

## **Persisting Power Structures, Leadership Capacities and Socio-economic Inequality in Post-disaster Resettlement**

Esther Leemann, Department of Anthropology, University of Lucerne, Switzerland  
esther.leemann@me.com

### **Abstract**

Disasters are sometimes the consequence of site-specific vulnerabilities calling for the need to relocate affected settlements. In particular, after 1998 hurricane Mitch in Nicaragua, the government and international governmental and nongovernmental agencies engaged in resettlement projects. However, as pointed out decades ago by Epstein (1973), Turner (1977), and Oliver-Smith (1990), housing and resettlement projects are politically charged processes that often have little to do with the needs and priorities of affected communities, can entail risks of material and cultural impoverishment, and destroy local communities' fabrics and social life (Cernea, 1997; Oliver-Smith, 1990, 2009a, 2010). The case studies presented here focus on the multiple impacts of relocation and confirm that resettlement often has dramatic impacts on affected communities. The paper discusses how pre-disaster conditions affect post-disaster recovery outcomes, namely, how persisting pre-disaster power structures, leadership capacities and socio-economic inequality impact equity and effectiveness of resettlement projects, which in turn have repercussions for the sustainability of interventions. It highlights that communities are neither passive nor homogeneous recipients of external aid. Local initiatives, however, tend to be overlooked by policy makers and external aid agencies, often with detrimental impacts. It is argued that idealist notions of communities, which tend to overplay harmony and cohesion and to downplay power differentials and processes of inequality and exclusion within communities, affect the projects' outcomes. The unequal distribution of power and resources within communities tends to be ignored, allowing the more powerful actors to adapt policies to their preferences, thus reinforcing pre-disaster vulnerabilities. The case studies presented focus on resettlement projects conducted in Nicaragua after the 1998 hurricane Mitch. They are based on several months of ethnographic fieldwork, which were carried out by the author and four of her Master-students within the framework of an international research project.

**Keywords:** Relocation projects, Vulnerability, Community, Post-Mitch Reconstruction, Governance, Nicaragua.

### **Introduction**

Hurricane Mitch hit Central America in October 1998 and devastated extensive areas, particularly in Honduras and neighbouring regions of Nicaragua. More than 40,000 homes were destroyed or strongly damaged and approximately 368,000 people were affected in Nicaragua. The disaster revealed Nicaragua's historically produced patterns of vulnerability (Wisner et al. 2004), namely its widespread environmental degradation, rapid urbanization processes and generally poor housing conditions. The international donor community agreed that the overall reconstruction process should address the social and ecological vulnerabilities, foreign debt, lack of social equity, decentralisation, civil society participation and good governance (Fuentes, 2009).

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The housing reconstruction process, however, hardly influenced the fundamental set of forces that caused the vulnerabilities in the first place. When the time of proclamations was over and it came to the realization of actual housing reconstruction projects, a policy of resettlement of vulnerable populations was generally endorsed by the government, national and international agencies. This paper highlights that the resettlement projects had rather detrimental impacts on affected communities and were a poor response to reduce vulnerabilities. In fact, pre-disaster vulnerabilities were reinforced in many projects as the latter had little to do with the needs and priorities of affected communities. Targeting of housing assistance was strikingly inequitable across the country as well as within many communities. Pre-disaster conditions of social, political and economic inequality and diversity had a strong influence on post-disaster housing reconstruction outcomes. The paper discusses the impact of persisting pre-disaster power structures, leadership capacities and socio-economic inequality on equity and effectiveness of resettlement projects. It is argued that the notion of local communities as homogeneous and harmonious held by policy makers and external aid agencies allowed the more powerful actors to adapt policies to their preferences.

## **Research Methods**

This paper is based on micro-level ethnographic studies carried out in 2007 and 2008 on post-Mitch housing reconstruction processes and long-term impacts in the three municipalities of Posoltega, Ocotal and San Dionisio, and on a literature review on international and national disaster responses at the country level. The author conducted case studies for a two-month period in Ocotal and San Dionisio. In the latter, she had previously done anthropological field research for her PhD on environmental degradation and peasants' socio-economic and physical vulnerability (Leemann, 2005). Under her supervision, two graduate students, Graf and Zulauf, conducted field research in Posoltega, and another two, Haberli and Keller, in San Dionisio and Ocotal respectively, for four months. The six micro-level case studies were independent but interconnected and formed an integral part of an international research project (see Duyne Barenstein and Leemann, 2012).

