

FORCED RELOCATION AFTER THE INDIAN OCEAN TSUNAMI, 2004

CASE STUDY OF VULNERABLE POPULATIONS IN THREE
RELOCATION SETTLEMENTS IN GALLE, SRI LANKA

DISSERTATION

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NISHARA FERNANDO

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1. Gutachter : Prof. Dr. Hans-Georg Bohle
2. Gutachter : Prof. Dr. Helmuth Toepfer
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Abstract

This study focuses on the impact of forced relocation on the livelihoods of residents who lived in the city of Galle, Southern Province of Sri Lanka, prior to the 2004 tsunami, who were later forcibly relocated into new settlements situated far from the city of Galle as a result of the "buffer zone regulation" (no construction zone). It further examines various livelihood strategies (i.e. coping and enhancement) employed against stresses and risks (i.e. income, housing, common infrastructure and fragmented relationship with the host community) emanating from forced relocation. Finally, it attempts to show how all these stresses and risks have added to increased social vulnerability, threatening the livelihood security of the relocated sample households in three research locations by adopting a socio-geographic approach.

The empirical study is embedded in two main research areas: displacement and relocation research, and vulnerability and livelihoods research. Two conceptual frameworks of forced relocation (Thayer Scudder's Stress and Settlement Process, and Michael Cernea's Impoverishment Risks and Reconstruction Model for Resettling Displaced People) and another two conceptual frameworks of social vulnerability (Bohle's conceptual model on Double Structure of Vulnerability and the Sustainable Livelihoods Framework) were used to construct an analytical framework for the empirical study. Data was collected in three stages between September 2006 and March 2008 in three large resettlements 8-12 km away from the city of Galle using several data collection methods, namely detailed household questionnaires, in-depth interview schedules, key informant interviews, simple observations and PRA methods. Triangulation of methods was used with the purpose of improving the quality of data as well as to acquire a more holistic picture of the relocation process. Both qualitative and quantitative data analysis techniques were employed to analyse the collected data.

As the study shows, firstly the tsunami and secondly the forced relocation into settlements far from the city were severe shocks to the studied households. As a result of these shocks, they had to begin their life from scratch. None of the interviewed householders wanted to move out of the city due to perceiving the negative consequences on their livelihoods, access to schools and other services. Unavailability of unused state owned land in the city forced government authorities to relocate most of the tsunami displaced people into

settlements far from the city despite previous pledges made by the government to relocate them within Galle city. This has increased the uncertainty of relocatees about their future. Displaced people, however opposed to this move, did not have any permanent place to live other than the new settlements far from the city and in addition were unable to successfully cope with various issues and problems (limited space, lack of water, no electricity, poor construction of wooden houses etc) in their transitory shelters.

Empirical data also pointed out increased income related stress owing to new household expenses (i.e. new transport cost, water bills and electricity bills) and disruption of income earning activities mainly due to transportation difficulties into the city and lack of income earning opportunities in the new area. This situation forced them to employ various livelihood strategies such as entering more household members into the workforce, starting new home based income earning activity and change of main income earning activity. Nevertheless, household surveys and in-depth interviews with selected household members proved that economically poor resettled households were unable to successfully cope with income related stresses. Additionally, other stress and risk factors such as poor housing quality, lack of common infrastructure, fragmented social relationships with the host community that extended up to physical violence caused some resettlers to move back to the buffer zone illegally or places close to the city by renting, selling or closing their new houses.

Though there was a general institutional arrangement for relief and reconstruction soon after the tsunami, the study also shows that government officials at various levels were lacking relevant knowledge and capacities to handle the massive relocation process effectively. In this context, relocatees got increasingly frustrated as there was no solid external support system to successfully address their grievances and feeling of being neglected by relevant authorities, which is a major sign of social marginalization. This clearly indicates a sign of failure of tsunami induced forced relocation program in the Akmeemana Divisional Secretary Division in Galle district.

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Abbreviations

AMUT	Ananda Marga Universal Relief Team
CCD	Coast Conservation Department
CCF	Christian Children Fund
CEB	Ceylon Electricity Board
CNO	Centre for National Operations
DMC	Disaster Management Centre
DS	Divisional Secretary
GN	Grama Niladari
ICTAD	Institute for Construction Training and Development
ILO	International Labour Organization
INGO	International Non-Governmental Organization
LD	Livelihoods Development
LTTE	Liberation Tigers of Tamil Elam
NGO	Non-Governmental Organization
NHDA	National Housing Development Authority
NWSDB	National Water Supply and Drainage Board
PS	Pradeshiya Sabha
RDA	Road Development Authority
TAFLOL	Task Force for Law and Order
TAFOR	Task Force for Relief
TAFREN	Task Force for Rebuilding the Nation
TAFRER	Task Force for Rescue and Relief
THRU	Tsunami Housing Reconstruction Unit
UNDP	United Nations Development Programme

1. Introduction

“The waves of the Tsunami washed with it our three daughters and our house, taking away everything. We built our house amidst great economic constraints, but within seconds giant waves destroyed everything in front of our eyes. We are now suffering the “second tsunami” after settling in a new settlement almost 9 km from our previous residence. We feel economically and socially weak, and have absolutely no income. I do not know what fate will deal us in the future if we continue to live like this (Jayantha- labourer, Katupolwaththa).”

1.1. Research Problem and Aims of the Study

The above statement was made by a tsunami victim who resided in the city of Galle, close to the sea, prior to the tsunami. Now, his surviving family members have been forcibly relocated to a settlement located far away from the city. He reveals the massive impact of the wave and the ripples it caused to his livelihood, and explains the extent to which forced relocation made things worse. In other words, this statement reveals the central research problem discussed in this thesis: the impact of forced relocation on the livelihoods of tsunami affected households in Galle - Southern Province of Sri Lanka. This study focuses specifically on various livelihood strategies (i.e. coping and enhancement strategies) employed by economically marginalized relocatees, against various stresses and risks (i.e. income changes, housing and infrastructure problems, and fragmented relationships with the host community) emanating from forced relocation, and makes an attempt to show how all these stresses and risks have added to an increase in social vulnerability, thereby threatening the livelihood security of the relocated sample households. The knowledge generated from this research study will ultimately contribute to reducing the social vulnerability of forced relocatees.

Sri Lanka has been no stranger to floods, cyclones, landslides, droughts and coastal erosions over the past few decades, which have cost lives and property (DMC, 2005). However, tsunami only became a known natural disaster to Sri Lankans following the Indian Ocean Earthquake (a magnitude of 9.1 on the Richter scale) which triggered a series of devastating waves that hit the coastal region of Sri Lanka, bordering the Indian Ocean, on 26 December 2004. It was one of the deadliest natural disasters in history, taking the lives of 231,452

people in 12 countries ranging from South and Southeast Asia to East Africa. Subsequently, 1.7 million people lost their homes (UNDP, 2005). Indonesia was the worst affected country in terms of human losses (169,000) and displaced persons (572,926), followed by Sri Lanka with 35,322 human losses and 516,150 displaced persons (UNDP, 2005). India (16,389), Thailand (8,221) and Maldives (108) had a lower human toll (ADPC, 2006). In addition, massive damage was caused to houses, public and private property, railways, bridges, communication networks, hospitals, schools, other infrastructure and personal assets (see section 5.1 for more information).

In view of the mass destruction the tsunami caused to the coastal community of Sri Lanka, the government declared 'no construction zones' (100 meters in the Western and Southern coastal areas and 200 meters in the Eastern and the Northern coastal areas) whereby those displaced by the tsunami and living within these parameters, were forced to resettle in donor built settlements situated far from their previous homes (Muggah, 2008). Tensions and frustrations within resettled communities have increased as a result of this new distance, as it creates new risks and stress situations for household income earning activities, children's education, and social relationships (Hettige et al., 2007). Some victims who were engaged as daily paid labourers and daily paid fishermen equate this move to the Sinhalese idiom- *kabalen lipata thamma wage* (throwing something from the frying pan into the fire) to illustrate that they were taken from bad to worse as a result of their changed living arrangements (Birkmann and Fernando, 2007; Mulligan and Shaw, 2007).

Relocation deals with the principal issue of "moving a way of people's lives", which implies moving away from the places where people live, work and many others. Therefore, relocation needs careful planning as it builds new communities. A large body of literature discusses the failures and consequences of relocation, based on grand development projects using both micro and macro scale analysis (i.e. Gal Oya, Mahaweli) in both dry (Muggah, 2008; Werellagama et al.,; Scudder, 2005; Muller and Hettige, 1995; Soren, 1996) and wet zones (Hettige et al., 2004; Hettige, 2007; Fernando, 2004) of Sri Lanka in great detail. Some of these studies argue that there is an increase in impoverishment among relocatees, due to inadequate attention paid by the officials, whilst developing the housing, social services and income generation potential during the planning phase on the one hand, and technocratic biases, political favouritism and no consideration of structural conditions (i.e. caste, class,

land, ownership and ethnicity etc) of relocation communities on the other (Muggah, 2008; Hettige and Muller, 1995; Scudder, 2005). Moreover, some resettlers who were unable to cope with these socio-economic difficulties have moved to other areas by handing-over their land to their children, or renting or selling it illegally (Werellagama, 2004). Many others are considering whether they made the right decision to stay in the new settlements, although they cannot go back to their former homes (Soren, 1996). Nevertheless, it is worth noting that little attention has been paid by Sri Lankan researchers on the micro perspective of living with stresses and risks as a result of forced relocation after a natural disaster, although a few studies briefly reveal such stresses and risks (Hettige, 2007; Ruwanpura, 2009). In this context, this study makes an effort to fill this gap by conducting a socio-geographic analysis of the resettled tsunami victims living in three new settlements, far from their previous homes in the city of Galle, in the Southern Province of Sri Lanka.

This study can be located at the point of intersection of two strands of research (namely, vulnerability and livelihoods research, and displacement and relocation research) that fit well in development geography (Figure 1). The first one, vulnerability and livelihood research, has focused on geography, sociology, anthropology and economics for nearly three decades. As a result, various research studies have developed, focusing on peoples' exposure to various socio-economic, political and environmental risks, in both rural and urban areas mainly in developing countries, and a range of coping and adaptive strategies (see Chambers, 1989; Bohle and Adikari, 1999a; Bohle, 2007; Moser, 1996; Watts and Bohle, 1993; Rakodi and Lloyd-Jones, 2002). Livelihoods research is closely tied to the study of vulnerability because it is an integral concept in the common definition of livelihood, which will be elaborated in section 2.4.

The second study area, displacement and relocation research, has focused on geography, development sociology and social anthropology for many years (Chambers, 1969; Scudder, 2005, Oliver-Smith, 1990, 1991a, 1991b; Hyndman, 2007; Ruwanpura, 2009). The main areas of study have examined both positive and negative socio, cultural, economic and political impacts on the relocation of displaced people due to conflicts, development projects or natural disasters on one hand, and the gradual development of relocatees' quality of life in new settlements, on the other. Geographers, in particular, focus more on regional development aspects as a result of new settlements. In other words, how new settlements will

help to develop the area and the region and vice versa (de Blij, 2007; Dewar, et al. 1986; Titus and Hinderink, 1998). However, it is striking how both areas of research have methodologically, theoretically and conceptually developed with the influence and interaction between researchers from various inter-disciplinary and cross disciplinary backgrounds.

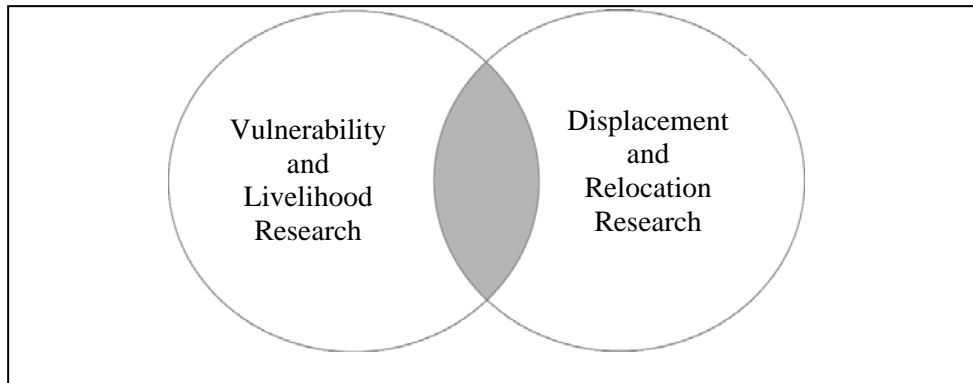


Figure 1: Major Research Areas Relevant to the Study

Fernando, 2007

1.2. Structure of the Research Process and Chapter Outline

It took almost, three years to complete this study. Initially, broad research questions were selected to commence the research study, but later, focused and clear research questions were formed based on the extensive literature survey which was conducted. Drafting an analytical framework guided the stages of fieldwork and the data analysis portion of the research process, though the analytical framework was revised several times taking to account the findings. Figure 2 gives an overview of the research process adopted in this study.

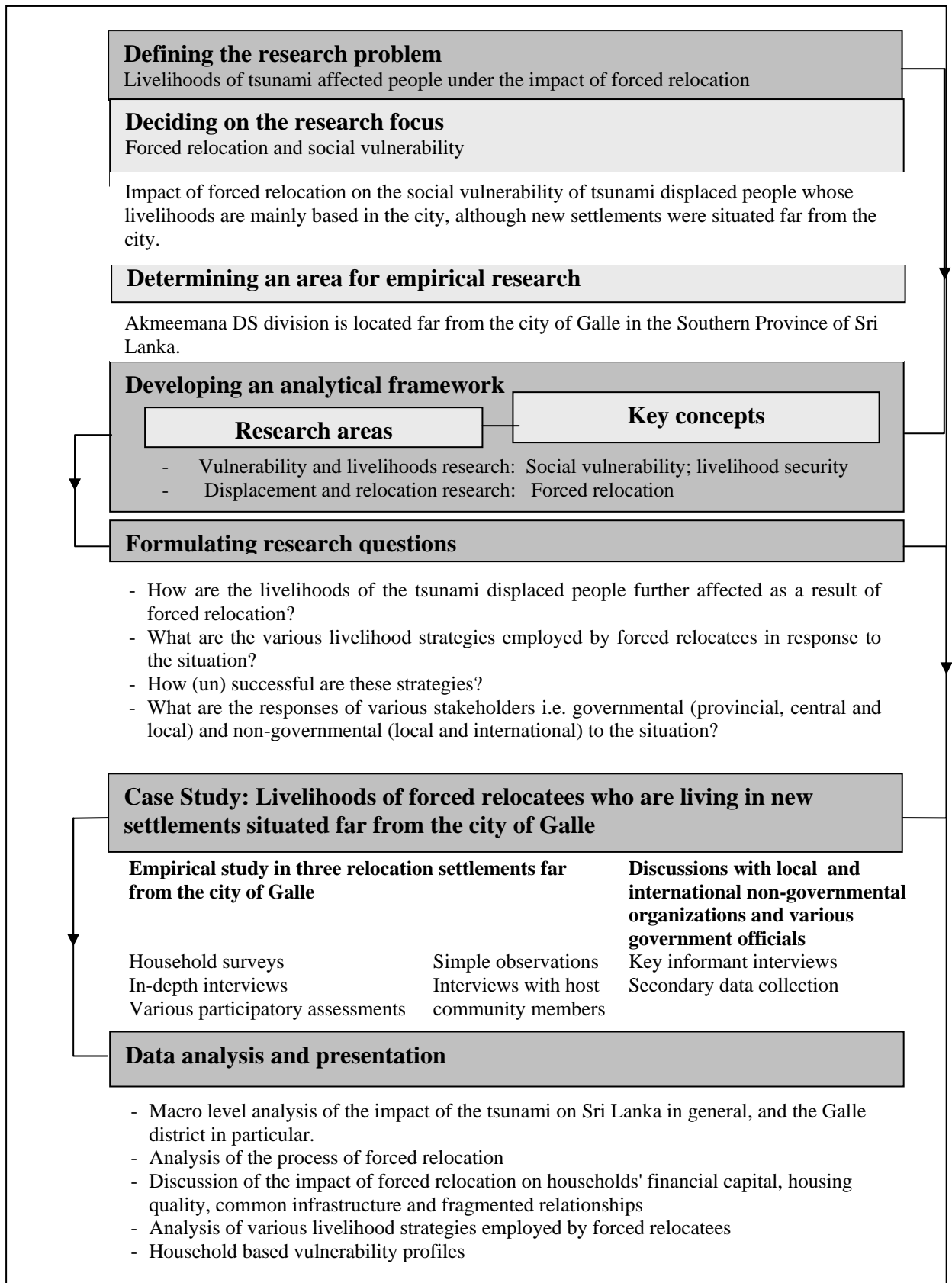
This dissertation comprises nine chapters, including the introduction and conclusion. Following the short introductory chapter, chapter 2 addresses the concepts and conceptual frameworks dealing with forced relocation and social vulnerability, based on the literature review. At the end of this chapter, an analytical framework for the empirical study in Sri Lanka is proposed, based on these concepts and conceptual frameworks. The research methodology applied during the study is outlined in chapter 3. Relevant data collected in three stages (i.e. stage 1, 2, and 3) and, a description of the stages, are discussed in detail in

this section. The chapter further describes triangulation, data analysis and problems faced during the fieldwork.

