

CASE STUDY

SOUTH SUDAN 2023 / COMPLEX CRISIS

CONTEXT / SETTLEMENT



SUPPORT METHODS

CRISIS

Complex (internal communal conflict, disasters and returns and refugees from Sudan)

PEOPLE IN NEED

9 million people*

PEOPLE
DISPLACED

1.9 million Internally Displaced People;
1.2 million Returnees; 0.5 million Refugees*

PEOPLE WITH
SHELTER NEEDS

2.1 million people**

PROJECT
LOCATION

Most relief efforts in 2023 focused on 4 states: Jonglei, Upper Nile, Unity, and parts of Northern Bahr Ghazal

PEOPLE
SUPPORTED BY
THE PROJECT

705,000+ people supported through the pipeline in 2023 (61% of total targets. 52% female, 48% male)**

PROJECT
OUTPUTS

527,000+ received shelter items
705,000+ received household items
255,000 received complementary cash

DIRECT COST

USD 82 per household on average

PROJECT
COST

USD 140 per household on average



PROJECT SUMMARY

The South Sudan Common Pipeline is a long-standing preparedness and response mechanism that enabled rapid, standardized shelter and non-food item assistance in a context marked by conflict, recurrent flooding, and large-scale displacement. Managed on behalf of the Shelter and Non-Food Items Cluster and linked to wider coordination, it has helped partners deliver pre-positioned supplies at scale while reducing lead times, improving quality control, and supporting more consistent assistance across responses. In 2023, this model remained a backbone of the shelter response by combining centralized procurement, warehousing, quality assurance, and coordinated release processes to reach crisis-affected households in areas where markets and logistics capacity were highly constrained.

* South Sudan HNRP 2024; ** South Sudan SNFI Cluster 2023 annual report.



CONTINGENCY PLANNING

PROCUREMENT AND PREPOSITIONING

PROJECT

COMMON PIPELINE RESPONSE ACTIVITIES, M&E, ADVOCACY AND FUNDRAISING

CONTEXT

PROTRACTED / COMPLEX CRISIS

TIMELINE

2013

2023

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC



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Timber and bamboo were locally procured, while all other core relief items delivered by the Common Pipeline were internationally sourced.



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The South Sudan Common Pipeline, active since 2011 in the country, continued enabling humanitarian partners to access and deliver shelter and NFI items.

BACKGROUND

Since independence in 2011, South Sudan has faced overlapping shocks driven by conflict, repeated displacement, climatic extremes, and economic fragility. Intercommunal violence and localized insecurity have persisted despite national peace efforts, while recurrent flooding has damaged homes, disrupted livelihoods, and cut off roads and markets for long periods. The outbreak of conflict in neighboring Sudan in April 2023 further increased pressures by driving large numbers of returnees and refugees into South Sudan, elevating demand for shelter, non-food items, and basic services.

These conditions made preparedness and common supply arrangements essential. In a context where roads are seasonally inaccessible, flights are expensive, and local markets often cannot provide sufficient quantities of standard items, the Common Pipeline provided a practical mechanism to procure, quality-check, warehouse, and rapidly release relief stocks when needs emerged. Refer to case study A.24 in Shelter Projects 2015-16 for more background.

SITUATION BEFORE 2023

Before new shocks in 2023, many households were already living in fragile conditions shaped by years of displacement, poverty, and repeated flooding. People were spread across rural villages, peri-urban areas, host community settings, collective centers, and informal sites, often in shelters that required frequent repair or seasonal maintenance.

SITUATION AFTER DISPLACEMENTS AND FLOODS IN 2023

During acute displacements or floods, families sheltered with hosts, in public buildings, collective centers, or erected makeshift structures; others remained in damaged homes. Many lost household assets and essentials, impairing their ability to cook, sleep safely, protect themselves from rain and mosquitoes, and maintain dignity. When partners judged that cash or local procurement were not feasible due to dysfunctional markets or access constraints, the Common Pipeline provided a structured way to mobilize standardized shelter and NFI packages within short timeframes.

