

ANALYZING POST-TSUNAMI LIVELIHOODS RECOVERY: THE CASE OF MASONS IN POLHENA VILLAGE, SRI LANKA

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ABBREVIATIONS AND NOTES

| | |
|--------|---|
| DfID | Department for International Development (United Kingdom) |
| DSO | District Secretariat Office |
| LTTE | Liberation Tigers of Tamil Elam |
| MSS | Minimum standard specification |
| NGO | Non-governmental organization |
| RADA | Reconstruction and Development Agency |
| R&R | Reconstruction and rehabilitation |
| Rs. | Rupees (Sri Lankan) |
| SLF | Sustainable Livelihoods Framework |
| TAFREN | Task Force for Rebuilding the Nation |
| US \$ | United States Dollars |

For administrative purposes, Sri Lanka is divided into four layers: nine Provinces, 26 Districts, 325 District Secretariat Divisions, and 14,110 *Grama Niladhari* divisions, in descending order.

The approximate currency conversion, as of October 2006, is US \$1.00 = Rs. 100.00

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ABSTRACT

This study investigates the livelihoods recovery process of masons living in Polhena village, Sri Lanka in the aftermath of the 2004 Asian tsunami. The Sustainable Livelihoods Framework, as developed by the United Kingdom's Department for International Development, has been used as an analytical device. A two stage qualitative investigation was undertaken. The first stage comprised the fieldwork component of the project wherein insights of 20 masons, three government officials, and three non-governmental organizations were solicited to unveil the recovery experiences of masons, in the context of post-tsunami policies and livelihoods assistance schemes. In the second stage, the Sustainable Livelihoods Framework was deployed to review outcomes from the above inquest and thereby examine its usefulness in analyzing post-tsunami livelihoods recovery of masons. Despite some practical complexities and limitations, the framework's demeanour as a systematic analysis of poverty, and its causes, in a way that is holistic was found to be of immense value for a post-tsunami livelihoods recovery analysis. In the broader sense of building 'sustainability' into Sri Lanka's post-tsunami recovery agenda, it was shown that the applicability of the framework was limited, due to the challenges posed by the country's pre-existing economic and socio-political conditions.

CHAPTER 1

INTRODUCTION

1.1 Rebuilding lives after the tsunami

A disaster that distinguished and defined the year 2005 in Sri Lanka was the Asian tsunami of 26 December 2004. When the series of giant waves, spawned by a submarine convulsion off the coast of Sumatra, swept across the Indian Ocean it killed more than 31,000 people in Sri Lanka – it also washed away the livelihoods of an estimated 150,000 people (Jayasuriya *et al.*, 2006: 15). The loss of lives and infrastructure along the country's coastline, with many affected Districts having poverty levels higher than the national average, has plunged large numbers of people into poverty (Jayasuriya *et al.*, 2006). With an instantaneous response from local community groups, followed by government, non-government and international assistance, the emergency relief effort was deemed to be a success by evaluations carried out the following year (SLDF, 2005). As Sri Lanka's reconstruction and rehabilitation (R&R) effort gathered pace, however, it faced the daunting task of assisting affected households to recover their livelihoods. Livelihoods recovery after hurricanes in Central America, cyclones in India, earthquakes in Yugoslavia, and recurrent flooding in Bangladesh all indicate that the process is long and uneven (Bradshaw *et al.*, 2002; Hutton & Haque, 2003; Morris *et al.*, 2002; Winchester, 1992; Zaman, 1989, 1999). Given the strong desire for effective post-tsunami livelihoods recovery measures and the scarcity of research on the topic, now, more than ever, there is a need to understand how tsunami survivors are experiencing the process of livelihoods recovery.

1.2 Setting the stage for investigation: Disaster vulnerability and the Sustainable Livelihoods Framework

At the outset, in order to understand livelihoods recovery in post-disaster situations, it is necessary to examine the conceptual understandings surrounding vulnerability in a natural disaster context. Early studies of natural disasters rendered a social understanding of natural events such as earthquakes, hurricanes, and floods as secondary, if not impossible - they were departures from 'normal' social functioning (Burton *et al.*, 1978; Frazier, 1979; Kates,

1971; Mileti *et al.*, 1975; White, 1974). Disaster response dealt with a range of actions to affect or counteract dangerous natural agents, or to modify human behaviour in direct relation to them. Emphasis was on ‘the disaster’ – the warning, impact, and immediate aftermath stages involved in disasters - while the ‘pre-conditions’ and ‘recovery and reconstruction’ phases received minimal attention (Hewitt, 1997: 36-7). Beginning in the late 1970s, social scientists in particular began to question such established views on natural disaster (O’Keefe *et al.*, 1976). The milestone in the evolution of these critiques was presented by Hewitt (1983) who offered an alternative approach to what he called the ‘dominant paradigm’ in disaster research and mitigation:

(N)atural disasters, its causes, internal features and consequences are *not* explained by conditions of behaviours peculiar to calamitous events. Rather they are seen to depend upon ongoing social order, its everyday relations to the habitat and the larger historical circumstances that shape or frustrate these matters.

(Kenneth Hewitt, 1983: 25)

This approach, which suggests social and political environment can create a disaster and vulnerability, has since been reiterated by a range of researchers and practitioners (Blaikie *et al.*, 1994; Maskrey, 1989; Oliver-Smith, 1986; Wijkman & Timberlake, 1984; Zaman, 1989). Vulnerability, as a concept, has been defined as the socio-economic characteristics of an individual, household, or a group that influence their capacity to cope with, resist, and recover from the impact of a natural hazard (Cannon, 1994: 19; Wisner *et al.*, 2004: 11). Today, linking the vulnerability factor to existing livelihood conditions is considered essential in any livelihood analysis.

A significant recent conceptual development in understanding how communities and individuals ‘get on’ and ‘get by’ has been the idea of Sustainable Livelihoods. The idea emerged in the mid-1980s in a report to the World Commission on Environment and Development, and was supported by the Brundtland Commission (WCED, 1990). It was publicized more broadly by the work of the Sustainable Livelihoods Programme at the Institute of Development Studies at Sussex, with an early paper by Chambers and Conway (1992) being instrumental in launching a new field of research, analysis and action in

development studies, and later in geography (e.g. Batterbury, 2001, 2005; Batterbury & Bebbington, 2001; Bebbington, 1999). The idea was informed by previous research on rural community development, the capacity of rural communities to withstand shocks such as droughts or plant pests, and on the sustainability of agro-ecosystems (Allison & Ellis, 2001; Belsky, 2002). Thus, by promoting the development of effective and sustainable livelihood strategies, based on diversity and complexity rather than simple uniformity, it was suggested that local people can ensure their own survival by meeting their basic needs in such a way as not to degrade the natural resource base upon which they depend. This is reflected in the following definition of Sustainable Livelihood adapted from Chambers and Conway (1992):

A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

(Robert Chambers and Gordon Conway, 1992: 7-8, quoted in Carney, 1998: 3)

The formal framework of Sustainable Livelihoods brings together the principal components thought to comply with this definition, whilst demonstrating the interactions between them. Today, the Sustainable Livelihoods Framework (SLF) is employed by numerous donor agencies and non-governmental organizations (NGOs) who use it as a ‘process’ tool to enable participants in development programmes to identify key constraints and opportunities for development intervention (e.g. Albert, 2000; AusAID, 2000; Neefjes, 2000; Wanmali & Singh, 1999), and thus it is based on the assertion that vulnerabilities of all types are part of the context in which livelihoods are shaped (Twigg, 2001). Owing to the various institutions and researchers that utilize this approach, there are various diagrammatic representations, which are broadly similar and draw upon each other (see Hussain, 2002). The most widely used, and that which is drawn upon for the purpose of this thesis, is the framework developed by the United Kingdom’s Department for International Development (DfID) (see Figure 1).

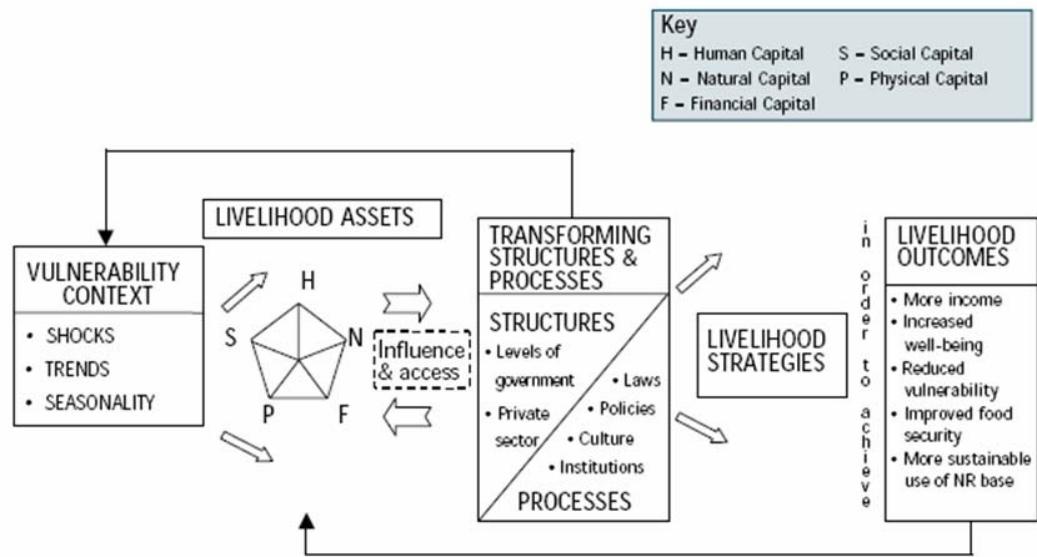


Figure 1. The Sustainable Livelihoods Framework (Source: DfID, 1999: 1)

The SLF depicts stakeholders as operating within a “vulnerability context” in which they have access to certain “livelihood assets”. These gain their meaning and value through the prevailing social, institutional and organizational environment – the “transforming structures and processes”. This context decisively influences the “livelihood strategies” that are open to people in pursuit of their self-defined beneficial “livelihood outcomes”. Significant feedback is likely between “transforming structures and processes” and the “vulnerability context”, and “livelihood outcomes” and “livelihood assets”.

Although not developed specifically for the analysis of disasters, the SLF has guided some interventions in disaster situations, for example, by the United Nations Development Programme (Hoon *et al.*, 1997), CARE International (Sanderson, 1999), Oxfam Great Britain (Trujillo *et al.*, 2000), and DfID (Carney, 1998; IMM, 2001; Twigg, 2001). Beginning with rapid surveys of the vulnerability context, the main purpose has been to draw humanitarian assistance more closely to the sustainable development model (Neefjes, 2000). In particular, CARE International views humanitarian interventions in disaster situations in the relief-development continuum, and emphasizes the need for different kinds of livelihood strategies at different phases of this continuum (Sanderson, 1999). Studying the 1999 Orissa cyclone in

India, DfID uses the SLF to understand how the poor are able to cope with a major disaster and to assess the effectiveness of support services in the aftermath of a disaster (IMM, 2001). In its recently released report on the outcomes of the tsunami, Oxfam International (2005: 1) notes that natural disasters are “profoundly discriminatory” in their effects on people, in terms of gender, age, and income levels. Put differently, the SLF explicitly includes the “vulnerability context” and hence need not deny the specificities and context of vulnerabilities in disaster situations, or the need for specific interventions based on that knowledge. Thus, the SLF, as developed by social scientists and some geographers, can be used in humanitarian or disaster situations.

While this suggests a holistic analysis, care must be taken in employing the framework as an analytical device in these settings. There is a need to be attentive to the disruption of ‘normal’ livelihoods during disasters – the destruction or loss of physical assets and injection of aid for livelihoods. Furthermore, rapid-onset events like the tsunami typically have a very high initial need for relief assistance, which maybe followed by another peak for recovery assistance, compared to slow-onset disasters that have a gradually increasing requirement for external assistance (Telford & Cosgrave, 2006: 41-2). Moreover, it is important to note that the SLF is merely a device that should be adapted as necessary in its applications (Neefjes, 2000).

1.3 Research justification, aim and questions

Drawing from this conceptual framework and the ‘big’ topic of interest concerning post-tsunami livelihoods recovery in Sri Lanka, the scope of this thesis warrants explanation. The fieldwork component of the project was partly funded by the Jessie Joyce Memorial Scholarship Fund, The University of Melbourne, and partly self-funded. Fieldwork in Sri Lanka was confined to four weeks given the limitations of both budget and time. Thus, the focus of research was restricted to a specific livelihood sector in a single case study village in Sri Lanka.

Overall, recovery assistance has given precedence to fisheries with many informal sector activities receiving minimal attention (Actionaid International, 2006). The livelihoods of masons, or bricklayers, are an interesting case in point. The unprecedented boom in the

construction industry in the aftermath of the tsunami implied increased wages and ample employment opportunities for construction workers. All things being equal, the livelihoods recovery of masons is expected to have had a head start over most other forms of livelihoods, due to their capacity for immediate income generation (Emmanuel, 2006; Jayasuriya *et al.*, 2006; Kapadia, 2006; Telford and Cosgrave, 2006). Yet, in reality, this is questionable. As asserted in the SLF, besides income a livelihood comprises a range of other attributes; recovery would imply a restoration or improvement of all these.

