

CHAPTER NINE

RESILIENCE, MARGINALIZATION, AND LIVELIHOODS

The previous case study shows that even those who are supposed to be less able to recover from disasters have their own ability to overcome the havoc they wreak. People's resilience, however, strongly depends upon the nature, strength, diversity and sustainability of their livelihoods, thus echoing factors which matter in shaping vulnerability (see chapter 4). In that sense, those who are marginalized in facing natural hazards because of weak and unsustainable livelihoods also often prove poorly able to recover from the aftermath of disasters.

Indeed, marginalization does not stop with the occurrence of disasters as disastrous events do not level people with suffering. People who were rich before will still be the most well-off after the event while the poor are likely to remain poor (Blaikie et al., 1994; Quarantelli and Dynes, 1972). It of course relates to pre-disaster vulnerability and the extent of resources left to recover. It also pertains to post-disaster aid and relief which is often unfairly distributed to the benefit of the most affluent segments of the society (Cuny, 1983; Middleton and O'Keefe, 1998). Therefore, disasters frequently lead to more marginalized people as those whose livelihoods have been affected are often unable to recover (Walker, 1989; Wisner, 1993; Winchester, 1992).

This process of marginalization, from pre-disaster vulnerability to post-disaster recovery and resilience, has been formalized by Susman, O'Keefe, and Wisner (1983) and Wisner (1993) (see Figure 9.1). Both references emphasize that increasing marginalization heightens people's vulnerability in the face of natural hazards through underdevelopment and environmental degradation. Disasters thus become more frequent. Eventually, relief aid reinforces status quo, erodes resilience, and leads to further marginalization and underdevelopment that, in turn, pave the way for more disasters to happen. As seen earlier in this book, there is a significant number of references available on the process of marginalization that leads to

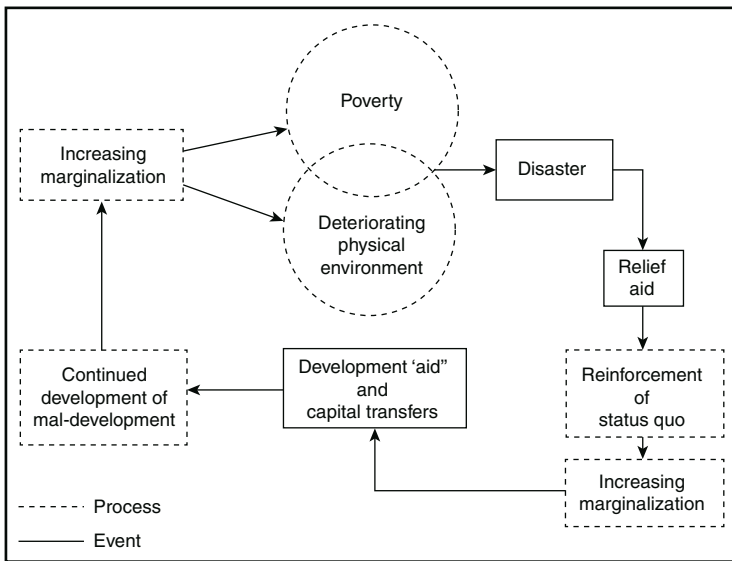


Figure 9.1 Process of marginalization of those who suffer from disaster (adapted from Susman, O'Keefe, and Wisner, 1983)

people's vulnerability in facing natural hazards (e.g., Wisner, 1993; Wisner et al., 2004). Another important set of research works addresses post-disaster relief aid and assistance with the objective to show how unfair it often is (e.g., Cuny, 1983; Middleton and O'Keefe, 1998). Yet, fewer studies address the links between pre- and post-disaster marginalization or how people's poor livelihoods affect their ability to recover from the aftermath of a disaster.

This chapter investigates those links between resilience, marginalization, and livelihoods among urban communities of Metro Manila. It particularly focuses on people who survived the July 2000 Payatas trash slide. This study does not explore the root causes of people's marginalization and vulnerability in the face of the trash slide hazard (see chapters 2 to 4). It, however, addresses the links between pre- and post-disaster marginalization or how the survivors have been resilient (or not) from the perspective of their initial livelihoods and vulnerability. This research encompasses both the people who chose to remain near their former home and those who accepted to be relocated to the Kasiglahan resettlement site. The first section provides a glimpse on the July 2000 Payatas tragedy. The second section describes the methodology used for the study. The third and fourth sections, respectively, focus on how the survivors who chose to

remain in Payatas and those who relocated in Kasiglahan recovered from the disaster. The fifth and sixth sections finally tie up marginalization, pre-disaster vulnerability, and post-disaster resilience in the context of sustainable livelihoods.

