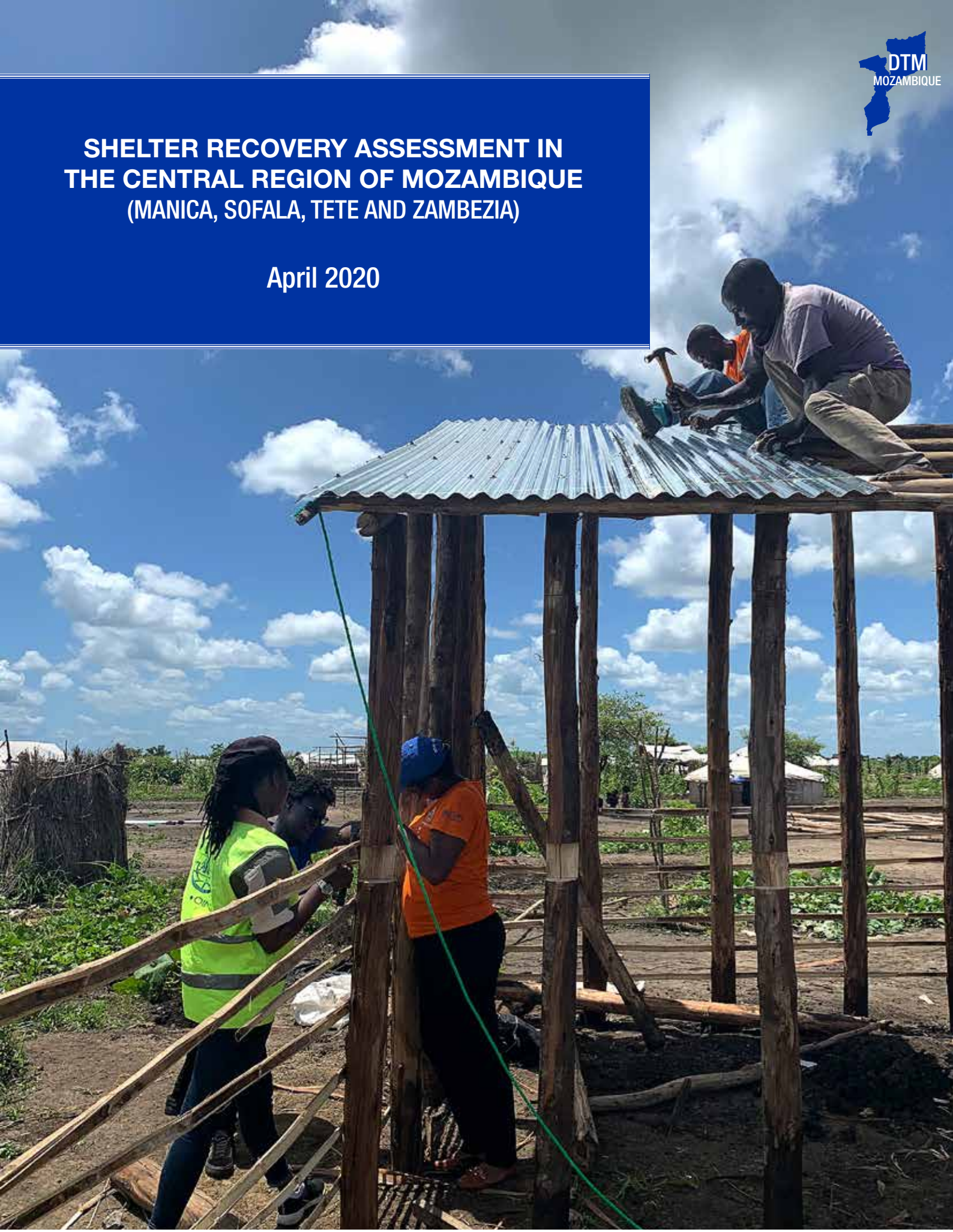
SHELTER RECOVERY ASSESSMENT IN THE CENTRAL REGION OF MOZAMBIQUE
(MANICA, SOFALA, TETE AND ZAMBEZIA)

April 2020



DTM MOZAMBIQUE

DTM IOM DISPLACEMENT TRACKING MATRIX

INGC INSTITUTO NACIONAL DE GESTÃO DE CALAMIDADES - MOÇAMBIQUE

Shelter Cluster Mozambique
ShelterCluster.org
Coordinating Humanitarian Shelter

ABOUT THIS REPORT

IOM's Displacement Tracking Matrix (DTM) in collaboration with the Government of Mozambique's National Disaster Management Agency (INGC) and as mandated by the Shelter Cluster in Mozambique conducted this assessment in areas of displacement, resettlement sites and areas affected by cyclone Idai in the central region of Mozambique. Data collection was conducted through household interviews by random sampling of 5,323 families, 1,281 families in 68 resettlement sites and 4,042 families in affected communities (displaced families in host communities and non-displaced families) in Sofala, Manica, Tete and Zambezia. The output of this exercise is to inform the Government of Mozambique and humanitarian and development community on the current living conditions of families affected by cyclones Idai, to understand affected households' efforts for self-recovery so far, to identify the type and usage of assistance received by households in relation to their shelter and housing, in order to identify the gaps and needs still present in terms of housing reconstruction and recovery, and to inform the most effective support for further recovery and to effectively prioritize areas of intervention based on likelihood and intention of households to remain in existing resettlement sites or in affected communities.

ACKNOWLEDGEMENTS

DTM activities in Mozambique, including the shelter recovery assessment and report have been produced with the generous contribution of the following funding partners: the European Civil Protection and Humanitarian Aid, the U.S. Agency for International Development and the UK Government Department for International Development.

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Cover photo: A transitional shelter under construction in Kura resettlement site, Nhamatanda district. IOM Mozambique/February 2020

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INTRODUCTION

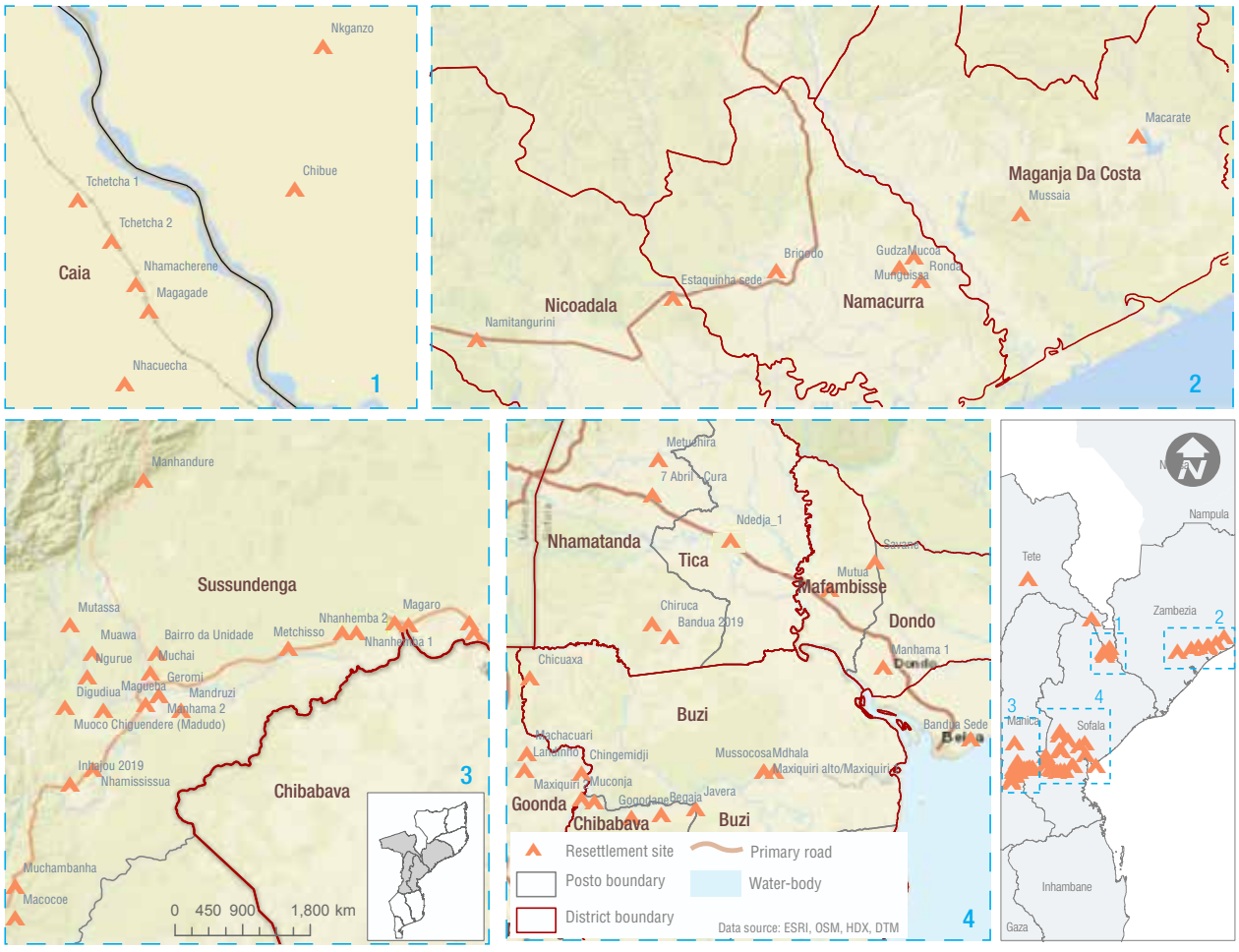
In March 2019, Cyclone Idai caused the destruction of housing and infrastructure and that left more than 400,000 people displaced, with 160,927 having immediately sought refuge in over 164 temporary accommodation centres. The cyclone contributed to significant housing damage, particularly in communities with poorly built houses. The most affected locations were Manica, Sofala, Tete and Zambezia provinces in central Mozambique. Since then, displaced populations have either returned to their places of origin, relocated to new areas or have settled in various resettlement sites which were set up across the central provinces.

