

Conditional Cash Transfers and Embedded Extension: A Mechanism to Restore and Promote Adoption of Improved Goat Shelters in Emergency Recovery

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Abstract

Reconstruction of damaged goat shelters was a key need of poor and vulnerable households in the post-earthquake period in the most affected district of Gorkha, as lack of shelters led to distress sale of goats and reduction in herd size. Additionally, existing shelters caused diseases in goats due to poor ventilation and hygiene. Drawing on its global experience and expertise in livelihoods, cash and markets especially in emergency situations, CRS supported conditional cash transfers, provided in two tranches (upon beneficiary selection and construction completion), along with extension (group orientations, mentoring) focused on shelter design principles, to help poor households critically depending on income from goats reconstruct hygienic goat shelters. The content of extension of improved goat shelters focused on promoting two design principles: 1) raised platform to ease in removal of faeces and 2) adequate ventilation to reduce the incidences of respiratory diseases due to harmful gases emanating from faeces and waste material. The goat shelter interventions were implemented over a period of two years and contributed to recovering livelihoods of earthquake affected households.

CRS assessed the effectiveness of conditional cash transfers combined with targeted extension on adoption of improved goat shelter principles by earthquake-affected households, through 100% visual verifications, household surveys and focus group discussions (FGDs) with beneficiaries and non-beneficiaries, and key informant interviews with key stakeholders. Some of the key results from this exercise included,

- 100% completion of goat shelter reconstruction by the beneficiaries adopting both the recommended practices
- Beneficiaries co-invested \$80-100 in addition to \$100 received from project.
- Improved goat shelter features like adequate ventilation and raised platform was were adopted by 91% and 86% of the beneficiaries respectively.
- Strong sense of ownership of the goat shelters evident from regular maintenance,
- Non-beneficiaries have started adopting improved shelter design after witnessing reduction in respiratory diseases due to the improved shelter design.
- 20-30% increase in herd size among most beneficiaries after the earthquake, due to availability of safe shelter.

Key Words: Nepal, Cash Transfer, Extension, Goat Shelter, Adoption

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1. Introduction

A massive earthquake in 2015 led to large-scale loss of life and livelihoods for communities in Nepal's Gorkha District. One of the key impacts on livelihoods of poor and vulnerable households was damage to livestock shelters, which led to distress sales and reduction in herd sizes, especially among vulnerable households for whom livestock was a key source of income. They could not afford to rebuild their livestock shelters due to lack of funds and other competing priorities, such as rebuilding their homes and restarting their agricultural activities.

After the earthquake, CRS conducted a field assessment, which showed that it would take families 2 to 3 years to save enough money to fully rebuild their goat shelters. Families living in Gorkha's rural, remote communities where CRS works, had little or no access to credit from formal financial institutions. Credit from informal sources—such as savings groups or loans from friends and relatives—was either in limited amounts or had high interest rates. Most of the existing goat shelters had poor design (lack of adequate ventilation and poor drainage due to flooring too close to the ground) and management (lack of regular cleaning). This led to cold and unhygienic conditions, respiratory disease among goats, low herd productivity and, ultimately, reduced income for poor households.



Fig 1. Traditional goat shelters built low to the ground and without good ventilation Photo by CRS staff

To support the most vulnerable households³ to rebuild their goat shelters and adopt design principles for improved hygiene, CRS implemented a conditional cash transfer program. The twin conditions were that the selected households would participate in an orientation program focused on goat shelter design principles for improved hygiene, and would construct shelters based on the improved design. Considering the gaps in existing goat shelter designs and the poor economic conditions of participating families, CRS promoted two simple, cost-effective design principles:

- A platform raised to about 2.5 feet (~0.75m) from the ground
- Adequate ventilation to address hygiene and respiratory disease issues

To minimize reconstruction costs and encourage the use of locally available material like stones, bamboo and wood, beneficiaries were encouraged to use materials of their choice including salvaged material from their homes—and choose a shelter size based on their needs. In addition

³ Include marginal, small farmers and landless who depend on goats for cash income

to orientation programs aided by illustrated educational materials, CRS constructed demonstration goat shelters to help communities visualize the new design.

