

CASE STUDY

DEM. REP. OF THE CONGO 2019–2020 / CONFLICT

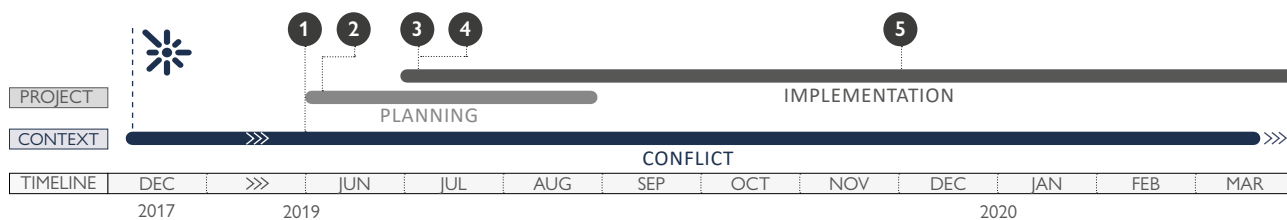
KEYWORDS: Emergency shelter, Environmental sustainability, Site planning

CRISIS	Ituri crises, late 2017 onwards
PEOPLE DISPLACED	Over 360,000 people displaced since June 2019*
PROJECT LOCATION	Ituri Province, Northeastern Congo
PEOPLE SUPPORTED BY THE PROJECT	8,621 HHs provided with emergency shelters
PROJECT OUTPUTS	7,673 family emergency shelters 79 collective emergency shelters 8,621 IDP HHs received NFIs Cash-for-Work for host community and displaced populations Site coordination and management Community based protection activities
SHELTER SIZE	10.5m²
SHELTER DENSITY	2.1 – 3.5m² per person
DIRECT COST	USD 125 per shelter
PROJECT COST	USD 140 per shelter
* Source: UNHCR DRC country operation	



PROJECT SUMMARY

The project was developed to respond to the internal displacement crisis during the upsurge in violence in Ituri province. The organization scaled up its response, constructing collective and family emergency shelters for the most vulnerable IDPs across 20 IDP sites in 12 villages and towns. The organization undertook site planning and shelters were built in extensions to existing self-settled IDP sites, in a newly planned IDP site, and on the land of host families. The construction teams were formed of members of host communities and IDPs and were engaged through the Cash-for-Work modality. The project triggered in-depth research into the appropriateness of different variations of shelter designs.



Dec 2017: Inter-ethnic attacks between communities had already led to widespread displacement in late 2017 and early 2018.

- 1 Jun 2019:** Escalation of inter-ethnic attacks in Ituri region.
- 2 Jun - Jul 2019:** Assessment of needs.
- 3 Jul - Aug 2019:** Project design and land negotiations.
- 4 Jul 2019:** Start of consultations with the host communities and IDPs.
- 5 Dec 2019 - Mar 2020:** Further research carried out into alternative shelter typologies using locally available materials.



The project aimed to improve living conditions for IDPs and decongest extremely overcrowded IDP sites.

CONTEXT

Although the Democratic Republic of the Congo (DRC) is rich in natural resources, the rate of people living below the poverty line is one of the highest in the world and the country is ranked among the most vulnerable in terms of humanitarian crises. The political situation results in ongoing escalations, electoral and economic tensions, resurgences of militias and latent ethnic and community conflicts. These factors generate massive displacements, cause resurgences of endemic diseases and worsen malnutrition and food insecurity. In addition to hosting refugees from neighboring countries, by the end of 2019, DRC was also home to more than five million IDPs.

ESCALATION OF ATTACKS AND DISPLACEMENT

Since December 2017, violence in Ituri Province, in the northeast of DRC has left thousands of people dead and nearly half a million displaced. The political climate improved following elections in 2018, with a peaceful transition of power. However, while the scale of violence decreased in some regions, there was a sharp increase in Ituri, North Kivu and South Kivu provinces. Since June 2019, large-scale displacement has been reported once again in three of Ituri's five administrative territories.

The majority of displaced people sought shelter within host communities, with host families in some cases hosting up to four IDP households. Tens of thousands of others arrived in existing displacement sites where conditions were already dire, with many needs including shelter and health. Many IDPs were sleeping out in the open or in public buildings such as schools and churches. A minority of IDPs managed to set up makeshift shelters – often with materials they had kept since previous episodes of displacement, including tarpaulins. For many, this was their second or even third time being displaced.



79 collective shelters were built in host communities to support IDPs sleeping in the open air or in public buildings. Collective shelters were partitioned with separate units for eight households.

