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Linking Relief and Development in Pakistan-administered Kashmir

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Linking Relief and Development in Pakistan-administered Kashmir

Restoring Local Livelihoods and Economic Security in Earthquake-affected Areas

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In response to the devastating earthquake that hit northern Pakistan on 8 October 2005, the German Red Cross (GRC), in partnership with the Economic Security Unit of the International Committee of the Red Cross (ICRC), implemented a complex livestock restocking program combined with structural interventions in the basic animal health sector. Livestock restocking, which was a new experience for both GRC and ICRC, indicates a shift from the relief operations that are traditionally the main domain of both organizations toward development approaches that aim to provide sustainable support for affected populations. The project activities are an example of an agency's move to facilitate a transition from relief measures to lasting development, with the aim of reducing the frequency, intensity, and impact of livelihood shocks, while simultaneously reducing the need for emergency relief. The question remains whether the project's rehabilitation efforts succeeded in connecting the end of relief with the establishment of sustainability in the livestock sector, including the support of local livestock production, processing, and marketing systems. Overall, the livestock intervention project helped restore rural livelihoods in a remote mountain area and heightened coping capacities in households that succeeded in making productive and sustainable use of the animals.

Keywords: *Earthquakes; human security; relief; development; animal husbandry; Kashmir; Pakistan.*

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Introduction

Relief and development operations in the aftermath of catastrophe and disaster traditionally were treated as conflicting efforts, for which the respective mandates were the domain of separate specialized organizations. First comes relief and then comes development, and the responsibility is passed on for staged and linear programming. However, this simplified thinking about a linear progression of "… emergency, reconstruction, then 'back to normal'" (Smillie 1998: xxiii) has been largely replaced, both in policy narratives and in development practice, by attempts to link relief, rehabilitation, and development (LRRD). This is now exemplified by the experiences of many nongovernmental organizations (NGOs) and relief organizations (White and Cliffe 2000; Verband Entwicklungspolitik deutscher Nichtregierungsorganisationen 2006). However, although such linking approaches in aid interventions are increasingly on the agenda, the longer-term effects of their implementation in complex emergencies are only rarely assessed. Various "gray areas" of uncertainty continue to surround the practice of LRRD as a result of limited analysis of the impact of these interventions on disaster-affected people (Christoplos et al 2004: 4).

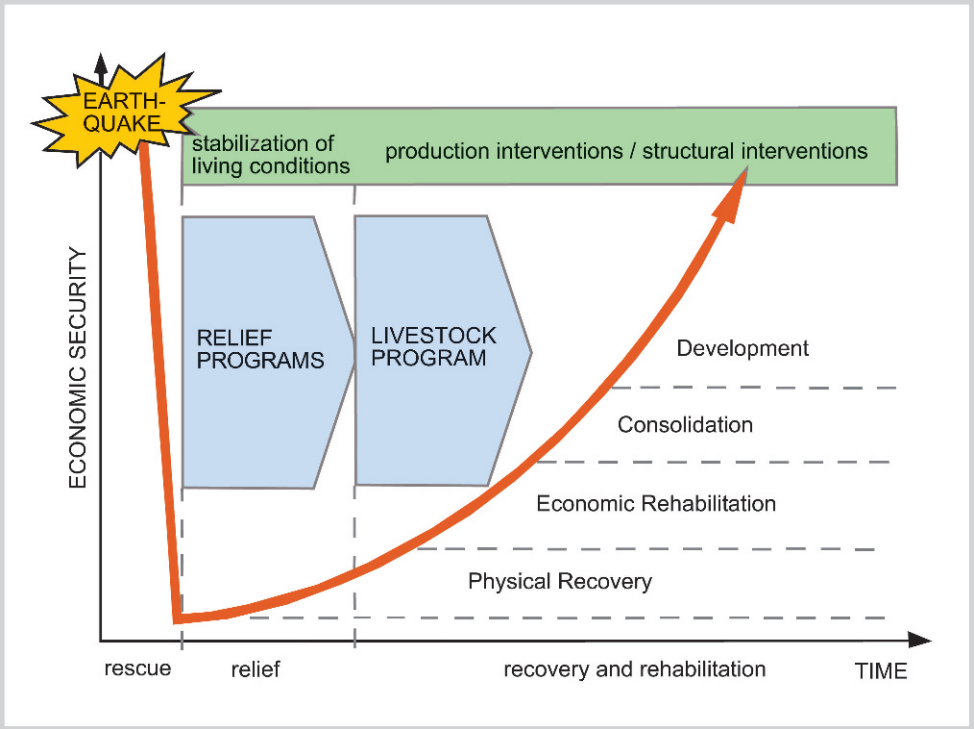
The present article aims to address one such gray area by looking at the impacts of a specific rehabilitation project aimed at restoring local livelihoods and economic security in the aftermath of the disastrous earthquake in Pakistan-administered Kashmir that occurred on 8 October 2005. The project is an example of an agency's move to facilitate the transition from relief measures to lasting development, with the aim of reducing the frequency, intensity, and impact of livelihood shocks, while simultaneously reducing the need for emergency relief (Buchanan-Smith and Maxwell 1994; Christoplos et al 2001).

