

A.7 Georgia - 2008 - Conflict

Case study: Rural shelter construction

Full case study

Country:

Georgia

Disaster:

Conflict

Disaster date:

8-12 August, 2008

Number of houses damaged:

1,850 families (mainly single-family houses. some multi-unit apartment buildings)

Number of people displaced:

120 000—130 000

Project target population:

Initially 5000 households. Later reduced to 200 households.

Occupancy rate on handover:

Initial occupancy rate 65%. Later increased to over 80%.

Shelter size:

The materials distributed were to repair houses of varying sizes. The transitional shelter cottages were 24m².

Materials cost per shelter:

Varied for building repair. 3000 USD for each winter cottage. Costs were higher for the 'One warm cottage'.



Project timeline



Summary

Support of families whose homes had been damaged or destroyed during the conflict, in order that they could stay in their homes during the first winter. Building repairs and then the provision of a 'one warm cottage' was supplemented by distributions of NFIs and firewood.

Strengths and weaknesses

- ✓ Support allowed returnee families to stay in their homes during the harvest season, and during the winter.
- ✓ The number of families having to stay in collective centres was reduced.
- ✓ Forward preparation was made for full reconstruction after the winter.
- ✓ The NGO showed great levels of adaptability to changing government policies.
- ✓ The project made extensive use of beneficiary contribution and input.
- ✓ 'One warm cottage' provided a long-term solution for those whose homes had suffered the most damage.
- ✓ Local markets and contractors were engaged.
- ✓ Cottages were built that would be of use to families even after they had ceased living in them.
- ✗ Constant changes in government policy forced

shelter projects to adapt continuously.

- ✗ 'One warm cottage' used resources which could have been used for permanent repairs of original houses.
- ✗ 'One warm cottage' construction not as adaptable as initial 'one warm room' repair strategy.
- ✗ Limited size of 'one warm cottage' was not always able to provide sufficient space for extended families.
- ✗ Need for accelerated speed in construction of cottages reduced potential for reconstruction of improved houses and technical knowledge transfer.
- Targeting of the most severe levels of damage ensured that those most in need of shelter were supported, but the increased costs of doing so meant that fewer households could be supported, and almost none whose homes had suffered a mid-range of damage were given support.



The housing strategy shifted from “one warm room” to “one warm cottage.” As a result the anticipated scale of the programme was reduced

Photo: Jonathan Puddifoot

Before the conflict

Georgia had a pre-existing displaced population of approximately 200,000 people. Many had been living in collective centres in urban areas since the conflict of 1991-1992.

Apart from a few families living in apartments in the centres of the largest villages, most families lived in stand-alone farm-houses. Often these were shared between many generations of the same family.

Most of the houses were grouped into small villages, and stood alone inside walled gardens. Most families still relied upon agricultural produce for their livelihoods to some degree, and most houses included storage rooms in the bottom storey.

Houses built after the 1970s were more likely to be built in breeze blocks. Almost all of the families in the affected areas were owners of their own homes.

Since 1990 there was a dramatic decline in the local economy. This added to the vulnerability of the housing stock to conflict damage.

Temperatures in the affected zones fall as low as minus 20^o Celsius in winter. Houses in the area were built under the Soviet regime, when energy was virtually free to users, and as a result many had very poor thermal insulation. For 97% of households firewood is the main fuel for heating and cooking. The average family consumes 7m³ of wood during a winter.

Between the 8th and 12th August 2008, South Ossetia was invaded. Russian forces continued

26 kilometres further south. At the ceasefire on 12 August, a ‘buffer zone’ was declared at the perimeter of the furthest advance. This zone was occupied until October 2008.

After the conflict

During the first three weeks of the ceasefire armed militia gangs roved the villages inside the buffer zone south of South Ossetia. Once that threat diminished, a greater number of families from the villages in the buffer zone started to return home.

By the second week of September in some villages, 70% of the population were either permanently returning home, or spending at least part of the time back in their homes. The return process coincided with the start of the harvest season.

A relatively small number of houses (only 5% of the total) had been destroyed or heavily damaged. However, up to 2483 houses in the 11 most heavily-damaged villages had suffered sufficiently light damage that the families could stay in the houses over the winter.

In urban areas beyond the buffer zone, greater strains were becoming evident in the ad-hoc collective centres for those who had been displaced and who could not return. There were also competing claims for support from those newly displaced, and the older displaced population from the 1991-2 conflict, as well as those fleeing from South Ossetia for whom return was impossible.

One warm room strategy

Within one month after the disaster, the implementing organisation had developed a ‘one warm room’ strategy, based upon previous models from the Balkans in the 1990s. The most important element of this strategy was that it would support those families who wanted to return to their houses of origin, and thus relieve pressure upon the collective centres in urban areas like Tbilisi. It aimed to provide support to the families who were seeking to return home in time to salvage their agricultural harvests.