The July 2000 Payatas Tragedy

The 20-ha Payatas dumpsite is located in the municipality of Quezon City (see Figures 1.6 and 9.2). Early in the morning of July 10, 2000, a huge section of the dumpsite collapsed into a massive debris flow. Official figures report that 330 people were entombed alive and died in the area called Lupang Pangako or the “Promised Land.” Hundreds of houses were totally buried under meters of garbage or burned by subsequent fires. Seeping leachate further flooded surrounding dwellings (see Figure 9.3). Geotechnical engineers reported that the landfill failure was triggered by extremely heavy rainfall caused by two successive cyclones (Merry, Kavazanjian, and Fritz, 2005). Noteworthy is that the 2000 trash slide was not the first to hit the area. On August 3, 1999, a similar event buried several houses in Lupang Pangako but fortunately, nobody was killed.

Most of those affected by the July 2000 tragedy were economically marginalized and indigent people with poor financial and human resources, who made a living scavenging, sorting, and selling garbage (see Table 9.1). They were geographically marginalized as they used to live at the bottom

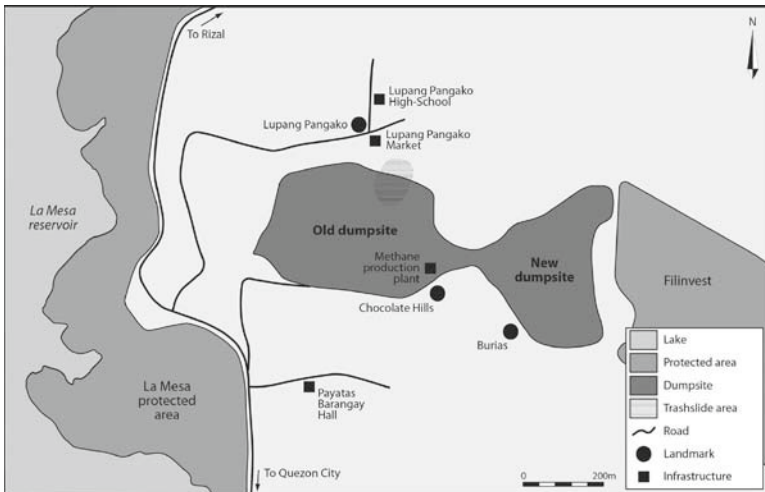


Figure 9.2 Location of the Payatas dumpsite in Quezon City



Figure 9.3 Shanties buried by trash at the foot of the Payatas dumpsite in July 2000 (photograph by Myra Lara)

Table 9.1 Daily incomes of households affected by the July 2000 trash slide in Payatas (data from the Quezon City Social Services Development Department)—Note: PhP 45 = ~ US\$ 1

<i>Daily incomes (in Philippine Pesos)</i>	<i>Number of households</i>
< 100	97
100–199	285
200–299	119
300–399	22
400–499	0
500 >	5
No data	89

or on the lower slopes of the dumpsite in makeshift houses made of scrap materials, reflecting limited physical resources. Lupang Pangako actually grew in the late 1980s as a resettlement site for squatters evicted from other areas of Quezon City. In 1994, the Metro Manila Development Authority (MMDA) transformed the small local dumpsite into the biggest dumpsite planned for receiving garbage from the entire capital region. The fast growth of the dumpsite progressively attracted thousands of poor families looking for stronger livelihoods (Bernardo, 2004). Official figures show that the population of *barangay* Payatas grew by 60 percent between 1994 and 2000 to reach 112,690 inhabitants (National Statistics Office, 2009).

However, local officials and researchers estimated that 30–80 percent of the actual population may be illegal settlers who were not covered by the 2000 census (Bernardo, 2004; Pecson, 2000). They were politically and socially marginalized and thus lacked access to land (natural resource), social, and political resources.

The scope of the disaster thus mirrors people's vulnerability, poor livelihoods, and marginality at the dawn of the event. Families whose houses were buried under several meters of garbage were illegal settlers living in very poor conditions in the immediate vicinity of the dumpsite. They reflect the uttermost level of geographical, economic, social, and political marginality. On the other hand, most households who were only flooded by seeping leachate were legal beneficiaries of the 1980's resettlement program who were less marginalized and lived in better conditions. The process of marginalization that led people to be highly vulnerable in the face of the trash slide hazard is a classic story of urban poverty where first-generation migrants are compelled to live in hazard-prone areas to sustain their daily needs, yet lacking adequate access to means of protection. The root causes of such process have been heavily addressed in the literature (e.g., Davis, 1987; Wisner et al., 2004) and in chapters 2, 3, and 4.