The project, implemented by the German Red Cross (GRC) in collaboration with the International Committee of the Red Cross (ICRC), aimed to rehabilitate the livestock sector in the earthquake-affected region and to provide sustainable development support to mountain communities, increasing their resilience against livelihood risks (Figure 1). The project is a prominent example of both agencies expanding their traditional terrain of immediate disaster relief operations to the more development-oriented provision of tangible assets

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FIGURE 1 Intervention scheme of the GRC/ICRC livestock project. (Source: authors' design)



in order to rebuild the livelihoods of people affected by the earthquake.

Contexts: livelihood shocks and the rehabilitation of rural livelihood systems after the earthquake

The earthquake, with its epicenter in the mountainous Muzaffarabad District of Pakistan-administered Kashmir, left the region and its people in peril. Many thousands died or were injured when their houses collapsed. Roads and social infrastructure were destroyed, and agriculture and animal husbandry were severely damaged (Sudmeier-Rieux et al 2007; Nüsser et al 2011). Irrigation systems totally collapsed, and in many areas up to 80% of the livestock population perished in the disaster. Rescue and relief efforts were established quickly, and the entire operation—carried out in concert with the Pakistani military, national and international relief and development organizations, Islamic welfare organizations, and UN agencies—was perceived by some to be "… one of the largest and most effective responses to a natural disaster to date" (Wilder 2008: 9). Other observers were not so positive; they identified huge shortcomings in the international responses to the Kashmir earthquake, which was also seen as a social disaster in which the existing vulnerabilities of affected populations were increased by the severe impact of the catastrophe (Özerdem 2006). Likewise, the critical role of women in reconstruction tended to be underemphasized in project activities, which were often lacking in gender-sensitive disaster risk-reduction strategies (Hamilton and Halvorson 2007). In the current context of the growing securitization of development (Duffield 2002), external aid packages for earthquake relief in Pakistan must also be seen against the backdrop of US security objectives (Wilder 2010).

The sequence of rescue, relief, and development activities, with each organization concentrating on a particular stage, structured the response to the earthquake. However, 4 years after the earthquake, most agencies had already withdrawn from the area, often without determining whether their activities were having a longer-lasting impact on the livelihoods of the affected people. Problems identified in the shift from relief to development included protracted relief assistance without a focus on the support of rural livelihood strategies and the practice of top-down reconstruction with limited involvement of civil society (see Özerdem 2006). The GRC/ICRC livestock project remains a notable exception, as this particular venture into the domain of LRRD put a clear focus on livelihoods and employment opportunities and was accompanied by an impact analysis after 3 years (Kreutzmann and Schütte 2009).

The question remains whether the project's rehabilitation efforts succeeded in connecting the end of relief with the establishment of sustainability in the livestock sector. The stated project goal of supporting household economic security and "… contribut[ing] to the

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TABLE 1 Economic characteristics of the surveyed households. (Source: authors' survey of 100 Kashmiri mountain households, March 2009)

Assets	Number of households	Source and amount
Own cultivated land	90	Median size of landholdings: 7 *kanal*[a)]
Animal fodder	76	79% grow fodder crops on own fields, 88% purchase additional fodder from market, 5% graze animals on communal lands
Off-farm labor	75	51% engaged in casual work or labor migration, 36% with regular job or skilled labor, 13% home-based work or pension
Remittances	27	10 households have members working in Gulf states, 17 households in major cities of Pakistan

[a)] One *kanal* equals 505 m^2.

restoration of the livelihoods of the most vulnerable of earthquake victims to a level comparable to their pre-earthquake status" (ICRC 2007: 4) hints at what is already implicit in the literal meaning of rehabilitation and other "re-" words—namely, to "… re-turn to a former, supposedly stable and desirable state of affairs" (Christoplos et al 2004: 8). For this, the difficult task the livestock project needed to achieve was "… [to] ensur[e] continuity with existing farming and livelihood systems, and to achieve a high degree of participation based on existing community and civil society structures and systems of authority where these are conducive to overall programme objectives" (White 1999: 231). Although Philip White used these words in assessing the role of UN agencies in complex emergencies, they also sum up quite concisely the challenges faced by GRC/ICRC when venturing into asset building and the expansion of opportunities through livestock restocking.

