increases coverage. However, cohort studies in fragile contexts show notable **rates of relapse** within months after discharge when households remain food insecure. This implies clinical treatment must be paired with measures that address the household's food and income gaps during the vulnerable recovery window (King, 2022).

2. Nutrition-sensitive agriculture improves diets and reduces risk factors for malnutrition

Systematic reviews and randomized/observational studies found that nutrition-sensitive agriculture (homestead gardens, small livestock, bio fortified crops, BCC on feeding/care) **increases dietary diversity, micronutrient intake and child feeding practices**, especially when coupled with behavior change communication

and women's involvement. These interventions are effective entry points to sustain recovery and reduce recurrence of wasting (Sharma, 2021).

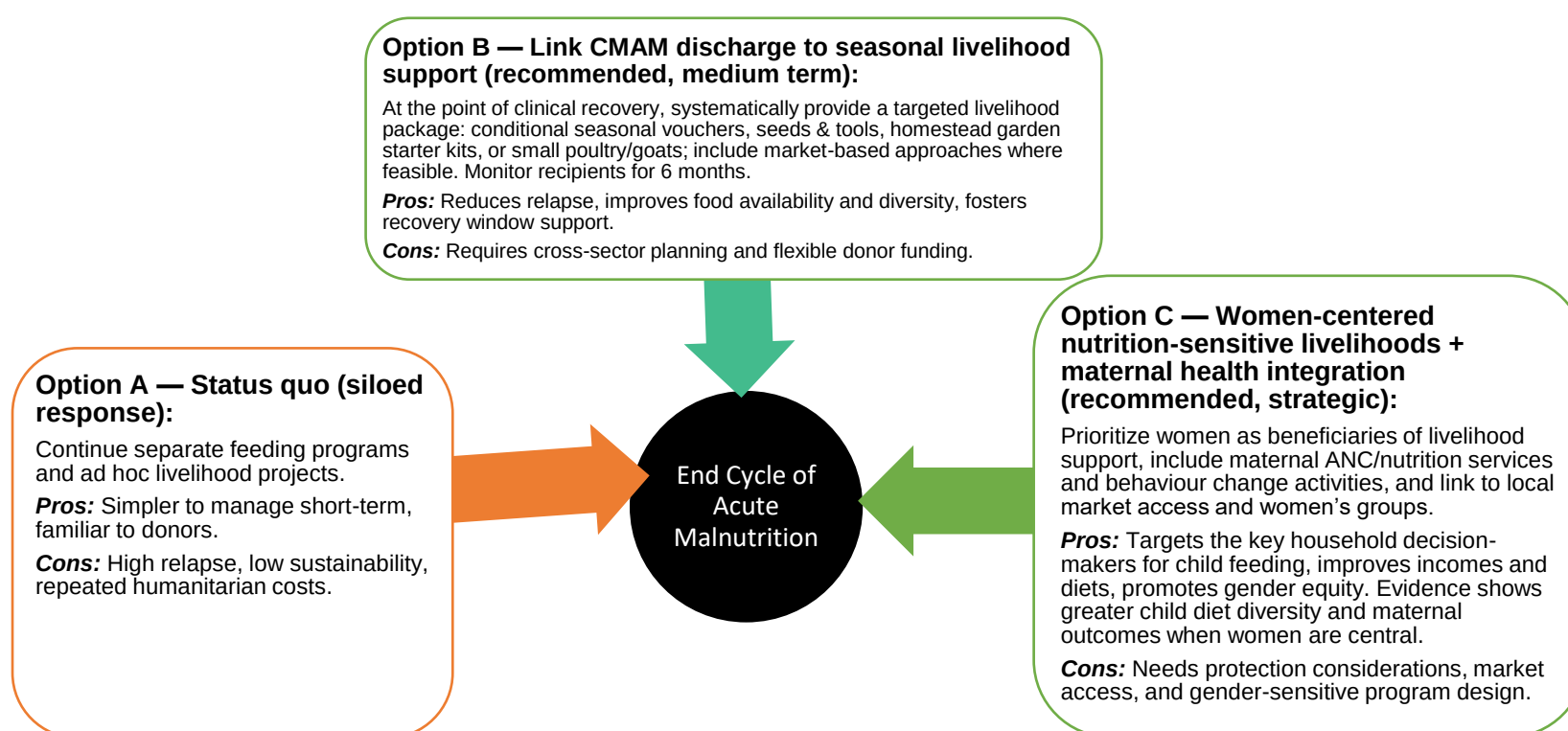
3. Maternal nutrition interventions produce measurable child health gains