Immediately after the disaster, 626 affected families living in the immediate surroundings of the landfill were evacuated into public buildings (schools and gymnasiums). The DSWD, along with some local and foreign NGOs, provided first aid and support to those affected in the form of medical assistance, food, clothes, and other everyday necessities. Most of the survivors stayed in the evacuation centers for several weeks. Eventually, 58 families agreed to go back to their native province with the financial support of the DSWD; 147 other households resettled in houses of relatives in the surroundings.

Facing the incapacity to send the other survivors back to the landfill, the municipal government of Quezon City entered in negotiations with the National Housing Authority (NHA) for the relocation of the affected families. The Kasiglahan (literally "Liveliness") resettlement site, in the municipality of Rodriguez (Montalban) in the province of Rizal, was considered as a favorable alternative, given its relative proximity to Payatas. Originally, Kasiglahan was developed as a resettlement site for thousands of illegal settlers from the banks of the Pasig River which drains the municipality of Manila, among other areas. Within a month after the disaster, the first survivors of the Payatas tragedy began to move to their new home in Kasiglahan. Three kinds of households were eligible for resettlement: (1) families who lost some relatives in the disaster; (2) families whose house was buried by the trash slide; and (3) families who were living within a newly defined danger zone. Overall, 571 families from Lupang Pangako

received a piece of land of 32 m² to 40m² in area and a 20-m² concrete house equipped with sanitary facilities. Planners acknowledged that the houses were designed to optimize available funding. Yet, resettlers have to pay back US\$ 4,120 over 30 years (plus a 6-percent yearly interest) before receiving the legal title for their new house and lot. As of late 2007, only 108 families had begun to pay. In parallel, a number of microfinance and cash-generating projects were designed by the DSWD to provide survivors with new jobs near Kasiglahan.

Driven by the lack of financial and other resources, an indefinite number of the resettlers in Kasiglahan progressively chose to move back to their original place in Lupang Pangako. They were joined by some new migrants who came to Payatas in search of economic alternatives to their poor way of life in other areas of Metro Manila or in remote provinces of the archipelago (Bernardo, 2004). Interviews showed that most of these newcomers settled at the foot of the new dumpsite on private or government lands in exchange for paying a small amount for settling rights to the property owner or the initial settler.

Methodology

The forthcoming discussion relies, first, on an extensive series of interviews with key informants conducted between August 2007 and July 2009, or seven to nine years after the disaster. A number of affected people and leaders of associations of survivors in the Kasiglahan resettlement site, in Lupang Pangako and in adjacent neighborhoods were interviewed. These interviews provided an initial overview on how people coped with the disaster and its aftermath. In parallel, interviews were conducted with representatives of the local government, DSWD, MMDA, DENR, NHA, the Payatas Operations Group (POG), local health services, NGOs, associations of scavengers, and junkshop owners and workers. These interviews were aimed at assessing the roles of the authorities and other stakeholders in the management of the crisis and rehabilitation following the disaster. A large amount of useful primary written documents was also collected during visits to these organizations.

In a second time, a questionnaire-based survey was carried out in Lupang Pangako and Kasiglahan to validate hypotheses drawn from the interviews with key informants, that is, that the nature, strength, diversity and sustainability of livelihoods were crucial in the ability of survivors to recover from the disaster. Given the lack of reliable census data and other population counts in Payatas, it was impractical to rationally use any statistical sampling method. On the other hand, a credible geography-based sample relying on aerial photographs or satellite images was impossible

given the slum-type nature of the settlements in Payatas. Therefore, 30 (the usually admitted statistical validity threshold) face-to-face in-depth interviews were conducted in each site in December 2007 using a 58-item questionnaire. The questionnaire was designed with the objective to assess people's recovery based on their livelihoods before and after the disaster. It included an initial series of questions concerning personal experience of the tragedy. In a second series of questions, changes in people's daily life following the disaster were addressed. The third part of the questionnaire was an overall assessment by the survivors of the post-disaster situation and their future. A fourth section on general demographics concluded the questionnaire. In Kasiglahan, an additional set of questions addressed the resettlement process. Interviews were conducted in Tagalog. The selection of interviewees reflected the actual distribution of the population in terms of age and sex. The limited size of the sample meant that the statistical power of inferential tests and other forms of modeling were reduced. The analysis, therefore, relied exclusively on descriptive statistics.

Fieldwork was completed with the collection of secondary written documents such as journal publications, conference proceedings, and relevant press clippings from local and national newspapers. Noteworthy is that a large part of this set of data was initially exploited through a different conceptual framework (Gaillard, Le Masson, and Cadag, 2008a; Le Masson, 2008).