Working alongside the Shelter Cluster and the Cabinet for Reconstruction (GREPOC), IOM's DTM team collaborated with Mozambique's National Institute for Disaster Management (INGC) conducted an assessment of the shelter conditions of both displaced and non-displaced families across the four affected provinces, to gain a better understanding of the current housing conditions and the communities' abilities to self-recover, as well as and the type of shelter and housing support still required to enable affected households to restore their lives.

This assessment was designed through a collaboration between DTM and the Shelter Cluster in Mozambique, and based on the guidance outlined in the Post-Cyclone Reconstruction Programme (PALPOC) developed by GREPOC, to guide the reconstruction efforts by partners. This collaboration ensured that the indicators would align with the PALPOC whilst maintaining DTM methodologies.

Findings from this assessment are presented according to settlement types, and include information on geographic location, demographic composition, displacement history, access to building materials, technical knowledge, housing conditions and the needs of both displaced and non-displaced families.

Map 1: Geographic locations of sites assessed



Family in Mandruzi Resettlement site used tarpaulins to reinforce the roof of the shelter that they constructed from local materials.
Photo: IOM Mozambique/2020

Methodology

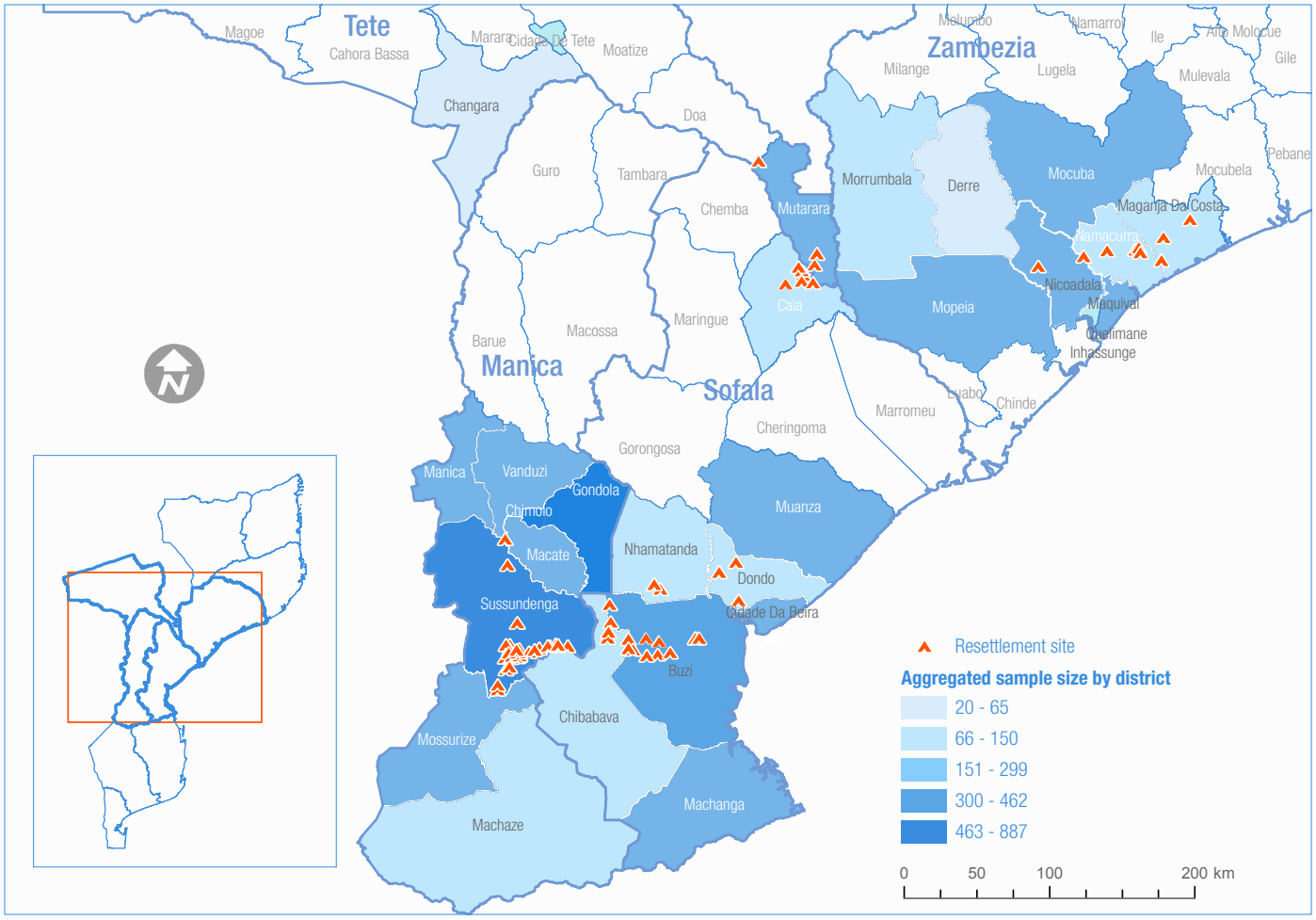
Data was collected through direct interviews with a random sampling of 5,323 families, including 1,281 families in 68* resettlement sites and 4,042 families in affected communities (displaced families in host communities and non-displaced families). The survey covered 177 localities (62 postos) in 28 districts of Sofala, Manica, Tete, and Zambezia. A network of 54 enumerators (28 DTM enumerators with eight team-leaders and 26 INGC staff) conducted the interviews.

The sample size of 5,283 statistically represents the displaced population of approximately 93,516 individuals living in resettlement sites, as well as affected communities (displaced families in host communities and non-displaced families), based on DTM baseline data. The sample size is based on a confidence level of 85% with a 15% margin of error.

Table 1: Households sample size distribution by province

Province	Number of Sites Covered	Total Households Surveyed in Resettlement Sites by Province	Number of Localities Covered	Total Households Surveyed in Localities by Province
Manica	32	568	62	1,547
Sofala	24	460	58	1,280
Tete	2	41	5	134
Zambezia	10	212	52	1,080
Grand Total	**68**	**1,281**	**177**	**4,042**

Map 2: Sample size distribution by district and location of resettlement sites

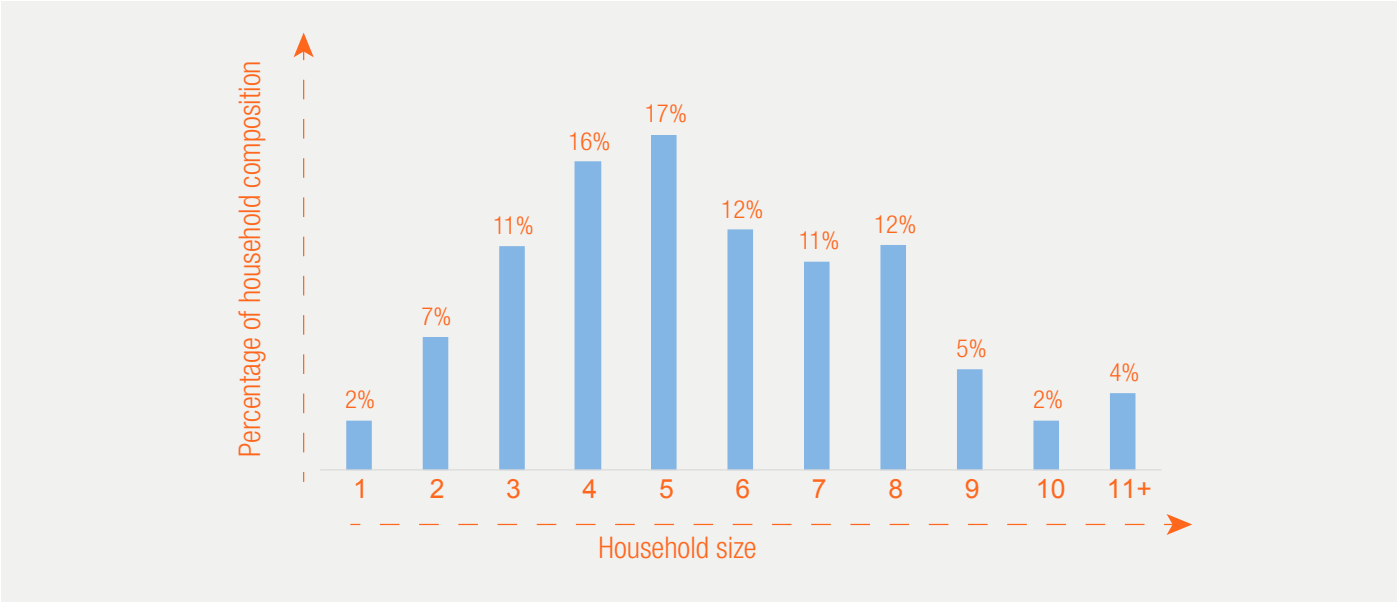


*The assessment was conducted in 96% of the total resettlement sites in the central region, as the other 4% were not accessible at the time of the data collection phase.