PROJECT APPROACH

The organization's three strategic shelter focuses in relation to IDPs in DRC are: to provide emergency response, to support returns or local integration in displacement areas, and to reinforce local capacities. The shelter response in Ituri province aimed to provide the most vulnerable IDP households with emergency shelter. The response aimed to support the most vulnerable IDPs: those sleeping in the open air, in public buildings, or staying with host families. IDPs sleeping in the open air or in public buildings within host communities were first to receive shelter support, through the construction of collective shelters.

Efforts were also made to decongest existing self-settled IDP sites by negotiating additional land and providing shelters for families who were resettled. Shelters were built in the contexts of extensions to spontaneous IDP sites, in newly planned settlements, and on the land of hosting families.

The emergency shelters were implemented through an integrated program where the organization provided the shelters while other partners were engaged with the provision of latrines, showers, and in improving water sources. The organization's response also included the distribution of Non-Food Items (NFIs) such as blankets, sleeping mats, plastic sheeting, laundry soap and jerry cans. Women and girls also received dignity kits (including sanitary pads) to support their menstrual hygiene. IDPs and the host communities were involved in the construction of the shelters through a Cash-for-Work modality.



Many IDPs built improvised shelters in self-settled sites which presented very overcrowded and severely inadequate living conditions.

ACCESS TO LAND & SITE PLANNING

EXTENSION OF SELF-SETTLED SITES

The vast majority of IDP sites started as self-settled sites on church land, where IDPs had negotiated with local authorities, landowners and host communities the right to occupy the land. To decongest overcrowded sites and to improve living conditions, the organization negotiated access to additional land adjacent to or in the vicinity of the existing sites, to which some families could be relocated. Access to land was negotiated for an initial period of five years, with possibility of extension.

Even with site extensions the sites remained incredibly dense and overcrowded. The site planning of the site extensions followed basic humanitarian planning principles and standards in relation to the spacing of new shelters. However, communal areas (schools, cooking areas, market areas) and infrastructure works (drainage, access roads, WASH infrastructure), which are usually an integral part of well-planned sites, were oftentimes not implemented. Latrines were built by partners but the lack of overall site planning and issues with phasing of implementation meant the locations of latrines within sites were often not optimal.

KIGONZE IDP SITE, BUNIA

In the Ituri response, only one IDP site was established as a planned site; Kigonze IDP site, built on the outskirts of Bunia city and through a phased approach, hosted 10,000 IDPs (2,000 shelters) once completed. Unlike the extensions to self-settled sites, Kigonze was thoroughly planned following humanitarian site planning standards.

Kigonze was developed by considering different elements that form human settlements and was not limited only to the implementation of the shelter units. The toilets, showers and water sources were arranged to allow access for the most vulnerable. The limited space did not allow to allocate individual kitchen areas, therefore covered communal kitchen areas were implemented evenly throughout the settlement. Moreover, contrary to other sites, the local authorities agreed to build a new school

which was planned to serve IDPs and the host community (IDPs who settled in other sites had to integrate their children into local schools, which proved challenging in the majority of cases, as the local schools were already overcrowded, and in general the IDPs were unable to pay the extra school fees). Kigonze site was planned taking advantage of the slight terrain slope to facilitate site drainage and was equipped with access roads and drainage channels.

COMMUNITY ENGAGEMENT

With the goal of promoting coexistence, social cohesion, empowerment and endorsement of the new sites and shelters, local communities and IDPs were involved in shelter construction, site preparation works and camp management activities. The shelter response component was accompanied by site coordination and management activities focusing on the organization of the IDP communities in the new sites, for example taking social networks and the needs of Persons with Disabilities into account in shelter allocations. The planning and implementation engaged several Cluster partners, the local government, the local church and host communities as well as the IDPs.

SHELTER DESIGN

The shelters built through the project were simple, one room timber structures covered with plastic sheeting and were implemented to provide critical lifesaving emergency assistance. The shelter size did not comply with Sphere space standards, however, it was designed to reflect the local standards and avoid conflict with host communities and self-settled IDP communities who had constructed shelters on their own, and were residing in shelters that in general offered a living space far below 3.5m² per person. The reduced size of shelters was also deemed necessary due to the number of IDPs in need of shelter while land availability was limited. Large families received two shelters. While these types of emergency responses provided critical lifesaving assistance, they also presented limitations in terms of durability and sustainability.



This image shows improvised shelters built by IDPs in a self-settled site and latrines built by a partner organization on the edge of the site. Although the organization provided shelter support (not shown in this image), wider site planning improvements in the existing IDP sites and their extensions were limited.