Rising Out of the Trashes: How to Survive in Payatas

Following the July 2000 tragedy, then President Joseph Estrada decided to close the Payatas dumpsite. The lack of viable alternative to accommodate the garbage of Metro Manila forced the authorities to reopen it four months later. It was then decided to convert the simple dumpsite into a controlled dumpsite under the authority of the POG. The new facilities included a perimeter fence and a designated permanent danger zone where any construction was prohibited. In parallel, scavengers were organized into associations that took charge of managing working shifts for accessing the dumpsite. The surroundings of the dumpsite also became the focus of many development projects initiated by the government and local or international NGOs. This evolution in the management of the dumpsite and the influx of development programs brought some changes in the way of life of the survivors of the July 2000 tragedy.

The families who were not relocated in Kasiglahan were those who were living outside of the danger zone and whose houses have not been damaged by the trash slide. Seven years after the disaster, these households managed to upgrade their dwelling. Before the tragedy, 93 percent of the

interviewees lived in makeshift houses made of scrap materials. Today, 73 percent of them occupy houses that are partially cemented. Yet, some of them still struggle to obtain a title for the piece of land on which their house is built. Despite some initiatives from the local government to help squatters secure legal properties, access to land is still a major issue in Payatas. In fact, in-migrations have not stopped in the aftermath of the disaster. Thousands of new migrants from poor provinces of the archipelago had even settled within the danger zone and the government has been unable to exert strong control. A female interviewee summarized the situation as follows: "We are aware of the danger of a possible trashslide but hunger forces us to settle here to secure enough income to sustain our daily needs without paying expensive rent."

The POG's policy to control access to the dumpsite by imposing shift schedules among scavengers led to a significant reduction in scavengers' incomes. Before the disaster, most of them used to resort to methamphetamine to be able to work long hours on the dumpsite, sometimes more than 12 hours a day. They were also able to sell sorted garbage directly to junkshops which mushroomed in the surroundings. Today, they work eight hours a day and sell trash to middlemen on the dumpsite. To cope with this situation, most of the scavengers had to diversify their livelihoods. Today, only 10 percent of those interviewed as part of this study are full-time scavengers. Others became street vendors (33 percent) or engaged in other informal jobs like construction workers, sweepers, janitors, etc. A significant fraction of the survivors (10 percent) are also jobless and rely on relatives and friends for support to sustain their daily needs. Most of those affected by the July 2000 tragedy and who remained in Payatas have observed a decrease in their incomes (see Figure 9.4). Before the disaster, almost 60 percent of the interviewees earned between 5 US\$ and 10 US\$ per day. Today, 45 percent earn less than US\$ 5 and only 38 percent make between US\$ 5 and 10 daily. Overall, 63 percent of the survivors consider that their standard of living has degraded in the aftermath of the July 2000 tragedy.

To cope with the reduction in their daily incomes, the survivors of the July 2000 tragedy have extensively relied upon social networks. Social networks include four realms. The first, inner realm covers the nuclear family. In the aftermath of the disaster, children often engaged in income-generating activities. In 2007, 33 percent of the interviewees' children were contributing to the household livelihood; against only 13 percent in 2000. The second realm includes the larger circle of relatives who provide moral support for 35 percent of the interviewees and financial assistance for 21 percent of them. The third realm is composed of friends and neighbors who similarly give moral (21 percent of interviewees) and financial

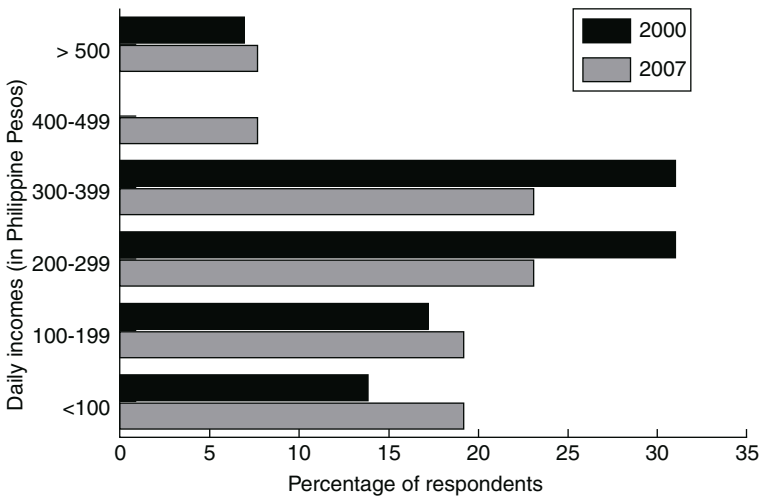


Figure 9.4 Daily incomes of surveyed households affected by the July 2000 trash slide in Payatas— $n=30$ in 2000 and 2007—Note: PhP 45 = ~ US\$ 1

(14 percent) aid in time of difficulties. The fourth and outermost realm includes acquaintances who, usually, are informal money lenders whom the survivors (39 percent of interviewees) increasingly rely on for small, high-interest loans. All these social networks were operative before the disaster but to a lesser extent. In the aftermath of the July 2000 tragedy, they turned out to be crucial in helping the survivors to recover.