The analysis and interpretation of field data begins at chapter 4. This chapter provides an introduction to the selected relocation study settlements, situated far from the city of Galle, based on socio-economic and demographic characteristics of its sample households. Chapter 5 is divided into two sections: section one deals with an overview of the impact of the tsunami, based on secondary data, while section two deals with the forced relocation process based on household interviews with the heads of the sample households, in three relocation settlements. Chapter 6 examines the impact of forced relocation on financial capital and relevant livelihood strategies. The chapter also looks at various coping strategies generally employed by households when dealing with income related shocks and stress situations. It also further describes various enhancement strategies employed by poor households, how these households use and combine different assets as enhancement strategies and, finally, how successful or unsuccessful these strategies are.

The impact of forced relocation on housing, common infrastructure, other services and social relationships are presented in chapter 7. Chapter 8 focuses on the impact of forced relocation on social vulnerability of households, based on six specific case studies from three study locations. Conclusions to the empirical study are presented in chapter 9, along with a discussion of the implications of the findings for development policy and practice, in the context of forced relocation. It further discusses areas in which further research is required with regard to forced relocation in the Sri Lankan context.

Figure 2: Overview of the Research Process



2. Key Research Concepts: Forced Relocation and Social Vulnerability

This empirical study focuses on the impact of forced relocation of the December 2004 tsunami affected households on their livelihoods on one hand and various livelihood strategies (i.e. enhancement and coping) utilized by them to secure their livelihoods on the other. The forced relocation settlements selected for this study are situated in rural areas away from the main city of Galle, Sri Lanka, where most of the relocatees lived prior the tsunami.

In this research, two areas of conceptualization can be identified: Forced relocation, and social vulnerability. In the following section, these two concepts will be introduced. Furthermore, the relationship between these concepts are discussed and operationalized for empirical investigation.

2.1. Displacement and Relocation Studies

Populations may be displaced due to civil conflicts and war (i.e. conflict induced displacement), natural and technological disasters (i.e. disaster induced displacement), as well as large scale infrastructure and other development projects (i.e. development induced displacement) such as the construction of highways, ports, airports, dams and reservoirs etc. In relation to the definition of UN guidance principles on internal displacement: internally displaced are persons or groups of people who have been forced or obliged to flee or leave their homes or places of habitual residence, in particular, as a result of, or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights, natural or human-made disasters, and who have not crossed an internationally recognized state border (UNOCHA, 1998). The resettling of these internally displaced populations either voluntarily¹ (compulsory) or involuntarily² (forced), into new settlements, and particularly the negative consequences of involuntary resettlements, have been documented and systematically studied by various institutions, agencies (the Refugee Studies Program of the University of Oxford (RSP), the United Nations Research Institute for Social Development) and social scientists over the past

¹ Displaced people had a choice and made their own decision to move (Turton, 2003; Sorensen, 1996).

² Displaced people did not have a choice and it was not their own decision to move (Turton, 2003; Sorensen, 1996).

four decades (Chambers, 1969; Hansen and Oliver-Smith, 1982; Oliver-Smith, 1990; 1991a; 1991b; 1996; 2005; Scudder, 1981; 2005; McDowell, 1996; Cernea and McDowell, 2000; Muggah, 2008; De Wet, 2006). Importantly, these studies have explored reasons for people displacement, various types of relocations, the relocation process, and also how to improve the quality of life of resettlers. In turn, they have come up with useful concepts, analytical approaches and models that have broadened our knowledge and understanding of relocation as a social phenomenon as a whole.

The Oxford dictionary defines *resettlement* as “settle again in new or former place” (Oxford Dictionary, 1995:1170), while the same dictionary defines *relocation* as “move to a new place to live” (Oxford Dictionary, 1995:1161). In relation to this study the usage of both terms are used in accordance with the definition of *physical movement of people to a new place to live other than the previous place*. Most social scientists who have studied people moving to new locations to live have also used both *relocation* and *resettlement* terminology (Yuefang & Steil, 2003; Dwivedi, 1999; Zaman, 1996; Perry & Lindell, 1997; Yan & Qian, 2003; Gonzalez- Parra & Simon, 2008). What is important to note here is that people however, can be moved into new settlements irrespective of the reason for displacement (i.e. development induced, conflict induced or disaster induced) either with or against their will, owing to various reasons. Most of the recent resettlement and relocation studies similar to this one have focused on the latter.

2.2. Forced Relocation

Turton conceptualizes and defines *forced relocation* as: “persons are forced to leave their homes or home lands for whatever reason and have been allocated specific areas for them to settle down in their own country with at least minimum resources and services to re-establish their lives” (Turton, 2006:13-14). Later, he broadened the definition of the concept by including those who resettled under government sponsored programmes that use relocation as a method of rural or urban development or political control. As a result, Turton does not see much difference between the concepts of forced resettlement and development induced resettlement (McDowell, 2002). Nevertheless, what is clear from Turton’s definition is that forced relocation involves the use of power by one party in the form of rules, regulations etc to relocate the other party. In this context, it is primarily a political phenomenon.

In terms of the characteristics of forced relocatees, they have less chance of returning back to their previous place of residence, however the relevant authorities can take necessary steps to minimize the negative impacts of the relocation in order to improve their living standards (Turton, 2006). In practice, however, studies indicate that this hardly ever happens (Scudder, 2005; Muller & Hettige, 1995; Muggah, 2008). This is why Turton further argued that the situation of forced resettlers' situation is similar to or worse than refugees³ as both groups belong to the poorest and politically most marginal members of society and may end up alienated from their government similar to refugees who have fled their countries (Turton, 2006). In other words, both refugees and forced resettlers are grappling with similar social and economic problems.

In the light of Turton's definition, *forced relocation* is defined here in the context of Sri Lankan study as, "those persons who lived 100 metres from the permanent vegetation line of the beach in the western and southern coastal areas who were forced to leave their completely or partially damaged homes, as a result of the tsunami, to new places to live due to the political decision taken by the government to fully implement the buffer zone regulation (i.e. no construction zone) under the Coastal Conservation Act (No 57 of 1981, amendment, No. 64 of 1988) in order to protect the lives of coastal communities' and property from a future tsunami or other coastal hazards on one hand, and to improve their quality of life in the new settlements⁴ on the other".

2.3. Conceptual Perspectives on Forced Relocation

Two conceptual models which deal with forced relocation, as well as some of the drawbacks of these models, are presented in the following section.

1. Thayer Scudder's (2005) conceptual model on *stress and settlement process*. This is based on the concept of stress to analyse the process of resettlement based on four distinct stages.

³ People who have left their own country because of persecution and violence and who are unable or are unwilling to return (Turton, 2006).

⁴ It is also designed to protect the coastal zones and to cut down long term costs of the government to reconstruct the damages from repeated hazards and invest this money in other development work (CCD, 2005:7).

2. Michael Cernea's (2000) *impoverishments risks and reconstruction model for resettling displaced populations* (IRR model). Eight risks are identified that resettlers have to cope with in order to successfully (planners have to avert) protect their lives from impoverishment.

2.3.1. Thayer Scudder's Stress and Settlement Process

Conducting various studies on forced resettlers (development-induced resettlers), Thayer Scudder develops a multidimensional stress and settlement process model (Scudder, 2005). This model discusses physiological⁵, psychological⁶ and social-cultural⁷ dimensions of stress that resettlers have to grapple with. Multi-dimensional stress is especially prevalent during the physical removal of people from their settlements and in the years immediately following resettlement. Resettlers can overcome this however it depends on the successful implementation of resettlement processes. If not, resettlers have to grapple with stress for longer periods. In addition to multidimensional stress, any relocated community has to pass through four different stages, with each stage characterized by a particular behavioural pattern, which will be briefly discussed in the following section.

(Stage One) Planning and Recruitment – This stage mainly deals with activities relating to the pre-resettlement period, such as planning for the removal, rehabilitation and development of the people. In order to make resettlement a success, Scudder stresses the importance of early involvement of displaced people in the planning and decision making process. Based on evidence, he argues that the stress level of displaced people increases owing to various concerns, for instance, an uncertain future particularly when the time of their removal draws closer. However, increased involvement of displaced people in the planning process would help them to reduce their stress, although it may not be possible to completely eliminate it.

(Stage Two) Coping and Adjustment – This stage begins as soon as the physical removal of communities for resettlement has commenced. It is considered the most painful stage as it may take a number of years, depending on the number of resettlers and the time taken to construct new settlements. During this stage, one could expect the living

⁵ Various health impacts associated with removal for instance poor nutrition and diseases such as malaria, schistosomiasis, leishmaniasis, trypanosomiasis etc (Scudder, 2005:24-25).

⁶ This stress has two aspects: grieving for lost community and anxiety of future (Scudder, 2005:25).

⁷ This stress emerges when a community feels a threat to their cultural identity (Scudder, 2005:25).

standards of the majority of resettlers to drop, owing to multidimensional stress and the large number of adjustments that take place in order to adapt to the new environment such as new neighbours, new economic activities, rising expenses, the host population. Moreover, Scudder argues that most of the resettlers, initially, will not test any new behaviour and practices during this period, other than turning inward to reduce their stress. Therefore, it is difficult for policy makers and other decision makers to expect rapid development during this stage. On the other hand, most government and other funded projects that initiate to assist resettlers to overcome some of their burning issues and problems, may last for only short periods (i.e. less than five years) and may not assist with stage three and four, which are also identified as crucial to improving living standards and the productivity of resettlers.

(Stage Three) Community Formation and Economic Development – The majority of resettlers show risk taking behaviour by investing in children's education, small business and other assets. Resettlers also tend to buy new furniture, electrical items and add more room(s) to the house during this stage. Moreover, they also pay more attention to community formation activities by forming different community based societies such as burial, farming or water use associations, and also actively involve themselves in societal activities, constructing various religious structures and common infrastructure such as clinics, community centres etc. These collective activities, at the community level, and economic development at the household level will eventually not only improve the living standards of resettlers, but also minimize their dependency syndrome.

(Stage Four) Handing Over and Incorporation - This involves the second generation of resettlers. Successful integration of relocated populations into a regional or national political economy will bring an end to the relocation process. Scudder stresses the importance of handing over assets to settlers' institutions during this stage, although it is a difficult and complicated process. Moreover, he states the importance of continued improvement of the living standards of the second generation of resettlers, at least in line with the neighbouring areas. There is no doubt this gives the opportunity to politically and institutionally strengthen them and allow them to compete for their fair and equitable share of national resources. Considering Scudder's above mentioned aspects, particularly about the second generation of resettlers, Sorensen (1996) says that these points are not always adequately considered in the original resettlement plans, which is very important for the sustainable development of the settlement.

Strengths and Weaknesses of Scudder's Stress and Resettlement Process

Discussing the valuable contributions of this model, Sorensen points out that it both sheds more light on the complex relationship that exists between economic, social and psychological dimensions of stress and highlights preconditions for a successful resettlement (Sorensen, 1996). In addition, Oliver-Smith declared that no other existing resettlement model can replace this, as it has been refined over the last few decades based on empirical research, discussions and debates (Oliver-Smith, 1991). Despite the above mentioned valuable contributions there are nevertheless weaknesses of Scudder's model.

A key weakness is that this framework does not adequately deal with variations as it uses a large number of generalizations. In other words, a wide range of behavioural variations and different socio-economic and cultural backgrounds are associated with the resettlement process rather than homogeneous group assumed in Scudder's model. Depending on the capabilities of the resettlers, some may cope successfully with the multidimensional stress and in other issues and problems that arise in each stage, and may move quickly to the next, while other will not. In this context, resettlers in a particular settlement may belong to different stages, which has not been incorporated into the model (Sorensen, 1996). In response to this, Scudder stated that his main intention of developing this model was to explain the similarities rather than differences, but acknowledges the importance of considering the behavioural variations associated with the relocation process (Scudder, 2005).

The second weakness deals with the usefulness of the stages that automatically follow one another. It does not clearly explain for what reason resettlers transit from one stage to another, particularly from stage three (community formation and economic development) to stage four (handing over and incorporation), as these two stages could occur in any order (Koenig, 2002). Considering these drawbacks, some argue that Scudder's model is incomplete and confusing, and stressed the need for a new model (Scudder, 2005; Koenig, 2002; Cernea, 2000). This led to the development of the IRR model, which is discussed below.

2.3.2. Michael Cernea's Impoverishment Risks and Reconstruction Model for Resettling Displaced Populations (IRR model)

Similar to Scudder's model, the IRR model also focuses primarily on forced relocation of communities as a result of development projects. In this model, Cernea argues that displaced people have a risk⁸ of economic, social and cultural impoverishment⁹ when they settle in new locations, and the challenge of managing the social actors engaged in resettlement and reconstruction, namely, government officers, decision makers, social researchers, implementation agencies and other parties involved to prevent them. If this is not the case, this will no doubt pave the way for a negative outcome of resettlement¹⁰. It would however be impossible to prevent every single adverse effect of resettlement.

Cernea stresses the applicability of this model as a planning and monitoring tool. For example, when studying the cumulative effects on resettlers, irrespective of the reason for displacement (i.e. conflict, disaster or development), it is critical to acknowledge the fact that most of them have to confront similar social and economic risks that led to impoverishment. One or more risks may not be experienced by some resettlers owing to the characteristics of the sector (i.e. urban or rural), season of displacement and site. However, some new site specific risks could occur. Considering the general pattern, eight important possible risks which influence one another, are discussed in this model. In addition, the importance of how to overcome or prevent such risks that cause impoverishment when resettling displaced people in new settlements are also discussed. The eight risks are briefly discussed below:

Landlessness – Confiscation of peoples land would eventually destroy the foundation of productive systems, commercial activities, and livelihoods which, in turn, is seen as a major factor of poverty as they lose both manmade and natural capital unless they acquire land elsewhere and the productive system is reconstructed, or replaced with steady income generating activities. Land based resettlement with technical assistance has been more successful than giving cash compensation for displaced people, which alone is insufficient for them to re-establish their socio-economic basis (Cernea, 2000). Similar to Scudder, Cernea (2000) also stresses the importance of decision makers consulting

⁸ Possibility of a certain course of action will trigger future injurious effects, losses and destruction (Cernea, 2000:19).