In San Dionisio and Ocotal, the author examined the various housing interventions and focused on the range of local government and agency responses and practices in the wake of Mitch. She conducted semi-structured interviews with inhabitants of post-Mitch settlements, local leaders, civil servants, ex-mayors, and representatives of NGOs. She conducted a household survey in 13 post-Mitch settlements, covering 123 households in San Dionisio and 354 households in Ocotal (see Leemann, 2012). In two villages of San Dionisio municipality, Häberli (2012) investigated on the role of social capital and local leaders in the aid distribution process. She conducted semi-structured and structured interviews with community members pertaining to different social groups, with local leaders and representatives from NGOs. In Ocotal, Keller (2009) compared the impact of two very different resettlement projects and of a vulnerable, meant-to-be resettled neighbourhood on mental health of the inhabitants. In Posoltega, Graf (2012) compared the socio-economic impact of an identical housing project on two different groups of beneficiaries, while Zulauf (2012) studied the effects of two different housing projects on the same group of beneficiaries. Data was collected through participant observations, in-depth interviews and surveys with the beneficiaries.

## **Political Economic Perspective on Nicaragua's Patterns of Vulnerability**

Hurricane Mitch struck Nicaragua with exceptional intensity and duration and its consequences emphasized the country's patterns of vulnerability. The massive rainfall

caused major flooding in lowland areas and river basins as well as devastating landslides in the mountainsides. The most visibly affected areas were those in northwest Nicaragua and in the Pacific Rural region. There, a mudslide came down from the volcano Casita's south flank and killed more than 2,000 people. The massive destruction became a high-profile media event. But also the Central Rural region was acutely affected, while the Atlantic region, although the poorest part of the country, suffered the least amount of damage. All over the country, poor communities both in urban centres and rural areas living in marginal zones, along riverbanks, on floodplains, contaminated land, unstable hillsides and other risky areas, were heavily hit.

Using Wisner's model (Wisner et al., 2004; see also Oliver-Smith, 2009b), this paper will briefly outline the set of political, economic and social processes reflecting the country's approach to development and consideration of natural environment, which created the conditions of vulnerability to Hurricane Mitch.

### **Widespread Environmental Degradation**

Floods and landslides during Mitch were caused by environmental degradation processes and reflected the way development has been approached. Basically, the most productive lowlands in Nicaragua have for a long time been monopolised by landowners for export-oriented industrial agriculture, while the poor peasantry has been driven to cultivate the less productive highlands for subsistence. The Sandinista revolution had achieved little to fundamentally change this contrasting highland and lowland agricultural pattern. In search for land, peasants had steadily expanded the agricultural frontier both to the East into the previously forested mountainous Central Region and into areas with ever-steeper slopes and closer to rivers. Reduced forest and vegetative cover, due to deforestation and inappropriate land use on hillsides and fragile watersheds, led to erosion and loss of soil fertility, productivity, and water absorption capacity. Drought and forest fires caused by El Niño in 1997 further aggravated Nicaragua's environmental vulnerability to hurricanes.

### **Rapid Urbanisation Processes**

Nicaragua experienced strong urbanisation trends in the decades prior to Mitch. In 1999, 56 percent of the population was living in urban centres (World Bank, 2002). The very unequal distribution of resources, namely fertile land, combined with high levels of population growth, forced the rural poor to move to urban centres in search for work. Towns and cities often doubled and tripled in size within 15 to 20 years prior to Mitch. Effective land-use planning was mostly absent. In search for the least-valued plots, people settled in vulnerable zones. The settlements thus expanded uncontrollably into high-risk areas such as riverbanks, unstable hillsides, landfills, waste disposal sites and polluting industries, without adequate safety measures. Furthermore, the development of urban infrastructure was simply outpaced by the unplanned and uncontrolled urbanisation. Poor management of run-off water and wastes exacerbated the social vulnerability in these settlements. The location of settlements in risky zones has been the result of poverty and marginalisation. In fact, the poor's' land needs have never been prioritised, there has been no effective land-use planning involving interventions in urban land markets or confrontation with politically significant economic interests.