The selection of the village itself was largely determined by ease of access and data collection. The Northern and Eastern Provinces were the worst affected by the tsunami, yet the prevailing security situation precluded fieldwork in these areas. Polhena, a village which suffered extensive damage, was considered a good prospect for research due to its relative ease of access - an estimate 100 kilometres from the commercial capital, Colombo - and personal contacts in the area - to facilitate collection of fairly reliable data. Furthermore, Polhena village had the advantage of being home to a fairly significant mason community.

Accordingly, the research aim and questions addressed in this thesis are as follows:

AIM: To examine the post-tsunami livelihoods recovery process of masons living in Polhena village, Sri Lanka

Q1: What are the experiences of masons in recovering their livelihoods in the aftermath of the tsunami?

Q2: How can the Sustainable Livelihoods Framework help in analyzing these experiences?

1.4 Outline of thesis

Understanding the disaster phenomenon as well as the *ex-ante* situation is essential in order to interpret processes of post-disaster recovery. Therefore, Chapter 2 provides an overview of the instant impact and emergency relief phase of the 2004 Asian tsunami in regional and national context; this is followed by a description of pre-tsunami Polhena village and its masons, and an unfolding of the tsunami in this locale. The practical

procedures used in achieving the research aim are explained in Chapter 3. A two-stage qualitative investigation, reflecting Q1 and Q2, was undertaken. In the first stage, the insights of masons, the government, and NGO officials were solicited via semi-structured interviews. The second stage used the five main components that characterize the SLF to analyze the results from the above inquest. Chapters 4 and 5 present the findings of the first stage of the investigation, each reflecting key livelihoods recovery aspirations of the masons interviewed - housing reconstruction and economic activity revival, respectively. Chapter 6 presents the findings of the second stage of the investigation. It is shown that despite some practical complexities and limitations the SLF is of great value for analyzing post-tsunami livelihoods recovery of masons. Chapter 7 summarizes the thesis and considers broader theoretical and practical implications of the findings. The significance of the SLF for the R&R agenda in Sri Lanka, and an avenue for future research, is considered. The thesis concludes accentuating an embedded challenge of building ‘sustainability’ in the broader sense into Sri Lanka’s post-tsunami recuperation.

CHAPTER 2

STUDY AREA AND BACKGROUND

2.1 Introduction

Disasters sweep across every aspect of human life: environmental, biological, and socio-cultural. By their very composition, disasters stem from the nexus where environment, society, and technology coalesce – where location, people, and human construction of both material and nonmaterial meet. It is from the interaction of these three aspects that disasters emerge, and in their unfolding, they allude to every vector of their causal interface. Construing processes of post-disaster recovery indeed requires an understanding of the disaster phenomenon as well as the *ex-ante* situation. This chapter provides relevant information of the pre-existing context, the occurrence, and instant impact and relief process concerning the 2004 Asian tsunami. To begin, an overview of the disaster at regional and national scale is presented. As the research aim addresses a specific village and livelihood group, a description of pre-tsunami Polhena village, the masons living there, and the unfolding of the tsunami in this milieu is subsequently presented.

2.2 The 2004 Asian tsunami: In regional and national context

Adopted from the Japanese term - meaning harbour wave – ‘tsunami’ refers to one or a series of giant sea waves generated by earthquakes, or similar large-scale disturbances of the ocean floor (Byrant, 2001). Barely discernible in the open ocean, the amplitude of a tsunami can greatly increase as it approaches shallow coastal waters causing devastation to low-lying coastal areas. The tsunami of 26 December 2004 was triggered by a massive offshore earthquake that occurred some 1,500 kilometres away near Northern Sumatra (see Figure 2); measuring 9.0 on the moment magnitude, it was the second largest in the instrumental record (Bilham, 2005).



Figure 2. The earthquake epicenter of the 2004 Asian tsunami was located off the west coast of Northern Sumatra; a subsequent series of giant waves hit several countries bordering the Indian Ocean, including Indonesia, Sri Lanka, India, Thailand, Maldives, Malaysia, Bangladesh, Myanmar, and Somalia (Source: NPR, 2005).

The occurrence and immediate impact of the tsunami in Sri Lanka was unprecedented; the country's previous disaster experiences were largely confined to periodic droughts, floods, landslides, and occasional cyclones (Wickramasinghe, 2005: 543). Despite statistical variations in the demographic impact of the disaster, it is estimated that 31,000 people were killed, 5,600 missing, and 500,000-800,000 displaced (Emannual, 2006: 7; Jayasuriya *et al.*, 2006: 5; Oxfam International, 2006: 2). Sri Lanka's toll was second only to Indonesia (an estimate 130,000 dead; 37,000 missing; 500,000 displaced), and higher than India (an estimate 10,700 dead; 5,600 missing; 6,900 injured) and Thailand (an estimate 5,000 dead; 3,000 missing) (Jayasuriya *et al.*, 2006: 5).

The geographic impact of the tsunami was uneven. Two-thirds of the country's coastline was affected, although the Northern and Eastern Provinces bore the brunt of the impact,

accounting for two-thirds of deaths and nearly 60 percent of displacement (see Figure 3). This is also an area that, since the 1980s, has suffered from an ongoing ethnic conflict between the Government of Sri Lanka and the Liberation Tigers of Tamil Eelam (LTTE). The tsunami further compounded the civic displacement crisis in this region (de Silva, 2006; Uyangoda, 2005).

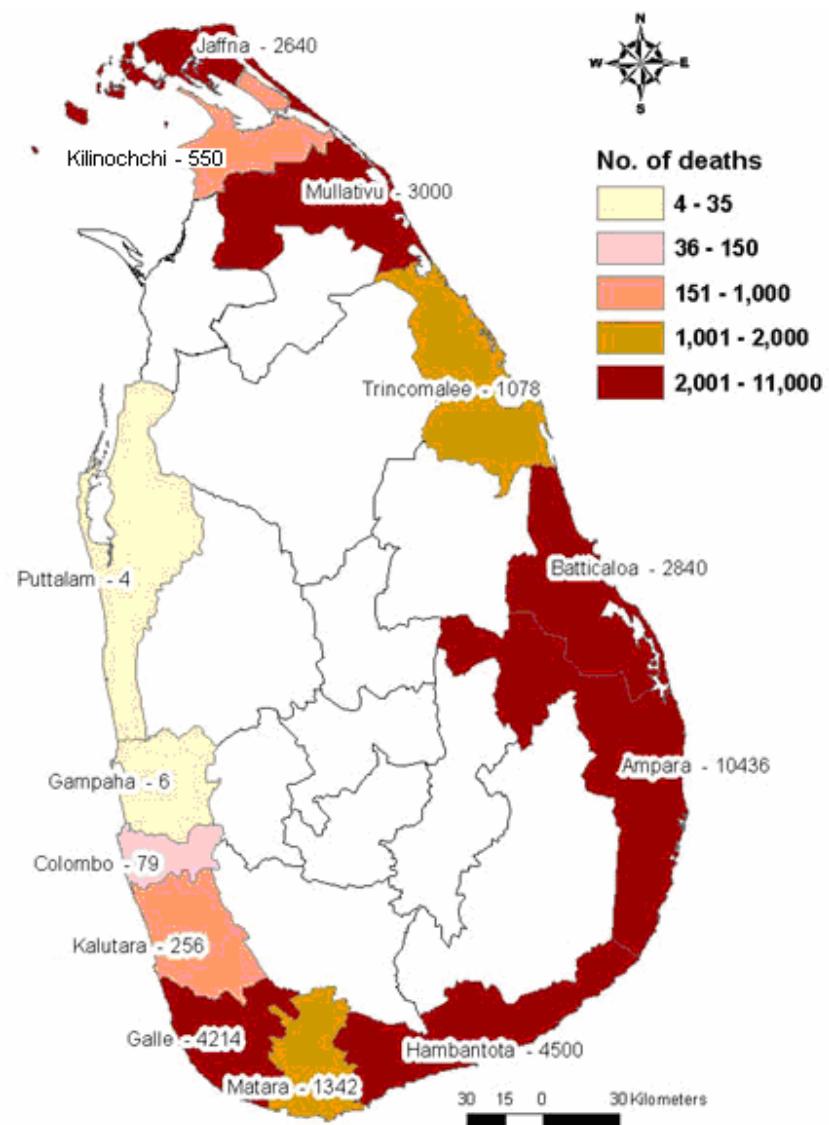


Figure 3. As of 25 January 2005 fatalities due to the 2004 tsunami were recorded in 13 out of 14 coastal Districts in Sri Lanka (Source: DCS, 2005).

There was a massive outpouring of aid that transcended barriers of race and creed. Instant emergency relief revved up and deployed by local community groups, was followed by government, NGO, and international aid. Sri Lanka's past investments in public health paid off as the broad-based public health system and community awareness of basic sanitary and hygienic practices helped avert outbreak of disease (Jayasuriya *et al.*, 2006). For a country that had not previously experienced a disaster of such magnitude, there was general consensus that "emergency relief was singularly successful in meeting the immediate needs of the affected people" (SLDF, 2005).

The purpose of R&R has been to return life to normal or improved levels (GoSL & SLDP, 2005). However, the tsunami resulted in approximately US \$900 million in lost assets (4.5 percent of Gross Domestic Product), 89,000 destroyed or damaged houses, 75 percent of wrecked fishing fleet, 53 (out of 242) damaged large hotels, and 182 damaged schools (GoSL & SLDP, 2005: 2). Many of the affected Districts had poverty levels higher than the national average (Jayasuriya *et al.*, 2006). A post-tsunami coastal conservation and hazard minimization policy, the buffer zone rule, complicated the reconstruction process; the rule essentially restricts reconstruction or resettlement within 100/200 meters of the mean high tide mark, depending on location (CPA, 2005). The transition from emergency relief to R&R therefore posed a different, more complex set of challenges for livelihoods recovery.

At the national level, the overarching authority in coordinating and implementing R&R was the Task Force for Rebuilding the Nation (TAFREN) that, following a change in the country's political hierarchy, was restructured and is now the Reconstruction and Development Agency (RADA). At the local level, a key role is played by the District Secretary (also known by the colonial nomenclature of 'Government Agent') and below them the Divisional Secretary (or 'Assistance Government Agent') and *Gram Niladhari* (or 'Village Officer'). The exact relationship between central and local governance levels is unclear and could not be discerned within the confines of this study (see Jayasuriya *et al.*, 2006: 12-13). Coordination also occurs across numerous local and international NGOs, and other private donors. A more difficult and contentious issue has been the coordination of R&R between the government and the LTTE. Although the spontaneous solidarity that united communities in the wake of the tsunami kindled hopes of a mutually acceptable aid

sharing mechanism that would enable a smooth flow of assistance into LTTE controlled areas, this has proved elusive. Currently, the situation has worsened with the fragile ceasefire agreement, established in 2002, between the two groups being threatened through renewed incidences of conflict since April 2006 (BBC, 2006a).

2.3 The case study

With this macro-level understanding of the tsunami impact, attention is now drawn to the case study village and livelihood group that is the focus of this thesis.

2.3.1 Pre-tsunami Polhena

Polhena is a *Grama Niladhari* division or village, the primary and lowest administrative unit in the country, located in the Matara District, in the Southern Province of Sri Lanka (see Figure 4). It is approximately 100 kilometres from the commercial capital Colombo and located at the Polhena Junction exit from Galle Road, the major marine highway between Colombo and Matara.