THE COMMON PIPELINE WITHIN THE NATIONAL SHELTER STRATEGY

The Shelter and NFI Cluster strategy for 2023–2025 prioritized timely, tailored assistance, stronger emergency response capacity, support toward more durable shelter solutions, and improved monitoring and reporting. Within this framework, the Common Pipeline operated as a shared service linked to cluster decision-making. State and national focal points reviewed needs analyses and endorsed partner release requests; the pipeline then translated these decisions into procurement, stock management, and item releases.

RATIONALE FOR THE COMMON PIPELINE

The Common Pipeline was designed on the premise that many partners could not independently procure, store, quality-check, and transport standard shelter and NFI items to remote locations. A common mechanism would reduce delays, improve quality, and strengthen coordinated coverage. The intended outcome was to ensure that crisis-affected households could receive timely access to emergency shelter materials and essential household items through a transparent, cluster-supported process.

In-kind assistance was prioritized because local markets were frequently disrupted or unable to provide required items in the needed quantities and specifications. Partner assessments fed into state- and national-level endorsement; once approved, items were released from pipeline stocks and partners reported on distributions and outcomes. This design reinforced accountability, while pre-positioning enabled mobilization within days rather than months.

Timeliness was built into the pipeline process, although a single universal target from needs identification to household distribution was not formally defined. The request process included indicative processing times of less than 24 hours for initial review and less than 48 hours for subsequent endorsement and release steps. Pre-positioned Common Pipeline stocks also helped reduce procurement-to-delivery lead times from several months to under one week for most releases. In practice, items could be released within 72 hours or within two to five days, depending on stock availability, access conditions, and partners' last-mile logistics capacity.



Bulk, centralised procurement and pre-positioning of relief items in strategic locations enabled much more predictable and rapid response to emergencies.



The assistance delivered by partners through the Common Pipeline reached vulnerable households in hard to reach areas where markets were disrupted.

IMPLEMENTATION

Implementation combined cluster coordination, supply chain management, and partner delivery. The Common Pipeline in 2023 served 23 SNFI partners, including international and national NGOs and UN agencies. Following cluster-approved requests, items were released from stocks pre-positioned in hubs such as Juba, Bor, Bentiu, Malakal, and Wau, reducing response times during flooding and access constraints.

The Common Pipeline covered core shelter and NFI items including plastic sheeting, blankets, mosquito nets, kitchen sets, sleeping mats, kangas, solar lamps, ropes, bamboo, poles, and bags. Quality assurance and quality control (QA/QC) used detailed specifications, inspection procedures, and acceptance checks for incoming goods. The Procurement and Logistics Management System (PALMS), a stock-and-release tracking system, improved visibility and planning compared with manual approaches.

As part of implementation, partners conducted safety audits before distributions to ensure that sites were accessible and appropriate for vulnerable groups, including women, older people, persons with disabilities, and other households facing protection risks.

TARGETING

Targeting followed cluster criteria and prioritized households facing acute shelter and NFI needs, particularly internally displaced people, returnees, and vulnerable host populations.

Priority locations included areas repeatedly affected by conflict, flooding, and new arrivals, especially in Jonglei, Upper Nile, Unity, and Northern Bahr el Ghazal.

COMMUNITY ENGAGEMENT

Community engagement informed needs assessment, beneficiary verification, distribution planning, and post-distribution monitoring. Feedback mechanisms, including help desks, complaint channels, and regular engagement with community representatives, allowed concerns about quality, suitability, and quantities to be captured and addressed in subsequent releases and procurement cycles. Survey findings indicated strong satisfaction in many locations but also highlighted the need to adjust quantities and item portfolios for larger households and varying preferences.

Despite this, the Common Pipeline's standardization, overall a strength, did not always capture community preferences or specialized needs across diverse groups, indicating room to incorporate systematic user feedback into item portfolios over time.



The core shelter and NFI items covered in the Pipeline included, among others, plastic sheeting, blankets, mosquito nets, sleeping mats and kitchen sets.

MATERIALS AND SUPPLY

Since the early stages of the response, the majority of emergency relief items in South Sudan are not produced locally, making international sourcing the dominant procurement route for core items. Most items were purchased via long-term agreements and delivered initially to Juba for inspection and consolidation, then staged to field hubs. To support local markets, select items, such as bamboo, wooden poles, and rubber rope, were procured from local vendors when quality and availability were sufficient, with supplier monitoring used to support sustainable production and harvesting of bamboo and wooden poles and reduce the risk of environmental degradation. Centralized procurement generated savings and simplified supply chains by consolidating transportation, warehousing, and tax exemptions.