⁹ Economic, social and cultural impoverishment.

¹⁰ More resettlers may suffer from impoverishment and as a result they may tend to depend more on the government and host community (Muggah, 2003:5).

displaced people in order to get their input for each and every step of the resettlement process, otherwise, it could be one of the root causes of resettlement failure. However, existing literature on three large scale forced relocation settlements (Mahaweli Development Project¹¹, Greater Colombo Flood Prevention and Environment Development Project¹² and Sustainable Township Programme¹³) in Sri Lanka reveals that settlers did not actively participate in the stages of planning, implementation and evaluation, as there were no policies to facilitate active involvement in these activities (Scudder, 2005; Muller & Hettige, 1995).

Joblessness – The risk of losing wage employment as a result of resettlement is very high among both rural and urban populations. For instance, those who work in industry and service sectors lose jobs in the urban sector, while landless labourers in the rural sector lose access to work on land owned by others. Furthermore, shopkeepers, craftsmen and others lose their small businesses. Creation of new employment, however, is difficult as it needs substantial investment. As a result, unemployment and underemployment can often be visible among resettlers. To overcome this, it is important to create more opportunities for them to acquire more skills, financial assistance to start new income earning activities using these skills and also to assist them to find employment (Cernea, 2000).

Homelessness – For many resettlers loss of shelter is only for a temporary period. But some resettlers have to remain in temporary shelters or camps for longer periods of time until they obtain a house to stay in or complete construction of a new house. Loss of the family house can be treated as loss of cultural space that could lead to alienation and status deprivation. Risk of homelessness closely relates to other risks such as joblessness, marginalization and morbidity. These risks can be avoided by adequate project financing and timely preparation (Cernea, 2000). When constructing houses for displaced people to

¹¹ The accelerated Mahaweli Development Project was implemented in 1977 to generate 470 MW of hydro power to achieve self sufficiency in electricity generation and in rice cultivation by irrigating 128,000 hectares of agriculture land in the dry zone. Four major dams (Victoria, Kotmale, Randenigala and Rantembe) were built. About 12,000 families who lived in the vicinity of them were forced to resettle mostly into newly irrigated areas in the dry zone (Werellagama et al., 2004)

¹² This project was launched in 1993 jointly by the Land Reclamation and Development Board with National Housing Authority with the objective of rehabilitate the canal system in the Greater Colombo area in order to protect the Colombo city from flooding. As a result, low income shanty and slum dwellers who mainly lived on the canal banks were forced to relocate into other areas (Fernando, 2004:64).

¹³ The Sustainable Township Programme (STP) began in 1998 as a new urban poverty reduction strategy to relocate at least 50,000 of slum and shanty dwellers that were living on land unfit for human habitat in the Colombo Municipal Council area into six housing complexes with required infrastructure in Colombo (Jagoda, 2000:14).

resettle in, it is important to provide them houses constructed using quality materials, adequate space, water and electricity services and safer sanitation facilities in addition to other common facilities (e.g. street lights, access roads, community centre etc) for the settlements.

In Sri Lanka, the Mahaweli settlements were constructed without proper infrastructure (unpaved roads, unsafe drinking water) in place (Werellagama et al., 2004). Owing to this and the lack of other services in the new settlements, many skilled people were reluctant to move into these settlements knowing that they would face many hardships (Silva, 1982). Forced relocatees relocated under the Greater Colombo Flood Prevention and Environment Development project also complained about inadequate infrastructure (roads, street lights, toilets and water) in their settlements (Fernando, 2004). In this context, it is important to develop the infrastructure and other services well before new settlers arrive.

Marginalization- This occurs when families lose economic power. Economic marginalization is often accompanied by social and psychological marginalization, which can be identified by resettlers feeling a loss of confidence in themselves and society, a drop in social status, feelings of uncertainty, injustice, and deepened vulnerability. When displacees resettle in new locations, they are called “strangers or outsiders” and generally do not get equal access to opportunities and entitlements similar to what the host community enjoys. It is the responsibility of the government and other implementation agencies to assist the resettlers to restore good living conditions in the new places (Cernea, 2000).

Food Insecurity- Settling displaced people in new locations can increase the risk of temporary or chronic undernourishment as their calorie-protein intake tends to be below the minimum necessary levels for normal growth and work. There is a close link between food insecurity related risks and morbidity and mortality risks (Cernea, 2000).

Increased Morbidity and Mortality- Massive population relocation can lead to serious declines in the health of resettlers as a result of relocation induced social stress, psychological trauma and vector born diseases (malaria, schistosomiasis). Unsafe water supplies and improvised sewage systems can make resettlers in general, and more vulnerable groups such as infants, children and the elderly more exposed to diseases and diarrhoea (Cernea, 2000). Relocation studies in Sri Lanka, particularly in Mahaweli

resettlements, show snake bites, water borne diseases and malaria were some health related problems that most of the settlers had to grapple with (Scudder, 2005).

Loss of Access to Common Property Resources - Loss of access to common assets (pastures, forest lands, burial grounds, water resources etc) that belong to relocated communities can obstruct their income earning activities and in turn deteriorate their household income. When displaced people's access to common property resources are not protected, they tend either to encroach on reserved forest or put pressure on the host community's common property resources which is one of the causes of social conflicts with the host community and further environmental degradation (Cernea, 2000).

Social Disarticulation – Resettlement fragments communities, dismantles patterns of social organization, scatters interpersonal ties with kinsmen, and disrupts informal networks with friends, neighbours etc. Most importantly, all of these are uncompensated. The real loss of social capital as a result of relocation has long term consequences, such as growing alienation and anomie on one hand and lower cohesion in family structure on the other. However, creation of community structures and community owned resources is a complex effort that cannot be accomplished overnight (Cernea, 2000).

Strengths and Weaknesses of IRR Model and the Way Forward

The main weakness of the IRR model, argued by Scudder (2005) is that it does not deal with the behaviour of resettlers as the key actors in resettlement even though it discusses various risks they have to cope successfully with without falling into the category of people who are suffering from impoverishment. Nevertheless, Scudder also gives credit to Cernea's model stating that it not only makes an attempt to study impoverishment risks systematically, based on forced resettlement (development induced), but it also incorporates necessary resettlement policies to improve the living standards of resettlers (Scudder, 2005). Moreover, Scudder stresses the importance of combining these two models together and broadening them in order to come up with a powerful tool for planning and implementing a more successful process of resettling communities and settlements. This can be seen as an important suggestion as both models have complementary strengths. For instance, Scudder discusses how the majority of resettlers can be expected to respond during different phases of resettlement, while Cernea

identifies eight major impoverishment risks and discusses how to avoid them. Combining these two models would minimize some of the criticisms of each model discussed above.

It can be concluded that the two conceptual perspectives discussed above on forced relocation, irrespective of their weaknesses, is relevant to the research study in Sri Lanka. Of particular note are the various stresses and risks that resettlers have to cope successfully with to avoid falling into impoverishment, and the responsibilities of various actors who are involve in planning and implementation of relocation, to minimise such risks and stresses on the other.

2.4. Vulnerability and Livelihoods Security

The concept of vulnerability is applied in a number of research disciplines such as sociology, geography, environment science, economics and psychology (Adger, 2006; Alwang et al., 2001). Researchers belonging to these disciplines attempt to explore how people exposed to risks such as poverty, conflict, natural hazards, and climate change deal with them (Bohle and Adikari, 1999a; Birkmann et al., 2007; Birkmann and Fernando, 2007; Moser, 1998; Pryer, 2003; Fünfgeld, 2007; Cutter et al., 2008; Brooks et al., 2005). According to Adger (2006:270), two major research traditions on vulnerability, namely vulnerability due to lack of entitlements, and vulnerability to natural hazards, “acted as seedbeds for ideas that eventually translated into current research on vulnerability”.

Sociologists and economists more often used vulnerability concept similar to poverty¹⁴ which, in fact, is not the same, although there is a close connection between the two concepts (Morrow, 1999). For instance, poor people have higher exposure to a variety of risks, shocks and stress situations and a lack of assets to mitigate and cope with such situations (Rakodi, 1995). As a result of this confusion “vulnerability analysis has been neglected” (Chambers, 1989:1).

According to Chambers, vulnerability can be discussed as a multi-dimensional aspect of deprivation¹⁵ (Chambers, 1995). He defines vulnerability as means not lack or want, but defencelessness, insecurity and exposure to risk, shocks and stress. Moreover, to him “vulnerability has two sides: an external side of risks, shocks and stress to which

¹⁴ Low income and consumption.

¹⁵ Other dimensions of deprivations are: social inferiority, isolation, physical weakness, seasonality, powerlessness and humiliation (Chambers, 1995).

individuals or households' are exposed to, and an internal side which deals with individuals or households' capacity to successfully cope with risks, shocks and stress without damaging loss"¹⁶ (1989:1). In relation to this definition, exposure, capacity and potentiality can be identified as fundamental components of vulnerability (Watts and Bohle, 1993).

According to Scoones (1998:5), "a livelihood comprises the capabilities, assets (including material and social resources) and activities required for a means of living. Livelihood security can be understood as the internal side of vulnerability since it focuses on strategies and actions to overcome, or at least to reduce, the negative effects of risks, shocks and stresses created by the external side of vulnerability (Chambers, 1989; Bohle, 2001; Moser, 1998). Therefore, one can conclude that "livelihood security and vulnerability are two extreme points on the same scale, or two ends of a continuum" (van Dillen, 2002:4).

The present concerns of researchers and policy makers are to reduce individual or household level vulnerability and enhance security, which is not an easy task. This is because "social vulnerability is highly context dependent, dynamic and differential, in this context, there are no easy solutions for it" (Bohle, 2007:23).

2.5. Two Conceptual Frameworks to Study Vulnerability

There have been promising studies conducted at the conceptual and empirical level on vulnerability over the past two decades, however, "there is no well developed theory, and no consensus on the relevant indicators of vulnerability and how to measure them" (van Dillen, 2002: 64). Two conceptual models that attempt to conceptualise vulnerability are briefly discuss in the following section.

¹⁶ This could be economically impoverished, socially dependent, humiliated or psychologically harmed or physically weaker (Chambers, 1989:1).

2.5.1. Bohle's Conceptual Model on Double Structure of Vulnerability

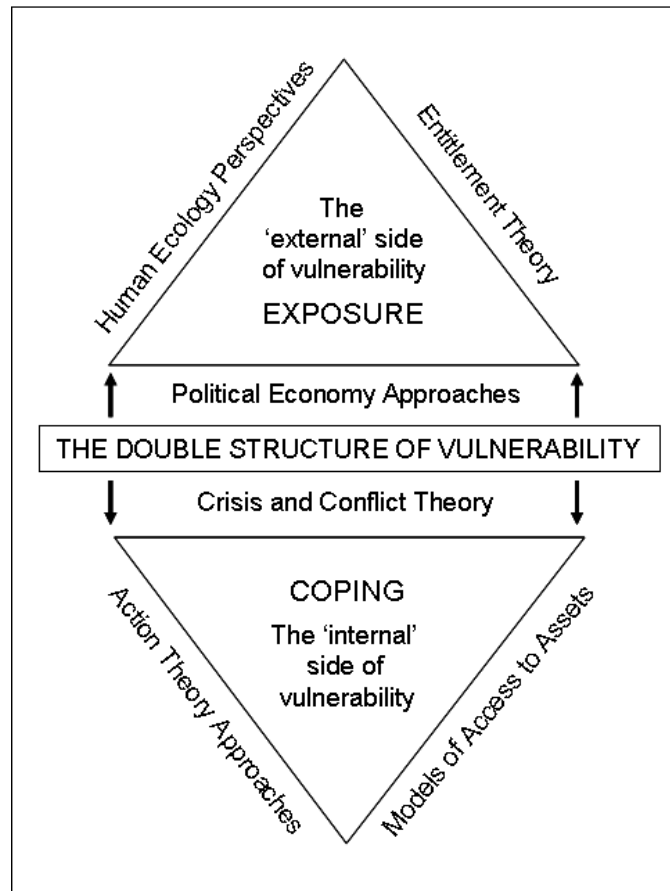
Bohle (2001) introduced a conceptual model for vulnerability analysis developed based on Chambers double structure by integrating both macro and micro perspectives (see Figure 3). In relation to this model, the "external side" mainly represents the structural dimensions of vulnerability and risks, while the "internal side" of vulnerability focuses on coping and actions to overcome, or at least mitigate, the negative effects. This model is unable to be used as a complete framework for vulnerability analysis, but provides some useful insights into the causal structure of vulnerability.

Bohle discusses three main strands of theoretical and conceptual discussions relevant to explaining the external side: human ecology, entitlement and political economy. The internal side deals with various coping strategies that can be explained using action theory approaches, a model of access to assets, and crisis and conflict theory. Moreover, these three approaches overlap in multiple ways and are closely linked to the external side.

Action oriented approaches, or structure¹⁷ and agency,¹⁸ in Giddens's terms explains the interaction between the external and internal side of vulnerability. This means, it explores the extent to which coping strategies are determined by structural constraints. The second approach, namely models of access to assets, are closely linked to action theory as it deals mainly with access to coping resources or assets. The importance of people controlling assets has been stressed in this context. In other words, if people control more assets this will give them the potential capacity to successfully cope with risks, stress and shocks. The final strand represents conflict and crisis theory which deals with the capacity to successfully manage crisis situations and solve conflicts which is a determinant for successful or less successful coping (Bohle, 2001).

¹⁷ Rules and resources (allocative and authoritative), recursively implicated in the reproduction of social systems. Structure exists only as memory traces, the organic basis of human knowledgeability, and as instantiated in action (Giddens, 1984:377).

¹⁸ Relationships of actors (human beings) to structures in both rule and resource senses (Giddens, 1984:8-9).



Source: Bohle, 2001:4

Figure 3: A Conceptual Model for Vulnerability Analysis

2.5.2. Sustainable Livelihood Framework

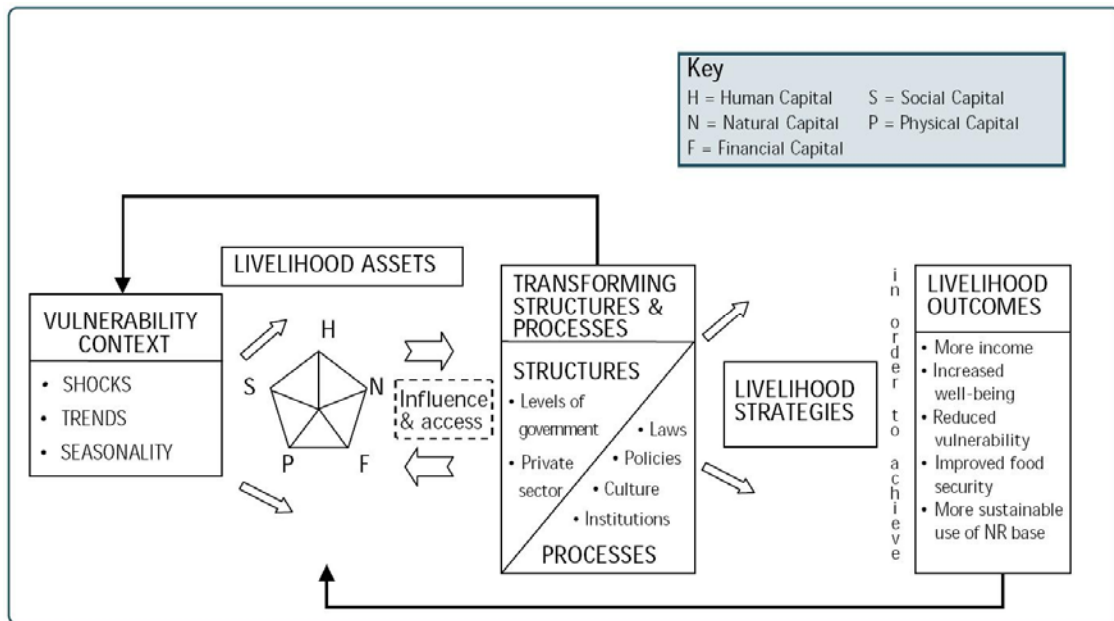
The second conceptual model namely, 'Sustainable Livelihood' (SL) is not a standardized concept, as various scholars approach sustainable livelihoods from different perspectives¹⁹. Several studies use the term 'livelihoods' in an economic sense referring to people's income earning activities or employment opportunities (Carney, 1998), while Department for International Development (1999) promoted it as a far richer concept by adapting the definition of Chambers and Conway (1992) in the sustainable guidance sheet. The foundation of this approach is the livelihood framework, which can be used as a tool to improve our understanding of livelihoods, particularly of the poor. This approach attempts to present the main factors that affect people's livelihoods and the typical relationships between these in a simplified way for any scientific analysis of sustainable

¹⁹ See Carney, D (1998) and Rakodi, C. & Lloyd-Jones (2002).

livelihoods (see figure 4). The present study uses some parts of the SL framework as an aid to construct an analytical framework for the present study.