Despite the importance of social networks, the sharp decrease in everyday incomes had a serious impact on people's diets. Fifty-six percent of the interviewees observed a degradation of their daily food intake. To accompany their plate of rice, most of the survivors today resort to the cheapest available dishes: vegetables, eggs, and dried fish. Fresh fish and meat have become luxury fares. In parallel, some families reduce the quantity of food for each meal. Others rely on cheaper cooked dishes available from small food shops instead of cooking a meal themselves. As a consequence, local health workers interviewed as part of this study observed that, in 2007, 10 percent of the children below 4 were underweight.

On the other hand, most of the interviewees noticed an improvement in access to public services. This is particularly true regarding access to drinking water. Before the tragedy, most of the survivors (93 percent) relied on deep wells or expensive balloon delivery. Today, 90 percent of them have access to the official water supply system. Access to health care also improved with the construction of a new health center in Lupang

Pangako and the continuous service by foreign NGOs. According to local health workers, the easier access to health care and the sanitary conditions within the perimeter of the dumpsite are responsible for the improvement in the health status of children; although official data show that tuberculosis is spreading among adults. When questioned on the topic, 50 percent of the survivors actually considered their health condition to have worsened, with frequent coughs, skin diseases, asthma, et cetera. Finally, 60 percent of the survivors acknowledged that access to education has improved with new and better facilities in the vicinity, and a large number of scholarships offered by President Gloria Macapagal-Arroyo in 2001 (e.g., Department of Social Welfare and Development, 2007).

Struggling with a New Environment: The Fate of the Resettlers

The families affected by the July 2000 tragedy who were relocated in the Kasiglahan resettlement site had to face a new environment. They had to adjust to their new house, pay for new expenses, find a new job and discover new neighbors. Before the disaster, most of the resettlers (56 percent) were living in makeshift houses. In Kasiglahan, they received sturdy concrete houses with electricity. Yet, almost 13 percent of the interviewees had not been able to pay their monthly electric bill and power to their house has been disconnected. Furthermore, they had to wait a few years before being connected to the water system. In the meantime, they had to rely on deep wells, water delivery or support from NGOs or local organizations for their water needs. The situation is made worse by the obligation to pay for the title to their house and lot as required of them as legal settlers.

The constraint to pay for amenities on top of the title to the house and lot is particularly difficult, given the harsh economic environment. Before the July 2000 tragedy, 66 percent of the resettlers were scavengers on the Payatas dumpsite. Once relocated in Kasiglahan, they had three choices in order to survive: (1) continue scavenging on the Payatas dumpsite and go back daily to Lupang Pangako; (2) collect and sort garbage on the nearby San Isidro dumpsite; or (3) find a new job. Fifty percent of the resettlers decided to make a living from scavenging in San Isidro. Yet, this dumpsite seems to be tightly controlled: scavengers have to follow eight-hour working shifts and children are not allowed to enter the perimeter of the facilities. Moreover, Payatas survivors now spend for transportation to go to San Isidro which is a few kilometers away from the resettlement site. There is also less garbage in San Isidro than in Payatas. In parallel, most of those

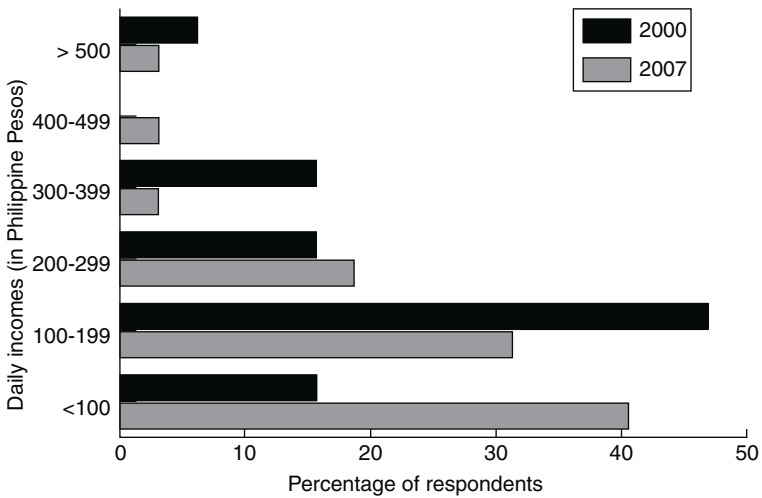


Figure 9.5 Daily income of surveyed households affected by the July 2000 trash slide in Kasiglahan— $n=30$ —in 2000 and 2007—Note: 45 PhP = -1 US\$