Demographic Composition

Profiles of people in resettlement sites

A detailed and representative overview of households composition was obtained during the assessment. The average household size in these sites was 4.3. Nine per cent of the families are composed of 1-2 members, 27 per cent comprise 3-4 members, 29 per cent comprise 5-6 members, 23 per cent comprise 7-8 members, seven per cent comprise 9-10 and four per cent comprise more than 11 members as shown in figure below. Results did not vary greatly between households displaced in resettlement sites and households affected but displaced in the communities.



Eight per cent of the families interviewed in resettlement sites are hosting other families who were also displaced due to the cyclone. The majority (87%) of the families being hosted reported that their houses were destroyed during the cyclone.

Family settled at the aftermath of the disaster in Mandruzi resettlement site. Photo: IOM Mozambique/May 2019

KEY FINDINGS

SECTION 1: SHELTER CONDITIONS IN RESETTLEMENT SITES

The majority of respondents (89 per cent) still live in emergency and temporary shelter. The remaining 11 per cent have upgraded to transitional shelters (nine per cent) and permanent houses (2%). The majority of respondents reported that their houses were quickly, completely destroyed by the cyclone.

The majority (76%) of respondents in this assessment reported that they would not consider returning to their places of origin, while 24 per cent are uncertain if they could consider returning. This is similar to the finding in the Durable Solutions Assessment Report published on 31 March 2020 that the vast majority of respondents (98.6%) report that they would prefer remaining in their current resettled location. Of these,72.4 per cent reported that their shelter conditions needed to improve for them to be able to remain, and 15.6 per cent required improved security of tenure.

SECTION 2: HOUSING CONDITIONS OF NON-DISPLACED FAMILIES IN AFFECTED COMMUNITIES

Fifty-seven per cent reported that their houses were completely destroyed by cyclone Idai and one year after the cyclone struck, and approximately one in four families (27%) report no improvements of their housing conditions. Over three quarters of the surveyed population reported having access to natural materials which could be collected and used for construction and repair.

SECTION 3: TECHNICAL KNOWLEDGE

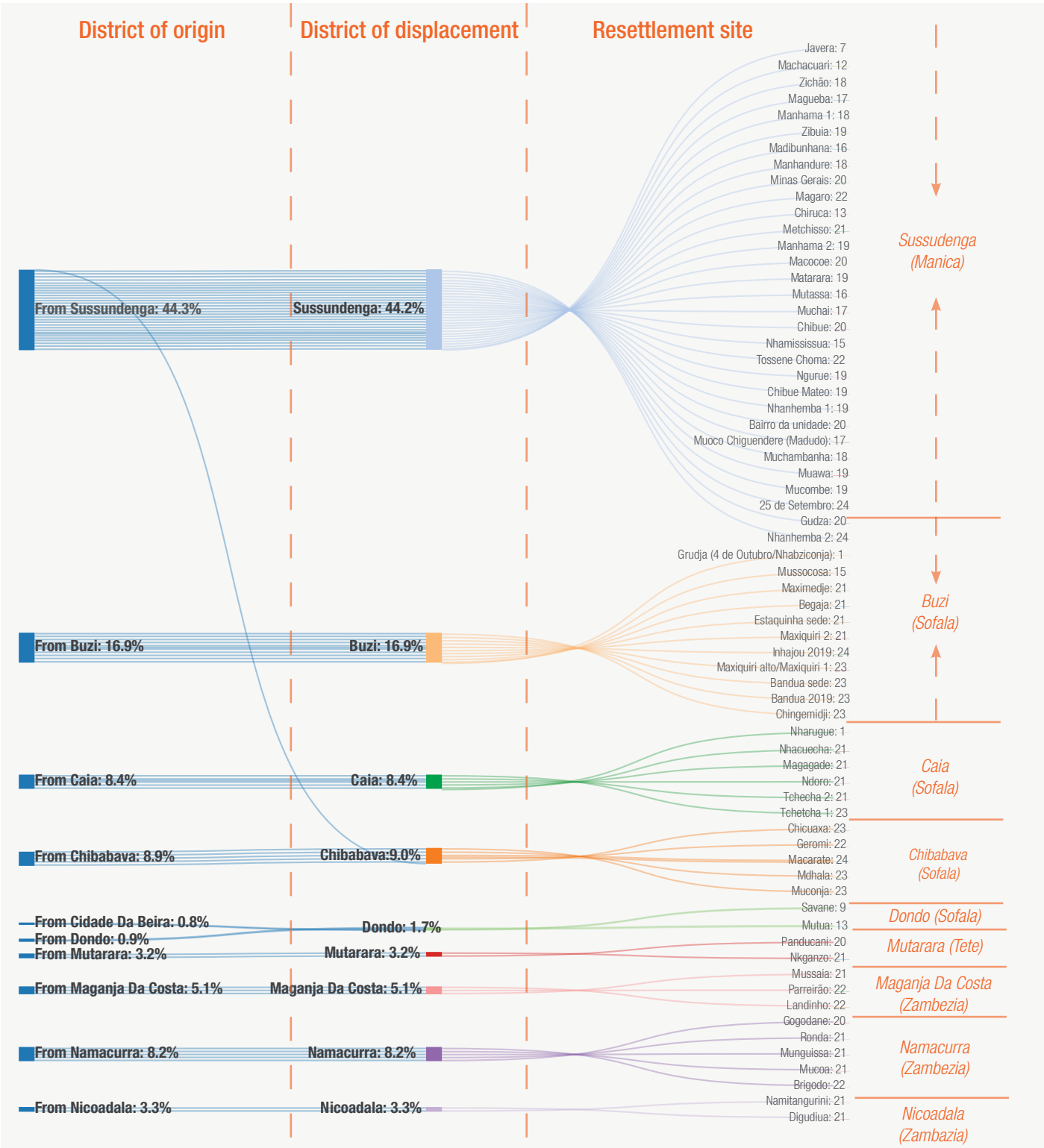
Almost all respondents reported that following the extensive damage brought on by Cyclone Idai, there is a need to rethink house construction methods, to make them stronger and more resilient to future climate-related disasters.

Emergency shelter materials distributed in various resettlement sites in Buzi district were used to build emergency shelter and upgraded by beneficiaries using locally sourced materials such as laka laka. Photo: IOM Mozambique/January 2020

SECTION 1: SHELTER CONDITIONS IN RESETTLEMENT SITES

Origin of displaced families

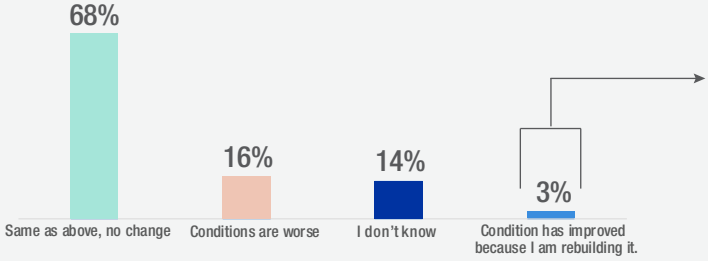
Overall, the majority of families living in the resettlement sites originated from the districts of their resettlement location as illustrated in the figure below, exemptions are seen in Mutua and Savane sites in the Dondo districts of Sofala province, where some of the families originated from Cidade de Beira district. Additionally, a similar trend is seen in Chibabava district, where families displaced to Macarate site were originally from Sussudenga (Manica province).



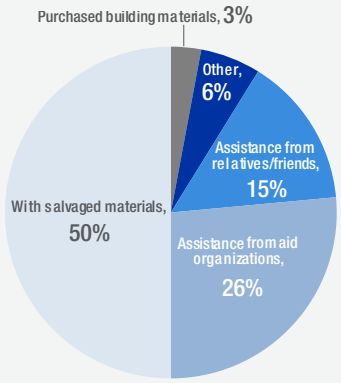
Districts of origin, district of displacement and resettlement site