### **Generally Poor Housing Conditions**

Housing destruction caused by Mitch was much more than a site-specific problem, however. The precarious homes of rural and urban poor, made of flimsy materials, simply did not withstand the massive rains. Nationwide, 31 percent of the total housing stock was in poor condition, 46 percent in a reasonable state and only 23 percent of the homes was in good

condition<sup>1</sup>. The situation was worst in rural areas, where only 10 percent of housing was in a good state (INEC, 2002). The generally precarious pre-disaster housing conditions reflected the appalling high percentage of citizens living in poverty and extreme poverty. Decades of uneven development, dictatorship and civil war had left Nicaragua as one of the two poorest countries in the Western Hemisphere, and with one of the highest debt to GDP (Gross Domestic Product) ratios in the world. One year before hurricane Mitch, the government spent over half of its total revenue servicing the debt (Oxfam, 1998). Just before Mitch struck, 47.9 percent (almost half of Nicaraguans) were living in poverty while 17.3 percent were living in extreme poverty (World Bank, 2001). Poverty in Nicaragua also displayed regional and rural patterns (Table 1).

Table 1. Nicaragua Poverty Rates by region in 1998. World Bank Poverty Assessment (EMNV, 1998; and World Bank, 2001).

National	47.9
Managua	18.5
Urban	30.5
<b>Rural</b>	<b>68.5</b>
Pacific Urban	39.6
<b>Pacific Rural</b>	<b>67.1</b>
Central Urban	39.4
<b>Central Rural</b>	<b>74.0</b>
Atlantic Urban	44.4
<b>Atlantic Rural</b>	<b>79.3</b>

As one moved away from the capital Managua into the Pacific region and then across the country towards the East, poverty increased. The Pacific Coast had the lowest levels of rural poverty, and Nicaragua's urban centres were concentrated in this region. The second poorest area, the Central region, which was more mountainous, more rural, and more dependent on agriculture than the Pacific coast, also had poorer infrastructure than the Pacific region. The two semi-autonomous, largely rural regions that make up the Atlantic region, with roughly 10 percent of Nicaragua's population, had the highest levels of poverty and the poorest infrastructure.

As outlined below, the housing reconstruction policy did not effectively address these generally high and specifically patterned vulnerabilities. In particular, housing projects' targeting approaches aggravated regional disparities as well as inequalities within communities. And relocation of the already poor and vulnerable people had generally negative impacts on their livelihoods.

### **'Community Centred' Post-Mitch Reconstruction Policy and Targeting**

Concerning post-Mitch reconstruction, there were serious national and international concerns over high levels of governmental corruption and central government's will and capacity to adequately and fairly distribute aid and manage the process. The international donors' community hence preferred to bypass the national level and to channel their support directly to the local level in order to enhance the effectiveness and sustainability of interventions, to increase accountability and responsiveness to local needs, and to strengthen local ownership (Hilhorst et al., 2010).

<sup>1</sup> Unfortunately, data on housing conditions is only available for 2001, as the pre-Mitch 1998 Census does not specify on the quality of housing (INEC, 2001).

## **Equity and Effectiveness of Community Targeting**

The decentralised housing reconstruction efforts were largely uncoordinated (Lister, 2001). The national government was unable to indicate the real needs of the population to the international community. Reliable data on nationwide damages was lacking, and no criteria were formulated for determining who was eligible for what kind of housing assistance. The most important way of targeting appears to have been geographic (see also Ambler, 2005 on targeting of relief). Targeting of poor, vulnerable municipalities can be an effective strategy because it is logistically simpler and requires less detailed information. Yet, a successful community-based targeting approach must really reach the most vulnerable communities. And it still entails the risk of excluding gravely affected households simply because they are located in less vulnerable communities. On the other hand, the most vulnerable communities will include very poor people, who, however, may have sustained only marginal damages. In the case of Nicaragua, serious coverage and equity issues resulted from this kind of targeting. There was a marked inequality of coverage with an over-supply of assistance exceeding the actual damages in some municipalities and a shortage or total lack of support in others. The Pacific Rural region was the most extensively targeted area of the country, despite similar rates of damage and greater poverty in the Central rural region. This disparity was likely caused both by the highly visible effects of the Casitas volcano disaster in the Pacific Rural region and the region's proximity to the capital.