who chose to look for a new job could not get out from the informal sector and ended up as street vendors or construction workers.

As a consequence of the increase in expenses and reduction in income, 72 percent of those relocated in Kasiglahan consider their standard of living to have sharply decreased since 2000. In fact, almost 40 percent of the interviewees earn less than US\$ 2.5 per day, and 70 percent earn less than US\$ 5 (see Figure 9.5), confirming early data gathered by Campomanes, Sangalang, and Ugaban (2002). To sustain their daily needs, 64 percent of the families resort to small and informal loans from money lenders, neighbors or relatives. As in Payatas, social networks have been very important in helping the survivors recover from the disaster. Relatives are approached for loans most often, before friends and neighbors. Noteworthy is that in Kasiglahan, the very active July 10 Payatas Victims Organization plays a significant role in fighting for the rights of the survivors to obtain financial compensation, free education, security of land tenure and further livelihood opportunities. It filed one criminal case and two administrative cases before the Office of the Ombudsman against local officials allegedly responsible for the disaster. As of December 2008, none of these cases had however, been resolved.

Survivors' daily diet suffers from the poor incomes. Most of the families often skip a meal a day. Some reduce the quantity of food intake or rely

on the cheapest food available (egg, vegetable, dried fish, and tofu). As in Payatas, fish and meat are rare pleasures reserved for special occasions.

Another consequence of the relocation in Kasiglahan is the poorer access to health care compared to living in Payatas. Twenty-two percent of the families declare that they have no access to health centers. In parallel, NGOs do not maintain permanent clinics as they did in Payatas. In Kasiglahan, one nurse caters to more than 7,000 families. Yet, health problems do not seem to spread because of the cleaner environment here, compared to Lupang Pangako. Fifty-two percent of the interviewees further consider that access to educational facilities has remained stable. A significant number of survivors have indeed benefited from government scholarships which helped children finish their elementary and secondary education.

Poverty and poor access to resources in Kasiglahan lead 47 percent of the resettlers to think that going back to Payatas would be a viable alternative to their miserable life in the resettlement site. Yet, 9 percent acknowledge that it would depend on their ability to secure a house and lot in Lupang Pangako. A small set of interviews conducted with some of the resettlers who decided to leave Kasiglahan confirmed the crucial role of livelihoods in their choice to settle back in Payatas. Most consider that it is much easier to secure enough income to cover the needs of their family in Lupang Pangako despite makeshift houses and poor sanitary conditions. Indeed, those who went back joined the latest migrants and settled within the danger zone, at the immediate bottom of the dumpsite.

Marginality and the Reconstruction of People's Livelihoods

The resilience of those who survived the Payatas tragedy was closely dependent on the level of marginality they experienced before the trash slide as reflected in the nature, strength, diversity and sustainability of their livelihoods. The survivors who lived in the immediate vicinity of the dumpsite with marginal livelihoods were those who were relocated and had the greatest difficulty to recover based on the results of the survey conducted in Kasiglahan. On the other hand, the people of Lupang Pangako who were less marginalized and lived farther away from the dumpsite with stronger, more diverse and more sustainable livelihoods proved to be better able to recover from the havoc brought by the disaster.

The resilience of the survivors was, first, dependent on the nature and diversity of their pre-disaster livelihoods. Families who had the hardest time to recover from the havoc wrought by the trash slide were those who relied solely on the collection of garbage to earn a living. When the dumpsite temporarily closed in the immediate aftermath of the disaster,

the scavengers were rendered without resources and had to depend on external aid. It was only when the dumpsite reopened that they were able to regain access to financial resources. Yet, it seems that a large fraction of the survivors (32 percent) were relying on two different resources before the disaster. Half of them were scavengers who raised pigs to complement daily incomes from the dumpsite. Others used to work as construction workers, especially during the dry season (December to May). Those multi-resource survivors turned out to be the most able to recover as other activities allowed them to cope with the temporary closure of the dumpsite.