Shelter Conditions in Areas of Origin for Families in Resettlement Sites

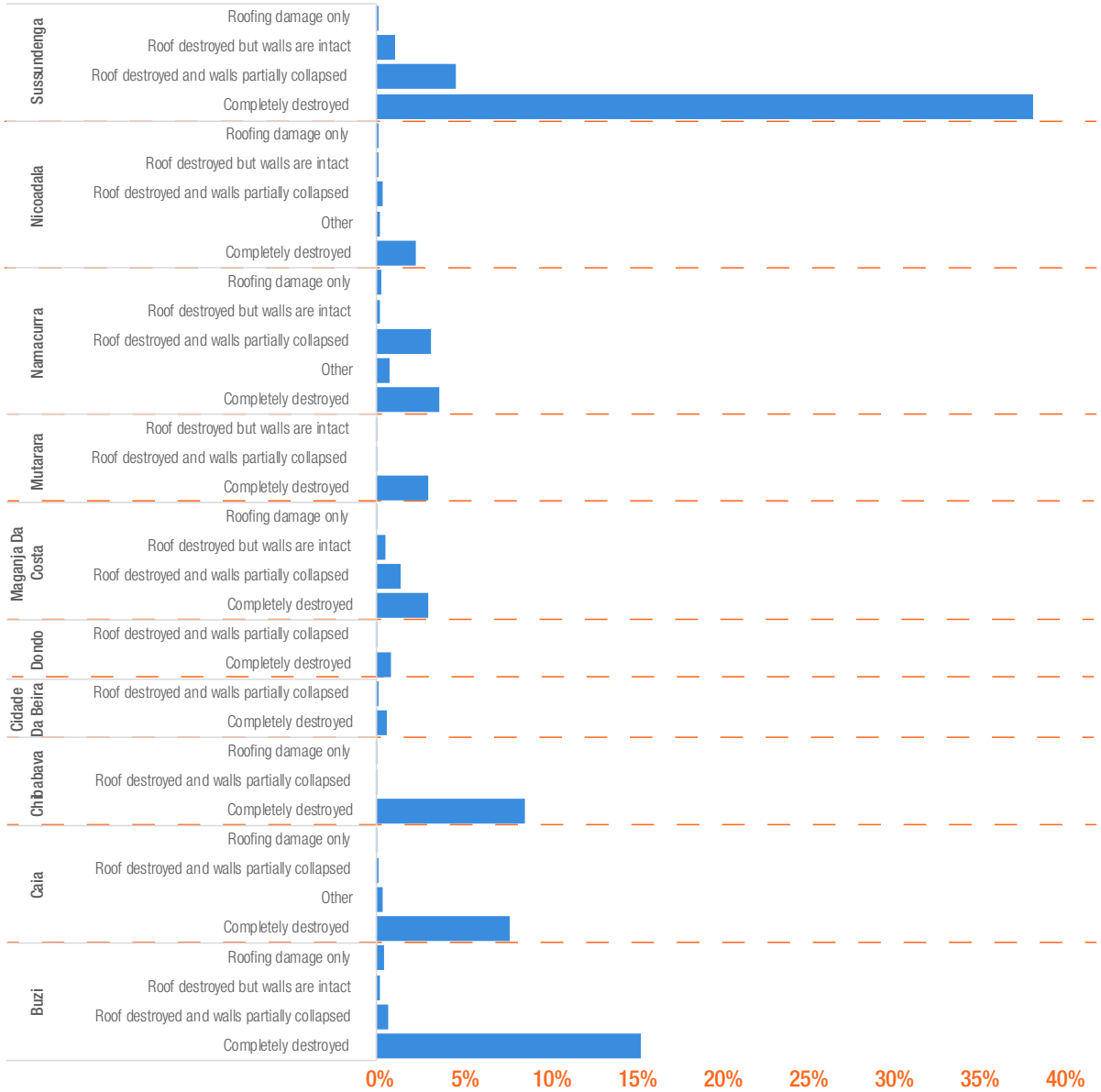
The majority of respondents reported that their houses in areas of origin were completely destroyed by the cyclone hit. Only three per cent reported that they are rebuilding, the majority (38%) of whom are from Sussudenga district of Manica. Half of the rebuilding respondents reported that they are using salvaged materials, while 26 per cent (or nine families) reported that they are using materials they received from aid organizations to rebuild their houses in their area of origin. On the other hand, those reporting unchanged conditions of their houses represent 68 per cent of respondents. Those reporting worse conditions of their houses represent 16 per cent of respondents.



What is the current condition of your house in your original community?

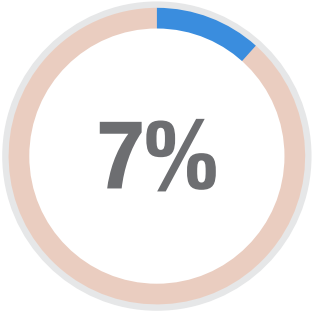


If the house is being rebuilt, how are you doing this?

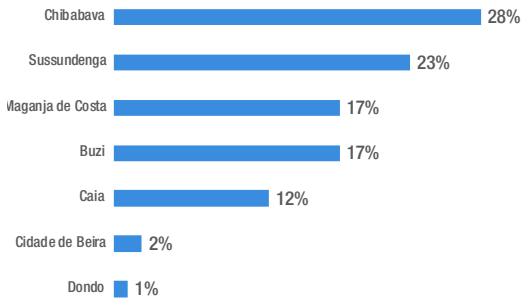


Housing conditions in district of origin

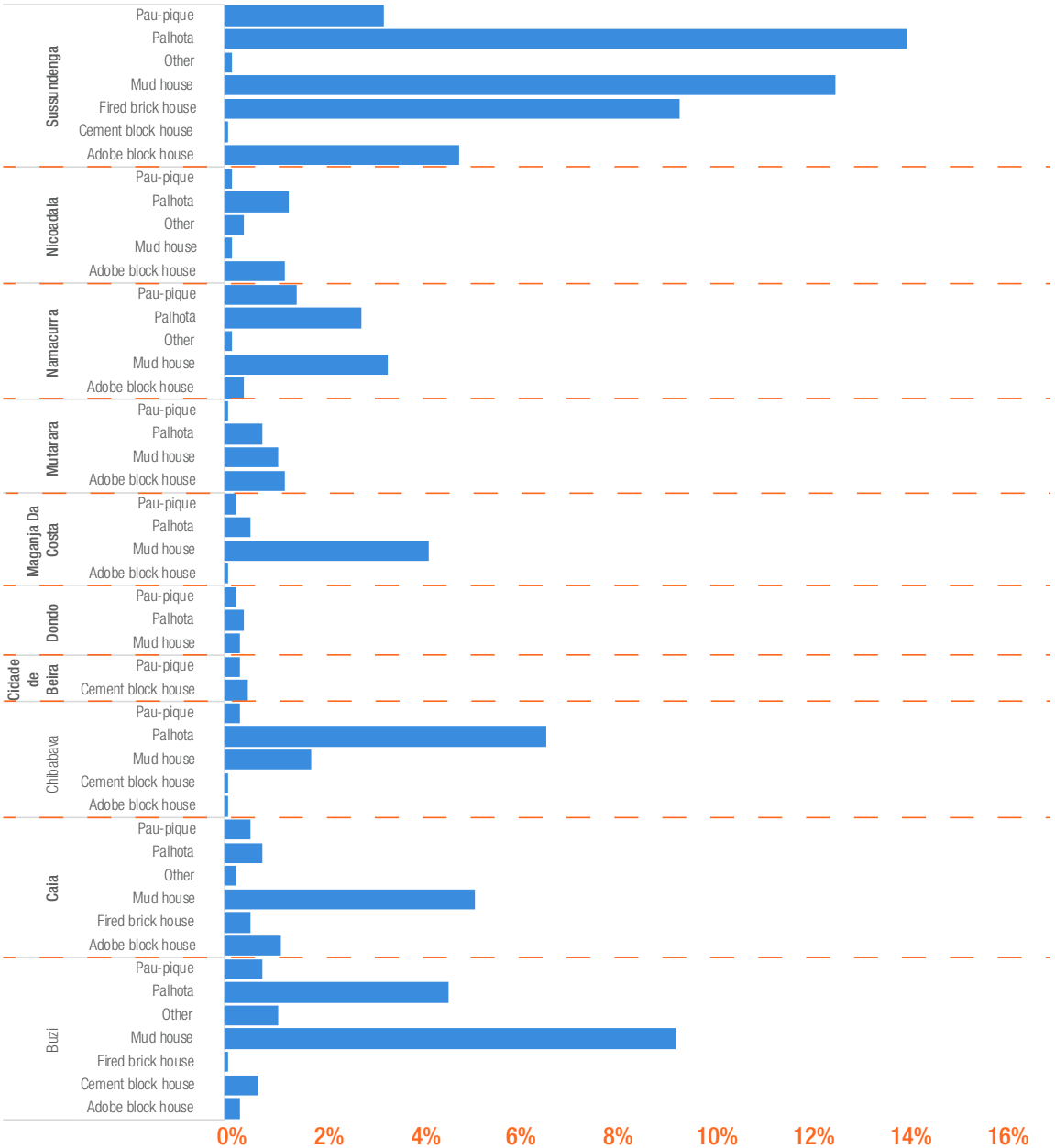
Only seven per cent reported that a family member or relative has been living in their house or has been taking care of their house in their place of origin. Of these, 28 per cent were relocated from Chibabava, 23 per cent from Sussudenga, 17 per cent from Manga Da Costa, 17 per cent from Buzi, 12 per cent from Caia, two per cent from Cidade De Beira and one per cent from Dondo.



Number of displaced families who still maintain their houses in their place of origin

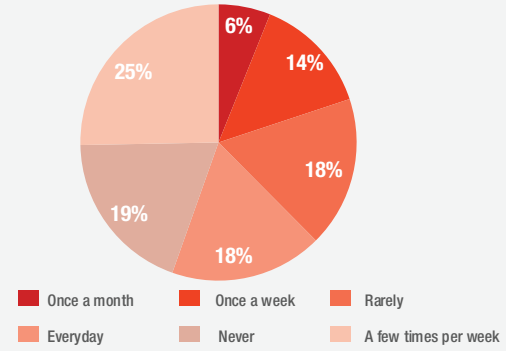


Districts of origin where the houses are located

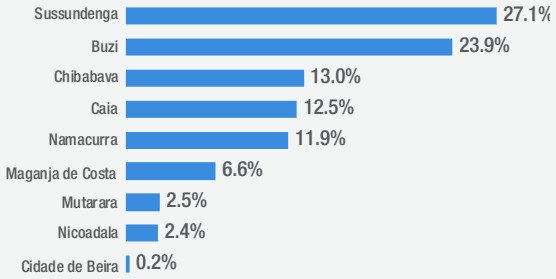


Shelter typology in place of origin before the cyclone

63 per cent of respondents still visit their place of origin while only 37 per cent either rarely or never visit. Of those who still visit, 27.1 per cent lived in Sussudenga, 23.9 per cent in Buzi, 12.5 per cent in Caia and 11.9 per cent in Namaccura prior to relocation.