When explaining the framework, it is evident that assets (human, social, natural, physical and financial) are the foundation for an individual's or household's livelihood. Livelihoods are influenced by the vulnerability context within which they live. In other words, people's livelihoods and their assets are fundamentally affected by critical trends, shocks and seasonality's, over which they have either limited, or no control. On the other hand, access to assets is also influenced by structures and processes, such as public and private institutions and organisations, policies and legislation etc., that shape livelihoods of individuals or households. Depending on the vulnerability context, individuals or households consistently employ various strategies in order to adjust to the changing environment and asset portfolio. These strategies or 'actions' finally produce certain livelihood outcomes as well-being or livelihood security in a positive outcome, or as ill being or vulnerability as a negative outcome. Arrows within the framework show different types of highly dynamic relationships, none of which directly imply causality, although all imply a certain level of influence.

Murray (2001) points out some weaknesses of the above framework by stating that it has not sufficiently addressed power inequalities and conflict of interest between and within communities. Furthermore, by equating 'assets' theoretically with varieties of 'capital' through the asset pentagon in the diagram, it intellectually distorts the understanding of capital as well as the causes of poverty. With these weaknesses in mind, the SL conceptual framework can be used to examine and understand various livelihood strategies employed by forced relocatees, as against various forced relocation related risks and stresses they are exposed to.



Source: Ashley, C & Carney, D, 1999:47

Figure 4: Sustainable Livelihood Framework

2.6. Context, Assets, Actions and Outcomes

Context (stresses and risks), assets, action (livelihood strategies) and outcomes (security or vulnerability) emerge as important components of the above two approaches (i.e. livelihood security and vulnerability) in order to construct the analytical framework for the present study. The concepts of assets, action (or livelihood strategies) and outcomes (security or vulnerability) are viewed from the internal side of vulnerability, while context shows the external side of vulnerability. The external side has mainly been examined from a macro-perspective considering shocks (impact of tsunami and forced relocation), while the internal side of coping strategies and outcomes have been explored on a micro-perspective, based at household level. These concepts are separated for analytical purposes though they overlap.

2.6.1. Context

This represents the external side of vulnerability where people's livelihoods are affected, mainly owing to various shocks (health, natural hazards, epidemics, pollution, conflicts or forced relocation related), risks²⁰ (unemployment, conflicts between host and resettled,

²⁰ These risks and shocks can be further divided into idiosyncratic and covariant. For instance, risks or shocks such as illness, domestic violence, and unemployment that affect individuals or households come under idiosyncratic,

disease or injury, violence including domestic violence and criminal) trends (resource stocks, demographic, technological, political and economic), and seasonality (change of prices, employment opportunities etc) (DFID, 1999; Scudder, 2005; Cernea, 2000; Rakodi and Lloyd- Jones, 2002; Sinha and Lipton, 1999). Some groups or individuals may be also at risk due to inherent vulnerabilities such as gender, caste, ethnicity, location of residence, and occupation. What is important to mention, is that people can expect some of these risks and shocks, while others are unexpected.

In relation to the present study, coastal communities living very close to the sea, first experienced the shock of the tsunami natural hazard which destroyed their assets. This was followed by the second shock which was the forced relocation of tsunami displaced people under the Coastal Conservation Act No 57 of 1981 and the Coastal Conservation Act (amendment) No. 64 of 1988. According to these acts, a coastal zone of 300 meters from the shoreline towards the land was declared as a protected area. Of this, a setback zone of the first 60 meters from the shore was left free without any development activities, such as construction of houses for residential purposes, tourist hotels or commercial buildings. These activities in the coastal zone, other than in the set back zone, are only possible after obtaining a permit from the Coastal Conservation Department. In other words, “any construction appearing without permits in the Coastal Zone can be labelled as illegal constructions and the Coastal Conservation Department has the power to order them to be demolished” (CCD, 1997: 2-10). Nevertheless, before the Boxing Day tsunami in 2004, Coastal Conservation Department officials could not properly enforce the law in some areas to protect the general coastal zone, let alone enforce the set back zone within the coastal zone from various types of unauthorized constructions, due to various political pressures. In other words, unauthorized construction came up with political support other than formally obtaining a permit²¹. Nevertheless, as a result of not allowing the reconstruction of houses within 100 meters in the south coast after the 2004 tsunami, most of the affected, displaced families who lived in this zone prior to the tsunami were forced to resettle in new settlements mostly situated far from their previous place of residence. In this context, forced relocatees are exposed to various income challengers,

while risks or shocks that affect group of households, communities, regions or nations as a result of natural hazards, epidemic, riots, forced relocation, civil war come under covariant (Jutting, 2005).

²¹ The number of formal permit applications received by activity (hotels, houses etc) between the period of 1983 to 1994, CCD shows, a significant proportion of permits applications were submitted for the purpose of house construction (1149) other than for sand mining (963) or to construct hotels (125) (Samaranayake, 1995).

poor quality housing, lack of common infrastructure and fragmented relationships with the host community, and related risks and stresses in their new settlements.

2.6.2. Assets

Research that explored the internal side of vulnerability highlighted the importance of people's possessed assets to secure their livelihoods from external shocks, stress and risks situations (DFID, 1999; Bohle, 2001; Moser, 1998; Rakodi, 1999; Swift, 1989; Blaikie et al., 1994). This means vulnerability is linked with net assets (Chambers, 1989:5) and low assets could be a good indicator of vulnerability. Importantly, the vulnerability and asset ownership debate is relevant in both rural and urban sectors (Blaikie et al, 1994; Swift, 1989; Moser, 1998; Rakodi & Johnes, 2002).

At all levels (household, community and society), available assets constitute a stock of capital, which can be stored, accumulated, exchanged or depleted and put to work to generate a flow of income or other benefits (Rakodi and Lloyd- Jones, 2002). Some assets are tangible (labour, food stocks, gold jewellery, cash savings, land, water and equipment), while others are intangible (household relationships) (Moser, 1998; Chambers, 1995). People make use of assets for different purposes. For instance, people use assets as resources to build a livelihood, influence livelihood decisions and also as a buffer to protect their livelihoods (Bebbington, 1999). Moreover, to Bebbington assets give the people capability to be, and to act. The type and number of assets according to their importance to the livelihood, vary not only across urban and rural contexts, but also from one researcher to another. For instance, some researchers have identified four (van Dillen, 2002; Scoones, 1998), some five (DFID, 1999; Moser, 1998) and some even six (Rakodi, 1999) different types of assets in relation to their studies. This could be due to the fact that some researchers do or do not identify some assets independently, based on their research emphasis. A number of researchers consider political capital as an integral part of social capital (DFID, 1999) and some do not (Rakodi, 1999).

In an attempt to explore household assets, mainly of the urban poor, under the context of forced relocation, it is clear that assets are important resources in order to properly maintain their livelihoods, and employ various livelihood strategies to ensure they do not face damage or loss. In the following section, the five most commonly used household

assets (for example human, social, physical, financial and natural), are discussed particularly in relation to the context of forced relocation.

Natural Capital – the term natural capital refers to resource stocks from which resource flows useful to livelihoods are derived. This includes land, water and other environmental resources, particularly common pool resources (Carney, 1998). Natural capital is important for those who derive all (or a part) of their livelihoods from resource based activities. In relation to the present study context, it is important to explore how relocated household members, particularly those engaged in fishing related income earning activities and currently living in new settlements far away from the sea, cope with the problem of distance to the sea, compared to before.

Physical Capital – Physical capital includes assets such as housing, basic infrastructure (transport, energy, water, and communication), production equipment that people own, rent or use to engage in their livelihoods (Rakodi and Lloyd- Jones 2002; Farrington et al., 2002).

Properly built houses can be used for both shelter and income generating purposes (renting out rooms, using space as a workshop area or for a small grocery shop etc). However, inadequate financial assistance to construct houses was one of the major concerns of forced relocatees under the Greater Colombo Flood Prevention Project (Fernando, 2004). On the other hand, relocatees of the Sustainable Township Program complained about inadequate space of the apartments, in the case of large families. Living in a multi-storey high-rise apartment complex was also a new experience for all of them (Hettige et al., 2004).

When either a house or land lacks a formal legal title, it creates an extreme sense of vulnerability as the legal title is often the determinant of other assets. For instance, legal ownership of the house can be used as collateral for credit (Moser, 1998). Location of the house is also an important determinant of the value of housing as an asset. Housing which is close to employment opportunities and markets will not only improve residents' access to income generating activities, but also reduce transport costs, which can be a significant expenditure (Hettige, 2008; Rakodi, 1999).

Public infrastructure (roads, community centres, bridges etc) are another important physical asset. Better infrastructure and services are often identified as factors that draw rural migrants to the cities (Farrington et al., 2002). It is clear, in general terms, that people living in urban areas often have better access to public infrastructure than their rural counterparts, even though the urban poor often suffer from low quality public services (Farrington et al., 2002). Rakodi (1999) argues that developing infrastructure, particularly among poor communities, will improve their opportunities to diversify their economic activities, while improving the availability of productive equipment will enable small-scale entrepreneurs to increase their profits or get on with lucrative activities.

In relation to the present study locations, as stated earlier, most of the forced relocation settlements are situated far away from the city and are mainly in rural areas. In this context, it is important to explore whether the relocatees are satisfied with their common infrastructure and housing conditions in their new settlements, and if not, how these unsatisfactory conditions in turn, negatively affect their livelihoods.

Financial Capital – Income from the sale of labour, which is one of the key assets that the poor people possess, comes under financial capital. In general, urban poor may more heavily depend on a cash income than the rural poor (Farrington et al., 2002). The urban informal sector mainly absorbs people who are young, very old and less educated, not only with lack of training and employment opportunities, but also who are unable to obtain employment in the formal sector. A large proportion of the urban workforce works in the informal sector, particularly in Third World cities (Bromley, 1997).

Keith Hart originally introduced the concept of the informal sector in 1971 based on an empirical study on urban workers outside the wage sector in Ghana. According to Hart's definition; "the informal sector consists of economic activities characterized by ease of entry into the activity concerned, reliance on indigenous resources, family ownership of enterprises, small scale of operation, labour intensivity and adapted technology, skills acquired outside the formal school system and unregulated and competitive markets". Furthermore, he states that "informal sector activities are largely ignored, rarely supported, often regulated and sometimes actively discouraged by the government" (cited from Gugler, 1981:73).

Some social scientists criticized the informal/formal classification of economic activities as crude and a simple classification as it divided all economic activities into two categories. They also stated that there is a tendency to consider the informal sector and the urban poor to be synonymous, where not all poor who work in the informal sector are poor and not all poor people work in the informal sector (Bromley, 1978; Moser, 1978). Nevertheless, Tokman insisted on the usefulness of the informal/formal conceptual framework in order to examine and understand different socio-economic systems of poor people (cited from Bromely, 1978).

When examining the income earning activities that one would place under the informal sector, Bromley placed nine occupations under this sector, on the basis of a study on 'street occupations'. They are retailing, small-scale transport, personal services, security services, gambling, recuperation (scavenging), prostitution, and begging. He also points out that from these categories 'retail' was the largest (Bromley, 1997). In an attempt to relate it to the Sri Lankan context, Silva and Athukorala (1991) include different types of labourers (sanitary, itinerant, casual and skilled) and domestic servants (employed both locally and abroad) under the informal sector, and most importantly, several studies have discovered that all of the occupations considered here have some negative characteristics of work. For instance, work is insecure, often inadequately remunerated, and there is a lack of official recognition, which in turn leads to poverty and deprivation (Silva & Athukorala, 1991; Bromley, 1997; Hettige, 1990).

Financial capital is also available to people in the form of savings, credit, remittances and pensions that provide them with different livelihood options. Access to credit from formal institutions, such as banks, has remained limited for the poor. Therefore, their ability to take financial risks in order to diversify their income strategies, for instance to start a small home-based income earning activity, is also limited. Sometimes these people have to depend on access to other sources, for instance, informal money lenders and pawning centres (Rakodi, 1999). These sources no doubt further increase indebtedness and poverty (Scudder, 2005; Sorensen, 1996; Muller & Hettige, 1995; Hettige et al., 2004).

In relation to the present study context, it is important to examine how the income earning activities of relocated households have been affected on one hand, and how they use their financial capital to employ various livelihood strategies on the other.

Human Capital – Human capital refers to the skills, knowledge, health and physical fitness of an individual at any point during their lifetime (Scoones, 1998). The number of household members who are physically and mentally fit to be engaged in an income earning activity, particularly as labourers, both in urban and rural poor households is commonly identified as an important asset. Therefore, it is clear that financial capital in terms of access to employment and earnings is mostly dependent on adequate human capital. Additionally, human capital is highly dependent on adequate nutrition, health care and safe environmental conditions (Farrington et al., 2002). Sen (1997) insisted that the development of human capital contributes to increasing the quality of life of people in many more ways, such as the ability to read and write will help people not only to find jobs easily, but also to engage in them more efficiently. Moreover, this ability will further help them to engage in discussions, debates and negotiations relevant to them. It can be concluded that availability and access to health, education and other facilities is important to maintain the quality of household level human capital. Nevertheless, studies on forced relocation have shown a lack of availability of these facilities in the vicinity of new settlements. In addition, the poor quality of some of the available services forced the relocatees to obtain such services from other areas which in turn increased their household transport expenses (Werellagama, 2004, Scudder, 2005).

Social Capital – Social capital is defined and identified by its function. Like other forms of capital, social capital as a resource makes it possible to achieve certain ends that in its absence would not be possible (Coleman, 1998). The World Bank says that social capital is necessary for long term development and it is the capital of the poor (World Development Report, 2001). This is because social assets work as critical safety nets in times of risks, shocks and stress situations (Rakodi, 1995; Moser, 1998; Putnam et al., 1993; Rao and Woolcock, 2001; Grootaerc, 1998; Roberts, 1978; Narayan and Woolcock, 2000; Gordon et al., 2000; Pelling and High, 2005).