Rural livelihood systems in Muzaffarabad District

Project activities were situated in an area where the backbone of rural livelihood systems consists of a combination of subsistence agriculture and mobile animal husbandry (Ehlers und Kreutzmann 2000), supplemented by off-farm activities and remittances generated by male labor migration to the nearest urban center of Muzaffarabad and other Pakistani cities, or even abroad (Table 1; Figure 2). This combination of crop farming and animal husbandry forms the basis of mountain agriculture in rural Muzaffarabad District, where animal manure is used for fertilizing fields and fodder crops are grown on designated parcels or as a second crop. Pastoral practices in the region make use of different ecological zones and involve seasonal migration to fertile high-mountain grazing grounds during the summer months, with a return in autumn to take advantage of crop residues as fodder. Most villagers have access to high-altitude pastures, where entire households or selected members spend the summer grazing their animals—mostly cows, buffaloes, and goats—and engage in dairy production. Access to these high-altitude pasture resources is regulated by institutions of customary law, with certain areas used by particular social groupings. The residential mountain villages are subdivided into multiple hamlets that spread vertically over a vast area of steep, hilly terrain and may even cross watersheds. Therefore, the lower parts of a village may have access to resources that differ considerably from those to which the upper parts of the village have access.

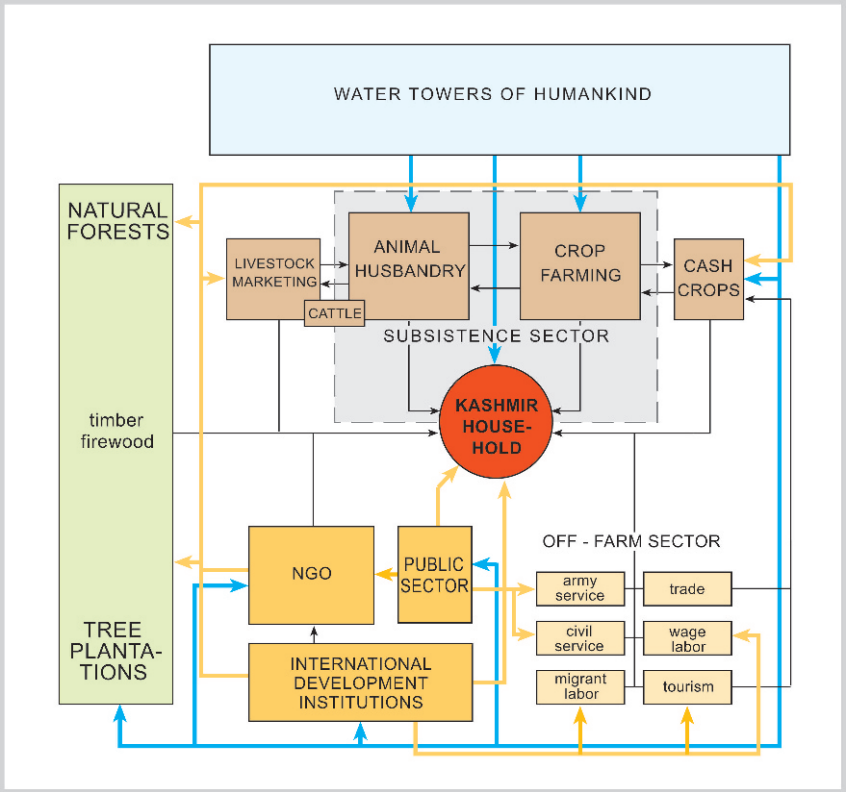
In this context, the livestock intervention formed a part of multiple aid packages delivered to the affected population. Most important was the compensation money for earthquake victims paid by the Pakistan Government that enabled urban migrants to return and help in the reconstruction of houses. Today, much of this reconstruction work has been accomplished, and the traditional style brick-and-clay-roofed houses are being replaced by houses made of light steel materials in adherence to a new building code intended to reduce seismic risks and provide a measure of preparedness (Halvorson and Hamilton 2007, 2010; Zimmermann and Issa 2009). However, while the compensation enabled people to endure the income loss and rebuild their dwellings to make them more earthquake-resistant, sustainably rehabilitating productive household assets was not sufficient. The livestock intervention specifically aimed to address this gap.

Project components and implementation challenges

Both GRC and ICRC were among the first agencies to assist in immediate relief activities under their classical mandate following the earthquake. Two assessment missions of the heavily damaged Muzaffarabad District (ICRC 2005, 2006) also recommended providing farmers

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FIGURE 2 Contextual embeddedness of Kashmiri households. (Source: authors' design)



with seeds, fertilizer, and tools for agricultural production and the rehabilitation of rural drinking water systems. Another central finding was that heavy losses of livestock had been experienced throughout the district, resulting in a breakdown of animal husbandry systems. Subsequently, a livestock intervention was recommended to rehabilitate the livelihoods of affected people and help pave the way for mountain development. This did not go uncontested, as certain sections of GRC and ICRC were wary of the vagaries involved in such programming and opposed the donation of live animals.