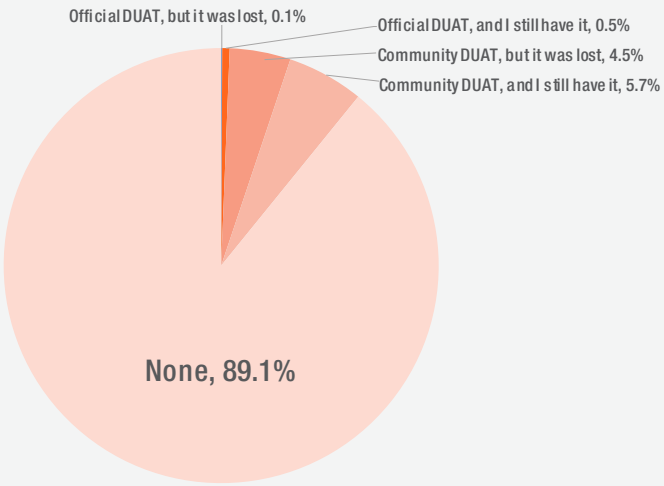


How frequently do you or your family have the opportunity to visit your place of origin?



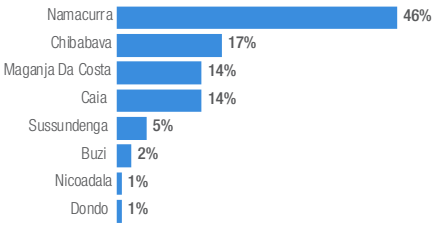
District of origin

The vast majority of respondents (89.1%) reported having no documentation to prove ownership of their original house or land (this aligns with the result from the Durable Solutions Assessment Report where 90% do not have documentation for their original house or land). Only 0.5 per cent (or seven families) reported having an official DUAT, and 10.2 per cent reported having a community DUAT. Almost all of these families reported loss of the documentation they once had.

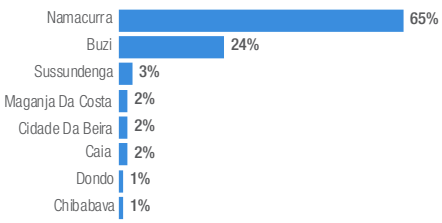


What kind of documentation do you have for your original house?

Overwhelmingly, 76 per cent of respondents reported that they would not consider returning to their places of origin, whilst 24 per cent are uncertain would consider returning. Of those respondents who are uncertain, the most commonly reported factor influencing their decisions to remain in the resettlement site or to return to their place of origin is the risk of losing access to their farmland (22%) and the lack of access of building materials on site (17%). The majority of these respondents were relocated from Namacurra district of Zambezia and they are presently in Brigodo, Mucoa and Munguissa sites, all in the same district.

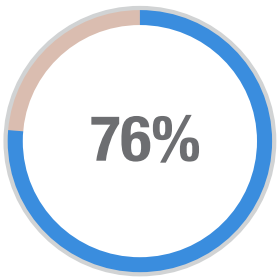


District of origin of those who will return if they lose their farmland

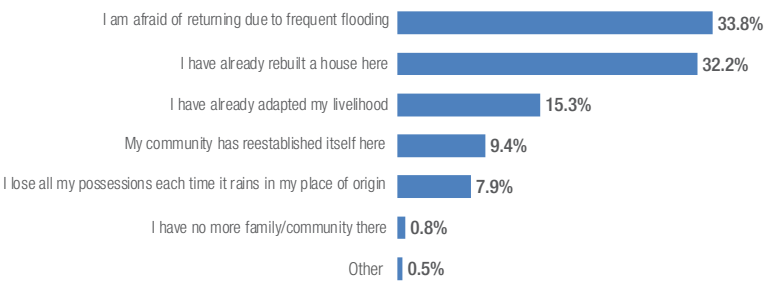


District of origin of those who will return if there is no access to building materials

Of the families reporting that under no condition would they return to their places of origin, one third (33.8%) cited frequent flooding in Sussudenga district . Additionally, 32.2 Per cent, expressed no interest in return due to construction of a new house on site, this group reporting new construction is represented mainly by respondents in Bandua 2019 , Bandua sede and Begaja sites in Buzi district of Sofala province and Nhanhemba 2 and Tossene Choma resettlement sites in Sussudenga district.

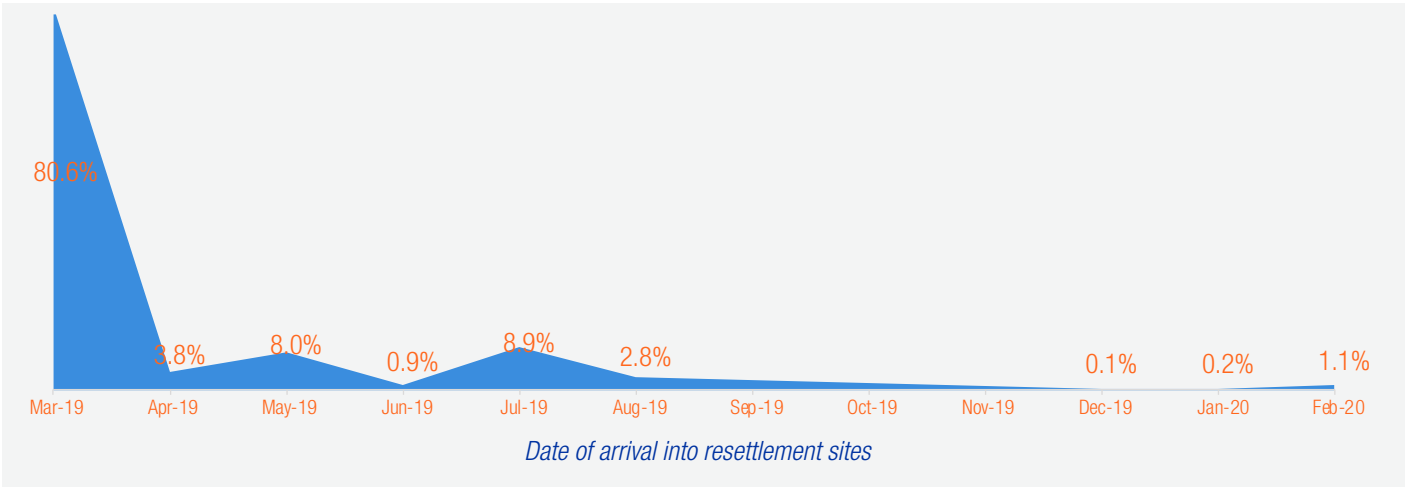


Under no condition would I return to my place of origin



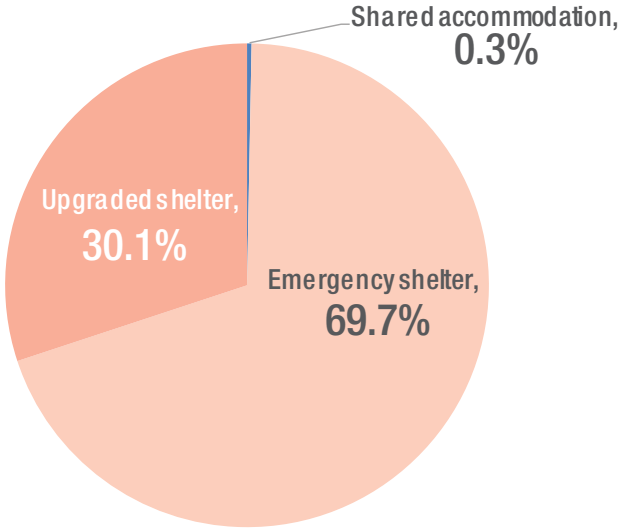
Reasons for never going back

Current shelter conditions in resettlement sites



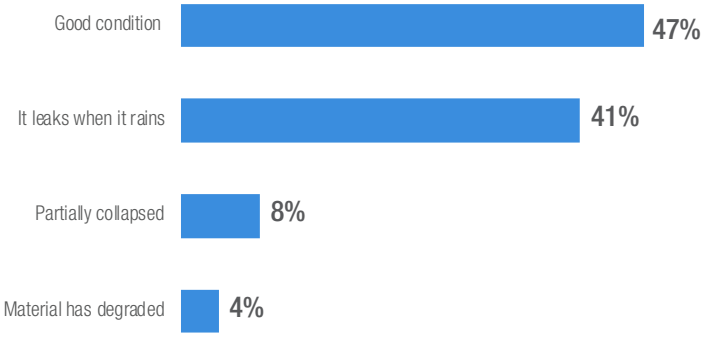
Date of arrival into resettlement sites

Upon relocation, almost three quarters of the families relocated (72%) were living in emergency shelters or tents, and 20 per cent constructed makeshift shelters out of natural materials collected from nearby forests. Approximately one year later, this figure has not varied substantially; in total, 69.7 per cent of respondents still live in an emergency shelter or a tent, and one in every four families is living in the same shelter they were living in when they were first relocated. Only 27 per cent of respondents have been able to transition from emergency shelters to an upgraded house, almost half of this group (47%) live in makeshift shelters constructed out of natural materials, and 29% live in mud block house.