CRS support consisted of a cash transfer of \$100 in two different modalities:

Modality 1 \$100 cash in two tranches of \$50 each. The first was provided upon selection of the participant and attending an orientation programs on improved shelter design, and the second upon completion of the shelter and its verification by project staff. The verification process sought to ensure that the participating household had adopted the improved goat shelter design.

Modality 2 A one-off payment of \$100 upon completion of the shelter and its verification by project staff. This modality was adopted in remote locations where multiple payments were operationally challenging.

Prior to fixing the cash transfer amount, CRS conducted an assessment of existing goat shelters in the community in terms of size, materials used and skilled labor employed etc which showed that the average cost of a goat shelter is \$120-140. Based on this the cash transfer amount of \$100 was fixed to enable beneficiaries to cover the maximum cost from project support and at the same co-invest to increase ownership.

CRS adopted two cash delivery mechanisms: one through a remittance agency for families in remote locations, and one through project partners, for locations not served by remittance agencies or other financial service providers. In both cases, cash-in-hand was received at the community level. Beneficiary selection was participatory—involving communities, local leaders and elected representatives—and facilitated by project staff to ensure transparency. This intervention was implemented by CRS in Gorkha and Okhaldunga districts in Nepal with support from six local implementing partners, namely, Caritas Nepal, System Development Service Center (SDSC), Shree Swanra Integrated Community Development Center (SSICDC), Demba Community Development Center (DCDC), Sayapatri Sanstha (SS) and Forum for Rural Development (FORD)-Nepal.



Fig 2. CRS staff orienting beneficiaries on improved shelter designs
Photo by CRS staff

CRS conducted a detailed reflection exercise to assess the effectiveness of conditional cash transfers combined with targeted extension on adoption of improved goat shelter principles by earthquake-affected households and document key lessons learned. The following were the key objectives of the reflection exercise,

- To what extent the project strategies and activities were able to achieve the intended outputs and outcomes with specific focus on,
 - Impact on vulnerable households and women
 - Contribution to strengthening goat-based livelihoods
- To what extent the outcomes are sustainable and what additional results need to be achieved, if any, to make the outcomes more sustainable?
- What were the key enabling and inhibiting factors that influenced quality implementation of the activities and achievement of the outcomes?
- What key design changes, if any, need to be integrated to make such interventions more successful in future?

2. Methodology

CRS adopted a combination of quantitative and qualitative methods to collect and analyze data which included,

- Review of existing relevant monitoring, evaluation, accountability, and learning (MEAL) data including output level monitoring results, management information system (MIS), partner quarterly review reflection reports, and donor reports.
- FGDs with select goat shelter cash transfer beneficiaries
- FGDs with non-beneficiaries of goat shelter cash transfer
- Key information interviews (KII) with rural municipality representatives
- KII with Livestock Extension Officer at the targeted rural municipalities.
- Quantitative household survey during project final evaluation

Sampling Plan: Two village development committees (VDCs) Taple and Tandrang in Gorkha district were selected for FGDs and KIIs. Taple (currently part of Gorkha Urban Municipality) and Tandrang (Bhimsen Rural Municipality) represent South and Central regions, thus providing a representative geography.

Table 1: Tool and sample details

Name of the Tool	Sample Size and Location
FGD with goat shelter beneficiaries	2 FGDs (one each with male and female respondents) each in Taple and Tandrang
FGD with non-beneficiaries	2 FGDs each in Taple and Tandrang
KII with rural municipality representatives	1 KII in Tandrang
KII with livestock extension officer	1 KII in Taple or Tandrang
Transect walk check-in	5 HHs each in Taple and Tandrang

To analyze and interpret findings, CRS and partner staff participated in a two-day reflection workshop to assess the effectiveness of conditional cash transfers combined with targeted extension on adoption of improved goat shelter principles by earthquake-affected households,

and document key lessons learned and recommendations related to sustainability, implementation approach and design principles.