Bamboo was locally procured where quality and availability allowed, making it one of the Common Pipeline items with direct links to local markets. This helped reduce dependence on imported materials and created opportunities for local suppliers, while quality control procedures ensured that bamboo met minimum specifications for length, straightness, diameter, and condition. To avoid environmental harm, local sourcing required continued monitoring of harvesting and supplier practices. Future Common Pipeline programming could add clearer sustainability criteria for bamboo procurement, including vendor screening, responsible harvesting guidance, and periodic review of local supply capacity.



Where local markets were unable to provide high-quality relief items, the pre-positioned goods of the Common Pipeline enabled to stock durable and standardized supplies while also generating savings thanks to economies of scale. Despite this, in some cases this standardization meant that not all preferences could be met.

Market monitoring and survey evidence highlighted the cost-efficiency advantages of the Common Pipeline. For instance, an October 2025 monitoring exercise found that a plastic sheet cost about USD 14.35 through the Common Pipeline, compared with an average of USD 37.47 in local markets. This doesn't consider the significant added lifespan advantage of the higher quality Common Pipeline items. Overall, items not meeting cluster standards cost roughly 2.3 times more when procured locally; kitchen kits outside the Common Pipeline were around USD 20 more expensive. A large tender also drove mosquito net prices down from USD 5 to USD 1.90, and plastic tarpaulins purchased outside the Common Pipeline were almost double the price. While dates reflect wider learning beyond 2023, these findings illuminate structural price differentials and quality risks that were also observed in 2023 operations.



During distributions, kits composition and each item were carefully explained, and feedback mechanisms allowed to gather inputs and tailor assistance.

COORDINATION

Coordination was a defining feature of the project. Managed on behalf of the cluster, the Common Pipeline's release decisions were linked to cluster validation and partner requests. The model relied on synchronized work with supply chain teams, the Logistics Cluster, government authorities, donors, and technical working groups, aligning stock decisions, transport, quality standards, and advocacy with operational priorities throughout the year.

Coordination with a broad set of stakeholders underpinned operations: Memoranda of Understanding (MoUs) with all 23 partners defined roles for assessment, distribution, monitoring, reporting, and joint advocacy; pipeline teams collected beneficiary feedback during post-distribution monitoring; global procurement and quality teams provided standards oversight; donors were regularly briefed; government actors enabled tax exemptions and safe passage; the Logistics Cluster facilitated transport and pre-positioning; and strategic and technical working groups guided prioritization and standards.

PREPAREDNESS MEASURES

Maintaining stock levels in multiple hubs before the main emergency season reduced the risk that households would wait months for assistance once floods or violence displaced them. Pre-positioning also mitigated reliance on costly air assets and minimized exposure to road closures and seasonal access constraints.



Detailed quality control measures ensured that only high-quality items meeting agreed specifications would be accepted and reached people in need.

MAIN CHALLENGES

- Long procurement lead times for internationally sourced items created structural dependence on offshore supply chains, requiring advance procurement and careful replenishment planning, especially when stocks tightened.
- Last-mile logistics capacity varied among partners, constraining distribution speed in some locations and necessitating additional support for warehousing, transport, and field delivery.
- Limited local production capacity meant core items were often imported, slowing replenishment and limiting supply-side localization.
- Bureaucratic impediments and access constraints, including multiple checkpoints, clearance delays, import duties, and seasonal flooding, increased costs, delays, and transport risks along supply routes.
- Funding gaps reduced procurement volumes and pre-positioning buffers in 2023, leaving some needs unmet when demand spiked.
- The centralized model created a concentration risk: if the managing agency faced delays with authorities, customs clearance, tax exemptions, or movement permissions, the wider shelter response could be affected. This was partly mitigated through clustered validation, multiple partner agreements, pre-positioned stocks in several hubs, local procurement of selected items, and coordination with government authorities and the Logistics Cluster on access and transport. Future programming should strengthen this by formalizing contingency arrangements, including backup suppliers, escalation protocols with authorities, and complementary procurement options that maintain common quality standards while reducing over-dependence on one channel.
- Fragmentation from parallel procurement streams in some agencies reduced standardization and diluted economies of scale.