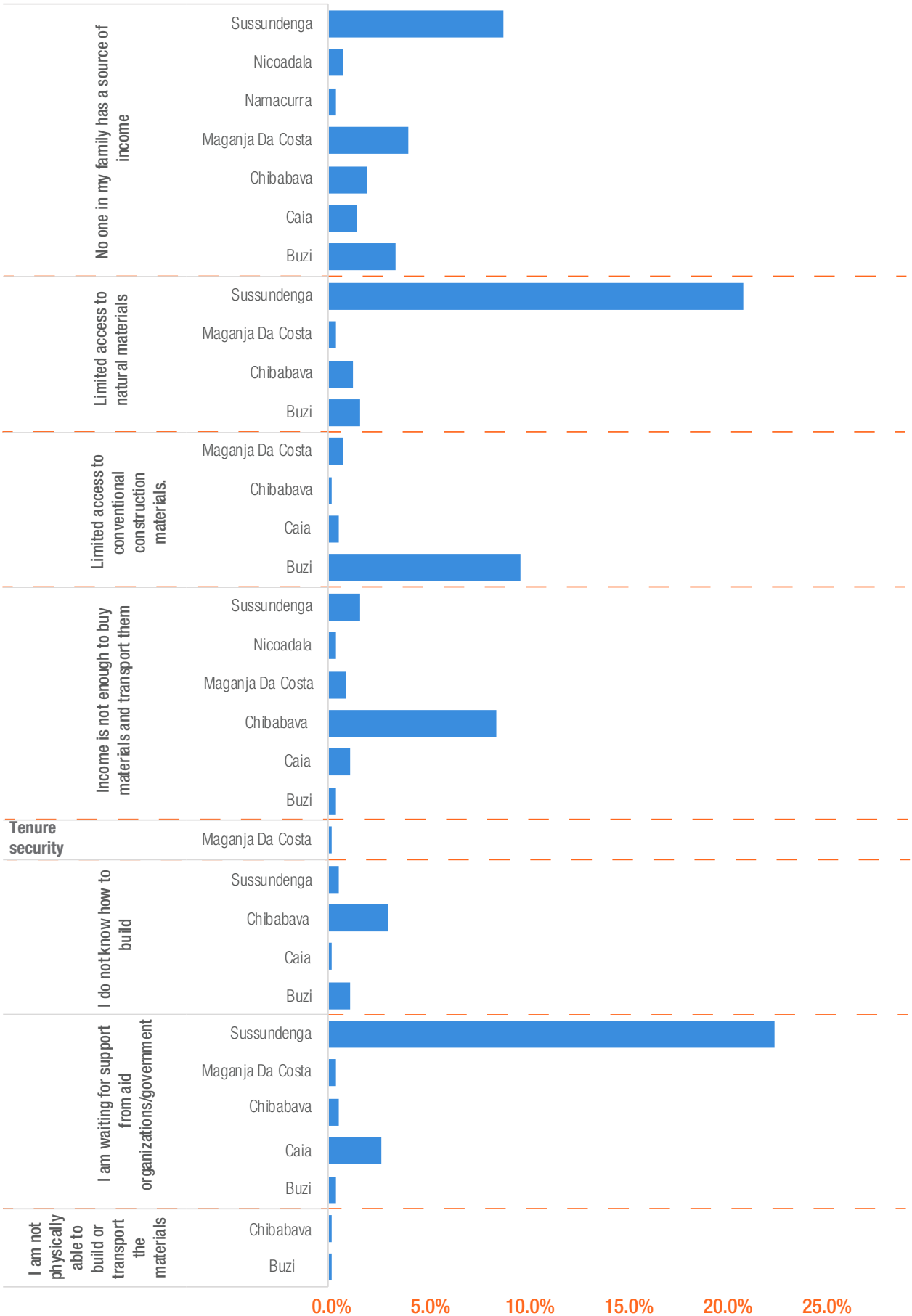
Shelter typology (current)

Of the families reporting emergency shelters, almost half indicated that the shelter is in good condition, while 41 per cent reported that rain water enters the shelter when it rains. This may be related to the later distribution of emergency shelter materials, such as plastic sheets, targeting families who were living in damaged shelters. Only eight per cent reported that their shelter was partially collapsed, and four per cent reported that they materials had degraded with time and exposure.



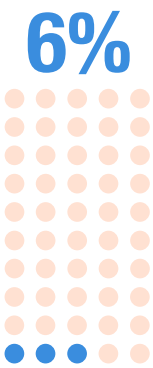
Current shelter conditions

When asked to specify what the main barriers to self-recovery were, 26.4 per cent reported to be waiting for support from aid organizations or the Government, 24.1 per cent cited the lack of access to collect natural materials which could be collected and used for construction, and 20.6 per cent reported a lack of financial means. The vast majority of these respondents are families living in various sites across the district of Sussundenga, in Manica.

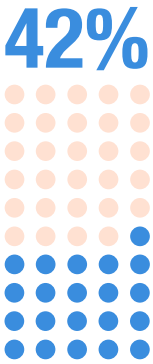


Why have you been unable to build a more permanent house

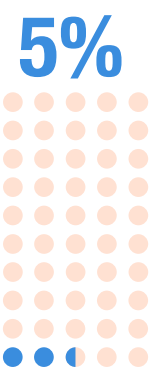
Almost half of the families who had begun the process of self-recovery (42.1%) had collected materials from the surrounding areas, and 22.3 per cent reused materials which had been distributed during the emergency phase of the humanitarian response, including plastic sheets, tents and timber. A small but encouraging group (10.8%) had produced their own bricks for construction. Almost all respondents (93%) reported spending less than approximately 100 US dollars (6,000 Meticais) to build their new home.



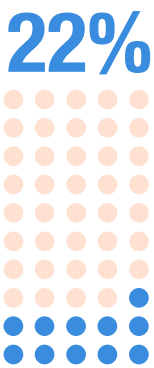
6% Bought materials to construct their houses



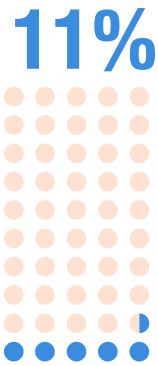
42% Collected materials from nearby surroundings to construct their houses.



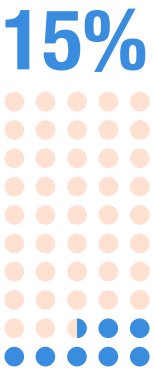
5% Received support from an aid organization to construct their houses.



22% Reused materials received when they were first displaced to construct their houses.



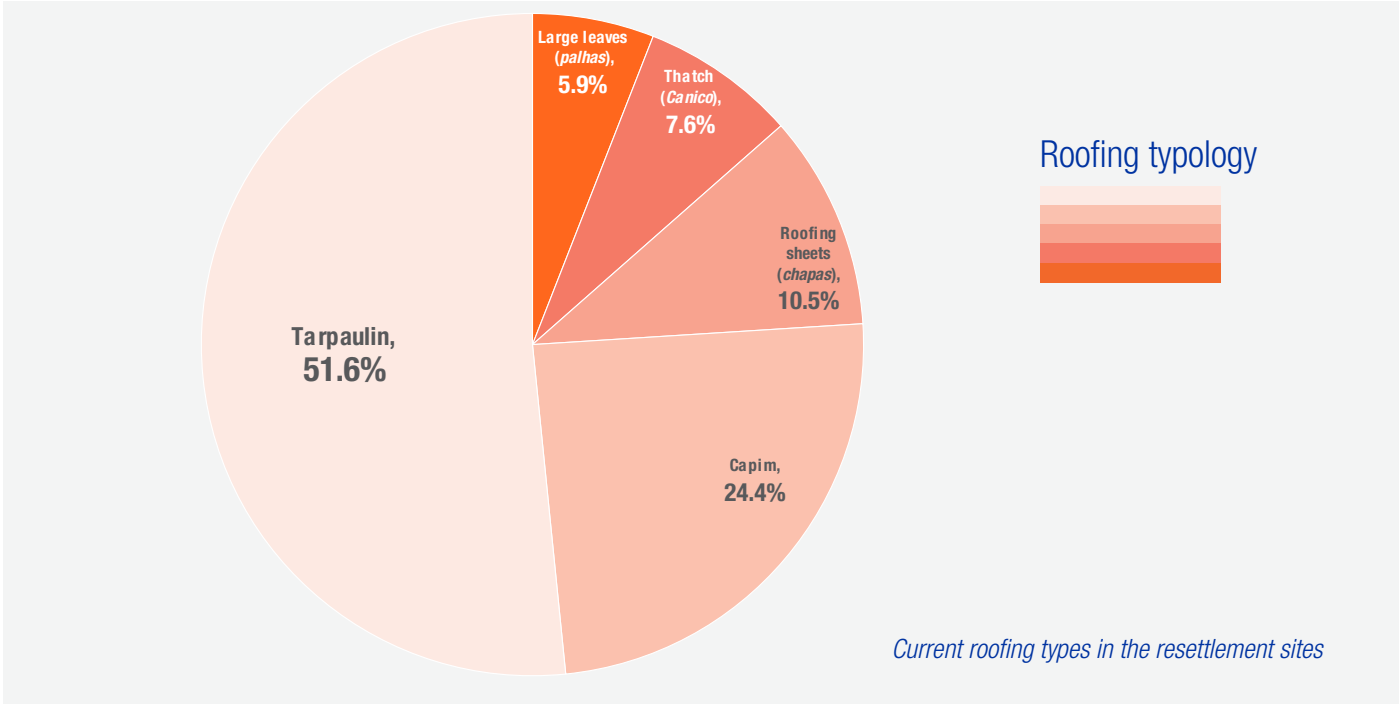
11% Produced blocks themselves to construct their houses.