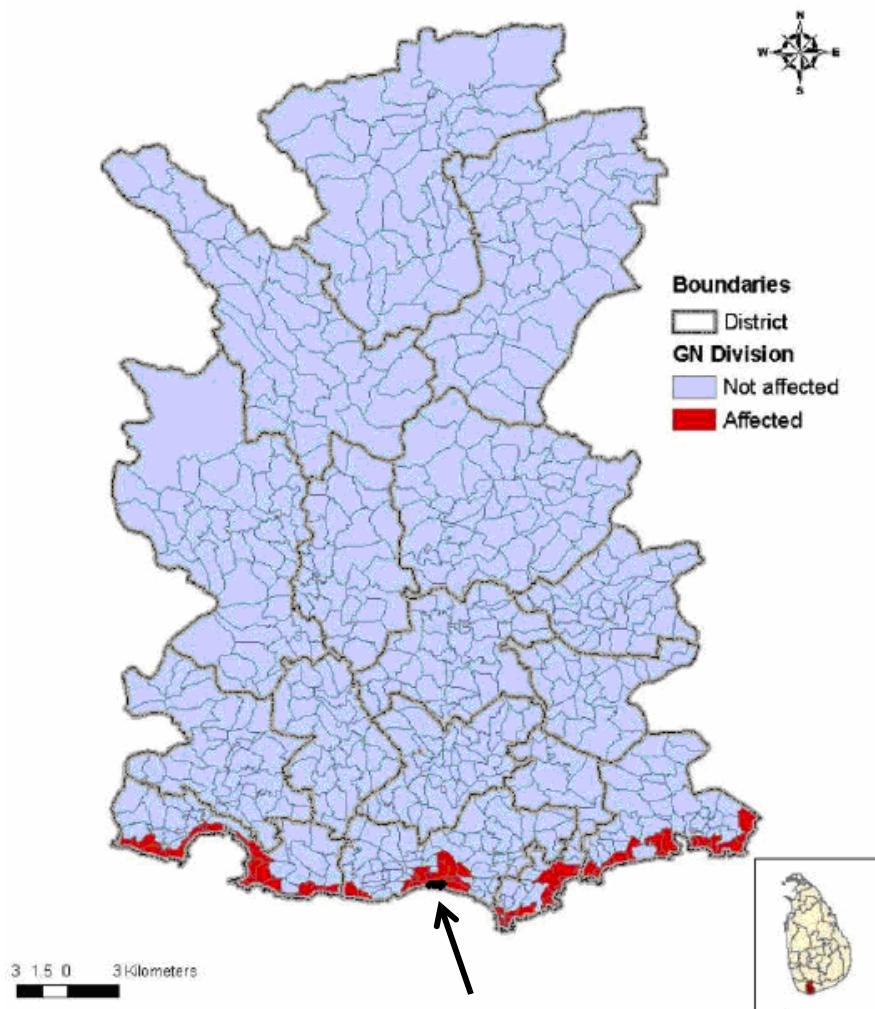


Figure 4. Polhena was one of the coastal *Grama Niladhari* divisions in the Matara District, affected by the 2004 tsunami (Source: DCS, 2005).

Its beachfront is a popular tourist site, which formerly had many hotels and guesthouses (see Figure 5). There are some small-scale shops catering to local needs, two preschools and one high school, and four Buddhist temples - reflecting a predominantly Sinhalese Buddhist community. Most of these were affected by the tsunami and have been renovated (see Figure 6). The village is traversed by numerous minor roads and footpaths and the main mode of transport is by foot, bicycle, and sometimes trishaws (see Figure 7).



Figure 5. Polhena beach is both a local and foreign tourist site; many hotels and guesthouses catering to this clientele have been destroyed by the tsunami wave



Figure 6. Local shops such as these sell milk, aerated drinks, and biscuits, amongst other things; this outlet was damaged in the tsunami and has been renovated



Figure 7. Bicycles provide a popular mode of transport in and around Polhena village

The pre-tsunami population was 2,645, with 661 houses (Matara DS, 2004; DCS, 2005a). Houses refer to building units or parts of building units, permanent or temporary, such as huts, shanties, and sheds, which are used as places of residence (DCS, 2005b). The majority of permanent housing in Polhena village was owned and built privately (DCS, 2005b). A typical house had a single-floor, on-ground structure with shallow foundation, cement and burnt-brick walls, and wooden roof supports under tiles or asbestos roofing sheets, a detached toilet, and electricity and water supply. A few impoverished dwellings also existed, with unfinished floors, wattle and daub, plank or palm leaf walls, simple roofing, and an outdoor toilet; water and/or electricity were often lacking, although public roadside taps were within easy access. Multiple or extended families often lived in one house, a common phenomenon in the social fabric of Sri Lanka.

In terms of economic status, most households are *Samurdhi* beneficiaries. *Samurdhi* is a government scheme, established in 1995, providing financial support to households below the national poverty line (Central Bank, 2002: 140-1). A few relatively wealthy villagers have access to private bank loans, while the majority rely on informal credit where collateral is not a prerequisite, although interest rates are higher.

It is predominantly an informal sector workforce - production units typically operate at a low level of organization, with little or no division between labour and capital and on a small-scale (ILO, 2005). Labour relations, where they exist, are based largely on casual employment, kinship or personal and social relations rather than contractual arrangements. Masons represent the majority (86 individuals), followed by fisher-folk (75 individuals), carpenters (72 individuals), and hotel industry workers (35 individuals); others have jobs in the government or formal private sector.

2.3.2 The masons

Masons (bricklayers or fixers) are individuals who typically build and repair walls, floors, partitions, and other structures with brick, precast masonry panels, concrete blocks, and other masonry materials. Masonry demands a high degree of physical fitness and often entails outdoor work. Masons can be stratified according to interims of skill: semi-skilled masons (labourers or helpers), skilled masons, and contractors. Most learn the trade on the job starting off as unskilled masons, carrying materials, moving scaffolds, and mixing mortar. They gradually learn from the experienced skilled masons to spread mortar and lay bricks, and with experience, make the transition to full-fledged skilled masons (see Figure 8). With additional experience and training, some become masonry contractors who employ workers. Masonry skills are often passed down from father to son.



Figure 8. A skilled mason spreads mortar and lays stone at a construction site in Polhena village

Prior to the tsunami, daily wages were around Rs. 400.00-450.00 (US \$4.00-5.00) for a semi-skilled mason and Rs. 500.00-Rs. 600.00 (US \$5.00-6.00) for a skilled mason; contractors earned much more depending on magnitude of contract. Masons generally found work within the village or elsewhere in the Matara District, but sometimes worked in Colombo where wages were on average Rs. 100.00 (US \$1.00) higher.

2.3.3 The advent of the tsunami

With no history of natural hazards, the occurrence and impact of the tsunami in Polhena village was unprecedented. The disaster affected approximately 2,258 people (out of 2,645), killing 90, and injuring 171 people. Gender specific data on the tsunami impact is unavailable due to a lack of gender differentiation in available statistics. Yet, it is thought that a greater impact was borne by women possibly due to their inability to swim or climb trees and their traditional role as the family ‘caregiver’ that kept them mostly in and around their homes when the waves hit. There was substantial damage to infrastructure - nearly 550 houses (out of 660) were destroyed or damaged (see Figures 9 & 10). Shops, schools, temples, and the numerous tourist lodgings also sustained serious damage (see Figure 11).



Figure 9. Road networks and water supplies such as these were severely disrupted (Source: Private communication, 2006)



Figure 10. One of the many houses that were completely destroyed (Source: Private communication, 2006)



Figure 11. The coastline of Polhena experienced the direct impact of the tsunami waves and tourist enterprises along the coast were washed out (Source: Private communication, 2006)

The initial and instantaneous relief effort was led by local community groups in adjacent areas, and was closely followed by government, non-government and international aid. Essential medical aid, emergency food and other relief supplies were mobilized within a day; no additional deaths were recorded due to tsunami-related diseases or delayed medical treatment. National military personnel were deployed in rescue operations, identification and burial of dead, and debris clearance. Immediate repairs of basic infrastructure such as roads, major pipelines, and electricity were executed by the government, supported by international funding. Displaced families initially found shelter in three emergency camps, in temples, or with friends and relatives in unaffected areas. Subsequently, transitional shelters were built to bridge the gap between emergency accommodation and permanent housing.

Over the next six months tsunami survivors were supported through national compensation schemes - Rs. 15,000.00 (US \$150.00) towards funeral expenses, Rs. 375.00 (US \$3.75) in cash and rations per person per week, and Rs. 2,500.00 (US \$25.00) towards kitchen utensils. Education was restored swiftly - high-school students were transferred to unaffected schools in neighbouring villages while a preschool was privately renovated and students provided with books and uniforms.

Some complaints concerning inequities in the distribution of emergency relief were reported. Nonetheless, post-tsunami emergency relief in Polhena village has been deemed an overall success in meeting the immediate needs of tsunami-affected individuals and households.

2.4 Conclusion

The impact of the Asian tsunami of 26 December 2004 on Indian Ocean coastal communities was widespread and devastating. The communities in the coastal village of Polhena in Sri Lanka, amongst which was a mason community, suffered unprecedented damage to life and property. With an extraordinary mobilization of resources by the local community, the government, NGOs and international community, the emergency relief effort has been considered a success. The characteristics of Polhena village, its masons, and the post-tsunami aid environment detailed in this chapter have helped establish the background in which to interpret the findings of this thesis. Discussion now turns to the methods employed in addressing the aim of this thesis.

CHAPTER 3

RESEARCH METHODS

3.1 Introduction

There are no methods or tools prescribed for ‘doing livelihood analysis’ - the key is to be flexible, employing a range of methods as the case requires (Ashley & Carney, 1999). The aim of this thesis was to examine the post-tsunami livelihoods recovery process of masons in Polhena village, Sri Lanka. Apart from gaining an insight to theoretical underpinnings concerning post-disaster vulnerability and the SLF, the ability to comprehend the experiences of the livelihood group in question was clearly paramount in addressing this aim. Data was collected over four weeks of fieldwork, from 6th June to 4th July 2006, in Sri Lanka, wherein the recovery experiences of masons living in Polhena village were unearthed. These findings were subjected to an in-depth investigation via the SLF. Thus, a two stage investigation was carried out pertaining to the two research questions posed in this thesis. The specific methods used are described in the following sections.

3.2 Q1: What are the experiences of masons in recovering their livelihoods in the aftermath of the tsunami?

A group of 20 masons in Polhena village were selected for the purpose of interviews. More specifically, these were individuals who were masons since pre-tsunami and currently living in the village. Inevitably, case studies of this nature are ‘partial’ in the sense of being incomplete (Howitt, 2001). Masons living in temporary camps, or those who had left the village since the tsunami were excluded. A comparison between two or three mason communities from different villages, both affected and unaffected by the 2004 tsunami, thus representing different livelihood circumstances and a range of experiences would perhaps have provided further insights. Nevertheless, in recognition of time and budget constraints, this estimate 20 percent representative sample of Polhena’s pre-tsunami mason population was considered appropriate for the purposes of this research.

Interviewees were approached via a personal contact currently living in the village; this was particularly helpful in forging a close rapport with the interviewee and gaining greater insight into his experiences. In order to account for experiences across the mason sector (i.e. semi-skilled, skilled, and contractor) and in the context of a rather significant post-tsunami policy, the ‘no build’ coastal buffer zone rule (this will be discussed in Chapter 4), random sampling was considered inappropriate. Therefore, a combination of ‘purposeful’ and ‘snowball’ sampling methods were used. ‘Snowballing’ was used whereby initial interviewees were asked to suggest additional participants. As the name implies, ‘purposeful’ sampling is a strategy whereby particular people are deliberately selected who are assumed to possess characteristics deemed important to the research (Holstein & Gubrium, 1995; Maxwell, 1996; Patton, 1990). Accordingly, the final 20 masons comprised 18 skilled masons and two contractors; four lived within 100-metres of the mean high tide mark and 16 lived outside this zone. Unfortunately, no semi-skilled masons were identified for interviews.

The interview schedule comprised, in order, two main sets: ‘livelihood pre-tsunami’ and ‘livelihood post-tsunami and assistance received’. The former included some structured questions directed at obtaining general socio-economic information of the interviewees, although it largely followed semi-structured lines. Information concerning the *ex-ante* situation of tsunami-affected areas in Sri Lanka is scant, with the problem rooted in a lack of monitoring of the economy (IWMI, 2005). It was therefore vital to focus on the responses of individual masons, not restricted to current circumstances but also their recall of the past. The latter set employed a wholly semi-structured protocol paying particular attention to how livelihoods were disrupted, aid received, and main issues faced. Interviews were conducted in the homes of participants, and lasted approximately 30-60 minutes depending on the inclination of the participant involved.

This type of semi-structured interviews have particular advantages in terms of determining attitudes, providing in-depth information and facilitating further probing of certain issues (Johnson & Turner, 2003: 308) and “give an authentic insight into people’s experiences” (Silverman, 1993: 91). It was anticipated that the use of structured interviews or the distribution of questionnaires amongst masons would be inappropriate for a study of this nature, as it leaves little room for the complexity of individual experience to emerge.

Moreover, considering people's traumatic experiences and sensitivity to certain issues, flexibility of interviews was important in being able to react to a given situation in the course of the interview. Probing income levels can be sensitive and in some instances could not be done at all; however, progress was made by approaching the question circuitously, asking about consumption rather than income. The fact that the wife or other female household member was present at most interview sessions is significant as it helped accommodate female perspectives.

In Sri Lanka's highly charged post-tsunami R&R environment, respondents tend to exaggerate their losses in the hope of increasing the value of the assistance they receive; this can gravely undermine the accuracy of data collection. Focusing solely on mason responses thus implied a generation of biased information. This underscored the need for triangulation - coalescing the views and opinions of masons with that of government and NGOs. The government sources comprised the *Gram Niladhari*, a Housing Sector official of the Matara District Secretariat Office (DSO), and the Housing Sector Executive of RADA. The NGO sources comprised officials from one local NGO and two international NGOs operating in the village. Overall, semi-structured interviews with these groups were aimed at obtaining information and viewpoints on post-tsunami aid schemes and policies affecting masons. Interviews with the *Gram Niladhari* and the local NGO were the key to establishing the specific context of Polhena village and its masons. The views of a constructor and an architect involved in post-tsunami housing reconstruction projects in the Matara District were also sought.