Results

CRS achieved the following results:

- 100 percent of the 3,882 households that received the cash transfer reconstructed goat shelters adopting the hygienic shelter principles promoted by the project based on the conditionality.
- Participating families coinvested an average of \$80 to \$100 (in material and labor) in addition to the \$100 received from the project.
- Strong ownership of the goat shelters was evident in the regular maintenance observed over the subsequent 18 months.
- Community members not involved in the project began adopting the improved shelter design principles after witnessing a reduction in respiratory disease due to the improved design.
- The sizes of herds owned by participating families increased by 20 to 30 percent in the 8 to 12 months following the introduction of the improved design. This was due to the availability of safe shelter, a reduction in morbidity and a decrease in distress sales of diseased animals.

3. Discussion

The overall results and feedback from communities, project staff pointed to following factors as key for success,

The pre-project needs assessment conducted by CRS was able to rightly identify the large-scale damage to goat shelters as a key impact of earthquake to the livelihoods of poor households. The shelter interventions and cash transfers were grounded in community needs and context, and hence garnered strong support from local government and leadership as well which further translated into strong ownership of the intervention by communities. All the goat shelters that were reconstructed using project support are being used for rearing goats and not put into any alternative, unproductive use.

The feasibility assessment conducted prior to intervention designing proved to be crucial in getting community feedback on cash and in-kind support. The feasibility assessment which included studying the costing of different types of goat shelters in communities also helped in fixing the transfer amount. Finally, the feasibility assessment provided key insights into the different types of cash transfer modalities which are appropriate for the target households and based on which CRS decided on two modalities - cash-in-hand and cash through remittance agencies, to the beneficiaries. The assessment results conclusively showed that participating households preferred cash to in-kind support as it provided the flexibility of choice for quantity and quality of material. Cash also enabled the families to pay for skilled labor for the construction.

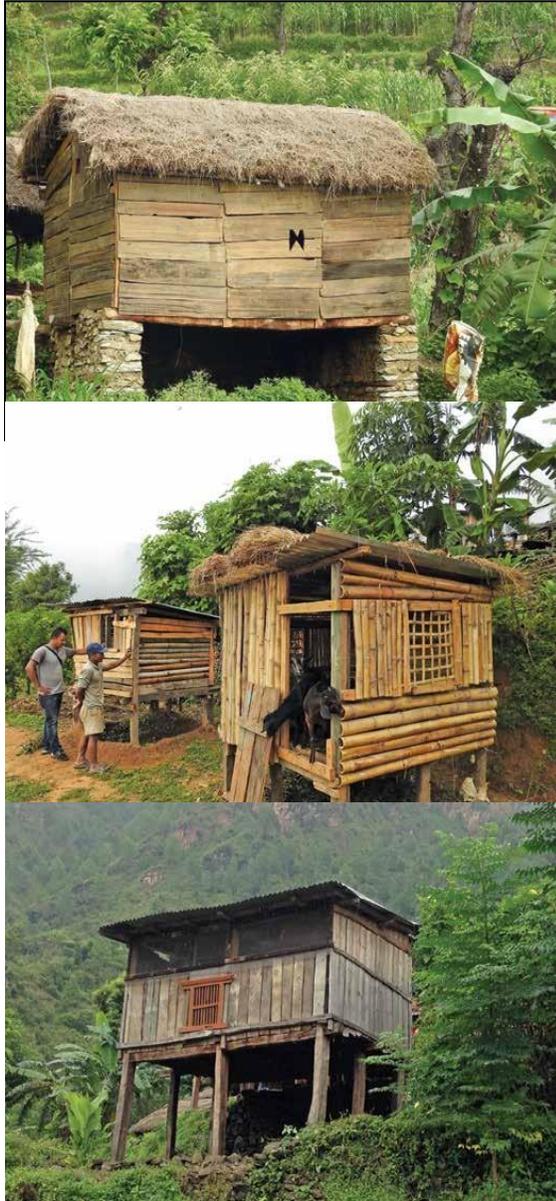


Fig 3. Goat shelters with different materials constructed by beneficiaries using cash transfers and adopting improved designs; Photo by CRS staff