15% Other.

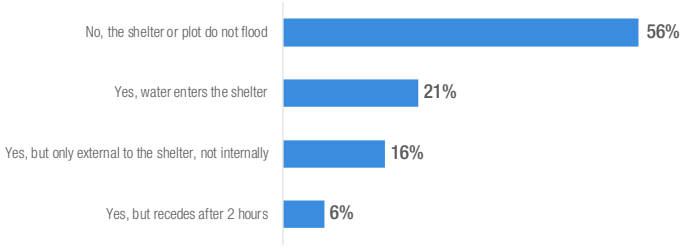
Roofing typology in resettlement sites

Over half (51.6%) of the families interviewed reported that plastic sheeting, most likely distributed during the emergency phase, was being used for the roofing of their shelter. The majority of these (83%) are families who reported living in tents or emergency shelters, and only 13 per cent of houses with tarpaulin roofs are self-built houses. The second most common roofing typology is the grass (*capim*) roof, mainly used for self-built houses. Only 10 per cent reported using corrugated iron sheets for their roofing.



Current roofing types in the resettlement sites

Over half of respondents (56%) reported that their shelter or plot does not flood after one day of heavy rainfall, and an additional 16 per cent reported that the area around the shelter may flood but water does not enter the shelter. On the other hand, a quarter of respondents (27%) reported that water does enter the shelter, of which six per cent claiming that the water recedes after two hours.

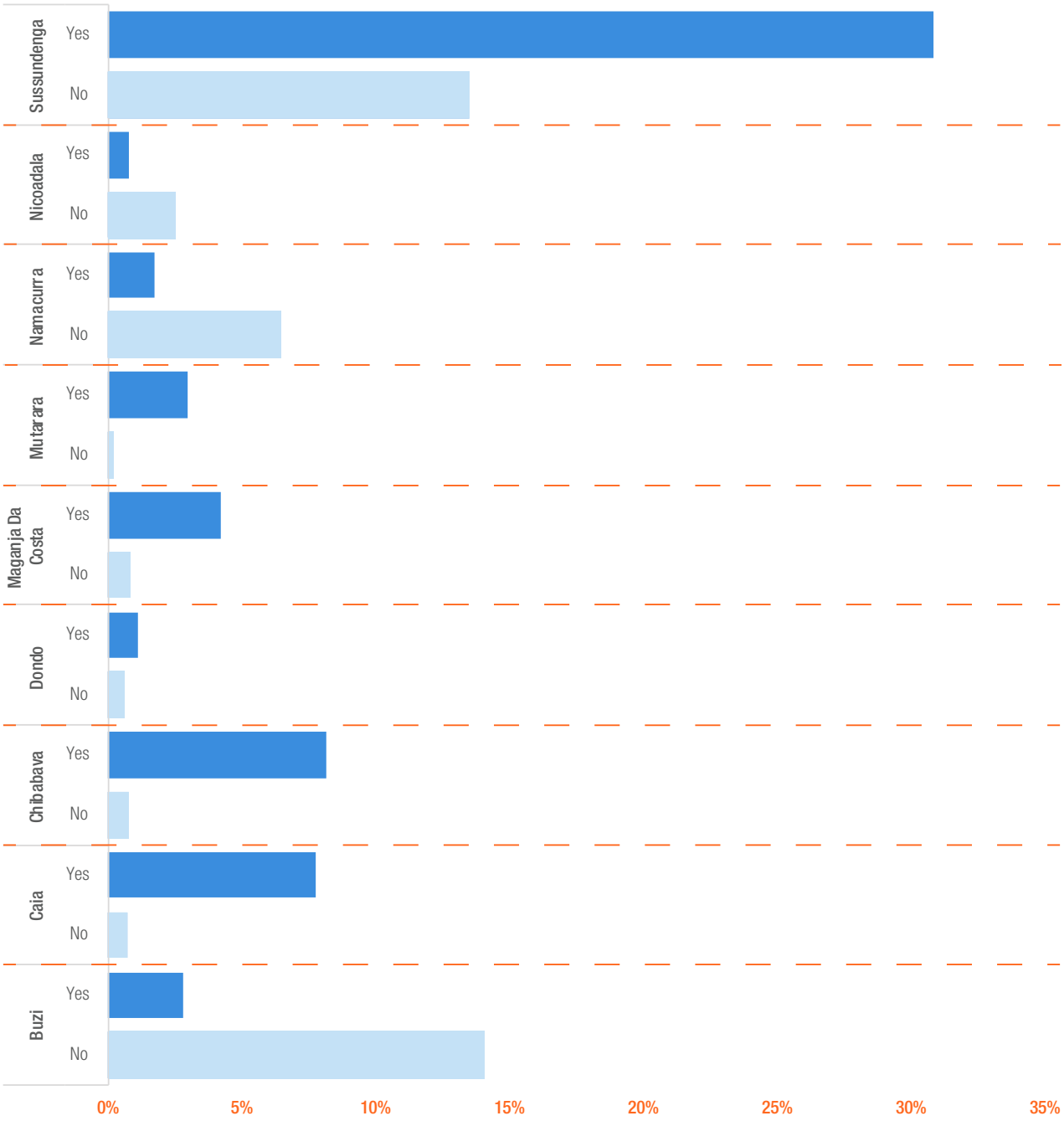


Does your shelter and/or plot flood after one day of heavy rain?

Access to Building Materials

Access to natural building materials varied greatly depending on the district, and overall, only 60 per cent of respondents reported that they were able to collect materials that could be used to construct a house. The majority of respondents (over 75%) interviewed in the districts of Buzi in Sofala province, and Namacurra and Nicoadala in Zambezia province reported inability to source natural materials for construction nearby to their resettlement sites. On the other hand, more positive results were recorded in the districts of Maganja Da Costa in Zambezia, Mutarara in Tete, and Chibabava and Caia in Sofala province, where over 75 per cent of respondents in each district reported access to materials. To a lesser extent, 64 per cent and 70 per cent reported that they could access materials in Dondo and Sussundenga respectively.

Roofing repair kits were distributed by IOM in informal urban settlements in the city of Beira. The kits included timber, roofing sheets and a toolkit. Photo: IOM Mozambique/February 2020



Access to building materials

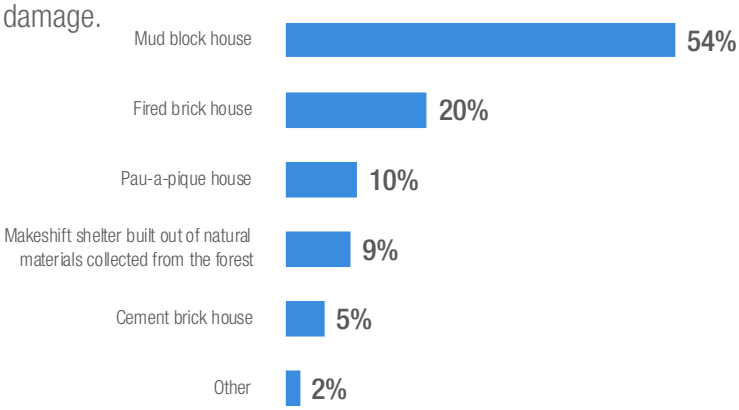
Across all the sites, the most commonly found materials are *laka laka* (wooden strips often used for walling *as shown in the photo on page 8*), and wooden poles. Respondents in Sussundenga and Chibabava districts report the most varied types of materials that can be sourced locally (more than seven types of materials reported), while respondents in Dondo, Mutarara, Namacurra, and Nicoadala report three types of materials, or less.

Almost half of respondents (48%) who indicated that they were able to collect materials from nearby the resettlement site reported that materials could be collected within a one hours walk, 28 per cent reported that it would take them a walk of between one and two hours, and 17 per cent reported between two and three hours. Seven per cent of respondents said the walk to source materials requires more than three hours, almost half of whom (45%) live in Caia and 37 per cent live in Chibabava. When considering each district separately, results vary greatly depending on the resettlement site where the respondent resides. For example, 43 per cent of respondents living in resettlement sites in Sussundenga reported that it took them less than one hour, 30 per cent reported between one to two hours and 26 per cent reported between two to three hours.

Wooden poles, used for the structural frame of a typical house found in rural areas, are reported to be the most common materials which can be purchased, with 44 per cent of respondents reporting this.