However, project activities commenced, despite internal opposition, in 2006; these activities consisted of a restocking program combined with structural interventions in the basic animal health sector that aimed to achieve rehabilitation by helping village communities to rehabilitate themselves (Hasan 2005). Before the earthquake, locally adapted animal husbandry practices were part of the livelihood portfolios of most mountain households (Table 2). Milk and dairy production were an integral part of mountain livelihoods and were used for child nutrition, for sharing in solidarity groups, or for marketing purposes. In addition, plowing oxen were used to prepare the terraced agricultural fields, and owners of oxen could generate additional income by renting out their animals. Therefore, the livestock intervention was welcomed both by affected communities and government agencies.

Two main packages were implemented. The major project initiative entailed the distribution of 3201 lactating cows to selected beneficiary households that had lost a cow in the earthquake as well as a smaller number of poor mountain households (about 36% of beneficiary households) that did not previously have livestock but were considered eligible for a donation because they had at least 5 children under 12 years of age and were perceived by their communities to be among the most vulnerable (Figure 3). Most cows were donated with a calf, with the distribution taking place in 2 rounds between August 2006 and October 2007 in combination with training in basic animal health care. Support for animal husbandry was meant to reinforce local livelihoods and farming systems and to create spillover effects that would also benefit households not included in the immediate selection of beneficiaries through milk-sharing practices.

The breeds selected for distribution were high-yielding, but were drawn from the Punjab plains and thus were not adapted to the mountainous terrain in Kashmir. Locally adapted breeds were preferred but were not available on Pakistan's livestock markets. The same was true for plowing oxen, which the second ICRC mission

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TABLE 2 How households dealt with the cow donation. (Source: authors' survey of 100 Kashmiri mountain households, March 2009)

Status of donation in 2009	Households with livestock before ($n = 76$)	Households without livestock before ($n = 24$)
Donated cow still present in beneficiary household	47 (62%)	18 (75%)
Cow was exchanged for higher-valued milking animal (buffalo or cow from local breed)	10 (13%)	1 (4%)
Producing surplus milk for the market	12 (16%)	2 (8%)
Cow was sold for cash	3	1
Cow was slaughtered	3	2
Cow perished because of insufficient animal health care	13	1
Fodder investments could not be afforded	—	1

report noted as being in high demand (ICRC 2006). In addition, transportation to Kashmir was a challenge, both logistically and in terms of animal health and disease control. However, with the support of a transportation subcontractor and professional veterinary health care professionals present during procurement, transportation, and distribution, the cows reached the small mountain town of Pattika in the center of Muzaffarabad District, from which they were distributed.

The beneficiary selection process posed another critical challenge. Targeting of beneficiary households was achieved through a participatory approach using existing community structures to recommend beneficiaries based on set criteria. The selection criteria

FIGURE 3 Recipient of a cow at the livestock distribution point in Pattika. (Photo courtesy of GRC)



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aimed to ensure that beneficiaries had the knowledge and management capacities necessary to provide proper nourishment, shelter from weather extremes, and basic veterinary care, but were not in a position to restock animals on their own. As part of a community mobilization approach that has also proved successful in other earthquake-affected areas (Zimmermann and Issa 2009), selection committees—made up of members from all social groups and neighborhoods in local village communities—were formed. These committees decided on a list of households matching the established criteria for a donation, while the implementing organizations crosschecked the condition of these households and publicly validated the selection in a final community meeting to achieve transparency.

To enhance the structural sustainability of this intervention, it was supplemented by the establishment of new community-based veterinary and breeding services. Members of the communities were trained as livestock first aid workers (LFAWs) and artificial insemination technicians (AITs) to provide locally based animal health care, ensure livestock reproduction, and generate new income opportunities. Altogether, 37 members of the earthquake-affected communities were trained and equipped as LFAWs and 10 of these were also trained as AITs. These new, localized services were supposed to cover the remote mountain villages in the project area in partnership with the Department of Animal Husbandry (DoAH) in Muzaffarabad.

These steps and the 2 rounds of livestock distribution were implemented in 2006 and 2007, altogether providing 3201 mountain households with a cow. It was hoped that the effort put into the project design, the professional veterinary services, the installation of localized animal health care and breeding services, and the care taken to ensure participatory and just targeting of households would lead to adequate maintenance and retention of the donated livestock and to sustainable asset building and economic uplift.

Methodology

The Muzaffarabad District is administratively subdivided into a number of union councils; project implementation took place in the 5 union councils most affected by the earthquake (Talgran, Nura Seri, Kahori, Saidpur, and Panjkot; Figure 4). The actual project outcomes in 4 of the union councils were assessed and evaluated on site in March and April 2009 by a team of Master's-level students in development research from Freie Universität Berlin. The research team used a mixed-methods approach to conduct the evaluation. Village focus group discussions and open interviews in beneficiary households and with LFAWs, AITs, and officials from the DoAH were supported by a household questionnaire survey. In total, each of 18 project villages in Muzaffarabad District of Pakistan-administered Kashmir were visited for 2 days by researchers to conduct village group discussions and to carry out 100 individual household interviews to assess how the livestock intervention impacted the livelihoods of targeted households.