A cash transfer—or the promise of cash, in the case of the second modality—nudged participants to prioritize goat shelters and catalyzed faster reconstruction (40 to 50 days on average for each shelter). In the absence of cash support, the participating families would likely have taken 2 to 3 years to rebuild the shelters by saving slowly and constructing incrementally. During this period of 2-3 years, most of the beneficiaries would have reduced their herd size, thus impacting their income as well. Beneficiaries cited loans with interest rate of 20% and above from relatives and friends as a fallback option to construct the goat shelters.

The cash support provided by project motivated and nudged households to coinvest (about \$80-\$100) and build better by using quality materials and skilled labor. A good number of beneficiaries built shelters larger than their damaged ones to address future needs. Most of the beneficiaries reported that the cash was spent on materials like wood, nails and skilled labor which was available in the local markets. Cash was preferred to material due to reasons like flexibility in buying material of their choice and quality; and enabling payments for skilled construction labor. It also gave recipients the option to use scrap or salvaged materials, thus saving on construction costs.

Providing cash in two tranches was preferred by beneficiaries as it helped more vulnerable households use the first tranche to buy material and pay for labor. As payment of the second tranche was done on a cluster basis (households in a

particular geographic area could only receive their second payment once everyone in that area had completed construction), it contributed to peer support to expedite the construction process, especially for the most vulnerable households, such as the elderly and women-headed households. The one-time payment was generally effective, but in some cases led to a delay in construction completion as families struggled to make the initial investment on their own.

The promotion of improved shelter focused on design principles and did not call for specific materials or shelter size. Providing this flexibility empowered participants to choose materials that were locally appropriate, promoting use of salvaged material, and reducing cost. In most cases, households chose locally available materials like wood, stone, and bamboo for construction, thus making future maintenance easier and cheaper.

CRS strategy of constructing demonstration goat shelters using different varieties of raw material prior to cash distribution yielded positive results. The demonstration goat shelters combined with regular and short-duration trainings using simple IEC material (Annexure 1) in the project areas helped community members understand and better adapt the design principles to their specific needs.

Project participants reported reduced respiratory disease and diarrhea and an overall improvement in goat health after the construction of improved shelters. Behavior change in terms of more frequent cleaning of goat shelters (once in 2-3 months compared to once in six months earlier) was also observed in field. Beneficiaries also reported the project promoted goat shelter design principles were easy to understand and implement. They attributed improvements in goat health due to the improved goat shelter design, especially the raised platform as it helped them to clean the faeces easily.

The cash assistance covered about 20 percent of the total households in the project area. This large-scale coverage created momentum within the community, which facilitated wider awareness of the improved design. It was observed that community members who were not involved in the project started (especially households making new goat shelters) to adopt the improved design after 6 or 7 months, based on their observation of positive results, largely in terms of disease reduction in goats. Adoption was also reported to be easy owing to the simplicity of the design.

Through the cash assistance of \$100 and accompanied extension messaging, 3,882 households adopted improved goat shelter designs to reconstruct their goat shelters and there has also been adoption by non-beneficiaries. This pump priming also helped beneficiaries to co-invest. These outcomes strongly point towards to cost-effectiveness of the intervention.

Participation of ultra-poor households in the goat shelter intervention was challenging due to a lack of adequate space for construction and their inability to invest additional cash. The cash support for goat shelters had limited impact on benefit the



Fig 4. Beneficiaries receiving cash through remittance agency
Photo by CRS staff

ultra-poor households due to the following reasons,

- As a common practice, the ultra-poor households who rear not more than 1-2 goats, keep the goats within the house or vicinity and don't construct a separate goat shelter.
- Lack of adequate space near their homes for construction of goat shelter
- Due to lack of labor for goat rearing, the ultra-poor HHs do not aspire to increase their herd size, so they did not see value in investing for a separate goat shelter.
- Cash support of \$100 is not fully adequate to rebuild the goat shelter and the beneficiaries had to invest more to construct a useful goat shelter. However, the ultra-poor households did not have the additional funds to invest in a limited time.