Bourdieu (1998), who developed the concept of social capital, defined it as: ‘contacts and group memberships (in formal and informal organizations) which, through the accumulation of exchanges, obligations and shared identities, provides actual or potential support and access to valued resources’. Grant (2001) recognized social capital in relation to both *horizontal* relationships of social support between members of a community, family or a household, and *vertical* relationships between communities and institutions. While Palgi and Moore (2004) stated that social capital consists of the stock of active

connection among people even though Turner (1999) points out that it is somehow a narrow view of social capital. Carney (1998) defines it in relation to livelihood as networks, memberships in community-based organizations, relationship of trust and reciprocity, and access to wider institutions in society on which people draw in search of livelihoods. Considering the above definitions, it is clear that social capital is less tangible when compared to other types of capital, as it exists among personal relationships and is a resource available through social networks. Social capital is not just an asset for coping with shocks, it is also an important source of mobility (Kottegoda, 2004). Some also argue that strong social capital can help communities to mobilize support to demand services and rights from the state (Putnam et al., 1993; Mirza and Reay, 2000; Grant, 2001; Zhao, 2002). However at the household level the ability to obtain assistance from relatives, peers and neighbours depend on number of factors, such as household composition and structure, the level of cohesion among family members, number of relatives, peers and neighbours in the network, and strength of ties among the members (Zhao, 2002).

Bonding and Bridging Types of Social Capital

Putnam (2000) identified two forms of social capital: “bridging” refers to horizontal connections, i.e. connections to people with broadly comparable economic status and political power, but with different demographic, ethnic and geographic backgrounds. “Bonding” refers to strong ties connecting family members, neighbours and close friends sharing similar demographic characteristics. This type of social capital offers immediate practical support in an emergency situation. In other words, it can be treated as an informal safety net (Das, 2004). Narayan and Woolcock (2000) mentioned that poor have an intensive stock of ‘bonding social capital’ but they lack ‘bridging social capital’ to move out of their situation.

Trust and Reciprocity

Trust and reciprocity are essential component of social capital (Moore, 1999). Putnam (2000) identifies two types of reciprocity. Specific reciprocity (or Balanced) refers to a simultaneous exchange of items of equivalent value, while generalized reciprocity refers to a continuing relationship of exchange which, at any given time, is imbalanced, but that involves mutual expectations that a benefit granted now should be repaid in the future. In

relation to trust, he further identifies two types of trust, such as personal trust and social trust, which help to build cooperation within the family and society.

In terms of the negative aspects of social capital, some say it is a confused concept, although it is popular, as it focuses less on its negative implications and therefore, gives a one-sided view (Portes and Landolt 1996; Stirrat, 2003; Fine, 2001; Das 2004). Portes and Landolt (1996) further argue that the poor's poverty level has increased owing to their extra reliance on their close kinsmen, neighbours and friends for economic needs, which could be identified as a drawback of social capital. With these negative aspects, it is however important to examine how social capital is used and combined by forced relocatees to employ various livelihood strategies against various forced relocation related stresses and risks.

2.6.3. Actions: Livelihood Strategies in the Context of Forced Relocation

Livelihood strategies are the range and combination of activities people employ in order to achieve their livelihood goals. People belonging to different categories of households (poor and not poor) develop and pursue different livelihood strategies on the basis of their personal goals, resource base, past experiences of un/successful livelihood strategies. They also manage different types of assets and transform them into income, food or other basic necessities based on their understanding of the options available (Rakodi, 1995; Chambers, 1989; Moser, 1998; Moench and Dixit, 2004). These strategies include short term considerations, such as coping with shocks and managing risk, as well as longer-term aspirations for their children's future, and strengthening household income etc. Livelihood strategies can be positive, which help households to become more resilient and less vulnerable, or negative, when they result in the further erosion and decrease of the asset base. It is also a process of failure and success in terms of outcomes of these strategies. However, livelihood strategies that the poor employ to increase their security often get more complex and diverse and therefore more difficult to simplify (Moser, 1998). When exploring prerequisites for successful livelihood strategies of poor, it has necessary to mention the importance of examining the mechanisms and structures that promote or prevent successful livelihood strategies and capabilities of poor to participate in the decision making processes and the rights available to them to claim options for such strategies (Bohle, 2007). The present study context explores livelihood strategies

employed by forced relocated households in order to secure their livelihoods from various forced relocation related stresses and risks.

Two types of livelihood strategies, namely enhancement and coping, which were identified in the existing literature are relevant for the present study and are discussed in the following section.

Enhancement Strategies - Enhancement strategies are sometimes called accumulation strategies, long term coping strategies, or resource maximization strategies (Tacoli, 1998; Wallace, 2002). For the purpose of this research, all these strategies are treated as 'enhancement strategies'. The primary goal of enhancement strategies is to strengthen the asset portfolio of a household by managing the existing capital as well as invest in human, financial, social and physical capital. For instance, the entrance of more household members into the workforce, growing one's own food, renting out additional rooms and migrating for international and local employment, are some enhancement strategies to mention (Rakodi, 1995; Cohen and Sebstad, 2000). Some enhancement actions can appear deliberately slow, however, this may help to improve the status of the household and also encourage upward social mobility. This means that some household members will sit and plan their activities before acting, while others act without any planning (Wallace, 2002). In relation to the present study, enhancement is defined as the ability of the forced relocated households' to reduce and avoid various forced relocation related stresses and risks in the long run by investing in assets.

Coping Strategies - Coping strategies, which are also referred to as household responses (Moser, 1996; Few, 2003) or strategies (Wallace, 2002), coping behaviour (Watts, 1983) or survival strategies (Norris, 1988) is not a new concept²². It has been used in many studies that deal with poverty (Kottegoda, 2004; Moser, 1998; Kabir et al., 2000), food security and vulnerability (Bohle and Adikari, 1999a). In short, coping refers to people's short term response to an immediate shock, risk or stress situation and they are primarily applied after loss or damage in order to survive and recover from such situations (Cohen and Sebstad, 2000; Pryer, 2003; Bohle, 1999b).

²² Concepts of coping are not new since they have been used in urban anthropological studies over the past thirty years (see e.g. Lewis 1968, Lominitz 1977 and Kalpagam 1985).

Studies on coping with famine have identified two sub categories of coping: ‘short term response’ and ‘adaptive’. Short term response to a food stress situation or acting to survive, is very similar to a coping strategy, while ‘adaptive’ is defined as the long term change in behaviour patterns or more sustainable adjustments of behaviour as a result of shocks or lasting stress, which is similar to enhancement strategies (Davies, 1993; Smith and Wandel;2006). In relation to the present study, coping is defined as the ability of the forced relocated households’ to survive from various forced relocation related stresses and risks.

The following are some of the specific ways in which people cope or survive a crisis in the short term: reducing or eliminating consumption; changes in eating habits, buying habits or non food items targeted for cuts such as new clothes, meat, ‘luxury’ food and drinks by buying cheaper food and second hand clothes; borrowing money without interest, working longer hours, postponement of medical treatment; not repairing or replacing household equipment; postponing household repairs or improvements; reduced social life, including visits to rural homes, or postponing childrearing, cashing of intangible assets or selling intangible assets, withdrawing children from schools, and marrying off daughters early (Farrington et al., 2002; Pryer, 2003;Rakodi, 1995; Moser, 1998). Evidence shows that the strategies the poor are compelled to adopt can further trap them in a cycle of low productivity and low income. This means, they rotate in the vicious cycle of poverty and become more vulnerable to chronic poverty (World Bank, 2002). Ultimately, what is important to note here is that enhancement and coping strategies are not mutually exclusive, as households always combine these strategies either simultaneously or sequentially.

Coping Capacities

Some individuals and households are more capable of coping with risks and stresses than others due to the quantity and value of different assets they have, access to assets and opportunities to turn them into sources of livelihoods. Some people also calculate the relative costs and the expected return from each option, both immediately and for the future, before they carry out any action (Crow, 1989; Bebbington, 1999). The household gender composition, as well as power relationships among different household members also played a vital role in decision-making in regard to coping. For instance, men usually have a greater say than women or children (Rakodi, 1995). In this context, one can argue

that only better-off households who have control over resources were able to plan strategies, while others did not (Anderson et al., 1994). However, Vinay (1985) saw it the other way round: only poor households had to develop strategies for their survival.

2.6.4. Outcomes: Security or Vulnerability

Outcomes are the achievements gained as a result of employing various livelihood strategies in relation to a given vulnerability context. These outcomes can be both positive (increased well-being, reduced vulnerability or increased food security) and negative (food insecurity, increased vulnerability and decreased income) forms.

In relation to the present study, vulnerability refers to the exposure²³ to various forced resettlement related stresses and risks (generated mainly due to income and expenditure related issues, poor quality housing and a lack of common infrastructure, and fragmented relationships with the host community), that the tsunami affected householders presently live in settlements far away from their previous settlements, (which were situated mainly in the Galle city) and the difficulty in coping with such issues. Furthermore, in relation to the working definition use in this study, risk refers to uncertain events that can make households insecure as a result of forced resettlement, while stress refers to gradually emerging or continuous harsh conditions that also emerge as a result of forced relocation. Moreover, household security here refers to the combination of secure basic income, access to common infrastructure and services (transport, education, health facilities), secure housing conditions (properly constructed houses), and security from threats from other communities (both old and new) (Human Development Report, 1994).

2.7. Analytical Framework of the Study

The concepts introduced and discussed above have assisted to construct a conceptual framework for the present study. The main conceptual foundations of the study were identified as: the concept of forced relocation, including two theoretical models, namely, Thayer Scudder's Stress and Settlement Process and Michael Cernea's Impoverishment Risks and Reconstruction Model for resettling displaced people and the concept of vulnerability focusing both external (exposure) and internal sides (coping). The elements of the constructed analytical framework are discussed below.

²³ Here refers to frequency, magnitude and duration of stresses that a relocated household experience.

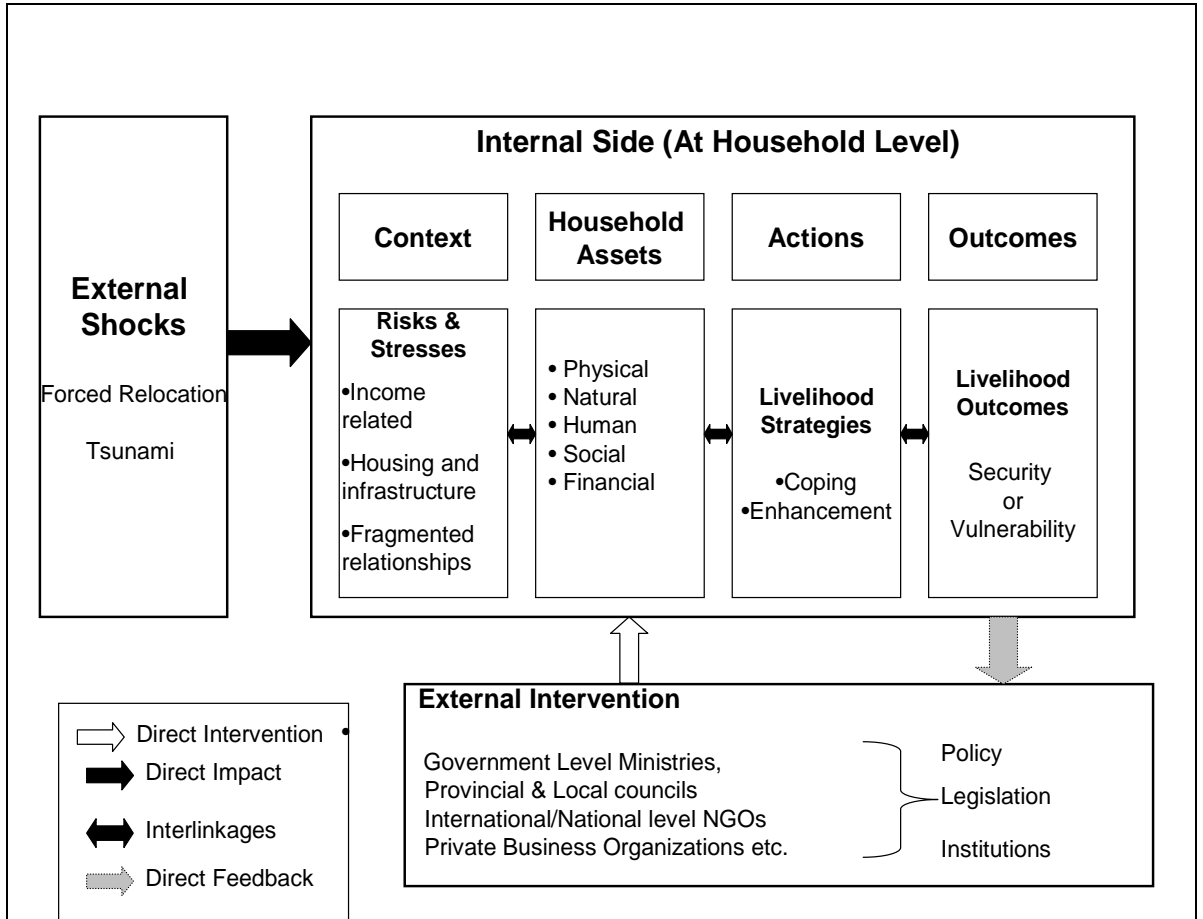
In an attempt to explain the analytical framework in figure 5, it is easiest to start with a discussion of the *external shocks* which were, (1) the tsunami natural hazard destroyed various common properties at the regional level (roads, railways, schools, hospitals etc), and lives and various types of assets at household level, (2), the forced relocation of affected communities living within the re-imposed buffer zone area (no construction zone) into new settlements, mainly situated far from their previous place of residence.

As a result of forced relocation, the tsunami displaced people who lived in the city of Galle did not have any other option other than resettling in given settlements outside the city. Those who lost family members and other types of assets, are currently exposed to various risks and stresses as a result of forced relocation which are further discussed under the *context* (difficulty in accessing the sea and city to earn income, lack of employment opportunities in new settlement areas, lack of proper infrastructure, poor quality housing, and fragmented relationships with the host community which sometimes even led to physical conflicts). In this context, forced relocation is believed to have directly impacted on five types of *household assets* which are vital to employ successful *livelihood strategies* (enhancement and coping) to secure their household livelihoods.

External intervention here refers to direct (allocation of government land for non-governmental organizations to build settlements, give food rations and money to buy kitchen utensils, construction of schools etc) and indirect (request private banks to give low interest loans to start new income earning activities, provide tax concession for private organizations as a tool to encourage them to get involved in settlement construction etc) involvement of national government, provincial and local councils using various policies, legislation and institutions to strengthen the household asset base as well as access to them. This is in addition to various assistance from international and national non-governmental organizations, and other private organizations to help strengthen the household asset base and assist with the relocation process. The assistance was mainly in the form of constructing houses, donating furniture, household electrical equipments and other capital equipment (fishing boats, nets, out boat and in boat engines, bicycles) to help improve the existing income earning activities, or to start a new one.

The *Final outcome* of the various household level strategies employed, as opposed to various forced relocation related risks and stresses, could be that the household become either more secure or more vulnerable. This, in turn, would be a direct feedback for

both households, and for government, other INGO/NGO and private organizations in relation to their external interventions.



Draft: Fernando, 2008.

Figure 5: Analytical Framework

3. Research Methodology

The main methodological approach adopted in this study can be described as eclectic, as it involves both quantitative and qualitative data collection tools and analysis methods²⁴. In order to find answers to the aforementioned research questions, the necessary data was collected in three stages which will be presented in detail in the following section.

3.1. First Stage

This stage of fieldwork was carried out during the entire month of September 2006. The main objective of this stage was first to decide on the main research area, and then to select research locations. This involved gathering information about resettled households' main socio-economic activities, and then to explore some of the stresses and risk factors that they were coping within their new settlements.