With support from village focus groups, an attempt was made to select different types of beneficiary households in terms of their structure and composition and their economic conditions. Also, 24 households that had never previously had large livestock were included in the sample. An additional 17 mountain villages were assessed remotely through interviews with local LFAWs and AITs to understand the conditions of the donated cows in those villages.

All respondents knew perfectly well about the condition of most donated cows in their villages, and the data collected were perceived as reliable. This approach ensured that the present circumstances of a significant proportion of the donated livestock in beneficiary households (38.6% = 1237 households) were determined 3 years after the project commenced. Reasons for the success or failure of the livestock intervention at the household level have been extrapolated by triangulating the findings from the village and household surveys and group discussions.

Three years after: how successful was the livestock donation?

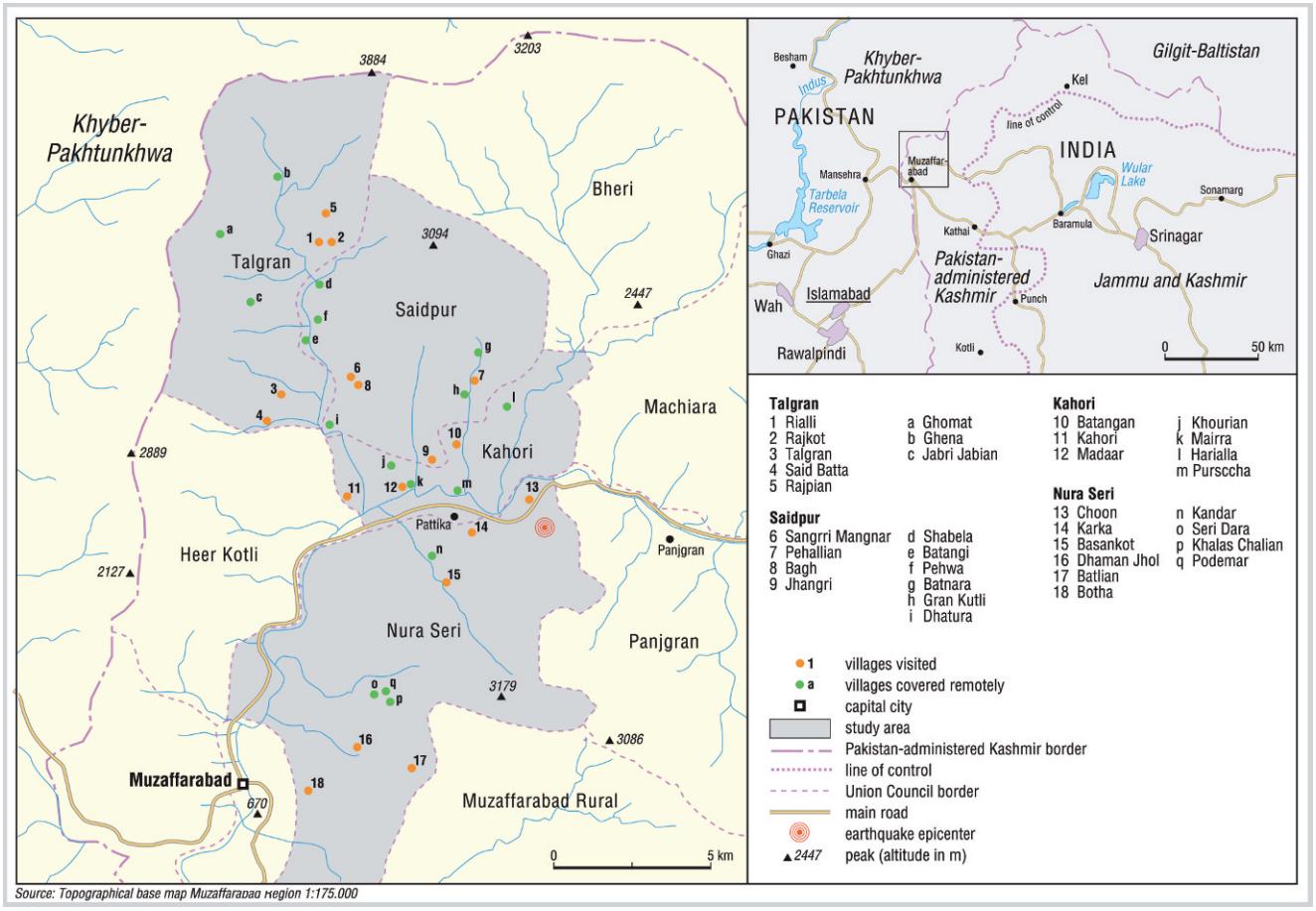
Status of the donated livestock

What was the situation in beneficiary households 3 years after the start of the intervention? The basic data collected during the impact analysis reveal that 49% of the donated cows (n = 607) were still with beneficiary households (Figure 5). At first, this seems quite dire, as more than half of the animals provided were no longer with beneficiaries. However, in 9.6% of households (n = 119), the donated cows were exchanged for a more highly valued animal, such as a buffalo, a cow from a local breed, or a plowing ox. Another 17.5% (n = 216) were sold for cash to compensate for a lack of income or to pay for extraordinary expenses. Only 15.4% (n = 190 animals) perished, in most cases because of a lack of veterinary care, but also for meat production for special occasions or because of an accident.

The interpretation of raw data reveals both the problems and the potential of such a livestock intervention. Most significantly, the selected cow breeds from the Punjab plains, although high yielding in milk, were not adapted to the rugged terrain and harsher climate of the project villages. This was previously noted by British colonial observers, who stated that "the Kashmir cattle are conservative in their habits. Thus a bullock bred in the low lands … will fall off in condition if taken to the higher villages" (Lawrence 1895: 358). Practically, this lack of adaptation posed 2 major

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FIGURE 4 Muzaffarabad District of Pakistan-administered Kashmir and location of study villages. (Source: authors' survey, cartography by Bernd Hilberer)