RESEARCH INTO ALTERNATIVE SHELTER DESIGN OPTIONS

In Eastern Congo the vernacular homes are usually single story, one room (of rectangular or circular floor plan) structures clustered in groups. The predominant construction technique is mud on framed bamboo wall (wattle and daub). Fired brick is used less commonly by low-income households. Thatched roof is common in rural areas whereas in urban areas corrugated iron sheets prevail. In cities, reinforced concrete, cement block or burned brick constructions are more and more common.

The shelter design that was used in this project consisted of a timber frame with plastic tarpaulin walls and roof. Following challenges in implementation including in relation to material supply chain delays (outlined in the 'Main Challenges' section), the organization decided to carry out research to identify the most optimal alternative design typologies using locally available materials. The intention was that the research would inform future responses, and the designs and BoQs of the variations were also shared with partners so that they could be used as options for shelter upgrading.

After a careful analysis of suitable construction materials three options were chosen for the final comparison. These options were:

- Variation A: Timber frame with plastic tarpaulin walls and roof;
- Variation B: Timber frame with wattle and daub walls and compacted earth roof; and
- Variation C: Brick walls with compacted earth roof.

Each option was assessed according to multiple criteria including the initial investment costs, shelter life span, covered living area of the shelter and the environmental impact and life cycle of the materials. This was used to ultimately identify possible strategies to increase the sustainability of shelters, reduce local environmental degradation, reduce the carbon footprint of the shelters and promote more environmentally friendly humanitarian responses.

The program was designed to respond to an emergency context and provide a dignified living space for IDPs. However, the challenges that were faced during implementation, for example a short-term shelter solution being implemented in places of protracted displacement, delays in the procurement supply chain for obtaining globally procured materials (tarpaulins), and unfamiliar building techniques/materials leading to issues with shelter maintenance, triggered interest to explore in more detail the cost/benefit aspects of alternative shelter designs and their long term sustainability and adequacy in order to demonstrate that there are suitable and valid alternatives to the usually preferred tarpaulin covered emergency option.

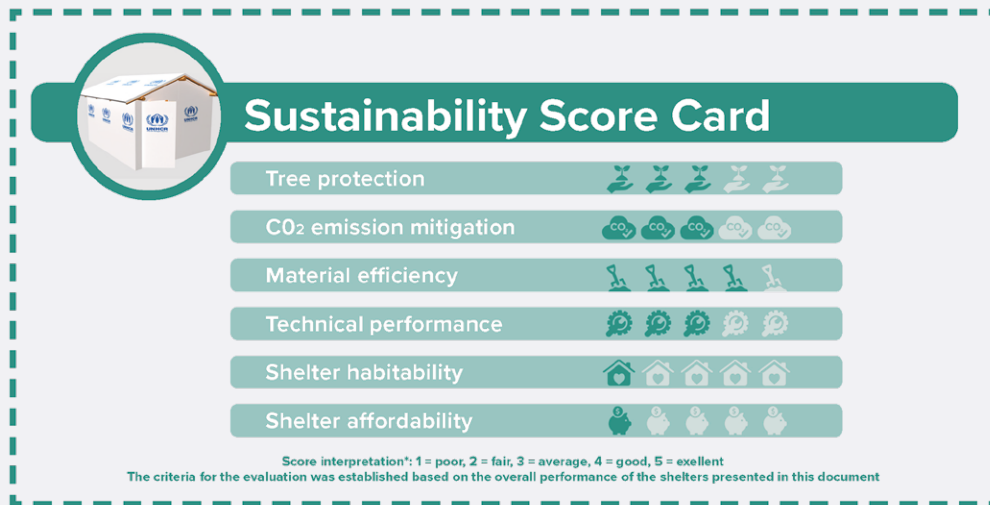
While the upfront cost for Variations B and C are higher than Variation A, once the shelter lifespan is added into the equation, Variations B and C prove to be better value for money. This is in addition to Variations B and C also scoring higher than Variation A in most other criteria, including on environmental impact. Additionally, while not included as a criteria in the analysis, learning from this response showed that using more locally available materials would also have the added benefit of having positive impacts on local markets.