A strategic combination of both audio and note-taking provided a complete record of each interview with least threat to the interview relationship. All interviewees were generally comfortable with the audio recorder, and the technique allowed more time to organize the next prompt, or question, and maintain the conversational nature of the interview. Note-taking proved useful as it demanded continual concentration during the numerous interview sessions, and also served as a back-up record in instances where the audio recording proved faint or encountered some technical problems.

Interviews were conducted in the local dialect, *Sinhala*, with the exception of a few official interviews; the researcher's fluency in *Sinhala* helped immensely as it placed

participants at ease, facilitated effective communication, and provided a richer interpretation of responses. Written *Sinhala* notes were woven into the verbal record and then translated into English in the transcription phase. Transcription was performed as soon as possible for easy recollection and as immersion in the data provided a preliminary form of analysis which assisted in interviews yet to be conducted. Transcripts were made more manageable by identifying and deleting text that did not relate specifically to the research aim. The next step was to examine transcripts for patterns and ideas. Two main livelihood recovery goals of masons were identified, each further categorized into external policy and aid factors and ‘stories’ of individual masons about how these affected the attainment of their individual livelihood goals. Pseudonyms have been used for masons appearing in this thesis to ensure their privacy and confidentiality.

3.3 Q2: How can the Sustainable Livelihoods Framework help in analyzing these experiences?

In progressing to the second stage of the investigation, the results obtained from the above investigation were organized and reviewed under the key components of the SLF. Each component draws upon the definitions provided by DfID (1999), which are explained below.

The “vulnerability context” forms the external environment in which people exist, comprising trends, shocks, and seasonality, and represents the part of the framework that lies furthest from stakeholder control. Trends are long-term and generally large scale, shocks include events such as natural hazards that can compel people to dispose of assets as part of coping strategies, and seasonality is expressed via seasonality of prices, products or employment opportunities. The extent to which masons were exposed to and the sensitivity of their livelihoods to these factors were considered.

The “transforming structures and processes” component is significant for its central position in the framework. It directly feeds back into the “vulnerability context” and thereby can reduce or exacerbate the impact of external shocks on vulnerable people, or restrict people’s choice of “livelihood strategies” as well as directly impact upon their “livelihood outcomes”. Structures are the ‘hardware’ - the private and public organizations that set and

implement policy and legislation, deliver services, purchase, trade, and perform many other functions that affect livelihoods. Processes constitute the ‘software’, which determine the way in which structures and individuals operate and interact. These include policies, legislation and other rules that regulate access to assets, markets, culture, and power relations in society. A particular focus was also placed on the longevity of structures and processes in creating an overall enabling environment for sustainable livelihoods.

The SLF is concerned predominantly with people; hence, an understanding of people’s strengths or capacities – their assets or capital – is vital. The typology of ‘capitals’ can appear mechanistic, yet it follows the line of reasoning developed by Sen (1981, 1999) in his explanation of human ‘capability’ as the ultimate arbiter of welfare and development. Thus, the “livelihood assets” component comprises the following categories.

- “Physical capital”: Basic infrastructure (e.g. affordable transport, secure shelter, adequate water supplies and sanitation, and access to information) and producer goods (e.g. tools and equipment) needed to support livelihoods;
- “Natural capital”: Natural resource stocks from which resource flows and services useful for livelihoods are derived (e.g. land, storm protection, biodiversity degree and rate of change);
- “Human capital”: Skills, knowledge, ability to labour and good health that collectively enable people to pursue different livelihood strategies;
- “Financial capital”: Available stocks that are void of attached liabilities and usually independent of third parties (e.g. cash and bank deposits), and regular inflows of money which are predominantly dependent on others and require reliability (e.g. labour income and remittances);
- “Social capital”: The social resources from which people draw whilst seeking for their livelihood outcomes (e.g. kinship networks which increase people’s trust and ability to cooperate)

The concept of an asset pentagon was used as a visual representation of people's assets revealing important interactions between the various assets (see Figure 12). The idea is that the centre point of the pentagon, where the lines meet, represents zero access to assets while the outer perimeter represents maximum access. Thus, the changes in masons' access to the abovementioned assets were explored.

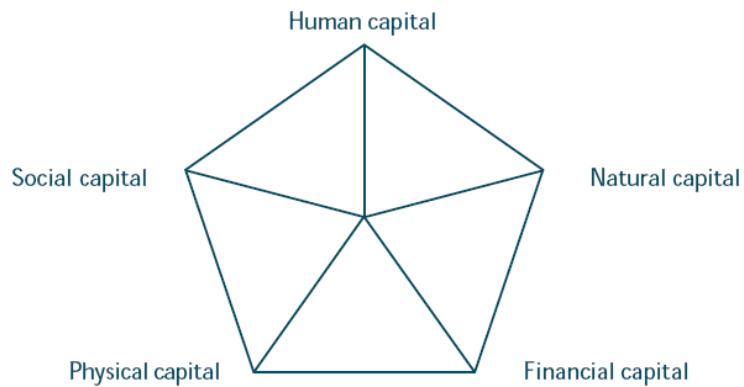


Figure 12. The asset pentagon (Source: DfID, 1999: 5)

“Livelihood strategies” comprise the portfolio of activities and choices people make or undertake in order to achieve their livelihood goals. It is a dynamic process where people combine activities to meet their various needs at various times, on varying geographical and economic levels. A changing asset may improve or hinder livelihood strategies depending on the policies and institutions at work. Analysis of this element focused on income sources and which capital masons chose to invest in or run down.

Finally, “livelihood outcomes” are the achievements or outputs of livelihood strategies. These directly influence capital and alter the form of the pentagon, offering a new starting point for other strategies and outcomes. In most cases, these outcomes can be thought of as the inverse of poverty. That is, if an individual describes poverty as insufficient income and a lack of access to key services, then the livelihood outcomes they seek might be expected to be more income and improved access to the relevant services. Therefore, the primary method of understanding livelihood outcomes was to develop a thorough understanding of local definitions of poverty.

3.4 Conclusion

The key to effective livelihood analysis is to be flexible, so as long as the underlying principles of the SLF are not compromised. The empirical procedure for livelihood analysis in this research involved a two-stage investigation, corresponding to the two research questions posed in this thesis. Qualitative semi-structured interviews formed the basis for data collection in the first stage of the investigation. A broad understanding of the livelihoods recovery experiences of masons in Polhena village was obtained by soliciting the views of masons, the government, and NGOs. This was followed by a second stage of in-depth investigation, where the previous findings were analyzed under the key components that characterize the SLF. Some limits and challenges were identified in the data collection procedure. However, it is argued that the methods used have been apt for a study of this nature and have allowed for the complexity of experiences of post-disaster recovery to emerge. Chapters 4 and 5 will now explore the key findings pertaining to the first stage of the investigation.

CHAPTER 4

HOUSING RECONSTRUCTION

4.1 Introduction

Housing was identified as the single largest source of damage to physical assets in post-tsunami Sri Lanka (GoSL & SLDP, 2005). In Polhena, interviews with masons, NGOs, and government officials demonstrated that rebuilding destroyed or damaged houses was the priority goal of the masons. This chapter responds to the first research question posed in this thesis: What are the experiences of masons in recovering their livelihoods in the aftermath of the tsunami? It explores the experiences of masons in the context of post-tsunami housing reconstruction. The findings are organized in three parts: the government aid policy for tsunami housing reconstruction and the ‘no build’ buffer zone rule, the experiences of masons residing in the area between the current 55-metre and original 100-metre buffer zones, and the experiences of those living outside the original 100-metre buffer zone.

4.2 Housing assistance and the buffer zone rule

At its commencement, housing reconstruction was affected by the government announcement that it would enforce a ‘no build’ coastal conservation, or buffer, zone in order to better safeguard the lives of coastal population and to protect the coastal environment from any future natural disasters. The basis for this announcement was the 1981 Coast Conservation Act (as amended in 1988) which prohibits any ‘development activity’ within 300 metres of the mean high tide mark, except under the authority of a permit issued by the Director of the Coast Conservation Department (Samaranayake, 1995). Although the Act precludes the issue of permits to any activity which affects stability, productivity, and environmental quality of the coastal zone it was never strictly enforced. Post-tsunami appeared to be a good time to reinforce the rule in order to implement measures of coastal conservation and coastal hazard vulnerability minimization (CPA, 2005; Jayasuriya *et al.*, 2006).

The public notice issued jointly by the Ministry of Finance and Planning, Ministry of Urban Development and Water Supply, and TAFREN on 27th February 2005 defines the proposed buffer zone as 200 metres landwards from the mean high water line in the north and east coasts of the country, and 100 metres elsewhere (CPA, 2005). The key features of the tsunami housing reconstruction aid policy are shown in Table 1.

Table 1. Assistance policy for tsunami housing reconstruction (Source: Data from TAFREN, 2005: 1-14)

| | Inside the buffer zone | Outside the buffer zone |
|--------------------------------|--|---|
| Buffer zone restriction | Reconstruction of houses disallowed | Reconstruction of houses allowed |
| Housing aid | All affected households will be provided with a house built with donor assistance on land allocated by the state | For a fully damaged* house financial assistance of Rs. 250,000.00 (US \$2,500.00) will be paid in four instalments, based on progress For a partly damaged* house financial assistance of Rs. 100,000.00 (US \$1,000.00) will be paid in two instalments |
| Beneficiary requirement | Entitlement to aid is not contingent upon demonstration of ownership of land | Entitlement to aid is contingent upon demonstration of ownership of land |

*Note – A house requiring repairs in excess of 40 percent of its replacement is considered fully damaged, and less than 40 percent, partly damaged. A preliminary survey is conducted in every *Gram Niladhari* division by the Damage Assessment Team consisting of the Provincial Technical Officer of the National Housing Development Authority, the *Gram Niladhari* of the area, a representative of the District Sponsors Consortium nominated by the District Secretary and a Member of the Village Rehabilitation Committee. The subsequent certificate issued will be proof of damage by the tsunami.

In addition to government cash grants beneficiaries are entitled to aid from NGOs and other donors. Combined aid is funnelled to the beneficiary under ‘regulated donor assistance’, which is based on a memorandum of understanding between the government and donor.

Meanwhile, the new houses are expected to meet the minimum standard specification (MSS) issued by the government: a minimum floor area of 500 square feet with two bedrooms, a living room, kitchen, and toilet, and equipped with electricity, running water, sanitation and drainage facilities (TAFREN, 2005).

The buffer zone regulation became a politically controversial issue from the very outset. The rationale of the 100/200-metre rule was questioned as scientifically it did not accommodate topographical and other relevant features of the land that would affect hazard risks, and it did not pay heed to the large-scale dislocation it would cause (PAFFREL, 2005; Sunday Observer, 2005: 1). The exceptions made – for hotels, wealthy property developers and other privileged groups – raised serious concerns of discrimination (Leckie, 2005). Community concerns were voiced in the political sphere and advocated by the main opposition party. Amid mounting pressure, and the looming Presidential Election, the government relaxed the policy in mid-October 2005; some have opined that this was a move to appease tsunami-hit people in the run up to the election (Financial Times, 2005: 1).

The ‘new’ rule abandoned the 100/200-metre blanket restriction to smaller, individually specified setback zones across different coastal areas (Sunday Times, 2006a: 6). In Polhena, the original 100-metre buffer zone came down to 55 metres. The mason sample in this research comprised four individuals residing in the area between the ‘new’ 55-metre and ‘old’ 100-metre buffer zone boundaries, while the remaining 16 lived outside the ‘old’ 100-metre buffer zone. Their housing recovery experiences differed according to this division.

4.3 Masons between the ‘old and the ‘new’ buffer zones

Senaratne’s house stood a few metres inside the 100-metre mark prior to the tsunami; it was fully damaged in the disaster. In December 2005, about two months after the buffer zone restriction was relaxed, an NGO gave an undertaking to rebuild Senaratne’s house on a budget of Rs. 750,000.00 (US \$7,500.00), which included the donor contribution of Rs. 500,000.00 (US \$5,000.00) plus the Rs. 250,000 (US \$2,500.00) government grant. To date, construction has not commenced owing to a lack of documentation proving ownership of the property. The title deed, according to Senaratne, was washed away in the tsunami. He has had no response to the letter seeking proof of land tenure he addressed to the lawyer

who executed the original deed. During the course of the interview, we were able to reach the lawyer; he confirmed receipt of letter but stated that he was unable to trace the document since Senaratne could not provide the date of execution of the deed. No one in Senaratne's household knew this date. His 85-year old mother who had the land written out to Senaratne was unable to recall the date due to her age and failing memory. This case clearly demonstrates how an unclear procedure for claiming ownership to land in the absence of title documentation has delayed the process of housing reconstruction for Senaratne.