problems for many beneficiaries: the donated breeds had to be kept stationary and they demanded high-nutrition fodder in addition to sufficient grazing resources. This led households to either alter their seasonal migration strategies or leave family members at their residences as livestock attendants. Either way, donated cows could not be moved to the traditional high-elevation summer pastures. Their lack of mobility also often led to the accidents that provoked animal deaths.

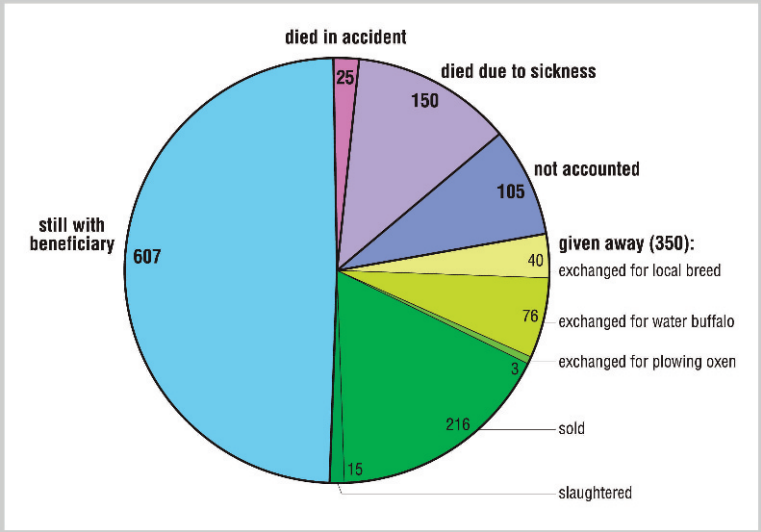
The special fodder for the cows also required higher investments by beneficiary households. This meant that, for some households, the cow turned out to be a burden. The large number of animals sold following their distribution can be attributed to the fact that the Punjabi cows were not adequately adapted to the environment compared with the small, hardy breeds that are bred in the mountain areas of Kashmir. These local breeds were the preferred variety for mobile households and, despite their inferior milk production, many beneficiaries opted to exchange the donated animal for one of the local breeds. Another highly valued milking animal in the region is the water buffalo, which produces higher quantities of milk than that of local or Punjabi cows. A significant number of households exchanged the donated cow for a buffalo when they had access to the additional cash investment needed for this exchange. It should be noted, however, that these households were able to make this exchange only because of the livestock intervention.

Impact of the intervention on household livelihoods

Households that sold their animals—because they impaired household mobility strategies or overstrained their capacity to care for the animals as a result of additional expenses for fodder—represent a failure of targeting. These households were obviously not in a position to use the demanding livestock as a productive asset. A majority of beneficiaries, however, still had the cow or had exchanged it for more valued livestock (Table 2). In attempting to explain the characteristics of such diversity in terms of success or failure, a typology of households was developed based on data collected in a selection of 100 households from 18 villages. No stark difference was found in the performance of households that previously had livestock compared with those that did not. Quite the contrary, the analysis of the smaller sample of 100 households revealed that those who kept

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FIGURE 5 Present status of the donated livestock in 35 project villages. (Source: authors' survey, $N = 1237$)



livestock for the first time performed better than those with prior experience in animal husbandry (Table 2). This means that such experience is not necessarily a precondition for maintaining animal health care and project success. The following typology, therefore, subsumes the performance of the entire sample of 100 households.