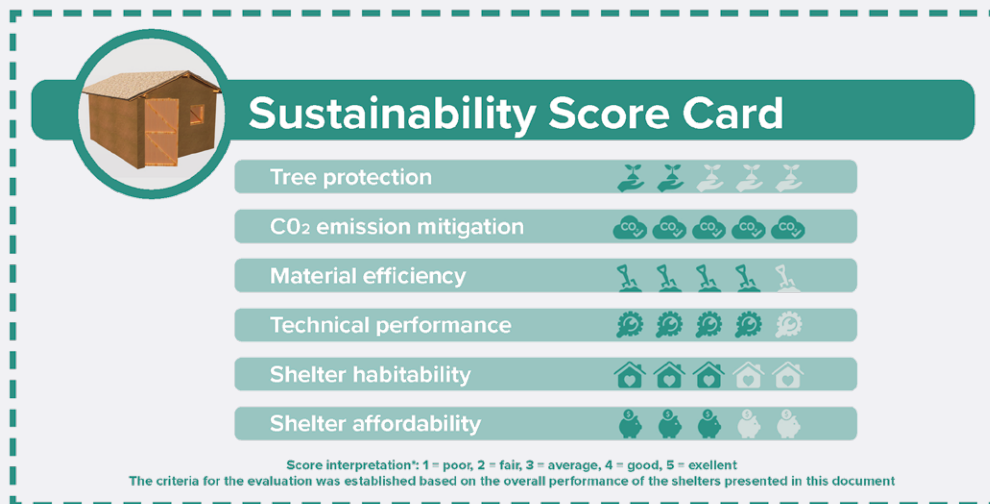
The country's construction cultures reflect the diversity of territories, climates and resources.

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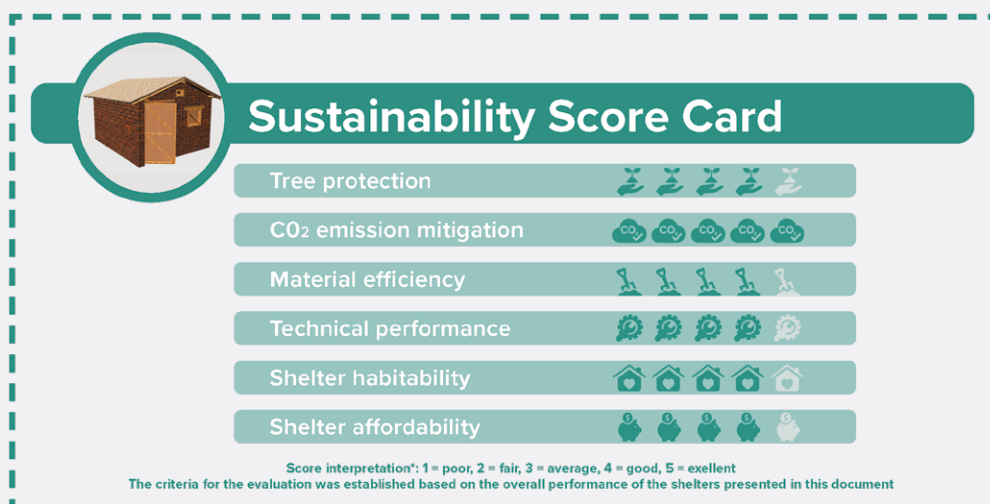
Variation A: 11.9 USD/m²/year (scorecard)



Variation B: 6.1 USD/m²/year (scorecard)



Variation C: 2.3 USD/m²/year (scorecard)



Scorecards summarize some of the analysis of the design variations.

MAIN CHALLENGES

Shelter response durability. Cycles of displacement in the Eastern DRC are recurrent and protracted, with IDPs often remaining displaced for many years. While the use of plastic sheeting in shelter designs can have advantages in emergency contexts, its lifespan and durability are limited.

Supporting hosting of IDPs. The majority of newly displaced IDPs were staying with host families – often dispersed in very remote areas – in some cases with up to four IDP families with one host family. The shelter response initially aimed to support IDPs staying with host families in situ, so that they would not need to move to IDP sites. However, in most cases this proved unfeasible due to issues of overcrowding, lack of land for additional shelters and access issues and security concerns at the host family locations. This meant that the focus of the project shifted, with very few IDPs receiving shelter assistance at the host family locations, and instead moving to IDP site extensions.

Site planning. Due to a lack of technical capacity, coordination and long-term vision, the site planning efforts in the self-settled sites and extensions were limited to shelter implementation and the later addition of latrines on the periphery of the sites, bypassing safety norms and special consideration of vulnerable groups. The lack of site planning sometimes resulted in site overcrowding and flooding and fire risks not being addressed. Access to services and infrastructure was not equitable and it was often implemented without taking into account the needs of the most vulnerable. The protection risks linked to limited access for the most vulnerable were highlighted after the implementation; however, it was practically impossible to apply rigorous site planning principles after the shelters and WASH facilities were already implemented. It is specifically for this reason why investment in appropriate resources and a skilled technical team during the planning phase is imperative.