The organisation also continued to support people that were displaced into urban areas through the distribution of firewood and non food items.

“One warm room”

Trained staff would assess the levels of damage, and then engineers would draw up Bills of Quantities for those houses where repairs needed more than plastic sheeting or other minor items. A voucher system would be set up with local suppliers in Gori, the provincial centre just south of the buffer zone. This would support the local economy and ensure that as wide a range as possible of materials was available.

Housing damage was assessed on a scale of 1 to 5, based on similar scales used in the Balkans. For larger houses, there was the possibility of providing sufficient materials to prevent further damage to the rest of the house during the winter.

A cost limit per house was imposed for each category. This was to ensure equitability between households. Whilst this approach would be sufficient for those whose houses had been merely damaged, neither the time nor the budget constraints would have permitted the re-construction of an entire warm room in those houses which had been wholly destroyed.

“One warm cottage”

On October 22nd, initial engagement with the affected communities was underway, the Government of Georgia changed policy: primarily destroyed houses (category 5) would be targeted. These families would be given a 24m² cottage, constructed by the NGOs. This solved the issue of how to support those with destroyed houses, but reduced the number of beneficiary households supported by the NGO to 200.

Selection of beneficiaries

Initial surveys had identified the villages which had suffered the most damage. Village leaders were approached, and asked to organise a meeting between the NGO and all members of the community whose houses had been damaged. At the meeting, families were registered, and asked to evaluate the level of damage of their houses.

During the initial ‘repair’ part of the strategy, support was offered to families according to levels of damage. Extra help for both rubble removal and repairs was offered to those whose vulnerabilities prevented them from doing this work themselves.

When the strategy changed towards the construction of a one-room cottage, criteria changed. All families in the target villages whose houses had been assessed as being Category 5, or completely destroyed, were then included.

Technical solutions

Initially, the proposal was for a supply of materials, based upon individual bills of quantities written by staff engineers. These would provide each family with at least one warm room for the winter in

their house of origin, and would be the start of the full reconstruction after the winter.

For those whose houses had suffered minor damage (typically, broken windows or roofing tiles) there would be a direct distribution of plastic sheeting. For higher categories of damage, a voucher scheme was planned, based on a market assessment, the limited logistics resources for direct delivery, and traffic limits in the buffer zone.

After the change in shelter strategy by the government, local contractors were engaged to build the 200 cottages for those families whose houses had been totally destroyed, or damaged beyond repair. The cottages were built using breeze-blocks and timber-and geo-textile roofs. There was little ground insulation. Buildings had a ceiling to improve thermal comfort.

Cottages were sized to respect international standards, whilst still having enough room to actually do the construction in the limited spaces of beneficiaries’ gardens.

The government made cash transfers of around 15,000USD to families whose houses had been completely destroyed. However, due to lack of experience and support, much of this money was not spent on rebuilding houses.

Household energy

It was agreed to supply 3m³ of firewood to support affected families with their heating and cooking needs. The organisation delivered around 24,500m³ of firewood to around 8,500 Households, over two winters.

The organisation supplied US-AID-approved fuel-efficient wood



buring stoves to all cottages. It also supplied 5,952 cooking gas cylinders and 600 electric water heaters. Glass fibre insulation was provided to reduce heating costs.

Trials on woodchip briquettes as an alternative fuel found them not to be inappropriate as they were very sensitive to damp.

Logistics and materials

Plastic sheeting and firewood were provided using rented trucks.

For the second, ‘one warm cottage’ strategy, the contractors were responsible for their own materials supply.

To reduce the risk of causing significant deforestation the organisation only bought wood from licensed suppliers, with particular criteria such as diameter and species type. Unfortunately, the large scale purchases distorted the markets. Supply licenses were suddenly revoked by the government and only a very few suppliers were able to obtain certification.

In general, although NGO access into the buffer zone was limited until October 2008, local Georgians were allowed to drive trucks into the area from a much earlier date, and after the ceasefire of 12 August 2008 transport on the national highways and from other countries was relatively unimpeded.

Materials list

Materials for one ‘warm cottage’ (excluding electrical installation)

| Material | Quantity |
|-------------------------|---------------------|
| Cement | 3.36MT |
| Gravel | 6.325m ³ |
| Iron bars 12mm | 102.4m |
| Iron bars 6mm | 72m |
| Mineral wool - roll | 1 |
| Nails | 8Kg |
| Roofing nails | 200 pieces |
| Plastic boards 12.5cm | 22.5m ² |
| Plastic door block | 1.89m ² |
| Plastic window blocks | 3m ² |
| Roof trim | 8m |
| Roof sheets | 25 pieces |
| Sand | 4.6m ³ |
| Small blocks 20x20x40cm | 665 pieces |
| Timber beams and planks | 3.5m ³ |
| Wooden skirting | 18.4m |