1. *Livestock intervention with limited success:* In 20% of the households studied, the intervention overburdened the capacities of beneficiaries. Necessary investments in animal health and fodder requirements were not made, and the animals perished quickly. These households exemplified the problematic issues of the livestock intervention, where project outcomes were very short-lived or nonexistent because the cow perished soon after distribution or was slaughtered. Data reveal that only 7 households implemented the recommended practice of deworming and vaccination 3 times a year, whereas a majority of 36 households never implemented any measure of animal health care. It must be inferred that the beneficiary training provided by GRC/ICRC did not achieve the expected results. One reason might have been that the training was overwhelmingly received by men, whereas women are responsible for most cow-related activities in the household. Timing of distribution at the onset of winter might also be responsible for the lack of success in these cases.
2. *Livestock intervention filling a gap:* In 66% of surveyed households, the project achieved its goals and supported a consolidation of economic security. These households still had the cow or had exchanged it, and all households producing a surplus were engaging in milk-sharing practices in family networks. This widespread sharing of milk enables households without livestock to also benefit from the donation. Household structures supported the successful incorporation of the stationary cow into mobility strategies; during the summer season, selected members now stay in their *mohallah* and take care of the cow and agricultural fields, while others move with remaining livestock to summer grounds. Still, the majority of households in this category also experienced some difficulties in managing the donated cow. Purchase of the required high-nutrition fodder and expenses for animal health care were hard to afford and regularly forgone. Of the households that sold their cow, 4 were also incorporated in this type because each used the donated animal as an asset that allowed for productive investment in the reconstruction of the household's destroyed house—an investment that could not have been afforded without the donation.
3. *Livestock intervention triggering rural uplift:* In 14% of studied households, however, economic conditions were improved sustainably. These households developed the ability to regularly invest in livestock maintenance and retained the animal to produce surplus milk for the market, achieved by the above-average milk output of the Punjabi cows, or they exchanged the cow for a higher-yielding buffalo. This allowed for economic development beyond covering basic needs and created an important additional source of income that reportedly also exceeded the investments required for high-nutritional fodder. Here, a small positive impact on local livestock production, processing, and marketing systems due to the donation is palpable. In addition, all of these households had access to off-farm incomes that are needed for regular investments in the high-nutrition fodder necessary to achieve high milk output. However, all of these more successful households live close

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to the urban center of Muzaffarabad, where the marketing of milk and access to animal health care is easier than in more remote mountain villages. This indicates that the spatial location of project villages can be a decisive factor for the success of an intervention of this kind.

Remoteness or proximity to urban services also explains the large variation in village performances—with some of the project villages retaining up to 76% of the donated cows, whereas in others only 23% of the livestock were still alive. Reasons for these huge differences among project villages are based on the relative distance to agricultural markets as well as access to services. Here, the performance of respective LFAWs and AITs proved critical. LFAWs and AITs were supposed to work in close partnership with government institutions, both to avoid competition and to benefit from each other's expertise. AITs were also supposed to be equipped by the DoAH with cooling devices in which to store animal semen in liquid nitrogen.

The rationale behind this intervention was to provide remote mountain households with localized basic animal health care and the means for livestock reproduction at the village level. This was in a context where the earthquake damaged most of the government's animal health centers. In the whole of the Neelum Valley, only 2 understaffed and ill-equipped centers were functioning as the only providers of veterinary services. Thus, the intervention was meant to enhance the sustainability of the restocking project as a whole. Each of the selected 37 individuals was assigned a certain area, which usually included a number of adjacent villages where no veterinary services were available. This allowed the workers to minimize mobility efforts and enabled households to access the new services without great effort.

However, internal and external constraints limited the performance of these workers, as follows.

- Competition with government veterinary services increased over time. Although this constraint was addressed during implementation through a prior understanding with relevant government institutions, practice shows that many LFAWs and AITs, in particular, faced problems after government services resumed their work on a larger scale. This was particularly the case because these services, where existent, could be offered at a cheaper price. Thus, especially in less remote areas, LFAWS and AITs left their new profession quickly.
- The work of an LFAW/AIT does not generate sufficient income. This is the major reason why many left their positions and why others sought to build on the training received and went into other professions, such as government or NGO positions. The problem of not being paid by relatives and neighbors is a widespread phenomenon as well, hampering the sustainability of veterinary service providers.
- Villagers did not fully trust the expertise of LFAWs/AITs. This was reported repeatedly, both by villagers and by trained animal health workers. This is partly a problem of individual capacities, as performance and capability among the group of LFAWs and AITs are variable. Those who are dedicated and were able to earn a positive reputation fared relatively well in their new profession and have sufficient work to establish an income. Such an outcome, however, remains exceptional, and most people interviewed reported that villagers did not consult them as much as they wished.