The case of Posoltega is an example of a municipality in the Pacific Coastal region that received an over-supply of housing assistance that by far exceeded the damages. Not only did disaster-affected and poor people receive a new house, but also non-affected middle-income families. This fact caused a lot of resentment among disaster-hit and poor families. Moreover, the housing quality in the newly built settlements was generally well above the usual standard, with unexpected negative impacts on poor beneficiaries, as one of the case studies in this paper shows. In addition, the links between housing and livelihoods were not taken sufficiently into account. In fact, to procure suitable and affordable land for the many resettlement projects proved to be a major obstacle, and the construction sites were generally very far away from people's rural livelihoods. Thus, while the physical vulnerability of the families could be reduced, their economic vulnerability tended to increase. Over-investments in the Pacific Coast came at the expense of the Central Rural region, and poverty rates subsequently rose in the latter while falling in the Pacific Rural region (Ambler, 2005). Ocotol and San Dionisio exemplify municipalities of the Central Region where assistance did not meet the population's needs.

## **Targeting Issues within Communities**

'Community centred' rehabilitation was the model employed in bilateral aid programs and by many different non-governmental organizations (NGOs). Unfortunately, while these were overtly critical about the quality of governance systems at the national level, they had rather idealised notions of 'local communities'. They underestimated or simply ignored the axes of diversity and social inequality that are influential in structuring both reconstruction processes and their outcomes (Tierney and Oliver-Smith, 2013). Also, at a local level, there are broad differences in socially-structured positions and levels of vulnerability, associated with differential access to resources of various kinds, namely monetary resources, social capital, and political power and influence, and differing levels and forms of social organisation. To gain access to housing assistance requires knowledge, understanding, organisation, and influence-capacities less available to those most likely to be marginalised and vulnerable.

## Reduced Vulnerabilities? Evidence from Resettlements in the Municipalities of Posoltega, Ocotal and San Dionisio

A central characteristic of the post-Mitch housing rehabilitation was its emphasis on settlements' relocation. As in many post-disaster situations, the government, non-governmental and bilateral organizations arguably favoured this approach simply because of organisational advantages and higher visibility (Duyne Barenstein, 2006; Jha et al., 2010). As the case studies show, the complexities and various risks inherent in resettlement were routinely underestimated and inadequately addressed. The beneficiaries' needs and priorities were too often disregarded, with detrimental impacts on their vulnerability. The impact of relocation on the survivors of the mudslide at Volcano Casita is explained here (Zulauf, 2012).

Before the disaster, the affected people were living in dispersed settlements. They grew some vegetable and fruit and kept animals on relatively large homestead plots, and practiced subsistence agriculture on fields situated within walking distance. After the disaster, the survivors were resettled in two different relocation projects, both located more than 20 kilometres from their former place of residence. The first project offered good houses, but only tiny homestead plots in a very compact settlement; the second, a somewhat more rural site, provided relatively poor-quality houses but larger homestead plots, allowing for small animal husbandry, cultivation of vegetables and fruits and even some corn. In both cases, purchasing agricultural land close to the new settlement turned out to be impossible as the only land-owner refused to sell.

Zulauf (2012) found that relocation to a completely new environment was traumatic for both groups. Due to the enormous distance from their fields, their livelihood became extremely difficult and for many small farmers the situation was no longer viable economically. The inhabitants of both resettlement projects thus had to diversify their livelihoods through off-farm employment and migration. Those who were relocated to the project with the more rural setting could continue their lifestyle, at least to some extent. The women could still cultivate their gardens and raise some animals, which was impossible for those who were relocated in the compact urban settlement. These people suffered from significantly higher levels of impoverishment, cultural alienation, diseases, and psychosomatic disorders. Zulauf's study confirms, as pointed out by Cernea (1997), that for farming communities, the loss of land has far more significant consequences than the loss of a house, an issue that aid agencies failed to recognize due to a narrow focus on housing reconstruction.