Women's involvement in construction activities. Following outreach to engage host community members and IDPs to be involved in the shelter construction through

undertaking Cash-for-Work, no women came forward. To address this, the organization gathered the leaders of women's groups to explain more about the project, find out why no women had initially opted to join the Cash-for-Work activities, explain that these activities were open to women and encourage women to join. The women's groups then organized a small campaign to inform and sensitize about work opportunities in shelter construction for women. Some women were then integrated into the construction teams, though they remained a minority.

Material supply chain. The territory of Ituri province is very remote and geographically difficult to reach. The access to the sites presented serious challenges for the project implementation, not only due to very precarious or non-existent road infrastructure and flooding of existing routes, but also because of constant threats from different armed groups along the way. Supply chain challenges led to delays in delivery of materials to the affected areas. The challenges of the project were mainly related to the global procurement of the tarpaulins, which due to the above reasons delayed the construction of the shelters.

OUTCOMES AND WIDER IMPACTS

The shelter response in Ituri triggered a broader analysis that aimed to challenge the usual approach to humanitarian shelter responses and to assist humanitarian practitioners in assessing the technical performance, environmental impact, habitability and affordability of shelter options. Analysis showed that with some adjustments it is possible to amplify the positive and mitigate the negative effects of shelter activities on the environment and to improve their sustainability. Analysis also showed that smaller initial investment costs do not necessarily result in the best value for money.

This exercise triggered a broader study researching different shelter typologies that were recently implemented across the organization's field locations, with the overall aim of simplifying the comparison of different shelter design options.



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The only officially planned IDP site was Kigonze IDP site on the outskirts of Bunia town.

STRENGTHS, WEAKNESSES AND LESSONS LEARNED

STRENGTHS

- √ **Scale and timeliness of response.** The response was implemented at scale to support mass displacement of IDPs in a very challenging context with limited support options.
- √ **Inclusive implementation process.** The project engaged local communities as well as the IDPs in the shelter construction process, with particular efforts on including and empowering women. Through the engagement of the host community and the displaced population, the project also forged collaboration and tolerance, supporting social cohesion.
- √ **Coordination and partnership.** In the Kigonze IDP site, collaboration with other actors meant that the site was equipped not only with shelters, but also with sanitation facilities, improved water sources, access roads and other services. Coordination and partnership in other camps also enabled WASH support to accompany shelter provision, though this was less well coordinated.
- √ **The shelter response was accompanied by site coordination and management activities,** focusing on the organization of the IDP communities in the new sites, ensuring that existing social ties were supported and promoting harmonious cohabitation.



Special effort was made to involve women in the construction teams.

WEAKNESSES

- × **Lack of site planning.** Ad hoc planning of sites and lack of site planning standards and properly skilled technical teams on the ground resulted in multiple issues in many of the sites, including non equitable access to WASH facilities, a lack of proper road access or fire breaks, issues with water drainage, and a lack of properly designed kitchen areas.
- × **Host family support.** The initial approach of supporting IDPs in situ in cases where they were staying with host families proved unsuccessful. Further analysis of different shelter support options earlier on in the project may have led to an alternative approach to support in these cases to avoid IDPs needing to move to IDP sites.
- × **The shelter design represents a challenge in terms of sustainability.** Given the protracted nature of displacement, alternative shelter design options using more locally available materials may have proved to be a more effective form of response.
- × **Issues with international and regional procurement of materials delayed shelter activities.** The state of the road infrastructure is very precarious and all transport especially in rainy periods are challenging. These factors need to be fully taken into consideration in project planning, especially when estimating the timeliness of internationally procured materials in comparison to using local production and procurement of construction materials.

LESSONS LEARNED

- **Investment in technical teams with site planning capacity** that can execute a thorough analysis of the territory and planning of the site in the initial phases of the project is vital to ensure the implementation of adequate, sustainable and safe settlements with equitable access to infrastructure and services.
- **Supporting host communities.** More in-depth analysis is needed on how to better support host communities through shelter programming, for example in relation to the economic and market benefits that different approaches to IDP shelter support would bring.
- **Shelter response sustainability.** The shelter response in Eastern DRC gives the opportunity to challenge the usual humanitarian shelter response and focus on how to respond in the future by redrawing the 'business as usual' shelter response and planning for longer term and more sustainable shelter solutions.