4. Conclusion and Recommendations

Based on the project results and insights from reflection exercise, CRS suggests adoption of following recommendations to make similar interventions successful in other contexts as well,

- Thorough and participatory needs and feasibility assessment helps in identifying the right modality (cash transfer in this case and not material) and nature of mentoring support required to help beneficiaries reconstruct their goat shelters adopting improved design principles. The shelter interventions were grounded in community needs and hence helped in mobilizing strong support from local government and communities.
- Focus on simple, low-cost, relevant to specific problems, and fewer behavior changes helps in effective messaging and wider adoption of project promoted goat shelter design principles. Non-beneficiaries who adopted shelter design principles reported that simplicity of design as one of the key factors for adoption.
- Adoption of improved design principles by non-beneficiaries was not immediate. Non-beneficiaries started to adopt improved design principles only after observing the changes in goat health for six to seven months. Hence, it is important to schedule core implementation activities in a way that there is adequate time available in project to support non-beneficiaries in adoption and replication.
- Providing flexibility, rather than a one-size-fits-all approach, on construction material, size of the shelters etc empowers the beneficiaries to make their own choices based on their requirements and context. Such approaches contribute to ownership and post-project sustainability of the results.
- Providing cash in minimum two tranches with one advance payment helps beneficiaries make upfront investment in materials and skilled labor. This is particularly crucial for poor households who are short on cash and have limited or no access to credit from formal and informal sources. The balance payment serves as an incentive for beneficiary households to complete the construction in time. Cash transfer supports like this indicate a strong cost-effectiveness compared to other modes of interventions.
- Well-designed and targeted cash support helps create household level infrastructure without directly provisioning for any hardware support which can sometimes be cost intensive and

time consuming. Wherever feasible, cash transfer programs should be explored instead of hardware provisioning.

- Demonstration goat shelters built by using a wide range of materials in the same geographic area plays a key role in increasing awareness and skills of the households on improved and hygienic design principles before households start their own goat shelters construction. It also provides an opportunity for the households in terms of shelter design and choosing raw material of their choice. Hence, organizing demonstrations and awareness programs prior to cash transfer is recommended.
- Possibility of separate cash transfer modalities like higher cash limits, higher first tranche etc should be explored to provide additional assistance to ultra-poor households to reconstruct their goat shelters.
- Disbursement of second/final tranche in groups or batches helped in expediting construction process due to peer encouragement and support. In many cases beneficiaries were found to be opting for collective planning specially to address skilled labor scarcity and complete construction in short time.
- Cash transfer for goat shelter activities were implemented at scale with about 20% of the total households covered. Large-scale coverage creates a momentum and buzz within the community which further facilitates wider awareness on the improved design principles and subsequently contributes to adoption by non-beneficiaries.
- Short duration and regular orientation trainings particularly helped women to adopt improved goat shelter features. Short duration trainings helps in participation from poor households who are otherwise busy in regular chores and repeat trainings help in stronger retention of key messages.

Earthquake recovery provided CRS with an inroad to strengthen the livelihoods of poor households through goat shelter reconstruction using hygienic design principles. Use of cash assistance for goat shelters is a relatively new and innovative in Nepal and provided a comprehensive learning opportunity to identify factors that can influence the success of such interventions in future. The cash assistance met the twin objectives of restoring the livelihoods of participants and improving the health of their animals through adoption of improved shelter design. Along with cash support, the project's approach, of promoting simple design and locally available raw materials, proved to be

crucial in adoption and replication by community members who were not a part of the project, thus extending its impact. Key lessons learned are that cash distribution in two tranches,



Fig 5. Ansisha Shrestha holds baby goats at her newly constructed goat shelter; Photo by Jen Hardy/CRS

promotion of improved shelter design features and demonstration goat shelters can be applied in other contexts with necessary adaptations. In summary, when combined with extension and mentoring support, cash assistance can be a strong nudging tool to promote adoption of proven technologies or best practices.