Graf (2012), in her case study, showed the consequences of resettling peasants and other low-income families into urban middle-class housing. Particularly, in two of Posoltega's high quality post-disaster settlements, those households could hardly afford the maintenance of the donated houses. The discrepancy between the inhabitants' socio-economic situation and the housing standards led to undesired impacts; in fact, only eight years after construction, their houses tended to deteriorate, as they could not afford proper maintenance. Nor could poor families afford the monthly water and electricity fees. They were eventually cut off from the settlements' sewage and water system, which in turn was in financial danger. The socio-economic inequalities between the households were much more visible in the relocation settlement than it had been before and many poor families felt socially stigmatized. They gradually sold their houses to better-off families at a price well below their value and moved back to the areas where they had come from, most often in high-risk zones.

This case study shows that a technological approach to housing reconstruction focusing on the reduction of physical danger and vulnerability using new and expensive construction technologies, while neglecting social, economical, and cultural factors does not effectively reduce the beneficiaries' vulnerability. Special attention should be paid to vulnerabilities of resettled people, who, being already prone to the risk of impoverishment, can hardly afford

housing standards higher than those they had before (Jha et al., 2010). But in Posoltega, aid agencies too often used the opportunity “to resolve long-standing development shortcomings” by means of housing assistance (Jha et al., 2010; p. 61). They rightly strove for the provision of good quality housing. But investing in high-standard housing without considering affordability of future maintenance costs and without understanding the communities’ livelihoods and the root causes of their poverty and vulnerability, ended up marginalising the poorer families, while favouring the socioeconomically more advantaged ones.

In Ocotlán, on the contrary, the town authorities, in particular the then mayor, perceived the post-Mitch reconstruction process as an opportunity to improve the precarious housing situation of the affected urban poor and to counter problematic urban development patterns (Leemann, 2011). The municipality had been well aware of the population’s vulnerability and needs. The town envisioned a comprehensive reconstruction strategy that combined its own resettlement project with in situ repair and reconstruction. This combined approach helped to improve the housing situation of the affected people, enabling 780 households to repair and 214 to rebuild their homes in situ, while the town’s own resettlement project provided 230 out of planned 498 houses, due to lack of funds. The local authority chose a culturally and socially sensitive reconstruction approach that met the residents’ needs. Construction materials, housing design and settlements layout were in line with local building traditions, and the strategy focused on creating a new neighbourhood identity. The resettlement project proved to be successful, having obtained a high occupancy rate and degree of satisfaction among residents, who expressed a strong sense of ownership and place attachment and a positive self-image living in the town’s relocation settlement. The local authority’s ambition to change the town’s generally vulnerable urban development patterns, however, was not achieved because it lacked the means to effectively enforce the zoning ordinance.

In San Dionisio, eight out of the nine post-Mitch housing interventions were resettlement projects, even though the vast majority of the houses could have safely been rebuilt *in situ*. The relocated settlements did not meet the needs and priorities of farmer families (Leemann, 2011). They rather hampered the rebuilding of livelihoods, as the inhabitants had to face longer distances to their fields. Thus, firewood became more difficult to obtain, and access to water proved to be a problem for many years to come, as most resettlement projects did not include the provision of drinking water. Because of the tiny plots in the settlements, women could no longer raise chickens and pigs or have a family garden, which was essential in terms of food security and additional source of income. Moreover, the women’s daily routines changed substantially. Hence, a considerable part of the farmer families never moved into the relocated settlements and another part of the families eventually moved back to their former houses, which they rebuilt on their own. Accordingly, the occupancy rate of the settlements in 2007 was only 58 percent.

### **Persisting Patterns of Governance**

Governance in post-Mitch reconstruction was weak at the national level; there was almost a total lack of coordination, regulation and management of efforts, reflecting pre-disaster patterns of (non-) governance.

In Posoltega, local governance capacities were simply overwhelmed by an excessive flow of external resources. This case illustrates the consequences of an unregulated context and a too heavy targeting of one area. In addition, as aid agencies preferred highly visible housing projects, reconstruction became entirely supply-driven.