Warehouses at strategic locations acted as hubs prior to last-mile delivery.

ENVIRONMENTAL IMPACT

Environmental considerations were present but uneven. On the one hand, the cluster context increasingly emphasized greener responses and the Common Pipeline incorporated items such as solar lamps and ensured appropriate packaging and disposal guidance. On the other hand, environmental criteria were not yet systematically embedded in all procurement decisions, in line with the organizational procurement guidelines which had not yet been updated at this time to include sustainability factors. The Common Pipeline relied heavily on plastic-based materials due to their superior performance in harsh conditions and their availability, although these products have a high carbon impact. Continual QA/QC helped reduce waste by curbing circulation of poor-quality goods that would fail quickly.

Environmental standards were applied mainly through item specifications, quality control checks, and procurement review, in line with global standards such as the Unified Technical Specifications of the Quality, Social, and Environmental (QSE) Interagency Group. These procedures helped ensure that items were durable and fit for purpose, reducing premature replacement and waste. For locally procured bamboo and wooden poles, supplier monitoring helped limit the risk of unsustainable harvesting. Disposal considerations focused on appropriate handling of packaging and used materials, but standardized disposal options were not yet fully documented. Future programming should formalize clearer environmental requirements within Common Pipeline SOPs, including packaging reduction, reuse or recycling where feasible, responsible sourcing of natural materials, and safe disposal guidance for plastic-based items.

TECHNICAL SOLUTIONS

The adoption of the PALMS platform for stock and release tracking provided partners and coordinators with clearer visibility, planning data, and accountability across hubs. In parallel, QA/QC protocols specified detailed inspections and acceptance criteria. For example, the standard QA form for wooden poles captured minimum lengths and diameters, wood quality, and packing; a similar form defined material, dimensions, stitching, and packing for sandbags, each form with sign-off fields and records procedures, to maintain quality and traceability.

EXIT/HANDOVER

The Common Pipeline did not include a conventional handover phase because it functions as an ongoing cluster service rather than a time-bound project. Nevertheless, its long-term value depends on building partner capacity, strengthening local participation, and, over time, investing in responsible local production where feasible and consistent with cluster standards.

For instance, more recently, the Common Pipeline engaged a local NGO through a pilot project to facilitate the local production and procurement of 30,000 local reed mats to replace the synthetic sleeping mats in the standard kit. The production was done by local women organized in over a hundred groups, which also had a positive impact on household incomes. Once produced, the items were delivered at the Common Pipeline warehouse in Wau and accessed by partners for frontline distributions to displaced populations.

OUTCOMES AND WIDER IMPACTS

One of the major direct outcomes was the rapid access to emergency items for affected people at scale. Because items were pre-positioned, partners could often reach households within days, rather than waiting months for independent procurements to clear. The number of people reached by the Common Pipeline in 2023 represented a large share of the overall cluster response, with distributions spanning shelter materials and core household kits across multiple states and settlement types.

Wider impacts extended beyond volumes delivered.

By centralizing procurement and enforcing specifications, the pipeline limited circulation of inferior items, improved consistency of assistance, and reduced unit prices via economies of scale, tax exemptions, and shared warehousing. In doing so, it also enabled smaller national actors to participate effectively in shelter responses without maintaining their own international supply chains and large warehouses, contributing to localization in a context where many national partners lacked access to bulk procurement. See case study A.04 as an example.

Community and partner feedback informed improvements.

Post-distribution monitoring highlighted generally positive perceptions of timeliness and quality, while also identifying needs linked to larger households and item preferences. One national partner noted that pre-positioned kits enabled rapid reach, restored basic living conditions, and strengthened accountability through joint verification and distribution oversight. Beneficiary feedback also showed that blankets, mosquito nets, and cooking sets improved safety, warmth, and the ability to prepare meals during displacement.

The Common Pipeline also served as a platform for advocacy.