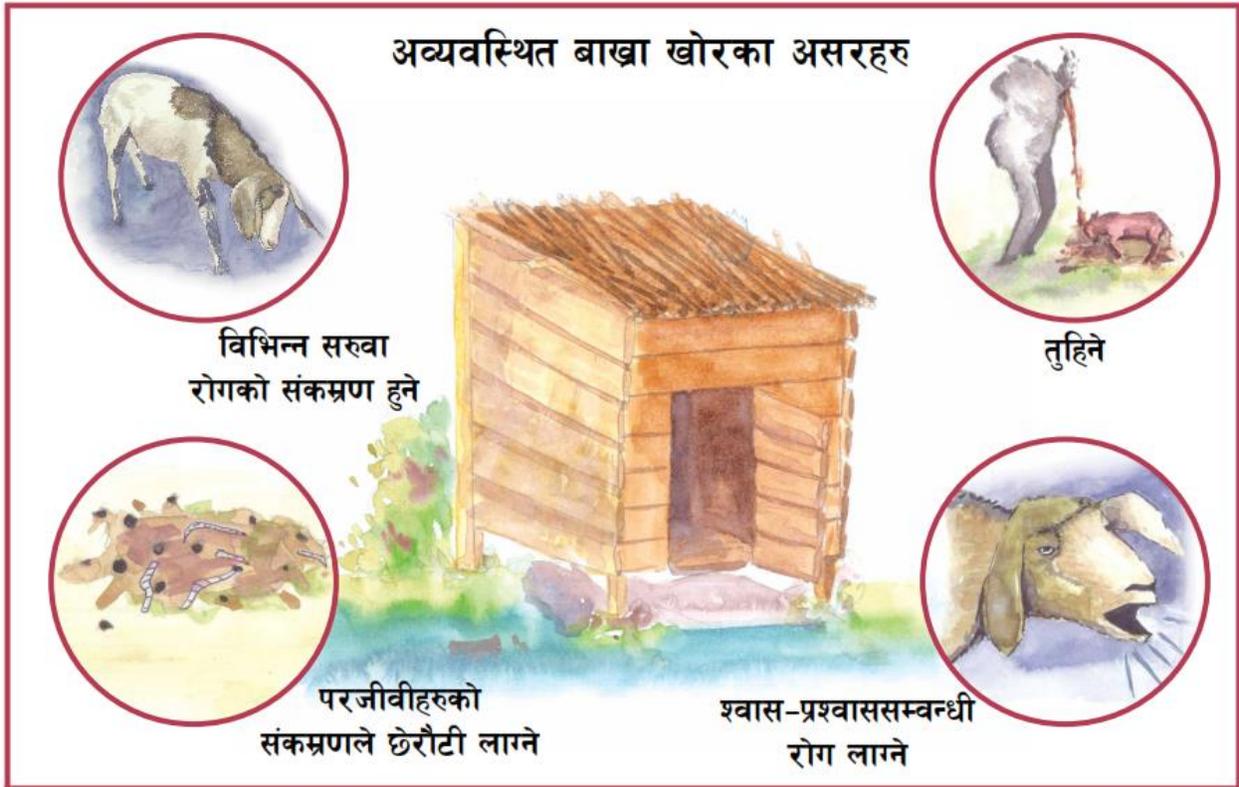
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Annexure 1
IEC Material Used for Awareness Generation



बाख्राको सुधारिएको खोर निर्माण गरौं ।
अनाव्यस्यक रोगहरू र समस्याहरूबाट बचाऔं ॥



स्थानीय रूपमा उपलब्ध सामग्री प्रयोग गरी बनाईएको सुधारिएको बाख्राको खोरको नमूना