Kariyawasam lives approximately 85 metres from the mean high tide mark. His house too was fully damaged in the tsunami. As with Senaratne, an NGO gave an undertaking to rebuild his house in January 2006. He was told construction would commence in March but the promised construction workers never turned up - three months on, Kariyawasam was yet to hear from the organization. He has since approached other NGOs who are willing to help but are reluctant to do so since an NGO has already pledged support. Kariyawasam is naturally anxious as he has no other recourse. Clearly, a lack of communication between beneficiary and donor as well as an absence of lucid measures for dealing with situations such as this has effectively placed housing recovery on hold for this mason.

Jayasundara's house was located approximately 80 metres from the mean high tide mark; it too was fully damaged in the tsunami. Apart from the promised government grant, he has not received any proffers of aid. He had approached an NGO who was reported to be offering aid for those within the 100-metre boundary, but they had declined any support as their funds were already committed to rebuilding 40 other houses within the 100-metre area, including Polhena and two neighbouring villages. Jayasundara alleged that the *Gram Niladhari* tampered with lists of beneficiaries, prepared by the District Secretariat, in order to accomodate friends and relatives as well as those villagers who offered *kappam*, or bribes. A distraught Jayasundara comments:

There is dishonesty at all levels in tsunami aid... At the end of the day, it is the genuinely affected people and real victims like us who are excluded.

(Jayasundara, 35-year old mason, 17th June 2006)

There is no evidence to suggest that compiling beneficiary lists is manipulated by the *Gramma Niladhari*, or that bribery is used as a means of accessing aid. However, the case illustrates an individual's growing sense of distrust towards the *Gramma Niladhari* as well as his fellow villagers in the face of lack of transparency in the delivery of aid. In the broader perspective, this has implications for introducing new social tensions and rivalries or exacerbating existing ones.

Kiridena lives within about 58 metres of the mean high tide mark. His house was fully damaged in the tsunami. His experience is expressed in the following:

We were within the buffer zone before, and outside it now. I heard from some villagers last month that an NGO had come and said that they were going to reconstruct some houses here. I have no idea of what is happening. The government or NGOs don't tell us about their plans for rebuilding our houses.

(Kiridena, 57-year old mason, 15th June 2006)

Given this situation, Kiridena is unable to make an informed decision with regard to rebuilding his house. He is wary of taking a loan for rebuilding in case he is disallowed from doing so in the original location. Obviously, this mason is not informed about plans for, and progress of, permanent housing following the relaxation of the buffer zone regulation. Moreover, with housing recovery at a standstill so is his capacity to make livelihood choices.

Confusion and uncertainty with regards to the buffer zone policy and housing reconstruction aid in this 55-100-metre zone is not restricted to masons. The Housing Sector officials at RADA and the Matara DSO were of the view that all tsunami-affected households outside of Polhena's 'new' buffer zone should presently have at least commenced, if not completed, reconstruction of their houses. In contrast, interviews with NGOs revealed that the government was yet to inform them about the housing assistance policy for those households who were according to the 'old' rule inside, and according to the

'new' rule outside, the buffer zone. They were wary of aiding any construction in this area for fear of it being uprooted later on by a new government ruling. One NGO official in fact expected the stipulated zone would be removed altogether by some future government. Thus, confusion with regard to the specificities and implications of the new buffer zone policy are legion.

All four masons mentioned above continue living in transitional shelters constructed during the emergency relief phase of the tsunami; their experiences in this regard are similar. Senaratne, has numerous complaints with regards to his temporary home (see Figure 13).



Figure 13. Senaratne's daughter stands at the doorstep of their transitional house. Senaratne complains that water seeps through the roof as well as the plank walls. At other times, inadequate ventilation resulting from the structure having just one door and window, coupled with the corrugated aluminium roof, makes it intensely hot.

The size and facilities of these structures are highly inadequate to cater to the multiple-member households that these masons live in. In particular, Senaratne fears for the health of a new arrival, his six-month old granddaughter. Indeed, the delay in reconstruction has complicated the recovery process of these masons as they are forced to endure unfavourable

conditions of transitional shelters, facing numerous health risks for themselves and their families.

4.4 Masons outside the ‘old’ buffer zone

The story outside the ‘old’ 100-metre buffer zone is different. The 16 masons living in this area have commenced rebuilding their houses. Excluding one mason, who is yet to receive the fourth and final instalment, the rest have received full government grants, for either a partly or fully damaged house. Five masons have commenced reconstruction under ‘regulated donor assistance’ and hence have received additional funding from donors. Compared to the 55-100-metre zone, housing reconstruction in this zone has attracted financial assistance.

However, all 16 masons professed that the grants provided had been inadequate given the rising costs of construction. There was also general consensus among NGOs and government officials that there indeed was widening disparity in aid funding and construction costs – housing grants were typically estimated on the basis of cost and prices that prevailed in the immediate aftermath of the tsunami. The escalation in construction costs is not unforeseen given that the scale of construction envisaged, which is several times higher than in a normal year, would dramatically increase demand for labour and materials. A RADA housing official reported that on average 4,000-5,000 houses are built per year in Sri Lanka – the post-tsunami housing requirement was estimated at 90,000. As shown in Table 2, there have been significant increases in approximate costs of construction material and labour during the period January/February 2005 to June/July 2006.

Table 2. Prices of some key building materials and wages for construction labour (Source: Private communications, Tsunami Housing Constructor and Livelihoods Officer from NGOs)

| Material/Labour | Measurement | January/February 2005 (Rs.) | June/July 2006 (Rs.) | Estimate increase (%) |
|--------------------------|-----------------|--------------------------------|-------------------------|--------------------------|
| River sand | 1 no. of cube | 3700.00 | 5400.00 | 46 |
| Cement | 50 kilogram bag | 470.00 | 590.00 | 25 |
| Cement blocks (4 inches) | 1 no. | 26.00 | 30.00 | 15 |
| Cement blocks (6 inches) | 1 no. | 42.00 | 46.00 | 10 |
| Metal | 1 no. of cube | 4200.00 | 5100.00 | 21 |
| Mason (skilled) | Per day | 550.00 | 700.00 | 27 |
| Carpenter | Per day | 550.00 | 700.00 | 27 |
| Painter | Per day | 650.00 | 800.00 | 23 |

In particular, the price of river sand, one of the prime requirements for the reconstruction drive since it is used in cement and mortar, has risen nearly twofold since January/February 2005 (see Table 2). A pre-existing government ban on large-scale mechanized river dredging, for environmental reasons, has played an embedded role in this price increase (RADA, 2005). The small-scale, artisanal river dredging operations through which sand mining was being handled has been insufficient in the face of escalating demands of the post-tsunami reconstruction phase. Resultant shortages in stocks have fuelled price hikes. Grants for rebuilding have not provided for such increases – thus, the inadequacy of funding for masons.

Masons maintained that increases in wages did not cover rising costs of housing reconstruction. An NGO official involved in a tsunami housing reconstruction project in the village expressed a divergent perspective:

They got food and cash aid to meet their immediate needs. Now they get government housing cash grants and other sorts of support. Their salaries have sky-rocketed. Construction work has increased, but we cannot find masons from Polhena and have to bring people from other villages like Hakmana and Kamburupitiya. Masons here are not willing to work - they want everything free.

(NGO officer, 22nd June 2006)

The fact that some masons expect more aid and free handouts, and that a sense of unwillingness prevailed among such individuals to revert to their former livelihoods, warrants consideration. Moreover, the potential for creating an aid dependent culture during the recovery process should not be overlooked.

Housing design has been a significant factor in recovery experiences. Jayawardena lived approximately 200 metres from the high tide mark when the tsunami struck; his house was fully damaged. The NGO who is partly funding the reconstruction of his house has kept a regular tab on each stage of construction, releasing each instalment subject to progress. As a consequence, Jayawardena says he now has a stronger and more secure house than pre-tsunami - a viewpoint expressed by the majority of masons in this zone (see Figures 14 & 15). The NGO and government officials have reinstated this perception highlighting the extra effort taken to ensure people “build back better” – relatively better equipped houses with stronger resilience against a future tsunami.



Figure 14. Jayawardena sits at the doorstep of his nearly complete, new house; he compares it to his pre-tsunami single-floor, on-ground structure with shallow foundation, and a detached toilet.



Figure 15. This house stands approximately 180 metres from the mean high tide mark and, similar to above, replaces a mason's one-storey dwelling that was fully damaged in the tsunami.

For Amarasinghe, a contractor, who lived in a one-storey house with a unit area of 900 square feet, comprising five rooms, a living room, dining area, kitchen, toilet, and amenities including electricity and water, such housing designs have had other implications. Amarasinghe's house was fully damaged in the tsunami. He comes under a 'regulated donor-assistance' project, which is funding the reconstruction of seven houses in the village. Amarasinghe has had to follow the standard housing model provided by the donor organization – a two-storey house with a unit area of 650 square feet, comprising three rooms, a toilet, living area, small kitchen, and basic amenities. He is not satisfied, stating his original house was more spacious, with particular designs and additional facilities. According to the architect interviewed in this study, standardized housing packages are guided by the MSS stipulated in government policy and also reflect donor efforts in cost reduction, as discriminately designed housing packages are more expensive. Thus, the model size, design, and finishes of the new houses have overlooked the individual housing need of Amarasinghe, and moreover, his general social status.

4.6 Conclusion

Policies and aid schemes have mattered in the housing reconstruction process. The buffer zone rule has played a particularly significant role as masons' ability to recover their housing assets varied depending on their pre tsunami location being within the 55-100-metre area or outside the 100-metre line. The former zone is characterized by widespread policy confusion at all levels. The procedure for claiming ownership to land is vague and information flow between beneficiaries, the government, and donors is lacking. The outcome is a delayed reconstruction process that threatens the good health and well-being of masons living in transitional shelters. Additionally, the lack of transparency in aid disbursement has had implications for introducing novel social divides and rivalries or exacerbating existing ones. Outside the 100-metre line, the process of housing recovery has been faster and the new houses, with resilient structures, have grasped the "build back better" concept. Yet, increases in construction costs, not reflected in reconstruction funds, have weighed down the recovery process. There are concerns about aid dependency among mason beneficiaries. Furthermore, the diversity in pre-tsunami housing and social status has been overlooked in the uniform housing projects underway in this zone. The next chapter unfolds mason recovery experiences pertaining to a different livelihood aspiration.

CHAPTER 5

ECONOMIC ACTIVITY REVIVAL

5.1 Introduction

The priority of all interviewed masons was either to move to new permanent houses or to have their houses renovated. Reviving income generating activities that were affected by the tsunami has been identified as a secondary livelihood objective of masons. This chapter responds to the first research question posed in this thesis: What are the experiences of masons in recovering their livelihoods in the aftermath of the tsunami? It explores the experiences of masons in the context of post-tsunami economic activity revival. The findings are organized in three parts: assistance schemes for producer goods replacement and the experiences of masons in this context, masons with supplementary sources of income, and those facing post-tsunami health issues.

5.2 Producer goods replacement aid and mason experiences

Assistance to replace producer goods, which were lost or damaged in the tsunami, has been forthcoming from NGOs and other private donors. All 20 masons had received a basic toolkit each worth Rs. 1,000.00-1,500.00 (US \$10.00-15.00) comprising equipment such as a mason trowel, saw, hammer, bending ruler, measuring tape, chisel, spirit level, and blade. In addition, masons whose bicycles and trishaws were destroyed or damaged in tsunami had replacements through donor distributions. The inevitable post-tsunami construction boom had led to increased job opportunities and wages for masons. For the skilled masons, daily wages had increased by an estimated Rs. 200.00 (US \$2.00) to Rs. 650.00-750.00 (US \$6.50-7.50). The disparity with wages in Colombo remained at pre-tsunami levels, Colombo being about Rs. 100.00 (US \$1.00) higher. Contractor salaries also increased but varied depending on the contract. There was no major location change for these masons in terms of their work post-tsunami. Given the rising trend on the market, the mason toolkits proved beneficial for the majority of masons, while the provision of bicycles and trishaws facilitated travel to work in and around Polhena village.

The composition of mason toolkits, however, has not matched the requirements of two individuals. Rodrigo and Manawadu are the only two contractors in the study sample. Their work necessitated, in addition to the basic set of tools, more sophisticated machinery which they owned and lost to the tsunami. These included equipments such as a hand drill (Rs. 30,000.00 – US \$300.00) and grinder (Rs. 10,000 – US \$100.00). Financial constraints have precluded them from reinvesting in these and both masons have resorted to hiring equipment as and when needed. Rodrigo and Manawadu claim that this has hindered them from reaching pre-tsunami income levels. These experiences reflect a lack of appreciation of grassroots realities, as the diversity embodied in the mason sector appears to have been overlooked by the donors.