3.1.1. Selection of Research Area

It is evident from examining the impact of the tsunami, that Eastern, Northern and Southern provinces²⁵ of Sri Lanka were severely affected in terms of people killed, injured and displaced, houses damaged, and loss of income earning activities compared to other affected provinces (see section 5.1). Considering, however, the damage caused as a result of the war between the Government Forces of Sri Lanka and Liberation Tigers of Tamil Elam (LTTE) for more than twenty years in the Northern and Eastern provinces, there is no doubt that first the tsunami, and later new buffer zone restrictions, brought additional burdens and destruction for the war-affected people in these provinces. In this context, it would have been ideal to select a few relocation settlements from the Northern or Eastern provinces to find possible answers to the research questions, however unfortunately this was not possible.

²⁴ For more discussion on qualitative and quantitative data analysis methods please see Mathew, B and Huberman, A (1994).

²⁵ Sri Lanka divided into 25 administrative districts. Each district is headed by a District Secretary (Government Agent). District is sub-divided into 5 to 16 Divisional Secretary Divisions (DS divisions), each headed by a Divisional Secretary. DS Division is further divided into several GN Divisions. GN Division is the smallest administrative area at the village level which is headed by a Grama Niladari (Village Officer) (Fernando, 2006; Department of Census and Statistics, 2005).

The signing of a memorandum of understanding on Post Tsunami Operational Management (P-TOM²⁶) between the Sri Lankan government and LTTE on the 24 June 2005 to share aid for relief, reconstruction and development work of the tsunami affected coastal communities could be treated as a positive sign to conducting fieldwork in these provinces. But ruling given by the Supreme Court suspending all P-TOM operations, and the continuous breaching of the Ceasefire Agreement (CFA)²⁷, mostly by LTTE, lead to a deterioration in the security condition in these two provinces. As a result, reconstruction work was conducted at slow pace in these two provinces. As these prevailing conditions were not conducive to conducting fieldwork in these provinces, the Southern Province was concentrated on.

Selection of Galle District

The Southern province consists of Galle, Matara and Hambantota districts and covers 8% of the total land area of Sri Lanka, with a total population of 2,278,271. Table 1 shows a significant proportion of people in this province live in the rural sector (91%). The Sinhalese ethnic group dominates the province. A considerable proportion of people are engaged in agriculture and fisheries related income earning activities (nearly 36%). Moreover, 30% of its population lives below the poverty line.

²⁶ This was signed by the Secretary to the ministry of Relief, Rehabilitation and Reconciliation on behalf of the government while the Deputy Head of Planning and Development secretariat (PDS) signed on behalf of the LTTE.

²⁷ CFA was signed by the Government of Sri Lanka and Liberation Tigers of Tamil Elam (LTTE) on the 22nd November 2002 and the Sri Lankan government abolishes it on the 16th January, 2008.

Table: 1 Some Socio-Economic and Demographic Characteristics of Southern Province

Socio-Economic and Demographic characters	Districts of Southern Province					
	Galle		Matara		Hambantota	
Land area* (sq.km)	1,617		1,270		2,496	
Population	990,487		761,370		526,414	
Population density (Persons per sq.km.)	613		600		211	
Population below poverty line	269,000		219,000		179,000	
Unemployment rate	10.8%		11.3%		10.8%	
Literacy Rate**	92.3%		90.3%		88.9%	
Gender						
Male	481,849	49%	369,247	48%	263,123	50%
Female	508,638	51%	392,123	52%	263,217	50%
Sector						
Urban	109,921	11.1%	64,361	8.5%	21,571	4.1%
Rural	863,308	87.2%	676,499	88.9%	503,410	95.6%
Estate	17,251	1.7%	20,510	2.7%	1,433	0.3%
Ethnicity						
Sinhalese	934,751	94.4%	716,974	94.2%	510,965	97.1
Sri Lanka Tamil	11,079	1.1%	5,161	0.7%	1,869	0.4
Indian Tamil	9,275	0.9	16,672	2.2%	424	0.1
Sri Lanka Moor	34,688	3.5%	22,133	2.9%	5,646	1.1
Other (Burgher, Malay etc)	694	0.1%	333	-	7,508	1.3
Occupation						
Non-agriculture and non-fisheries**	225,115	70.6%	153,726	63.5%	96,828	58.7%
Agriculture and fisheries**	93,565	29.4%	88,449	36.5%	68,095	41.3%

Notes: * Excluding Inland waters, ** 10 years and above.

Source: Department of Census and Statistics, 2002a and 2002b.

When observing the impact of the tsunami on the districts of Southern province, it is evident that one third of divisional secretary (DS) divisions in Galle and Hambantota districts were affected. The Galle city, which is the capital of the Southern province was worse affected (see Table 2). In terms of deaths, Hambantota district reported the highest number of 4,500 people, followed by Galle district with 4,214. On the other hand, Galle district reported the highest number of displaced persons 128,077 as compared to the other two districts. This is mainly due to the fact that 13,334 housing units of this district were completely or partially damaged (usable or unusable). However, the fact that both

the highest number of displaced persons and damaged housing units were reported from this district was the main motivation to focus on this district in order to select research locations.

Table: 2 Tsunami Affected People in the Southern Province by Districts

	Districts of Southern Province		
	Galle	Matara	Hambantota
Number of DS Divisions	18	16	11
Number of DS Divisions Affected	6	3	4
Deaths*	4,214	1,342	4,500
Injured Persons*	3,564	3,654	1,236
Displaced Persons*	128,077	13,305	17,723
Completely or Partially Damaged (unusable) Housing Units	6,689	2,512	1,522
Partially Damaged (usable) Housing Units	6,645	4,042	1,019

Notes: *Until 25.1.2005.

Source: Department of Census and Statistics, 2005.

It was not practical to select a sample of relocation settlements from all the tsunami affected DS divisions in the Galle district. Therefore, it was decided to concentrate on the relocation settlements situated in the Galle city area, as it was as badly affected as the main city of the Southern Province. The Galle city is situated 119 km south of the commercial city of Colombo with 90,934 inhabitants (Department of Census and Statistics 2002-2003). The city consists of a harbour, cement factory, hospitals, schools, commercial buildings and also the fort which was built by the Portuguese in the 16th century and is now declared a UNESCO world heritage site. The Galle Municipal Council governs the city and also belongs to the Galle Four Gravates Divisional Secretary Division.

3.1.2 Selection of Field Locations

Initial key informant interviews conducted with the Social Service Officer and Land Officer²⁸ of Galle Four Gravates Divisional Secretary Division²⁹ assisted to obtain a clear picture, not only about where the new settlements were situated, but also the number of families resettled, steps that they had followed to select the housing beneficiaries, and also problems and issues that both relocatees and officials had encountered during and after relocation. These officers also helped to establish contacts with the relevant Grama Niladari (GN) officers who were responsible for new relocation sites situated in and outside the Galle city area where the construction work was completed. In order to conduct interviews, it was first necessary to outline the purpose of the research and then general information was collected³⁰ on settlements, including various issues and problems that they face in the new settlements. Secondary data was also gathered, such as socio-economic characteristics of re-settlers, their damaged housing patterns, which officers had already collected, and various reports published such as Galle District Livelihood Development plan and maps of relocation sites.

As previously stated, the initial idea was to select resettlements situated in the Galle city area (Galle Municipal Council) to conduct fieldwork. This however, could not be implemented as the majority of the people who lived in the buffer zone of the Galle city area had to resettle in new settlements built in the Akmeemana Pradeshiya Sabha area that come under Akmeemana Divisional Secretary Division (see Table 3). This is 8 to 12 kilometres away from Galle city, and owing to scarcity of land in the congested Galle city area, Akmeemana was selected for new settlements. In other words, people who lived close to the sea in Galle city before the tsunami, now had been forcibly relocated in new settlements situated in the village areas. Most of the relocation sites were under construction during this stage of fieldwork. As a result, the majority of the tsunami victims were still living in temporary shelters though they had been allocated a house in one of the various construction sites.

²⁸ Both were in the committee appointed by the DS to supervise allocation of houses of donor driven housing program for tsunami victims. GN and the Technical Officer were the other members of this committee.

²⁹ This is the smallest division in the Galle district and the most urbanized one. It consists of 50 GN divisions. Of this 43 GN divisions are coming under the purview of Galle Municipality and the rest under Bope Poddala Pradeshiya Sabha (RADA, 2006: 6).

³⁰ Such as total land allocated for the resettlement project, number of housing units in the settlement, total population, year of construction started and completed, extent of land allocated per housing unit, number of housing units occupied, sold, rent out and unoccupied etc.

**Table 3: Tsunami Settlements Built in Akmeemana Divisional Secretary Division
(as at 6 April 2006)**

Name of GN Division	Donor	Number of Housing Units
Walahanduwa	London Buddhist Temple	14
Ankokawala	Helasarana	100
Abagahawilla	Buddhist Training Institute	50
Bambaragoda	International Buddhist Centre	16
Bambaragoda	Young Men Christian Association	22
Meegoda	Sri Lanka Red Cross	125
Ihalagoda South	China Charity Federation	145
Ihalagoda East	Ministry of Foreign Affairs	135
Walahanduwa	Alliance Development Trust	73
Pilana	Tsunami Relief Cooperation Germany	120
Babaragoda	Salzburg, Austria	78
Manawila	Rain Forest Rescue International	35

Source: Tsunami Housing Reconstruction Unit, Galle, 2006.

Three large scale³¹ settlements situated away from Galle city, which come under the purview of Akmeemana DS Division, were selected as the study locations (see section 4.1). Some of the new housing units in the settlements were not occupied by the beneficiaries during this stage of fieldwork due to poor quality construction. Following the selection of research locations, permission was sought from the Divisional Secretary in charge of Akmeemana. Furthermore, GN officers in charge of the selected research locations were also informed by the DS.

3.1.3. Unstructured Interviews with Community Members

Unstructured interviews, in combination with simple observation, were employed with a few settlers in all three settlements to develop a good rapport with the settlers to help facilitate the second and third stages of fieldwork, and also to obtain preliminary understanding of their living conditions. From these interviews, it became apparent that most of the resettlers are encountering problems such as poor quality of housing, lack of infrastructure within and outside their settlements, difficulty finding employment in new areas, lack of proper household income and an increase in expenditure, fragmented relationships between existing and resettled communities' and even physical conflicts. A

³¹ In relation to my own definition, large scale is defined to mean settlements consisting of more than 50 housing units.

more detailed exploration of these problems was undertaken during the second and third stages of the fieldwork.

Key office bearers of active community based organizations (such as Community Development Society, Death Donation Society and Religious Society) were met to inform them about the study and to get their consent and support to conduct the fieldwork in their locations. It is important to note that most of the office bearers of the community based societies pledge their fullest support regarding conducting fieldwork in their settlements, hoping that the study would bring their issues and problems to the attention of relevant government authorities and thus lead to some resolution.

Finally, the initial findings from the interviews greatly benefited the construction of the detailed interview schedule which was employed in a sample of households during the second stage of the fieldwork.

3.2. Second Stage

This stage of fieldwork was carried out seven months after the first stage of fieldwork for a period of two months from May to June, 2007. The main intention of this stage was to employ an interview schedule in a randomly selected sample of households in all research locations.

3.2.1. Selection of Sample Households

First, an up-dated list of the household heads of the occupied housing units (at the time of this stage of fieldwork) was obtained from the relevant GN officers in order to obtain a total picture of the study population on one hand, and decide on the sample size on the other. Random probability sampling design was chosen to select the sample of households³² for two main reasons: it gives all households in the study population an equal and independent chance of being sampled, and also it fulfils the prerequisite of applying some vital statistical tests, such as inferential statistics, when analyzing data using quantitative techniques. It was decided to sample at least 40 percent of households from the population in each location (see Table 4) considering not only resources such as

³² A household is commonly defined as ‘a person or co-resident group of people who contribute to and/ or benefit from a joint economy in either cash or domestic labour’ – that is, a group of people who live and eat together – (Rakodi, 2002).

mainly time and money but also adhering to the principal of “the larger the sampling size the more accurate would be the analysis” (Kumar, 1996:164). The sampling frame, consists of households from three settlements that were selected to employ the interview schedule, which was constructed using Random Sample of Cases in Select Case menu of Statistical Package for Social Sciences (SPSS).

Table: 4 Overview of Sampling Procedure

Name of Settlement	DS Division	Total No. Housing Units	Sample Size
Cinnamon Garden settlement	Akmeemana	145	58
Katupolwaththa settlement	Akmeemana	78	31
Tea Garden settlement	Akmeemana	135	54
Total			143

Source: Own Source

3.2.2. Administration of the Interview Schedule

From the design stage of the study, the intention was to administer two different interview schedules at stage two and three of fieldwork in an attempt to capture a complete picture of the impact of relocation on forced relocatees’ livelihoods at the household level. Adhering to this intention, an interview schedule³³ consisting of open ended, closed ended and multiple response questions was constructed. These questions mainly explored household assets before the tsunami, after relocation, and during the relocation process e.g. temporary dwellings before relocation, selection of beneficiaries, relocation settlements and decision making; the perception on buffer zone; and further migration. Additionally, socio-economic characteristics of each household member were also gathered. The final English version of the interview schedule was translated into the native language (Sinhala) before it was pilot-tested in the field. New questions were added and some existing ones were deleted following the pilot test. Later, the revised version of the interview schedule was administered in the sample households. The head of the household was asked to respond to the questions in the interview schedule. There were instances when the spouse answered on behalf of the head of the household as the head was not in the settlement during the time of the field survey. Approximately two hours was required to complete an interview schedule during the first few days, but later the schedule could be completed within one and a half hours. However, in some cases it

³³ The only difference between the questionnaire and the interview schedule is that, in the interview schedule the interviewer asks the questions and records respondents’ replies on the schedule. In a questionnaire, respondents read the questions, interpret what is expected and then write down the answers (Kumar, 1996: 110).

took more than two hours as respondents were revealing stories of their loved ones who lost their lives and hardships that they face in the new settlements, which provided insightful additional details and information.

Two university graduates assisted in administering the interview schedules across the sample households as the task was too great for one person. In order to maintain the quality of the interviews, graduates were given an overview of the research project and a clear understanding of the different forms of questions in the interview schedule and the underlying rationale behind them, in detail, before conducting the interviews. It took almost one and a half months to complete the interviews of the sample households. In most cases, selected household members provided answers to all of the questions posed without further queries as the objective of the research was explained simply and clearly up-front. Most of the household heads were available for the interviews on Sundays, public holidays and in the evenings as, at other times they had either gone for work or were in search of new work. During the period of administering the interview schedule, all of the completed interview schedules were rechecked on a daily basis to determine whether there were any questions that had been forgotten, wrongly coded or incomplete in order to maintain the quality of data collection. When incomplete interview schedules were discovered, the respective respondents were met again to complete them.

The Statistical Package for Social Sciences (SPSS) was used for data entry following the completion of coding and editing of the interview schedules. Data entry was commenced while administering the interview schedule as both steps mutually benefited each other. Following the completion of data entry, data was screened as frequency tables to identify data entry errors. Finally, a code book consisting of all frequency tables was constructed as the first step of data analysis in order to decide on future statistical analysis. From the first analysis of frequency tables, some general and location specific problems and issues that households were dealing with became apparent. A decision was therefore taken to identify some of these households and conduct further in-depth interviews with them to both get a broader and deeper understanding of the issues and problems and to specifically understand how they would cope with them in the next stage of fieldwork.