The differences between the reconstruction processes and outcomes in the municipalities of San Dionisio and Ocotlán very strongly reflect the pre-disaster patterns of governance (Leemann, 2012). In San Dionisio, local governance was characterized by low levels of transparency, downward accountability, responsibility and fairness and proved to be a

problem for the housing reconstruction process. Targeting of housing assistance was strikingly inequitable and was marked by elite capture and clientelism. Häberli (2012) reveals that being members of an organization (such as a local NGO) and having a personal relationship to a local leader, were of pivotal importance for being included in needs and damage assessments and gaining access to external aid. Therefore, isolated, vulnerable households hardly received any support. Häberli's study highlights the risk of inequities by channelling aid through local organisations and authorities without questioning their coverage, capacity and willingness in reaching out to people not belonging to their organisation or clientele. Given the very strong political polarisation between Liberals and Sandinistas in late 1990s Nicaragua, not even 10 years after the end of the civil war, post-Mitch reconstruction was generally at risk of becoming subject to remuneration of constituencies. Housing projects were thus perceived by local authorities as opportunities to satisfy demands by supporters, family members and friends.

At the heart of local leaders' understanding of their role in the reconstruction process, which external aid agencies did not adequately address, was the implicit agreement and tacit understanding that leaders are expected to procure 'projects', meaning external assistance. In fact, often the procurement of projects by leaders is considered to be one of their principal responsibilities and their success, and quality as a leader is not measured in terms of numbers of projects they are able to "catch". The rural areas of Nicaragua were generally neglected in the 1990s; external interventions, including central government support, were scarce, whereas poverty and neediness were a widespread phenomenon. In such a context, it was critical for the population that their leaders could attract external support; however, the leaders were willing to accept donor-controlled housing interventions that did not even meet the farmer families' needs and priorities.

By contrast, disaster response in Ocotal was based on a thorough damage and needs assessment carried out by the local municipal government and ensured an equitable distribution of housing assistance. Moreover, it reflected the community's own development vision. To address the housing problem, the authorities did not simply rely on whatever projects were offered. On the contrary, they equipped two thirds of the affected citizens with material and technical assistance to repair and rebuild their houses and envisioned the municipalities' own successful resettlement project. Thanks to the mayor's leadership, various initiatives could be spurred, efforts pooled and coordinated in order to create housing for the vulnerable population. Shortly after the hurricane, before the land prices rose, the town acquired a safe construction terrain in its periphery. The local authorities, and above all the mayor, were committed to good governance principles to guide reconstruction; they already had long-lasting experience in development cooperation with external partners demanding high levels of transparency, accountability, responsibility and fairness. The case of Ocotal shows above all that charismatic leaders can make a difference in the reconstruction process.

## Conclusions

Hurricane Mitch revealed historically produced patterns of vulnerability, but the reconstruction process, which was largely uncoordinated and favoured resettlement over reconstruction *in situ* did not adequately address these vulnerabilities, much less its root causes. The Pacific coastal areas were much more targeted – most arguably because of the mudslide at Volcano Casita – than the comparably affected Central rural areas. Communities like Posoltega received excessive housing assistance, while funds for reconstruction in San Dionisio and Ocotal were scarce. Reconstruction in most cases was donor-driven. The aspiration to enhance the resilience of disaster-affected communities, however, was not based on an understanding of their livelihoods, social organisation, and power structure, and on how these related to their vulnerability. The preconceived, uniform



resettlement projects did not take into account local needs, priorities, capacities and challenges or differences in local vulnerabilities, and consequently even reinforced, in many cases, pre-disaster vulnerabilities and exclusion.

Local knowledge concerning the social and economic dimensions of housing is a compelling reason to seriously consider the objective of decentralized decisions in reconstruction. The municipalities would have been well-suited to make the housing projects meet the local needs and enhance the effectiveness and sustainability of interventions. However, while community leaders may have an important and valuable role in reconstruction, their capacity and accountability in ensuring an equitable distribution of external aid resources can never be taken for granted. External agencies need to take the risks of clientelism and elite capture seriously. Local governance and leadership that put the affected and marginalized community members at the heart of reconstruction were critical for the actual outcome of post-disaster housing interventions and livelihoods restoration in post-Mitch reconstruction.

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### **Author's Biography**



Esther Leemann is a Social Anthropologist with more than 15 years of research experience in Central America and Southeast Asia. Her interests focus on social, economic, cultural and political dimensions of post-disaster reconstruction, housing, displacement and development. She is a senior lecturer and researcher at the Department of Social Anthropology of the University of Lucerne, Switzerland and she has participated in several international and interdisciplinary research projects.