Operational evidence, numbers reached, price differentials, QA/QC findings, and user feedback, supported regular briefings with donors and authorities on the consequences of underfunding, clearance delays, and access constraints. It provided a common factual basis for prioritization and replenishment decisions during peak flooding and heightened arrivals from Sudan.



Despite the fact that durable materials meant longer lifespans and reduced the need for frequent replacement, the Pipeline still relied heavily on plastics.



Beyond the volumes of assistance delivered via the Pipeline, its model also enabled smaller national actors to participate in shelter response.

STRENGTHS, WEAKNESSES AND LESSONS LEARNED

STRENGTHS

- ✓ **Cost-effectiveness and value for money through scale.** Centralized, bulk procurement reduced unit costs via economies of scale and tax exemptions; shared warehousing and transport further contained costs. Market monitoring consistently found pipeline prices lower than local ones, with examples ranging from kitchen kits to mosquito nets and tarpaulins.
- ✓ **Harmonized items and standards.** Uniform specifications and QA/QC curtailed circulation of substandard items, supported safer and more equitable distributions, and simplified training, storage, and handover processes across agencies and locations.
- ✓ **Quality assurance and control.** Detailed inspection checklists and acceptance protocols strengthened reliability and performance in harsh field conditions, minimizing waste and the need for replacement.
- ✓ **Timeliness via pre-positioning.** Staging stocks in strategic hubs enabled partners to respond within days when access windows opened or new displacements occurred, particularly during flood seasons.
- ✓ **Inclusion and localization enablers.** The Pipeline's shared service allowed national partners to access standardized stocks and logistics support without maintaining their own international procurement systems, strengthening localized delivery capacity.

WEAKNESSES

- × **Lead-time sensitivity.** Continued dependence on offshore suppliers introduced three-to-six-month procurement cycles and exposure to clearance and checkpoint delays; pre-positioning mitigated, but did not eliminate, these constraints.
- × **Fit and preference gaps.** Standardized packages did not always reflect diverse household circumstances, cultural preferences, or larger family sizes, highlighting the need for stronger integration of user feedback in item portfolios and quantities.
- × **Uneven last-mile delivery capacity.** Variability in partner warehousing, fleet, and field logistics could limit distribution speed and coverage; downstream bottlenecks diluted some timeliness gains achieved through upstream pre-positioning.



FURTHER READING ON SHELTER PROJECTS

On the South Sudan response: [SP 15-16 / A.23 OVERVIEW](#); [SP 17-18 / A.06 OVERVIEW](#).

On the Common Pipeline: [SP 15-16 / A.24 SOUTH SUDAN](#); [SP 10TH ED. / A.04 SOUTH SUDAN / 2023-2024](#).

LESSONS LEARNED

- **Cluster–Pipeline co-ownership drives performance.** Embedding the Common Pipeline in cluster validation and prioritization processes kept allocations needs-based and transparent, aligned with broader response objectives, and strengthened joint advocacy.
- **Preparedness is the decisive timeliness factor.** The greatest performance gains arose from pre-positioning items ahead of seasonal floods, enabling rapid release during short access windows and reducing reliance on expensive air operations.
- **Timeliness should be measured more systematically.** Future Common Pipeline operations could define and monitor clear benchmarks for each stage of the response cycle, including time from needs identification to partner request, request to cluster endorsement, endorsement to release, and release to household distribution. Where stocks are available and access is feasible, a context-specific benchmark such as release within 72 hours of an endorsed request could help measure performance, identify bottlenecks, and distinguish delays linked to approvals, stock availability, transport, access, or partner capacity.
- **Accountability and continuous improvement.** Structured AAP mechanisms and post-distribution monitoring surfaced actionable feedback on quality and suitability; feeding those insights into procurement cycles and release protocols improved fit-for-use over time.
- **Quality and cost go hand in hand.** QA/QC safeguards limited failures and waste, while market monitoring and strategic tenders kept prices down across key items, demonstrating that centralized procurement can deliver both quality and savings.
- **Localization as equitable access.** Beyond local purchasing, localization includes giving national partners predictable access to stocks, procedures, and information, through MoUs, dashboards, snapshots, and joint monitoring, so they can deliver donor-compliant, audit-ready assistance at scale.