The strength of livelihoods was another critical factor of resilience among survivors of the July 2000 Payatas tragedy. The pre-disaster average daily family income was around US\$ 7.5 and a third of the households relied on less than US\$4. In such a situation, total income was immediately invested in purchasing food and sustaining other everyday needs. Having savings was impossible so that no spare money was available in the aftermath of the trash slide. People's ability to earn enough income to recover from the disaster was also constrained by structural forces beyond the survivors' reach, like inflation. Prices of rice and other food products are soaring in the Philippines while formal wages and informal incomes are growing slowly. Today, incomes of the families relocated in Kasiglahan are further cut down by the additional expenses linked to the compulsory reimbursement to the government for their new homes, as confirmed by the officers of the NHA who were interviewed as part of this study. Alternative sources of support such as borrowing money further depend on the extent of one's social networks and ability to pay back. The survivors who possessed the larger solidarity networks were those who had lived in Payatas for a long time. On the other hand, the poorest and late-coming survivors who settled at the immediate foot of the dumpsite had weaker social connections and thus, had to resort to obtaining high-interest loans from professional money lenders.

Sustainability of livelihoods also turned out to be essential to the resilience of those affected by the July 2000 Payatas tragedy. Among those who remained in Lupang Pangako, stability in livelihoods prevented a sharp decrease in household income, thus preventing them from contracting into chronic debts. In Kasiglahan, the ability to regain access to financial resources was difficult, even among families who relied on several sources of income before the tragedy. Relocated families are those who lost at least one relative in the disaster. A decrease in the number of adult individuals in a household reduced its ability to raise income to sustain the needs of the family which might include a large number of dependent children. The results of our survey show that

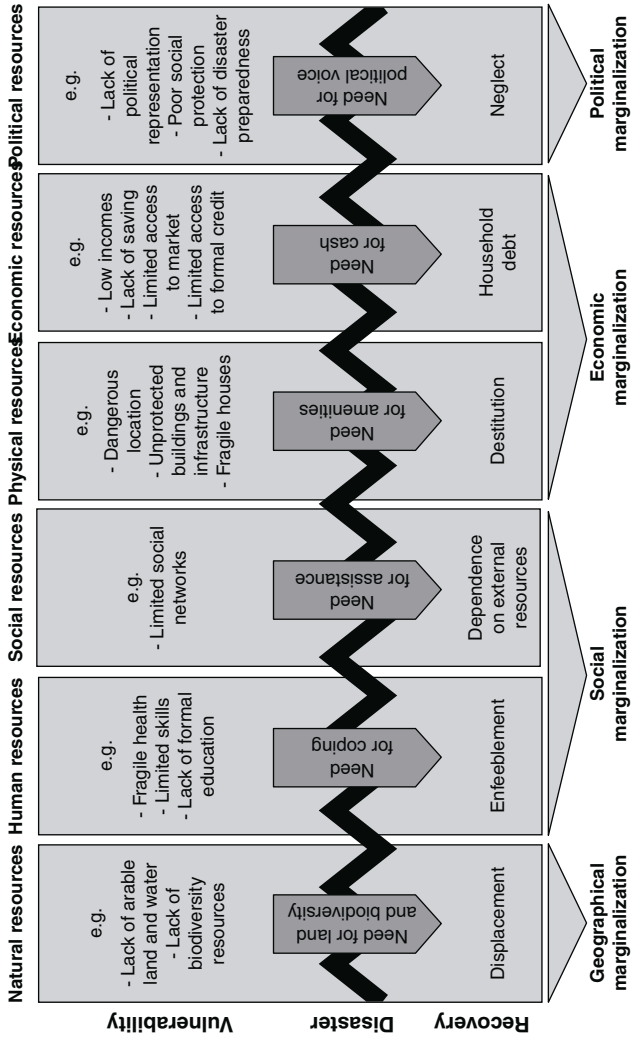


Figure 9.6 Livelihoods, pre-disaster vulnerability, post-disaster recovery, and the process of marginalization

100 percent of the households who lost one or more members of their families actually earn less than US\$5 a day in 2007. The loss of one or more relatives and the resulting decrease in available social resources therefore, turned out to be a key determinant of people's resilience after the disaster. Furthermore, Kasiglahan is far away from the economic center of the municipality of Rodriguez and from the San Isidro dumpsite. Maintaining urban resources similar to those in Payatas forced the survivors to pay for expensive transportation.