There appear to be both gaps and overlaps in the delivery of aid. Fernando, a skilled mason, owned a trishaw that he used for jobs outside of Polhena. This vehicle was washed away during the tsunami. He claims that a trishaw replacement programme conducted in the village completely bypassed him. By the time he learnt of the programme, secured and handed over the necessary application form to the *Gramma Niladhari*, the donors had left. Although an isolated case, it points towards inadequacies in dissemination of information among beneficiaries and in the inconsistency of aid. Although cases of aid duplication were not unearthed in this study, it is widely believed both by masons and NGOs that it exists. Some masons have allegedly received producer goods replacements more than once from NGOs who arrived at the village at different times, implying a lack of coordination between humanitarian actors. Overall, official documentation on the distribution procedures of these goods was not available. The NGOs stated that they compiled their own beneficiary lists in close collaboration with the *Gramma Niladhari* and the District Secretary. The lists thus compiled were supposedly validated through numerous field visits, data collection through application forms circulated to potential applicants, and interviews with applicants and their neighbours. Yet, these NGOs acknowledged that despite precautions taken a certain degree of selection errors prevailed.

On a different note, an NGO reported that despite being given one mason toolkit beneficiaries typically request for another one or two to retain as assets; masons were seen as

being ‘out to grab’ as much as they could before donors left. Complimenting this viewpoint, one of the older masons and long-term resident in Polhena village observed:

Social norms and values have eroded and everybody is trying to grab resources that are coming to the village ...they go in search for tools and other things being distributed and want to extract as much as possible from aid agencies in a short span of time.

(Silva, 65-year old mason, 16th June 2006)

This, in essence, highlights a social concern that masons have become more individualistic in their attitudes and behaviour. While the influx of producer goods replacements may have assisted economic activity revival, it has perhaps eroded access to social capital - the networks of trust and reciprocity.

5.3 Masons with supplementary sources of income

Three masons, a skilled mason and the two contractors, were engaged in supplementary income generating activities prior to the tsunami. Economic activity revival for these individuals has had a different set of implications.

Abeyratne, a skilled mason, earned approximately Rs. 600.00 (US \$6.00) per day pre-tsunami for his mason activities. Abeyratne’s sister ran a micro-enterprise selling beach balls, savouries and sweets in a hand cart on the beach; an activity in which Abeyratne partook of when out of masonry work. Daily earnings from this activity were about Rs. 350.00 (US \$3.50). He was thus assured of some daily income. Abeyratne’s sister died in the tsunami and he has since not re-started the beach vending activity. On the one hand, he says he can ill afford the investment needed, an estimated Rs. 5,000.00 (US \$50.00) for a hand cart and for purchase of marketable goods, and on the other he says he cannot manage the business single handed. His masonry income has increased to about Rs. 700.00 (US \$7.00) per day, but he says this is not guaranteed as jobs are scarce during rainy periods. He is now the sole breadwinner of his five-member household. The case demonstrates that the loss of a joint income earner, insufficient finance, and inability to manage this supplementary activity has hampered the economic revival of this mason. Related to this is the inability of micro enterprises, such as Abeyratne’s, to access bank loans. According to the *Grama Niladhari*,

loans are given only to businesses registered before the tsunami, which rules out many in the informal sector.

Rodrigo, in addition to his mason contract activities, assisted his wife in running a local food shop. The shop sold *appa* (bowl-shaped thin rice flour pancakes) and *indi-appa* (steamed rice noodles curled into flat spirals) and accompanying curries and sambols, which are popular breakfast or dinner meals in Sri Lanka; in addition, savoury buns, sweetmeats, and various vegetables and fruits were sold. At the end of his day's work, Rodrigo joined his wife in making *appa* and *indi-appa*. Their joint monthly income was approximately Rs. 25,000.00-30,000.00 (US \$250.00-300.00). The shop was completely destroyed during the tsunami. In the immediate aftermath of the tsunami he was assisted by an NGO who provided a tent and replacement cooking utensils. During rainy periods the tent proved unsuitable and business was disrupted; they were not able secure any further assistance from NGOs. In December 2005, Rodrigo built a basic brick and cement structure estimated at Rs. 50,000.00 (US \$500.00) financed through a bank loan. Business is picking up, although their joint income is still below pre-tsunami levels.

The other contractor, Manawadu, in addition to his masonry activities, ran a plant nursery jointly with his wife. In addition to landscaping gardens they retailed artistic garden pots, seats, and other garden decor crafted by Manawadu. Their joint monthly income was approximately Rs. 25,000.00-30,000.00 (US \$250.00-300.00), with an estimate net income of Rs. 15,000.00 (US \$150.00). The tsunami washed out all this. Manawadu's requests to NGOs for assistance to revive the plant nursery were of no avail. In February 2006, he rebuilt his work shed, and bought new plants and equipment for about Rs. 20,000.00 (US \$200.00), which was financed through a private bank loan (see Figures 16 & 17). Masonry activities have picked up, so has the plant nursery, although joint income has not reached pre-tsunami levels.



Figure 16. Manawadu works on a garden pot in his rebuilt work shed using new crafting tools financed through a private bank loan



Figure 17. The plant nursery has been restocked using the bank loan funding

The above experiences of Rodrigo and Manawadu have significant implications. Contract masons appear to have been fairly well placed prior to the tsunami with thriving secondary economic activities. These were completely destroyed by the tsunami, yet evidently ignored in the aid process. However, despite the blow dealt by the tsunami to secondary economic activities both contractors have been able to cope better and recover their livelihoods, owing to the relative prosperity they enjoyed pre-tsunami which enabled them to access and afford a bank loan.

5.4 Post-tsunami health and mason experiences

Alongside the various economic activities, for five masons, post-tsunami health has played a crucial role. The tsunami left three skilled masons with new physical disabilities and two other skilled workers with mental health implications.

During the tsunami, Gunawardena injured his right shoulder when hit by a piece of floating debris, Yasaratne lost his right arm when it got caught up in the branch of a tree, and Wijetunga was blinded in one eye when it was stabbed by a telephone wire. All three of them received medical attention in the immediate aftermath of the tsunami. Gunawardena and Yasaratne required extended medical treatment which they received from the Matara District Hospital - public health care services in Sri Lanka are rendered free of charge. However, such injuries have robbed these individuals of the much needed physical strength required in masonry activities. They are unable to benefit from producer goods replacement programmes and positive trends in employment opportunities and wages. Consequently, income revival for these masons has been seriously hampered.

The post-disaster trauma experiences of two masons are striking. Warnasuriya, a skilled mason, had been married just two years when the tsunami struck. He is weighed down by loneliness and depression on account of his wife's death in the tsunami and has found it difficult to return to masonry activities. Warnasuriya relays his experience:

'The waves came 12 feet high and we got washed away. I was holding her hand. I told her to hold on, but the waves were too strong and she let go... I lost my finger because she was holding on so tightly... I have not been able to really focus on work and I'm not as

productive. What is the use now anyway? When she was there I had reason to work. Things were orderly then. It's too hard to think about the future.

(Warnasuriya, 30-year old mason, 18th June 2006)

A discussion with his relatives next door revealed that Warnasuriya had become unsociable since the tsunami and they attributed it to the loss of his wife. Moreover, apart from the mason toolkit, he had not received any other support for recovery. No doubt labour capability is essential to determining ability to recover economic activity, yet in the case of Warnasuriya appears to be debilitated through continuing trauma.

Meanwhile, Perera, a skilled mason, lost his seven-year old son to the tsunami. His inability to come to terms with his loss held him back from work for a year. He is also troubled for various reasons. He is burdened with meeting health care costs for his wife who sustained a leg injury in the tsunami that is yet to heal and requires monthly visits to the National Hospital in Colombo. Although hospital service is free of charge, Perera claims he is burdened with costs of drugs and regular travel to Colombo for two persons. He also has to fend for his other two school-going children who survived the tsunami. He further complains that the Rs. 100,000.00 (US \$1,000.00) government cash grant given for repair of his partially damaged house is inadequate. Perera had not received any other support for recovery. He remarks:

When I think of all these things, it weighs me down. When I get bad there are arguments at home. I cannot help myself when this happens. I don't know when I'll break out. Sometimes I might scold my other child, but I don't do it intentionally. I get into arguments with my wife about this, but what people don't understand is that I don't do this intentionally.

(Perera, 38-year old mason, 19th June 2006)

The case demonstrates that the loss of his son has left a devastated individual who, as he tries to come to terms with his loss, has had to grapple with several other issues confronting him and his family – the ill health of his wife, depleted cash income, and a damaged house. He is also the sole breadwinner of his family. The stressful situation he finds himself in has

begun to impact on family harmony which in turn could further retard his return to productive economic activities.

5.5 Conclusion

Livelihoods assistance schemes have mattered in economic activity revival. Assistance to replace lost or damaged producer goods related to masonry has been swift and forthcoming from many donors. Coupled with positive trends in employment opportunities and wages, masons have been provided with an immediate income generating capacity. Yet, not everyone has been able to capitalize from it. There have been inconsistencies - mismatches, gaps, and overlaps - in aid distribution. The revival of secondary income generating activities has been marginalized. Physical injuries have impeded the resumption of economic activity for some individuals, and where lives and livelihoods have been lost, psychological ailments including insecurity and depression were unveiled with implications for labour productivity. Meanwhile, relatively wealthier masons - better-endowed with cash income and access to bank loans - have had better outcomes in terms of reviving sources of income. Overall, there is an added concern that the influx of aid is deteriorating social norms and values. The thesis now turns to a conceptual investigation of the research findings.

CHAPTER 6

APPLYING THE SUSTAINABLE LIVELIHOODS FRAMEWORK

6.1 Introduction

This thesis has employed an interview-based qualitative approach in order investigate post-tsunami livelihoods recovery experiences of masons living in Polhena village, Sri Lanka. Chapters 4 and 5 have investigated these experiences in the context of two key livelihoods recovery objectives of the masons interviewed: housing reconstruction and economic activity revival, respectively. This chapter reverts to the second research question posed in this thesis: how can the Sustainable Livelihoods Framework help in analyzing these experiences? The findings from the above chapters are organized and discussed under the five major components that characterize the SLF: “vulnerability context”, “transforming structures and processes”, “livelihood assets”, “livelihood strategies”, and “livelihood outcomes”.

6.2 “Vulnerability context”

Vulnerability is fundamentally about risk, uncertainty, and lack of security and the 2004 Asian tsunami heightened all these for masons and their families. The phenomenon was truly unprecedented; it had a rapid inception which brought sudden destruction to physical assets and disrupted livelihood systems. Although this thesis does not directly weigh up coastal hazard management initiatives such as early warning systems or exclusionary buffer zones, these have a significant bearing on reducing future risks for masons. On a positive note, the post-tsunami construction boom had a particularly significant influence on economic rates of return for masons – soaring construction meant much more work and increased wages. However, as will be later discussed, the poorer masons have been unable to benefit due to a contrived disadvantage in terms of assets and strong institutions working in their favour. The vulnerability of masons in the aftermath of the 2004 tsunami can thus be placed in the wider vulnerability and livelihoods context.

6.3 “Transforming structures and processes”

Among the contributors to ‘local’ vulnerability are structures and processes that have far wider resonance and origins. The livelihoods of masons are inextricably intertwined with “transforming processes” such as policies, aid schemes, and the market institution, and “transforming structures” which comprise government organizations and NGOs.

“Transforming processes” occupy a central position in the post-tsunami livelihoods of masons. To begin, a key policy has been the buffer zone rule. The concept of buffer zones to achieve coastal environmental protection and minimize impact of future natural hazards has intrinsic merit (see Ebregt & De Greve, 2000). It has connotations for the “vulnerability context” as it could help reduce the negative impacts of a future tsunami shock. Yet, perceiving it simply as a grand technocratic solution is restrictive for a profound understanding of a post-tsunami livelihoods recovery process; moreover, an understanding of the political process that determined ‘how’ this choice was made is required. As Albalá-Bertrand (1993: 204) notes, disaster response often reflects the ideology and policies of the party in office and a government’s development programme is often implicit in its reconstruction plans. The buffer zone policy had its antecedents in a failed attempt at implementing the 1981 Coastal Conservation Act and the tsunami clearly figured as a pivot point in motivating change. However, there were a range of stakeholders affected by the buffer zone decree and the policy developed into a politically controversial issue. Modifications were made to the rule, yet implications of these for the original housing reconstruction policy have remained unclear. The resultant policy confusion has delayed housing recovery for those masons living in the area between the ‘old’ and the ‘new’ buffer zone. It is a shifting policy, what Lindblom (1959, 1980, 1990) has called a process of disjointed incrementalism, which has caused problems for livelihood recovery; put differently, the creation of the buffer zone rule has entailed “muddling through” with scientific information being only one element of

...a broad, diffuse, open-ended, mistake-making social or interactive process, both cognitive and political.

(Charles E. Lindblom, 1990: 7)

In this sense, the buffer zone rule is perhaps best described as ‘evolutionary’. Policy-making is by no means a rational activity and the recovery of mason livelihoods must be understood in this context.