3.2.3. Key Informant Interviews with Government Officers

Key informant interviews conducted with the Additional District Secretary who was responsible for coordinating Tsunami Reconstruction work in Galle District, provided an overview on relief and reconstruction work carried out in the district. This interview also revealed his experiences during the planning of the relocation sites, selection of housing beneficiaries, and developing essential infrastructure, which gave valuable insights on the relocation process of tsunami victims in the Galle district in general, and Akmeemana DS Division in particular. Interviews were also conducted with both the District Coordinating Officer of Disaster Management Centre (DMC) in Galle and the Director of the Technology and Mitigation Section at the Colombo head office of the DMC. This enable further information to be gained about the Disaster Management Plans at the national and district levels in general, and more specifically, on whether they had addressed the question of relocating people living in disaster prone areas into planned settlements as a mitigation strategy in DMC plans. Discussions were also held on the same subject with the United Nations Development Program (UNDP) officers in Colombo.

Interviews with the Livelihoods Development Officer in Galle gave an overview on projects related to income generation implemented among the tsunami affected households in relocated settlements, as well as other areas. Interviews with the Planning Assistant of the Coast Conservation Department attached to the Galle District Secretary, gave an overview and practical examples on the Coastal Management Plan and difficulties in implementing buffer zone restrictions in the Galle Municipal Council area. The Assistant Development Director of Akmeemana Pradeshiya Sabha gave an overview of some of the planned development activities in selected tsunami settlements situated in the area.

GN officers in-charge of selected research locations were re-interviewed during this stage of fieldwork in order to get their views on the changes, if any, which had occurred during the past seven months in the settlements after completion of the first stage of fieldwork. Frequent visits, no doubt, set the environment to develop a more personal relationship with them, which in turn, facilitated to get more reliable information.

3.3. Third Stage

This stage of fieldwork was conducted from November, 2007 to March 2008 for a period of five months. The objectives of this stage of fieldwork were to re-interview the members of the sampled households interviewed during the second stage, and to conduct further in-depth interviews with some selected household members, host community members (old villagers), even some household heads who had vacated their new houses for various reasons, as well as to conduct key informants interviews with members of non-governmental organizations, and community based organizations.

3.3.1. Re-interviewing Heads of Sample Households Using a Different Interview Schedule

At this stage of field work it was decided to re-interview the heads of the households using a new interview schedule to explore the impact of relocation on their assets and the relevant coping strategies they had employed. The objective was, on one hand, to explore new developments and, on the other, to look at changes that had taken place at the household level.

For consistency, the same person previously interviewed in each household was re-interviewed to gather further information. Similar to the second stage, the interview schedule was first constructed in English and translated into Sinhalese. The schedule was pilot tested using a sample of households and revised accordingly. It took nearly two months to complete the administration of the interview schedules in the sample of households again with the assistance of the same two graduate research assistants who had also participated in the previous stage. There were several instances where the respondents who participated in our earlier interview could not be re-interviewed the second time. However, a decision was taken to interview another member of the same household. The interview schedules were successfully completed without much difficulty. This was mainly due to maintaining a good rapport with the selected households throughout the fieldwork period by clearly informing them about the research work and, in particular informing them about our second round of interviews during the administration of the first interview schedule.

3.3.2. In-Depth Interviews with Selected Household Heads

The main purpose of these interviews was to obtain more information about the impact of relocation on their household income earning activities, expenditure, savings, social networks, children's education, and relevant coping and enhancement strategies. A semi-structured interview schedule was developed, along with questions covering the above areas. This interview technique was selected to investigate the above areas as it helps to build a rapport, trust and openness with the respondents, as well as to allow them the space to express their views frankly. By applying this method one can observe a chronological flow and understand precisely which events led to which consequences. Using this approach, it is also possible to derive reasonable explanations.

Thirty households (10 interviews per settlement) were purposely selected for in-depth interviews based on the results of the initial statistical analysis of household interview schedules. In-depth interviews were carried out with one active household member in each selected household (preferably the head of the household; either the husband or the wife) in the hope that they would be the best person to provide the required information. Respondents were met several times after the initial interviews when the qualitative analysis commenced, in order to obtain more information or to clarify certain issues. A few respondents were not keen on the repeated interviews and made comments such as "we talked to you once and gave all the information, what else do you want to know? What do we get from you?" After explaining the reasons for the subsequent visits, the respondents cooperated and provided the required additional or missing information without hesitation. It took almost two months to complete the interviews with the selected householders as each interview took on average of sixty to ninety minutes to complete and some even lasted up to two hours.

3.3.3. Semi-Structured Interviews with Host Community Members

It became apparent from the preliminary fieldwork that there was prevailing tension between some relocated settlers and old villagers in all three study settings. This was important to explore further because these tensions, and even physical conflicts, had negatively impacted on the livelihoods of both relocatees and old villagers. Therefore, a decision was taken to interview a few villagers living in the surrounding old villages adjacent to relocated settlements in an attempt to learn more about the relationship

between both parties, and to look at the changes that occurred at the village level following relocation of the tsunami victims. Knowing the sensitivity of the issue being explored, it was decided to conduct semi-structured interviews with host community members as this data collecting tool is more suitable to collect complex information containing personal experiences (Arksey and Knight, 1999). Snowball³⁴ sampling design was applied to identify respondents for the interviews. Five such interviews were conducted per location.

3.3.4. Key Informant Interviews with Office Bearers of Community Based Organizations and Project Officers of Non-Governmental Organizations

Interviews with key informants representing various sectors (government, NGO, community) enabled data to be gathered on more varied perspective and avoided biased information. In addition to those conducted with government officers, interviews were also conducted with some office bearers of active community based organizations and project officers of non-governmental organizations in all three research settings.

Semi-structured interviews were conducted with office bearers of community based organizations, such as Community Development Society, Death Donation Society, Religious Society, Women's Society, which were active at the community level in the three research sites to learn more about various activities (e.g. infrastructure development activities, income generating activities) carried out by the respective societies assisting in the development of their communities. Some of these interviews also revealed how some informal factional groups, formed mainly on the basis of place of previous residence and political affiliations, operate both at the society level and the community level.

Interviews were held with project officers of non-governmental organizations, such as the Christian Children Fund (CCF) and Ananda Marga Universal Relief Team (AMURT), in an attempt to identify various income generating activities and training carried out in research locations.

3.3.5. Participatory Rural Appraisals

Impact diagrams of the major and immediate impacts of relocation and ranking exercises with community based society officer bearers on housing and common infrastructure

³⁴ Selecting respondents using networks (Kumar, 1996:162).

related problems were conducted as a method of Participatory Rural Appraisal (PRA). The impact diagrams, which consist of major and immediate positive, as well as negative, impacts of relocation were constructed for each research location by a group of new settlers. The findings of this community based exercise, particularly the inter-linkages between the positive and negative impacts, of the social and economic well-being of their lives in the settlement, is noteworthy. They also made recommendations of possible actions by government and non-governmental organizations, as well as how villagers themselves could help to mitigate the negative impacts of forced relocation. The ranking exercises on housing and common infrastructure related problems on each location assisted in determining location related issues and problems.

3.4. Triangulation of Methods

It is understood that every data collecting tool has its own advantages as well as disadvantages. With this in mind, it is important to maximize the advantages, especially in relation to improving the quality of the data, by applying more than one data-collecting tool; an approach that is popularly known as the 'triangulation of methods'³⁵. The rationale for using such an approach is that the weaknesses of one method are offset by the strengths of the others. In the context of the present study, the triangulation of methods serves two main purposes: namely, confirmation and completeness. In an attempt to explore the impact of forced relocation of tsunami affected households on their household livelihoods and various livelihood strategies employed by them in response to the situation, the triangulation of methods was applied by using key informant interviews with office bearers of community based societies, simple observation, impact diagrams, ranking exercises, structured interview schedules employed using a sample of households, and semi-structured interviews conducted with selected household heads to gain valid data to obtain an in-depth and complete understanding of the research questions. This was done by collecting both qualitative and quantitative data. Conversely, in order to understand the various steps followed by authorities to relocate tsunami victims and address their responses to various livelihood related problems and issues, key informant interviews were carried out with officers from both government and non-governmental organizations (see Table 5). These interviews provided an opportunity to cross-check,

³⁵ By collecting diverse data sets derived by different methods, such that there would be less chance of making errors or of drawing inappropriate conclusions, than would be the case if relying only upon one data collecting tool (Arksey and Knight: 1999).

confirm and clarify some contradictory findings which arose from interviews with household members and key informants and also to obtain a complete picture of the investigated research questions.

Table 5: Summary of Data Collection Tools Employed during the Study

Stage	Data Collection Tools used
<p>First Stage September, 2006 (one month)</p>	<ul style="list-style-type: none"> • Key informant interviews with government level officers and office bearers of community based organizations • Unstructured interviews with community members • Simple observations and Secondary data collection
<p>Second Stage May to June, 2007 (two months)</p>	<ul style="list-style-type: none"> • Interview schedule administered in a randomly selected sample of households • Simple observation • Key informant interviews with government officers
<p>Third Stage November,2007 to March, 2008 (five months)</p>	<ul style="list-style-type: none"> • Interview schedule to re-interview sample of household heads • Simple observation • In-depth interviews with selected household heads • Interviews with household heads who moved back to the buffer zone or elsewhere • Key informant interviews with CBO office bearers and NGO officers • Semi structured interviews with host community members • Participatory Appraisals- impact diagrams and ranking exercises

Source: Own source

3.5. Data Analysis

As is evident, qualitative and quantitative data were collected across all three research locations using different data collection tools during the three stages of fieldwork. In an attempt to use triangulation of analysis, both qualitative and quantitative analysis methods were applied to gain a complete picture of the research questions.

Data collected from sample households by administering the interview schedules, both in the second and third stage of fieldwork, was entered using the Statistical Package for Social Sciences (SPSS) after completing the data editing and coding stages. Frame of analysis, including variables that are to be analysed with relevant statistical procedures, was constructed. Two code books consisting of all the frequency tables which represented two data sets, were constructed as the first step of the data analysis. Both Univariate and Bi-Variate statistical analysis tests were applied where it was necessary. This is presented using both tables and graphs.

Qualitative data collected using the key informant interviews and in-depth interviews with selected household heads were written down on field notebooks as most of the informants did not give their consent to record the interviews. All written interviews were carefully reviewed several times in order to familiar with the data to identify codes. Then qualitative data was arranged according to the developed codes as this made it easier to closely compare and contrast data and, to identify various relationships and patterns.

3.6. Problems Faced During the Fieldwork

3.6.1. Dependency Syndrome of Study Communities

It became clear that it was not easy for an outsider to conduct fieldwork and collect reliable data in relocated settlements without first developing a good rapport and trust with the community members. One reason for this may be that most of the community members attempted to give false information about their household members and situation with the intention of obtaining any type (cash or material) of additional support from various organizations or individuals. Lyons (2009) argues that this kind of behaviour gradually developed among beneficiaries as a result of staying long periods in transitory shelters and being unable to play an active role in their own future development. As it is well known, soon after the tsunami various local and international non-governmental organizations, private and public institutions and even individuals supported the victims in various ways. However, most of the assistance, particularly that distributed by individual persons was not properly coordinated and as a result led to instances where both tsunami victims as well as non victims benefited (Mulligan and Shaw, 2007; de Silva, 2009; Stirrat, 2006). In this context, various donor agencies had the problem of identifying genuine tsunami victims when distributing their aid during the relief and reconstruction stages. However, this does not mean that the actual tsunami

victims did not benefit from these aid ventures. Receiving such assistance from various channels also led some victims to change their mind set to solely depend on assistance for their livelihoods rather than using it to build up their destroyed assets. This type of dependency syndrome was described by one government officer:

“One non-governmental organization donated new gas cookers with gas cylinders to some relocated households. After they finished the new cylinders, they then came and asked for new ones from us. I clearly told them that they should buy new gas cylinders from gas outlets by spending their own money. They think that the government will provide everything for them for free for the rest of their lives, which is impossible”. A Project Officer attached to one INGO also confirmed the above statement by saying *“most of the affected people do not work hard enough by themselves with the intention of moving out of their present situation, other than depending on us or others. These people should change their mind set”.* Some of the key informants of community based organizations are also of the view that it is not good for relocatees to depend too heavily on the government or other organizations as this will weaken their communities.

3.6.2. False Promises

Another reason for such dependency could be that most of the organizations and individuals who conducted fieldwork in previous occasions on these settlements have collected information from the dwellers, stating that the ultimate goal of their studies was to improve the living standards of relocatees. However, most of the respondents have not seen any such improvement in their living standards, even several months later. In other words, some researchers have given false promises to the community members. On the basis of these experiences, most of the community members were sceptical of research studies. It is against this background, that the fieldwork was commenced and undertaken. It took a considerable amount of time during the first stage of fieldwork to explain the objective of the research to the office bearers of community based organization, who were the gate keepers to the settlements, in order to obtain their verbal consent to carry out research. Even with their consent there were instances where questions were raised by some settlers specifically with regard to the purpose of the research, saying, *“nothing is going to happen to us in terms of improvement of our lives even though a lot of studies have been conducted since we came to this settlement”.* Some even said *“we always answered their questions by spending our valuable time hoping that something good will*

happen to us, nothing has happened so far”. As mentioned earlier, this kind of response shows that there is a negative attitude towards research on the part of some community members.

3.6.3. Troublesome Questions

When conducting interviews with selected heads of households, a number of respondents refused to provide information through either gestures and words with regard to the questions on income (main and other sources), sources of saving, amount of savings, and other movable and immovable assets suspecting that it would lead to a discontinuation of the monthly social benefits that they are presently receiving from the government. On the other hand, some respondents who do not get such government benefits answered more freely and openly without any hesitation, with the hope of obtaining some material benefits from us, which points to a ‘dependency syndrome’ prevailing amongst some community members as previously discussed. During the third stage of fieldwork, it became apparent that a few beneficiaries who were interviewed in the second stage of fieldwork had since leased or rented their houses the new occupants did not want to participate in any interviews, stating that they were not the actual owners. In spite of these difficulties, interviews were conducted once the community members had gained trust in the interviewers and gained a better understanding of the research objectives.

3.6.4. A Change in Data Collecting Tools

Both key informant interviews and primary observations revealed some incidences of physical conflicts and tensions between old villagers and resettlers. As such, several questions were included in the first interview schedule in order to identify reasons for such conflicts and tensions. However, this was not successful as most of the respondents did wish to openly reveal such issues due to the sensitivities. Therefore, a decision was taken to include these questions in the in-depth interview schedule that was conducted in the third stage of the fieldwork with selected household heads, and to include similar questions into the semi-structured interview schedule constructed to interview members from the old villages.