Given these constraints, the structural intervention succeeded only partly for a selected group of the trained animal health workers. Most were unable to build a fixed clientele for their services, and demand appeared to be lacking in general. Most villagers were not aware of the value of preventive health care or lacked the means to afford appropriate investments.

Conclusion: how a livestock intervention can link relief and development efforts

Overall, the livestock intervention helped restore rural livelihoods in a remote mountain area and improved economic security in those households that could make productive and sustainable use of the donated animal. However, the aim of strengthening mountain households' asset base and establishing economic security has not been achieved on a broader scale for the various reasons discussed above. In terms of project design and goals, the shift from relief to development was achieved on an organizational level, and sustainable support for mountain livelihoods was delivered along with continuing efforts in housing and infrastructure reconstruction. However, the support of village communities to rehabilitate their livelihoods has been only partly successful.

The findings of the assessment suggest that livestock interventions, alone, do not suffice to sustainably enhance mountain livelihoods. Only the combination of the livestock intervention with enabling factors, such as proximity to markets and/or access to off-farm income, made rural uplift in a smaller number of beneficiary households possible. The intervention, however, aided the rehabilitation of the livestock sector, which today seems to have almost recovered with breeding bulls, plowing oxen, buffaloes, and milking cows now available in larger numbers on local markets. Crossbreeding of donated lowland cows with local breeds may lead to increased adaptation over time, and local livestock production, processing, and marketing systems have gained momentum.

The intervention was tailored to specific needs and encouraged and incorporated public participation. As a conceptual link between relief activities and development

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aimed at strengthening rural livelihoods, the livestock intervention fared well. As a policy shift inside GRC/ICRC, the project covered new ground. It showed that relief organizations can mobilize the expertise required to engage in LRRD activities and that they are well placed to extend their mandates into linking relief with development. The relative success of the livestock project encouraged both GRC and ICRC to build on this experience and integrate LRRD components into their programming when dealing with the 2010 flood disaster in Pakistan.

However, there have also been some drawbacks. The following problems need to be addressed if GRC and ICRC or other organizations attempt to extend livestock-related project activities in comparable disaster areas.

- *The timing of livestock distribution needs to be considered more carefully*. Cows not adapted to mountain climates need to be distributed earlier in the year, and not immediately before the onset of the cold season. Households that received their cows late in the year faced more trouble bringing the cows through their first winter and were more likely to be overburdened by the additional workload and investments needed for maintenance.
- *Targeting needs to focus more on households that can prove that they are capable of ensuring high maintenance standards and providing adequate shelter for the animal*. In many cases, households did not establish winter shelter for the donated cow, although this was a precondition for selection. Many preventable diseases and unnecessary deaths of donated cows occurred because households were not able to establish proper shelter.
- *Veterinary services and the application of preventive animal health care must be ensured through expert project staff in the first winter*. Despite beneficiary training, a majority of households did not apply preventive health care measures regularly or at all. There were various reasons for this: some people lacked the knowledge, and others did not have the financial means to afford medicine. Expert monitoring of animal health after distribution could have raised awareness of the importance of preventive health care and saved many cows in the project's early stages. The application of preventive health care should be initially provided by the project for each beneficiary household.
- *Beneficiary training for women must be enforced*. As women are responsible for maintaining livestock in Kashmiri mountain households, basic animal health training has to be provided to them. However, cultural issues led the GRC/ICRC project to offer training mostly to men and to neglect the gendered division of labor. As a consequence, animal health care was completely neglected in most targeted households. Along with enforced preventive animal health care, women should be trained to apply basic preventive measures to ensure that the capacity of the person responsible for livestock attendance is built, and to give women active roles in rehabilitation activities (Hamilton and Halvorson 2007).
- *LFAWs need more initial support to establish positive reputations*. A majority of the trained animal health workers were not able to establish a proper basis for their new profession and were not really accepted by their communities. The few who were able to establish a positive reputation have sufficient work to maintain their livelihoods through the provision of animal health care and the sale of veterinary medicines. Evidence indicates that projects need to provide more initial support to these professionals to help them gain experience and win the trust of communities.
- *Government cooperation needs more facilitation*. The DoAH—the expert government service for animal health and livestock monitoring—plays a central role in ensuring project success. However, cooperation of the department with community animal health workers was mediocre at best and, in many cases, was a source of competition. Future projects must discover different ways to ensure sustainable government cooperation with community-based LFAWs.

Despite these provisos, the GRC/ICRC livestock program did contribute to the welfare of a majority of beneficiaries in a manner that improved living conditions and provided mid- and long-term assets to the households. Careful consideration, the understanding of local conditions, and transparency in selecting beneficiaries and in distributing assets were the success factors. The participatory approach chosen was adapted to local conditions and augmented by professional expertise along the functional chain linking cow-breeding areas and markets with Kashmiri households.

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