The ‘one size fits all’ approach in aid distribution was beneficial in emergency relief, in meeting the immediate needs of those affected by the tsunami. Yet, long-term livelihood recovery implies a different scenario. Masons are highly stratified in terms of economic activities, skill levels, housing needs, and post-tsunami health status, amongst others - inequity is unlikely to be prevented without resort to positive discrimination. This is particularly so in relation to post-tsunami health disabilities as aid is applied to “a social setting that has become even more unequal after a disaster” (Albala-Bertrand, 1993: 197). Meanwhile, standardized housing packages offered by donors have been deliberate in lieu of cost reduction and difficulty of evaluating true pre-tsunami housing status of tsunami-affected households. Yet, ignorance of pre-tsunami housing diversity has meant mislaid social status for some masons. This could be compared with the situation following the 1995 Hanshin-Awaji earthquake in Japan where social issues were addressed in the reconstruction effort; the rebuilt city provided mixed social housing via consultations services which helped residents examine options for housing choices (OECD, 2004). Other egalitarianisms of support such as disregarded secondary income generating activities have been unintentional, due to unawareness on the part of donors. All in all, simplifying complexity in terms of the range of interests masons represent and the diversity of their experience draws upon what Wood (1985, quoted in Sutton, 1999: 14) has called using a “target group” that is “over-determinate and under-descriptive”, proving inappropriate for effective livelihoods recovery.

The behaviour of the construction market has had a counteracting impact on mason livelihoods. On the one hand, fresh labour demands and increased wages due to the construction boom have effectively increased their monetary income. It should be noted, however, that markets incorporate short-term effects of disaster recovery resulting from physical infrastructure loss (Albala-Bertrand, 1993: 199). The increase in employment and wages may be short-lived as the specific demand for post-tsunami construction becomes less demanding. On the other hand, the increases in construction costs, not reflected in the fixed housing grants, have encumbered the housing reconstruction process. The case of river sand

is noteworthy as the combination of market forces and a government policy ban has doubled its price since the immediate aftermath of the tsunami. Macro-level market forces have thus provided enormous opportunities for masons, but also discriminated against their interests.

The nature and coordination of various government organizations and NGOs, the “transforming structures”, have substantial bearing on the livelihoods recovery process. Shifts in Sri Lanka’s political hierarchy and the resultant organizational restructuring of the governance mechanism for R&R (i.e. from TAFREN to RADA) may have influenced recovery processes at the ground level. No doubt, as new tasks are developed, new procedures will be created, responsibilities will shift, some divisions or departments will gain importance while others may even be abolished, and new patterns of internal resource allocation for R&R will emerge in accordance with the demands of the new way of working (Crosby, 1996). Thus, it could be implicated that shifts in the implementation procedure of the tsunami housing reconstruction policy as well as overall aid coordination among the various humanitarian actors, has led to confusion and inconsistencies in overall aid disbursement.

Meanwhile, information flow and use is found to be critical in post-disaster recovery. As Pelling (2003: 12) notes, it is the capacity to exchange and act on incoming information across different levels that determine organizational capability of a disaster response system. A report following a joint government-NGO forum notes:

It is necessary to introduce the communication strategy focusing on explaining entitlements, next steps forward, and complaints and redress procedures. Every affected family should know what their future is, in terms of housing, employment opportunities, ongoing relief support, education for their children and health care, including counseling where needed.

(Government of Sri Lanka & Sri Lanka Development Partners, 2005: x)

Yet, such a strategy does not seem to have materialized at the ground level. Despite some interactions between NGOs and the government (i.e. the District Secretary and the *Gram Niladhar*), there appeared to be no arena for exchange of ideas, information and views between NGOs. In particular, a distinct difference in experience, skills, and operating styles was observed between the two international NGOs and the local NGO in this study - the

former showed relatively greater expertise in large-scale disaster R&R yet often appeared detached to ground realities, unlike the local NGO. A lack of opportunities to share assessment, valuable reports and lessons identified between these organizations may have led to reductions in the effectiveness of aid - mismatches, gaps and overlaps in aid distribution, amongst others. For masons living in the 55-100-metre zone, a lack of information has meant incapacity to make livelihood choices. Additionally, the absence of a mechanism for transparency in the aid effort has a significant bearing on perceived or actual nepotism and the risk it poses to "social capital". It should be noted that nepotist networks have, concurrently, implications of being a social resource for some people (this will be discussed in section 6.3).

In need of an exposition is a particular structure that has prefigured the tsunami – the public health system. Sri Lanka's past investments in public health paid off, especially in the immediate aftermath of the tsunami, ensuring there were no disease outbreaks. However, as demonstrated in the findings of this study, to what extent people were psychologically 'damaged' in, and by, the tsunami was, and remains, poorly defined. In Sri Lanka's Northern and Eastern Provinces, where mental health services and professionals were already in place due to trauma from the war, response has been relatively better coordinated and structured than in areas in the Southern Province (Chandra *et al.*, 2006). Thus, a pre-existing weakness in the public mental health system has challenged the revival and reformulation of the lives of masons suffering post-tsunami trauma.

This relates to Nez's (1974, quoted in Wisner *et al.*, 2004) argument that many of the problems that R&R programmes are faced with after a disaster – the obstacles to implementation and the social deficiencies encountered – were there *before* the disaster. As he aptly comments:

When you direct a reconstruction programme everyone tends to blame the disaster for this or that problem. However, gradually you come to realize that ninety percent of the problems you encounter were present before the disaster event, waiting to be tackled. All that has happened is that the disaster has acted like a sharp surgeon's scalpel that has been used to expose all manner of weakness and failure...

(George Nez, 1974, quoted in Wisner *et al.*, 2004: 363-4)

In this sense, problems such as poorly developed mental health systems *contributed* to the disaster because of the way they shaped specific forms of vulnerability. Sustainable livelihoods recovery means post-tsunami structures and processes must challenges the root causes of vulnerability.

Indeed, analyzing the “transforming structures and processes” of the SLF has helped recognize the importance of organizations, policies and institutions in governing poor people’s access to assets, in influencing their livelihood choices, and their vulnerability to shocks and stresses. Bringing this component into the framework has caused micro-macro policy links to be made, since local-level livelihoods are embedded in institutional and organisational contexts that are the outcomes of past and current policy processes and decisions. Yet, its inherent deficiencies need to be noted. It lacks a mechanism that discloses vital links between the various structures and processes. The government and NGOs, the various policies and aid schemes they implement, and the market institution discussed here are each significant in its own right, but too diverse and interlinked to be grouped under one broad heading. This echoes the criticisms of other researchers who argue that the ‘grey box’ is too broad and all-encompassing, obstructing a detailed analysis of the structures and processes that influence livelihoods (Ashley and Carney, 1999: 19-20; Hobley, 2001; Marzetti, 2001). Thus, there are questions to be addressed: What is the role and relationship between government and non-government aid delivery? Are there tools for understanding and developing linkages with processes and “social capital”? How do we understand existing organizations and policies? Nevertheless, this component is worthy for its acknowledgement of the need for a more ‘upstream’ approach to reducing poverty and recovering livelihoods post-tsunami.

6.4 “Livelihood assets”

Turning to the “livelihood assets” component of the framework, this section analyzes mason livelihoods recovery in relation to the five main asset categories - “financial capital”, “human capital”, “social capital”, “physical capital” and “natural capital” - and considers the variation in masons’ access to these via a visual representation of the asset pentagon.

Money has mattered in livelihood recovery. Although all masons were equally exposed to the “vulnerability context” of the tsunami and favourable market trends, resilience has been differentially distributed across individuals depending on their endowment of “financial capital”. Despite being deprived of replacements for the more sophisticated machinery that they owned and lost to the tsunami, and for reviving their secondary economic activities, the contractors have been able to finance these via a combination of cash income and private bank loans. Well-endowed cash income and access to collateral for loans are assets that the poorer masons have been deprived of. Thus, greater access to “financial capital” has meant greater capacity to cope with the impact of the tsunami and less vulnerability to inadequacies of the aid process.

Masonry, by its very nature, demands a high degree of physical fitness for skilled masons. The physical injuries sustained due to the tsunami hindered the productive capacity of some of these individuals. Although most masons overcame the immediate trauma of the tsunami, some have yet to deal with the emotional repercussions as they rebuild their lives. The extent of mental trauma, in particular, cannot be identified within the confines of this research, but its implication for economic reintegration and the undermining of “financial capital” for such individuals is significant. If illness lingers it may even end up eroding assets simultaneously or successively (Chakma, 2003). For instance, drawing from a case presented in Chapter 5, where mental trauma had affected a mason’s quality of interpersonal relationships, the potential of domestic violence due to increasing strains on the family unit may in turn wear out his social and financial assets. Apart from being of intrinsic value, “human capital” appears vital in recovering other types of assets.

“Social capital” for mason has been developed through various means. Their general networks and connectedness, within and outside the village, increased their trust and ability

to cooperate with others and was particularly important in the immediate aftermath of the tsunami. It provided a buffer that helped them cope with the shock of death and destruction, and acted as an informal safety net to ensure survival. Short-term survival and long-term recovery do not, however, always go hand in hand. The observation of an elderly mason concerning deteriorating social norms and values in the village needs to be understood in the context of the novel setting brought about by the tsunami wave. The post-tsunami context of large-scale disruption to livelihood systems and external aid intervention may have prevented people from exhibiting cooperative behaviour, with implications for declines in existing social networks. Meanwhile, according to Bebbington (2002: 801), perhaps the most enthusiastic social capitalist among geographers, “a social relationship is a resource that can facilitate access to other resources”. This relates to notions of preferential treatment in housing aid that were conveyed in many mason interviews. There is no tangible evidence to suggest nepotism in the aid process - yet, it does incriminate nepotist relations as a social resource for some masons in facilitating access to housing reconstruction aid. Certainly, “social capital” can also have a ‘dark side’ (Beall, 1997; Fox, 1997; Ostrom, 1997; Putzel, 1997).

Housing and producer goods constitute “physical capital” for masons. New housing construction has been an improvement in protection that centres on people and reduces their vulnerability, by way of minimizing the impact of a future tsunami or coastal storm, and hence it has connotations for their “vulnerability context”. The uniformity in housing design, however, has marginalized the “social capital” that contributed to a sense of well-being through identity and honour for some masons. Housing and health are also intrinsically linked (see Athens, 2004; WHO, 1989) and for masons living between the ‘old’ and ‘new’ buffer zone boundaries, a prolonged stay in transitional houses has undermined good health that is an essential part of their “human capital”. Finally, the provision of producer goods has helped revive the productive capacity of the majority of masons and the “human capital” at their disposal. Thus, the bearing of “physical capital” for masons is embedded in its numerous linkages with other assets and with other components of the SLF.

Although masons do not derive their livelihoods from natural resource-based activities, the services deriving from “natural capital” have been significant to them. Non-rainy

weather conditions are important in terms of economic activity as masons generally work outdoors. Within the SLF, the link between natural services and the “vulnerability context” of the tsunami is particularly close - the shock that disrupted mason livelihoods was itself a natural process that destroyed natural assets such as coastal hazard protection. This study has been limited in an in-depth understanding of natural resources and services pertaining to livelihood recovery. Yet, it is important to bear in mind that masons depend for their health and well-being upon the continued functioning of complex ecosystems “which are often undervalued until the adverse effects of disturbing them becomes apparent” (DfID, 1999: 26).

The different shaped asset pentagons shown in Figure 18 offer an effective means of understanding changes in access to the five key asset categories discussed above. It is important to note that this is necessarily a subjective interpretation.

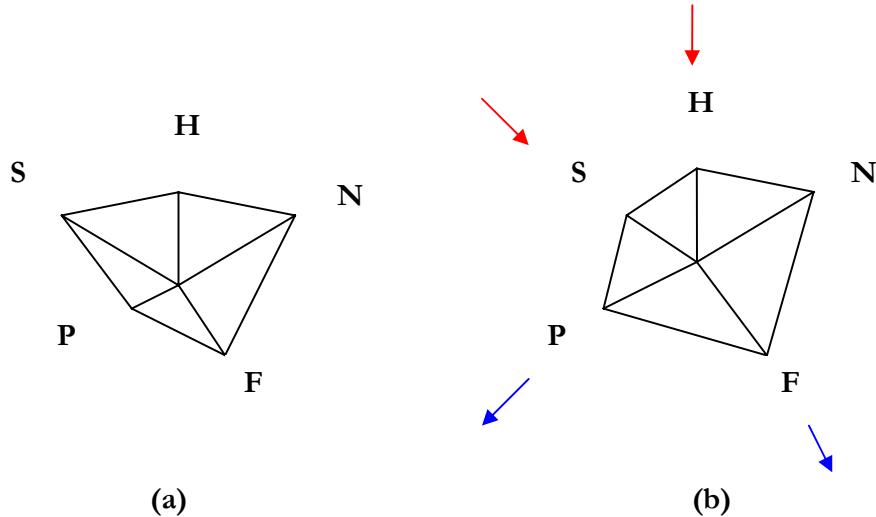


Figure 18. Pentagon (a) shows the masons’ asset base in the immediate aftermath of the tsunami with limited access to “physical capital”, “financial capital”, and “human capital”, in declining order. Pentagon (b) shows the current situation with increasing access to “physical capital” and “financial capital”, but decreasing access to “social capital” and “human capital”. Access to “natural capital” remains unchanged as trends were not discerned within the scope of the study.