SECTION 2: HOUSING CONDITIONS IN THE AFFECTED COMMUNITIES

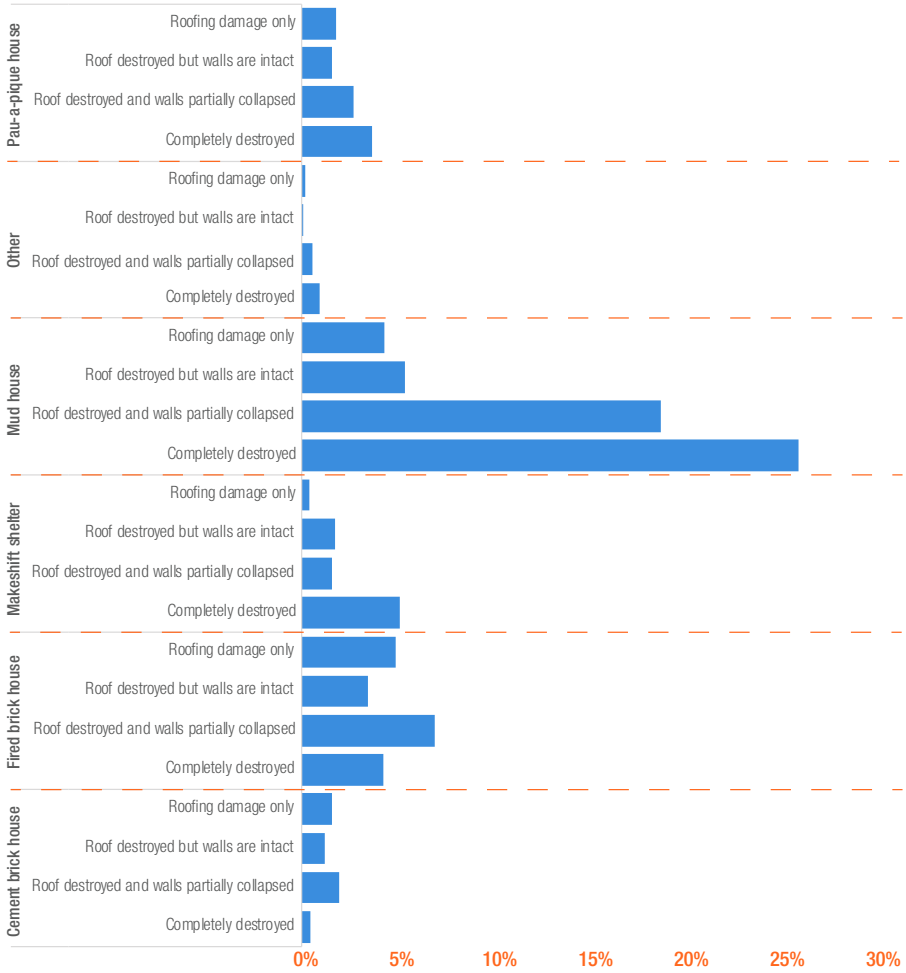
Across all the districts surveyed in the affected communities, 54 per cent of respondents reported that they were living in a mud block house when the cyclone struck, making it the most common housing typology. It was also the most heavily affected, as almost half of these families (48%) reported that their house was completely destroyed and 34 per cent reported that the roof was destroyed and the walls partially collapsed. The remaining 18 per cent reported varying degrees of roofing damage.



Shelter typology in the communities

A typical mud block house found in places of origin experienced significant roofing damage. IOM Photo: IOM Mozambique/January 2020

Informally constructed houses, using timber collected from rural surroundings, were also badly affected, likely due to the quality of materials and construction. Although only nine per cent of respondents claimed to be living in such a house at the time of the cyclone, more than half (57%) reported that their houses were completely destroyed. Additionally, one in four respondents reported varying levels of roofing damage, and similarly 18 per cent reported roofing damage and partially collapsed walls.



Housing conditions right after the cyclone

The Cement block houses, although not common among the surveyed population (5%), had the most positive results, as only nine per cent reported that they house was completely destroyed. Over half of the respondents reported varying degrees of roofing damage, and 37 per cent reported additional damage to the walls.

Results were less conclusive for the pau-a-pique and the fired-brick house, with limited variations in results across the different levels of damage classifications. The second most common housing typology among the surveyed population is the fire brick house, with 20 per cent of respondents reported living in such a house at the time of the cyclone. The largest majority (43%) reported various levels of roofing damage, with the walls remaining intact, reflecting a more structurally rigid structure through the use of fired bricks. Additionally, 35 per cent reported severe damages, with the roof completely destroyed and the walls partially collapsed, and one in five reported that the house was completely destroyed.

On the other hand, 10 per cent of respondents lived in a pau-a-pique house, of these, 38 per cent reported completely destroyed houses, 28 per cent reported roofing damage with partially collapsed walls, and 35 per cent reporting varying degrees of roofing damage.

One year after cyclone Idai struck, approximately one in four families (27%) report that the conditions of their housing had not improved, although only 12 per cent of respondents who reported that their house had been completely destroyed fell within this category. Only a small group, had used salvaged materials to repair their walls (17%) and roofs (25%). Even fewer reported using purchased materials to repair walls (five per cent of respondents) or donated materials to repair roofs (nine per cent of respondents). Approximately two per cent of respondents received humanitarian support.

36%

Constructed new houses.

27.4%

Have not been able to improve the conditions of their homes.

25%

Repaired walls using salvaged items.

7%

Repaired walls (5% used purchased materials while 2% used donated items).

25%

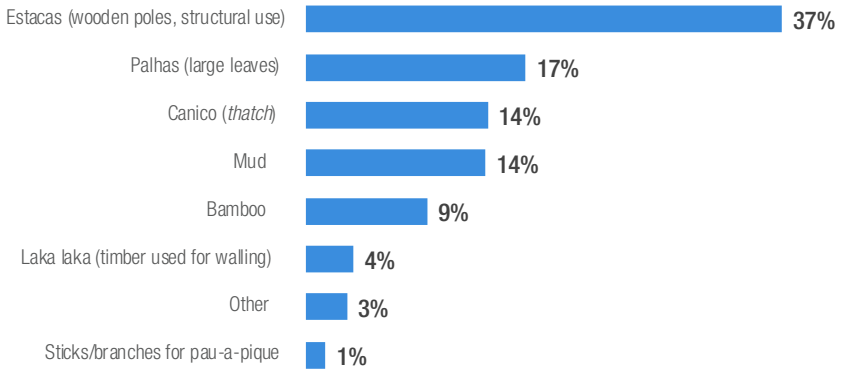
Repaired roofs using salvaged items.

11%

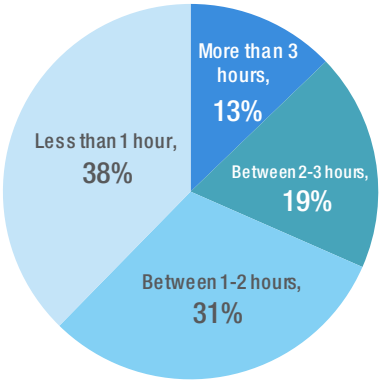
Repaired roofs (9% used purchased materials and 2% used donated items).

Of the 27 per cent who reported being unable to rebuild their homes, the vast majority said that the family did not have enough income to cover the associated costs, with 45 per cent claiming that no one in the family had a source of income, and 41 per cent said that although at least one member of the family had an income, it was not enough to purchase and transport the materials. A few respondents (7%) claimed to be waiting for support from the Government or aid organizations.

Over three quarters of the surveyed population reported having access to natural materials which could be collected and used for construction. The material that can be most commonly found are the wooden poles, as indicated by 37 per cent of respondents, which are used as the vertical structural elements of a house typically found in rural areas. To a lesser degree, large leaves and thatch for roofing, and mud for walling could also be found. Approximately 70 per cent reported that it takes less than two hours to find the materials on foot, one in five reported that it takes between two to three hours, and 13 per cent reported more than three hours.



Access to building materials

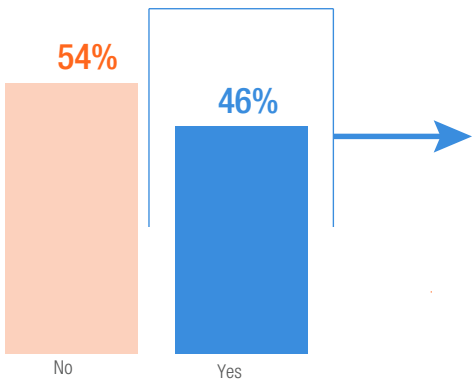


How long do you need to walk to collect these materials

SECTION 3: TECHNICAL KNOWLEDGE

Almost all respondents (92%) both displaced and non-displaced, reported that following the extensive damage brought on by Cyclone Idai, there is a need to rethink the house construction methods, to make them stronger and more resilient to future climate-related disasters.

Forty-six per cent of respondents reported knowing construction methods. This construction knowledge was most commonly passed on from others in the community including community leaders (16%), elders (22%), and trained workers (22%). Additionally, 35 per cent of those who claimed to have knowledge of construction had some form of construction training. Of the remaining 54 per cent who having no construction knowledge, 38 per cent said that they would have to pay someone for labour support, whilst 36 per cent of respondents said that they would attempt the task, even though with no knowledge of construction.



Do you know how to build?

CONCLUSION

It is evident that more than a year after the cyclone, affected families are still struggling to fully rebuild their homes, both in host communities and resettlement sites and return to the living conditions they had before Cyclone Idai wrought havoc across Central Mozambique.

Those who were deemed as living in high-risk areas, were displaced and relocated to resettlement sites are still the most vulnerable, particularly in terms of their capacity to begin the process of self-recovery, with 72 per cent still living in temporary emergency shelters provided through humanitarian support, more than half of whom report poor living conditions. However, even considering their current living conditions, three out of four households would not consider returning to their place of origin, mainly due to frequent flooding that they've experienced in the past, and also because some have already started building a new life for themselves in their new community and in the process of a search for more durable solutions and local integration.

Approximately one in four non-displaced families still living in their place of origin reported that their living conditions had not improved significantly since the cyclone, many of whom claim lack of financial means to access quality building materials. Many report using salvaged materials from surrounding rural areas to improve their houses. Although this is likely a common construction practice, low quality materials coupled with lack of technical knowledge or guidance leaves these families vulnerable to future climate-related events.

For more information or to report an alert, please contact:
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