This study of Payatas actually emphasizes that resources essential in the sustainability of livelihoods were crucial in defining people's resilience after the disaster. Further, it was also strongly dependent on the pre-disaster setting characterized by the level of marginality and vulnerability (see Figure 9.6). People's ability to live in hazard-safe places (or far from the dumpsite, in the case of Payatas) depends on access to land (natural resource). Skills and knowledge (human resources) enable the diversification of activities and thus lessen the households' dependence on scavenging trash in bad weather when a trash slide is possible or when the dumpsite is closed. Income and savings (financial resources) are obviously important to purchase food in time of scarcity but also to build resistant houses. Social networks and kinship (social resources) are critical in providing alternative support in the wake of the disaster. Finally, the ability to secure access to physical resources (housing, electricity, water networks, and transportation) at affordable cost was also important in shaping the resettlers' decision to settle back in Payatas and closely dependent on access to political resources. People's vulnerability in facing trash slide hazard and their resilience after the disaster can therefore not be dissociated from livelihood sustainability and marginality. On the other hand, livelihood sustainability is similarly tied to people's vulnerability to hazardous phenomena and disasters. The Payatas trash slide and their subsequent relocation ruined the resettlers' access to livelihoods and thus reinforced their position on the margin of society.

From Marginality to Further Marginalization

This study of the fate of the survivors of the July 2000 Payatas trash slide is a story of marginality and marginalization. Families who were relocated in Kasiglahan were the poorest, based on their daily incomes before the disaster (see Figures 9.4 and 9.5). Relocated households were also the hardest hit by the trash slide because they were living in the immediate vicinity of the dumpsite. They were living there because their limited incomes did not allow them to afford safer, farther locations for their home. Moreover,

they were among the survivors who were most dependent on scavenging garbage for sustaining their daily needs.

In the present case, the most vulnerable families in the face of the trash slide were eventually those who had to suffer again from life-disrupting relocation while being the less resilient after the disaster (see also chapter 10). Daily incomes of families resettled in Kasiglahan are today much lower than those who stayed in Lupang Pangako (see Figures 9.4 and 9.5). The failure of the relocation and overall recovery processes further reflect how marginalized on the political scene those affected by the Payatas trash slide were before the disaster. Most of those affected were illegal settlers and thus lack political visibility. Interviews showed that local authorities struggled to even assess their exact number. The official death toll was thus challenged by the representatives of the associations of survivors who claimed that the trash slide may have killed a thousand people. Local authorities eventually felt that providing squatter survivors with permanent and formal resettlement was a favor. It therefore did not come as a surprise that none of the people interviewed as part of this study had been involved in the decision-making process which led to their resettlement in Kasiglahan. They were forced to accept the program planned by the NHA. Considering the lingering threat in Payatas, relocation might have been a solution had the survivors been strongly involved in the design of the resettlement program and livelihood-related issues been given high emphasis.

Political marginalization before and after the disaster inevitably led to social and economic marginalization during the recovery process and thus, eroded resilience. The survivors of the Payatas trash slide who remained in Lupang Pangako benefited from much more sustainable rehabilitation and reconstruction measures as illustrated by the new school buildings and health center, and the permanent presence of NGOs. On the other hand, people in Kasiglahan have been the focus of useful, but short-term and limited social and economic support such as educational scholarships, which were also provided in Lupang Pangako. As mentioned above, local authorities focused on housing. Providing the resettlers with economic and social assistance ranked low among the government's priorities. As a consequence, daily incomes of families that resettled in Kasiglahan, where access to services is much poorer, are today much lower than those that stayed in Lupang Pangako. Yet, it is widely acknowledged today that ensuring access to sustainable livelihoods is essential to fast post-disaster recovery and resilience (Anderson and Woodrow, 1989; Coate, Handmer, and Choong, 2006; Pomeroy et al., 2006; Régnier et al., 2008).

This study emphasizes that it is essential to consider post-disaster resilience in the context of pre-disaster vulnerability. Survivors' suffering in the

aftermath of the July 2000 Payatas trash slide reflects people's daily needs and chronic marginalization at the dawn of the disaster (see Figure 9.6). Relocation in Kasiglahan resulted from poor access to land before the event. Limited skills and frail health led to an increased fragility in the resettlement site where employment turned out to be limited and access to health care, difficult. Limited social, physical, and financial resources before the disaster forced the survivors to rely on professional money lenders or to sell the few assets they possessed to sustain their daily needs, thus increasing people's dependence on external resources and loans. Obviously, the July 2000 trash slide did not bring new issues but increased pre-disaster needs. In that sense, disasters should be considered as the extension of daily hardship intimately linked to pre-disaster marginalization. For the survivors of the July 2000 Payatas tragedy, political neglect and poverty acted as a vicious, worsening circle which ranged from vulnerability to poor resilience, or from marginality to further marginalization.