Note - P = “physical capital”, F = “financial capital”, N = “natural capital”, H = “human capital”, S = “social capital”.

The asset pentagon in the immediate aftermath of the tsunami denotes extensive destruction to housing and confined financial income due to arrested economic activity; post-tsunami health disabilities are also represented. The current asset base denotes an aid focus on recovering houses and economic activities with limited support in other asset categories; housing and economic activity revival have, simultaneously, been the key post-tsunami “livelihood outcomes” of masons (this will be discussed in section 6.6) It appears that the cost of a narrow-minded focus of the aid process on reviving physical and financial assets has been a marginalization of the human and social assets of masons.

The “livelihood assets” component has proven useful in understanding the options open to masons and their vulnerabilities, the strategies available for them to attain livelihoods, the goals they aspire to, and the contexts of vulnerability under which they operate. The asset pentagon has been particularly helpful in recognizing the outcomes of a focused aid intervention on housing and income recovery. Yet, there is uncertainty over the inclusiveness and verification of “livelihood assets”. The asset pentagon gives insufficient attention to definition and measurement of assets; for Maqueen (2001) the SLF is inoperable unless assets can be directly compared. Meanwhile, “social capital” attracts criticism due to its weakness in identifying the social resources embodied in nepotist networks. There is a need to broaden the interpretation of this asset category to include vertical links between people and groups unequally endowed with power and resources. As Putzel (1997) claims:

This can only be done by discarding deterministic readings of ‘path dependency’ and analyzing the political substance, content and determinants of networks and norms established through social interaction.

(James Putzel, 1997: 10)

Nonetheless, the idea unpinning this part of the SLF retains its appeal.

6.5 “Livelihood strategies”

Access to assets has been the building block of “livelihood strategies”. Access to producer goods, coupled with a favourable employment market, has enabled most individuals to restart masonry activities. Engaging in supplementary economic activities has

formed part of the strategies of some individuals. Overall, previously discussed weaknesses in structures and processes have hindered masons in ‘transforming’ assets into these livelihood pathways. Meanwhile, the observation of an NGO official concerning the unwillingness of some individuals to revert to former livelihoods due to the support offered by international aid unveils the likelihood of a new livelihood strategy among masons – aid dependency. Interestingly, ‘aid’ would translate into a ‘livelihood asset’ for such individuals.

6.6 “Livelihood outcomes”

Whatever the livelihood strategy undertaken by masons, it has been for a fundamental purpose: to maximize their achievement of positive “livelihood outcomes”. Overall, regaining an acceptable permanent shelter has been the immediate priority of the masons interviewed. This can be further explained by relating it to the prevailing cultural practice and the importance attributed to housing - owning a house is considered a priority and long-term investment in the social fabric of Sri Lanka. Seeking a simple increase in net returns in the economic activities they engaged in was singled out as a second livelihood aspiration. This was followed by increased well-being in terms of health status, for those suffering from post-tsunami health ailments. These objectives have directly influenced “livelihood assets” with implications for the dynamic shifts in their level and the form of the asset pentagon.

Livelihood goals are not necessarily coherent and are certainly incommensurable. It is difficult to weigh up the relative value of increased well-being as opposed to increased income, yet this is the type of decision that these masons must make daily when deciding which “livelihood strategy” to adopt. Therefore, assessing non-tangible livelihood goals, which may be very subjective and private, is indeed a challenge.

6.7 Conclusion

Evidently, the SLF has facilitated an insight into the complexity and substance of mason experiences discussed in the earlier chapters. The framework has placed masons within the wider vulnerability and livelihoods context and demonstrated implications of the various policies and processes for livelihoods recovery, the characteristics of the various assets and their relative significance, the bearing of these in undertaking livelihood activities, and end

objectives of masons in pursuing such activities. There are some practical complexities and limitations to the framework that warrant attention. Yet, the framework's demeanour as a systematic analysis of poverty and its causes in a way that is holistic has been of immense value for understanding post-tsunami livelihoods recovery of masons in Polhena village, Sri Lanka. Moreover, in defence of the framework as a tool for thinking, it is worth remembering the point made by Neefjes (2000) that it is only a tool and therefore should be adapted as necessary by those who use it.

CHAPTER 7

CONCLUSION

7.1 Introduction

The Asian tsunami of 26 December 2004 was one of the most destructive natural disasters to hit the world in living memory. Within two hours of an earthquake, the second largest in the instrumental record, occurring off the west coast of Northern Sumatra in Indonesia, the tsunami waves devastated the shores of Sri Lanka. It sparked off an extraordinary mobilization of resources for humanitarian relief and assistance by local community groups, the government, local NGOs and the wider international community. For a nation that had no experience in dealing with a disaster of this magnitude, the immediate relief efforts were indeed commendable. Nearly two years since, there is a vital need to refocus attention towards the nature, direction and pace of post-tsunami livelihoods recovery.

This thesis has addressed this challenge using the SLF as a mechanism for analyzing livelihood systems in post-disaster context. By considering the vulnerability context in which people live, the livelihood assets they possess, and the institution and policy environment that affects livelihoods, the SLF efficiently places hazard vulnerability in the wider vulnerability and livelihoods context. The origins of the framework's thinking lie partly in a literature concerned with understanding famines and food insecurity. Although not developed specifically for the analysis of disasters, the SLF has guided some interventions in disaster situations. However, in relation to the tsunami it was important to bear in mind the characteristic of a rapid-onset event and the resultant disruption of 'normal' livelihoods, compared to the slow-onset of incidents such as famines.

The purpose of this concluding chapter is twofold: to summarize the thesis, and to consider the broader theoretical and practical implications of the research findings. The research aim and questions, study background, methodology, and major findings from the study are reviewed. Significant implications of the findings for the SLF and for the overall post-tsunami livelihoods recovery agenda in Sri Lanka are subsequently discussed.

7.2 Summary of thesis

The aim of this research was to examine the post-tsunami livelihoods recovery process of masons living in Polhena village, Sri Lanka. Two questions were posed: What are the experiences of masons in recovering their livelihoods in the aftermath of the tsunami? How can the Sustainable Livelihoods Framework help in analyzing these experiences? As the aim was pursued through a case study village and livelihood group, a review of the *ex-ante* situation was provided, establishing a context in which to interpret the findings of the study. The two research questions were approached through a two stage qualitative investigation. The first stage comprised the fieldwork component of the project wherein the views of 20 masons, three government officials, and three non-government officials were solicited via semi-structured interviews. It was designed to gain a rich understanding of the experiences of masons in the context of post-tsunami policies and livelihoods assistance schemes. In the second stage, the SLF was deployed to review outcomes from the above inquest and thereby examine its usefulness in analyzing post-tsunami livelihoods recovery of masons.

Findings relating to the first research question were discussed under two themes - housing reconstruction and economic activity revival – each reflecting major post-tsunami recovery goals of the masons interviewed. Policies and aid schemes were found to play a key role in both these forms of recovery. The various experiences and issues faced by masons, alongside government and NGO observations, were presented.

The above findings were analyzed under five key elements that characterize the SLF, thereby addressing the second research question. The “vulnerability context” placed masons within the wider vulnerability and livelihoods perspective comprising the tsunami hazard and trends in post-tsunami construction. “Transforming structures and processes” discussed various policies and processes and their connotations for livelihoods recovery – the ‘evolutionary’ buffer zone rule, the egalitarianism of support and its pros and cons, the double-edged sword of construction market opportunities, the nature, coordination and information flow within and between organizations, the transparency of such organizations, and continuing features of the pre-tsunami public mental health system. The five main “livelihood assets” were analyzed revealing that no single capital endowment was sufficient to yield desired livelihood goals on its own. A visual representation of an asset pentagon

disclosed increasing post-tsunami access to physical and financial assets, yet declines in endowments of human and social assets for masons. Access to assets was the building block of the masonry and supplementary economic activities, the “livelihood strategies”, masons undertook; aid dependency was also suggested as a potential livelihoods strategy. Finally, regaining an acceptable permanent shelter and gaining increases in net income were identified as the prime “livelihood outcomes” of masons. All in all, the analysis revealed valuable concepts that underpin the SLF and a holistic approach to understanding livelihoods. Despite some practical complexities and limitations of the framework, it was acknowledged as a valuable device for researching post-tsunami livelihoods recovery of masons in Polhena village, Sri Lanka. On the wider schema, the findings of this thesis have notable implications.

7.3 Broader implications: The Sustainable Livelihoods Framework and advancing the post-tsunami livelihoods recovery agenda in Sri Lanka

At the outset, it must be noted that there are few possibilities for the generalization of the thesis findings. This research involved preliminary observations of livelihoods recovery that was limited to a particular livelihood group, in a particular village, and at a specific point in time. The results presented are therefore by no means exhaustive and cannot be generalized or directly applied to other tsunami-affected livelihoods in Sri Lanka as they are ‘grounded’ in space and time. Nevertheless, its content retains significance for the SLF and for post-tsunami R&R in Sri Lanka.

In actuality, it is the SLF thinking – in particular, the quest to understand the actual impact of policies on livelihoods – that is the distinguishing feature of this study. For the R&R agenda in Sri Lanka, the greatest value of the SLF may lie in providing a ‘reality check’, helping link aid interventions to the reality of poor people’s livelihoods and thus risk having little, or less than expected, actual poverty impact. The shifting buffer zone rule is a case in point. Perhaps, as the Asian Development Bank (2005: 3) asserts, “left pending, the issue poses the single most critical threat to the entire recovery and reconstruction process”. This study has also revealed that livelihoods recovery is an enormous challenge, which will be overcome only by working at several levels, ensuring that macro-level structures and processes support people to build upon their own strengths, and that micro-level activity

informs the governance environment in which the macro-level structures function. Longitudinal studies are particularly important in recognition of the dynamic nature of livelihood choices and the need to retain flexibility in responding to changes in people's situations. Ideally, the SLF could provide an analytical device in tracking and analyzing the post-tsunami livelihoods recovery of livelihoods in Sri Lanka over longer periods of time, which in the context of the current study suggests revisiting Polhena village in the future and observing the transformations in mason livelihoods.

The study has also surfaced some inherent problems of the SLF. There are shortcomings in measuring and comparing "livelihood assets" and "livelihood outcomes". Furthermore, the "transforming structures and processes" box covers organizations, policies, and institutions of widely differing natures and dynamics, with varying interlinks between them and is therefore criticized for underplaying the importance of some crucial factors. The usefulness of the SLF, as with any analytical device, is partially influenced by the interest and skill of the user. Accordingly, a fundamental question could form an agenda for future research: What changes to its components can make the SLF a better device for analyzing post-tsunami livelihoods recovery?

Two years since the tsunami phenomenon, a deadly new chapter has emerged in Sri Lanka's two-decade ethnic conflict, derailing efforts of the country's tsunami R&R agenda. An offensive on 16th October 2006 in Muhamalai, Northern Province has been reported as the worst episode of violence since the declaration of the ceasefire four years ago (Sunday Times, 2006b: 10). Meanwhile, a spate of war-related incidents have occurred throughout the country, including a more recent episode on 18th October 2006 in the Galle District, Southern Province, which is closer to the present study site (BBC, 2006b; Daily News, 2006; Sunday Leader, 2006: 8). Areas unaffected by physical conflict are affected indirectly by the fact that government and NGO aid machinery have had to shift focus somewhat to more immediate issues. This resurrection of intense violence brings us to speculate a phenomenon that has been outside the research aim, yet that has been illuminated by research findings - the challenge posed by Sri Lanka's development reality. As the World Bank (2005) notes:

The problem in developing countries often comes down to making difficult development choices from among the many competing demands. Disaster mitigation, because it is a periodic need rather than a constant one, tends to lose out to other priorities...

(World Bank, 2005: 1)

Sri Lanka's ethnic conflict is not new; it has been a priority concern in the country's development agenda since the 1980s. Isolating the vulnerability of tsunami-affected livelihoods from the conflict-related manifestation of vulnerability predefines 'problems' and risks, bypassing national priorities and realities. The implications of this are consistent with Nez's (1974, quoted in Wisner *et al.*, 2004: 363-4) conclusions, presented in the preceding chapter, that underpin the challenge of building 'sustainability' in the broader sense into the post-disaster recovery process. Whether post-tsunami livelihoods recovery can be sustained in the longer-term has little to do with the tsunami disaster itself, but with pre-existing economic and socio-political conditions; more specifically, an unresolved ethnic conflict. Indeed, effective and sustainable responses to post-tsunami livelihoods recovery would require reforms to the current R&R agenda as well as consensus building across political and ethnic divides.

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