Antenatal care including iron-folate supplementation, counselling on maternal diets and breastfeeding support are strongly associated with improved birth outcomes and reduced neonatal/infant risk. Integrating these into nutrition outreach and livelihood programs multiplies benefits. (Sharma, 2021)

4. Integrated packages reduce relapse and build resilience

Evidence from East Africa and multiple systematic reviews indicates **combined packages** (therapeutic feeding + livelihood assistance or cash + maternal services + BCC) are more likely to produce sustained reductions in acute malnutrition than nutrition-only approaches. They also promote household resilience to seasonal shocks (Sharma, 2021).

POLICY OPTIONS (PRACTICAL, COMPARED)



CONCRETE RECOMMENDATIONS (WHO-DOES-WHAT, AND SEQUENCING)

National Government & Line Ministries (Health, Agriculture, Gender)

1. Endorse an **Integrated Nutrition-Agriculture Guide** that mandates CMAM programs link with seasonal livelihood packages and maternal nutrition services at community level.
2. Prioritize allocation of government/pooled funds toward integrated pilots in highest-burden counties (per IPC).

Humanitarian Clusters, UN & Donors

1. **Fund multi-sector bundles** rather than single-sector short grants: support CMAM + 6 months post-discharge seasonal support + maternal ANC linkages. Use pooled funds (HRP, CERF, or resilience windows) to ensure multi-year flexibility.
2. Require monitoring of **relapse rates** (6 months) as a core indicator when funding nutrition programs.

NGOs & Implementers

1. Design women-centred packages: homestead gardens, small livestock, market linkage, and maternal nutrition counselling. Use motivated community health workers to deliver ANC-linked messages and follow-up. Pilot in 3–5 counties, evaluate rigorously (cost-effectiveness and impact on relapse and diet diversity).

IMPLEMENTATION CONSIDERATIONS & RISKS

- **Security & access:** Operation in insecure areas will require negotiated access and remote management strategies. Risks to aid workers are rising—programs must include context-specific safety plans. [AP News](#)

- **Markets & inflation:** Food and seed prices and weak market functioning (post-2023/24 shocks) affect the choice between in-kind support and cash/vouchers; market assessments are mandatory (FAO, 2025).
- **Gender & protection:** Targeting women must include protection safeguards to avoid unintended harm (control of assets, intra-household tensions). Incorporate gender analysis and GBV referral pathways.
- **Financing:** Requires multi-year, flexible funding; short emergency grants hinder coordination and adaptive design (WFP, 2025).

Monitoring & evaluation (core indicators)

- Treatment coverage and recovery rates (CMAM).
- **Relapse incidence** within 6 months post-discharge (primary performance indicator).
- Household Dietary Diversity Score (HDDS) and Infant and Young Child Feeding (IYCF) practices.
- Women's income from targeted livelihoods and ANC coverage for beneficiary mothers.

CONCLUSION — THE POLICY PIVOT REQUIRED

Acute malnutrition in South Sudan will persist unless treatment is coupled with household-level measures that secure food and income during the recovery window and improve maternal nutrition. Evidence from systematic reviews and cohort studies supports integrating **therapeutic feeding, seasonal livelihood support and maternal and child health services**, with an emphasis on **women's livelihoods**. This integrated approach reduces relapse, increases dietary diversity, and strengthens household resilience, hence delivering better value for donors and, most importantly, saving and improving children's lives.

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