4. Introduction to Research Locations and Socio-Economic and Demographic Characteristics of Households

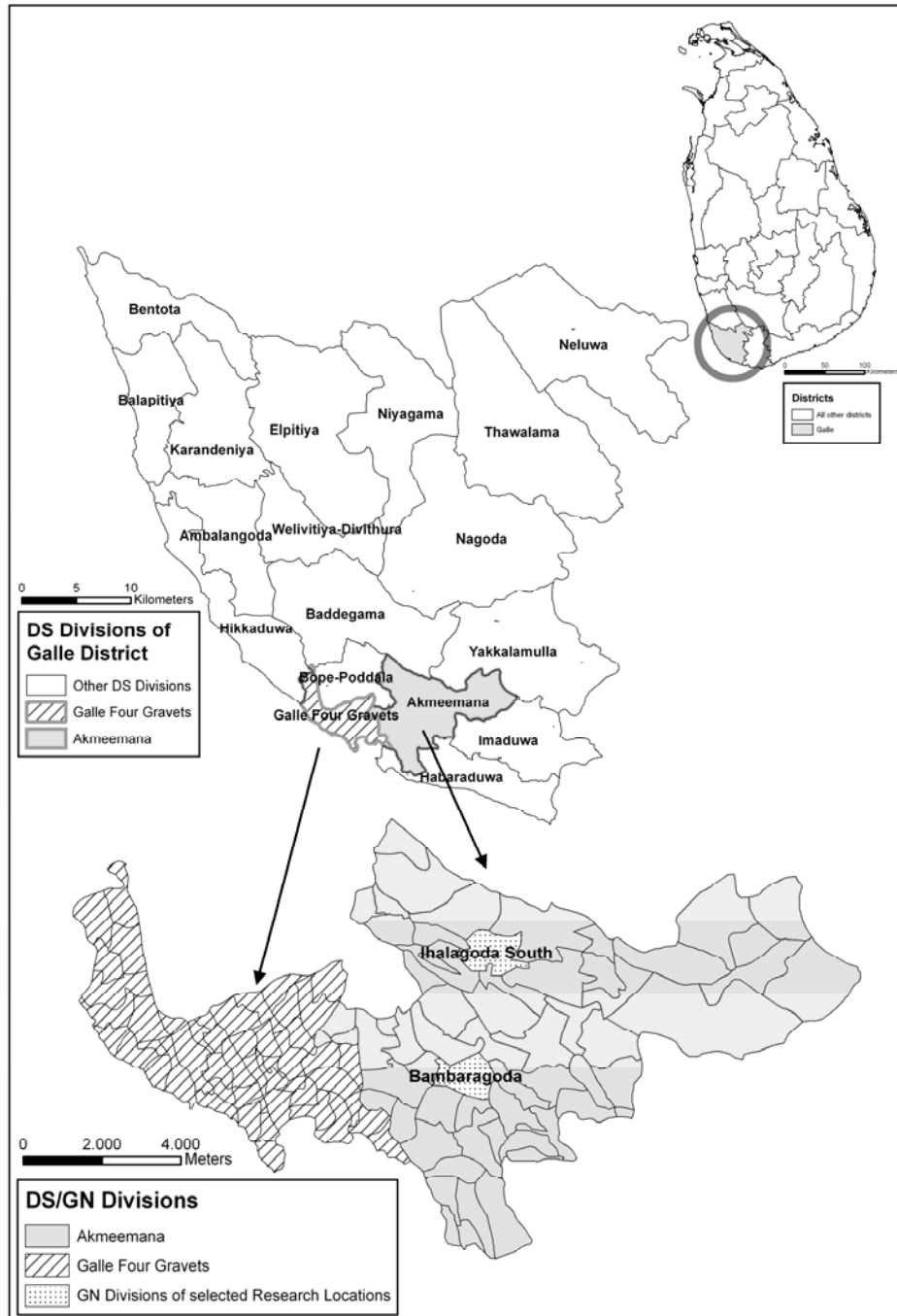
This chapter is divided into two parts: part one will provide an introduction to the three research locations, while part two examines the socio-economic and demographic characteristics of the sample households in the three study locations of Katupolwaththa, Cinnamon Garden and Tea Garden.

4.1. Introduction to the Selected Research Locations

All three relocation settlements selected for the present study are situated in Akmeemana Divisional Secretary Division. Akmeemana Divisional Secretary spreads over 6,437 ha (4% of the total land of the Galle district) and is situated to the west and south west of the Galle Four Gravest Divisional Secretary (see map 1). This rural DS division consists of 116 villages, 63 GN divisions and a total population of around 75,298 people, with an average household size of 4 members (Akmeemana Divisional Secretary, 2006). When briefly examining the socio-economic characteristics of the population, the majority belong to the Sinhalese ethnic group (97%) and Buddhist religion (97%). There are marginally more females (51.4%) in the population compared to their male counterparts (48.6%). As for education, majority of people (39%) have completed post primary level education (grade 6-10), while 14% have an Advanced Level education. On the other hand, only 2% hold a degree or higher qualification (Akmeemana Divisional Secretary, 2006).

With regard to the economic activity of persons 10 years and above, of Akmeemana Divisional Secretary Division, only 42% of people are economically active. Of these nearly 12% are unemployed (Department of Census and Statistics, 2002b). Considering the employed population, 37% of them worked in the agricultural sector mainly as rice or tea cultivators and supporting labourers. Another 16% worked as craftsmen or in craft related work (e.g. potters, blacksmiths, handicraftsmen etc) and 11% as plant and machine operators. Only 6% were engaged in income earning activities as professionals. A negligible proportion was engaged in self-employment activities and foreign employment, particularly in Middle East countries (Department of Census and Statistics, 2002b).

Map 1: DS and GN Divisions of Study Locations



Cartography: Fernando, 2007

4.1.1. Katupolwaththa Relocation Settlement

Katupolwaththa³⁶ housing settlement, popularly known as another “*Tsunami Village*”³⁷ was constructed in an eight hectare government owned former palm oil land in Bambaragoda GN division of Akmeemana Divisional Secretary Division, with financial assistance from the people of Salzburg, Austria (see Photo1). It is situated 8.5 km away from Galle city close to Walahanduwa on the Yakkalamulla-Galle main road. The closest bus stop to the settlement, situated at Walahanduwa, can be reached by bus from Galle city centre within forty five minutes, during the daytime, after which it is a further 1.5 km walk for forty five minutes on a gravel road to reach to the settlement.

Photo 1: Katupolwaththa Settlement



The gravel access road to the settlement (middle) and houses either side.

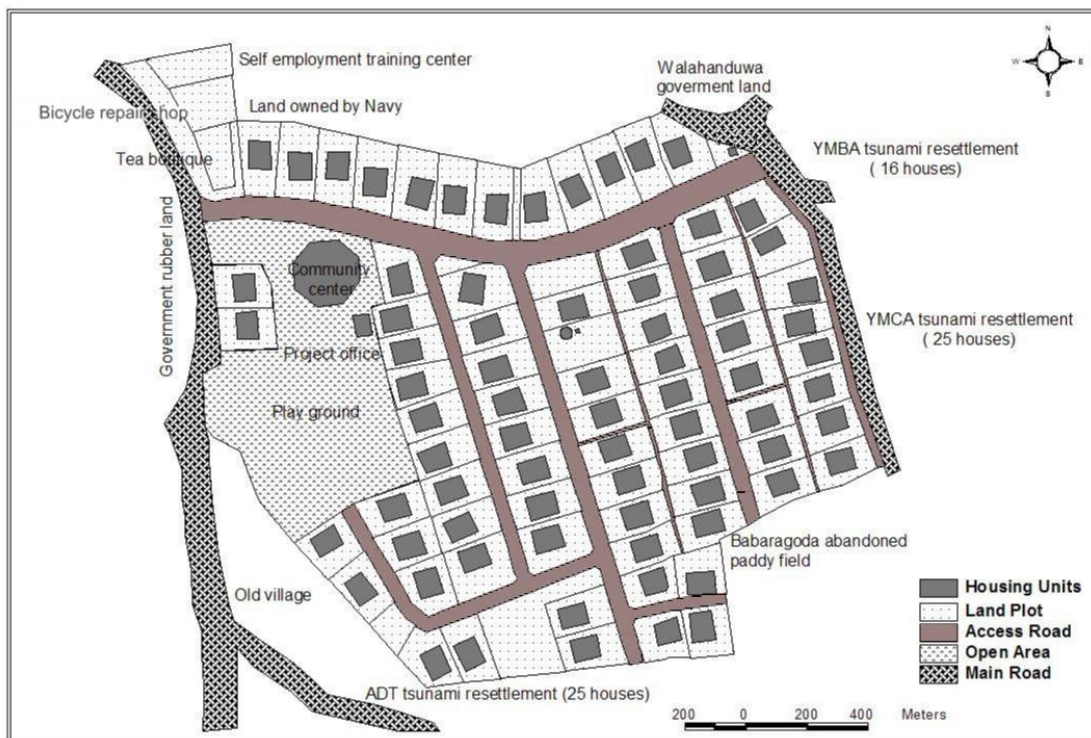
Photo: Fernando, 2007

³⁶ Pseudonymous names were used for selected research locations as a precautionary method to protect the participants' identities

³⁷ In addition to this name, people in surrounding old villages call the people in tsunami relocation settlements “outsiders” and “new settlers”, while the relocatees use terms like “old villagers”.

The settlement consists of seventy eight housing units (see map 2), each of which contains two bed rooms, a living room, a small kitchen and a toilet, has running water and electricity, and is built on a 10 perch parcel of land. The settlement includes a small playground and a community centre which conducts sewing and cookery classes for adults, evening tuition for school children, kindergarten (Montessori) for children during week day mornings, and monthly meetings of community based organizations on weekends. This place is also used to celebrate various religious activities. There are four small-scale grocery shops in the settlement, although there were previously ten when the settlement began. In relation to the GN officer's statistics, the total population of the settlement was about 320 people in 2007. The construction work of the settlement started in March, 2005 and was completed within a year by a local contractor under the supervision of a Project Manager, who is known to the settlers as “*Sudu Nona*” (White Lady). This settlement is one of the few settlements in the Galle district where the construction work started three months after the tsunami and was completed within a year.

Map 2: Katupolwaththa Tsunami Relocation Site



Cartography: Fernando, 2007

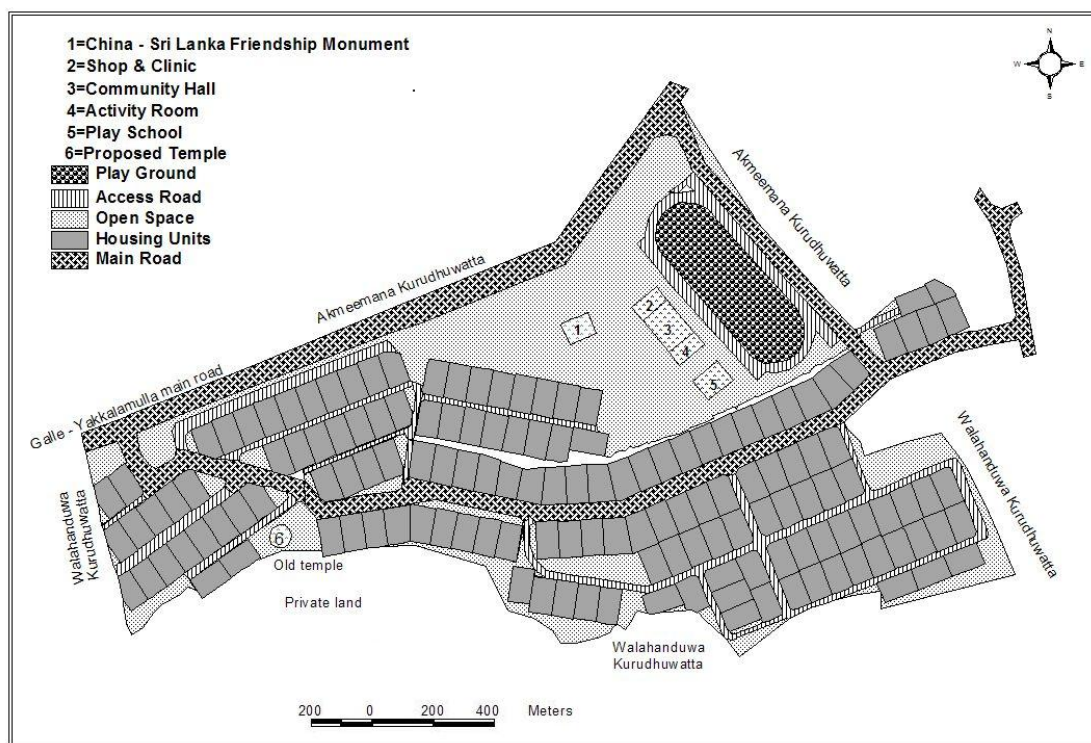
Katupolwaththa is surrounded by both other new small-scale tsunami settlements as well as old villages. The settlement as a whole is socially and economically marginalized from the outside world, not only because of the bad behaviour of some settlers (alcoholics, crime and violence, etc), but also due to their nature of employment as fishermen and daily paid labourers. The above situation was further highlighted during an interview with a government officer: *“those notorious thugs and underworld gang members previously living in the Galle city area now live in this settlement. They are the ones who create most of the problems in the area under the influence of alcohol. There are a few heroin addicts among them. People living in the surrounding villages are in fear of these people as some villagers feel uncomfortable passing this settlement alone in the dark after hearing reports of few thefts near this settlement”*. Anoma, an old settler living in an old village close to this settlement said: *“most of our villagers are engaged in rice and tea cultivation. The majority of people living in the tsunami village are fishermen. This area is now dominated by them. They should live somewhere close to the sea which is the ideal place for them. This is not the right place. Even our land values have gone down after construction of these settlements”*. Marginalization of new settlers based on their occupation is common in relation to Anoma’s statement that, “the whole area is now dominated by fishermen”. There is a direct link between caste and occupation. In this regard, this statement shows the hidden tension through caste consciousness emerging as a result of new settlements. There is a concern that the Govigama (cultivator or farming) caste, dominant before the creation of new settlements, is now unable to maintain its dominance (see section 7.3 for more information). In other words, fishermen belonging to the Karawa caste are now dominating the area. Both old and new settlers are of the view that caste does not play as an important role in society nowadays as before, but they consider it a sensitive issue to speak out about. This is evident when conducting informal interviews as people feel uncomfortable to answer caste related questions (whether they belong to lower or upper caste) with regard to the caste hierarchy in the area.

4.1.2. Cinnamon Garden Relocation Settlement

Cinnamon Garden tsunami relocation housing settlement consists of 145 housing units built on six hectares of state owned abandon palm oil land in Ihalagoda South GN division of Akmeemana Divisional Secretary Division, with financial assistance from China Charity Federation. It is situated 10.5 km away from the Galle city close to

Kuruduwaththa on the Yakkalamulla-Galle main road. The closest bus stop of the settlement situated, close to the Southern Teacher Training College can be reached from Galle city centre within one hour by bus during the daytime followed by a 50 m walk reach to the settlement (see map 3). This settlement is situated fairly close to the main road compared to Katupolwaththa and Tea Garden settlements.

Map 3: Cinnamon Garden Tsunami Relocation Site



Cartography: Fernando, 2007

An interview with a villager (an old settler) living in a neighbouring village provided a short historical introduction to this area: “According to my knowledge other than the tsunami village, most of the other people living in this area were born and brought up here. Most of them are Buddhists belonging to the Govigama Kulaya (traditional occupation of this caste is rice cultivation) and there are also a few belonging to other castes such as Wahampura (traditional occupation of this caste is Juggery making), Rada (traditional occupation of this caste is washing clothes) and Karawa (traditional occupation of this caste is fishing). A former cabinet minister once promised to build a

bus depot on the land which is now the tsunami village. First there was tea on this land, later Katupol (palm trees) and now the tsunami village.”

With regard to the characteristics of the housing units, each one contains two bed rooms, a living room, a small kitchen and a toilet has running water and electricity, and is built on an eight perch land area. Each household received a television set with a stand, a double bed and a table with four chairs from the authorities of the China Charity Federation when they first moved into their new house. With regard to the common infrastructure facilities, the settlement includes a playground (see photo 2), a Buddhist temple and a community centre. Sewing and dancing classes are conducted in the community centre in addition to monthly meetings of various community based organizations. Sometimes wedding receptions are also held there.

Photo 2: Cinnamon Garden Settlement



The playground of the settlement and the community centre next to it surrounded by houses.

Photo: Fernando, 2007

According to the statistics of the GN officer, the total population of this settlement was about 700 in 2007. The construction work of this settlement started in August, 2005 and was completed within a year by a local contractor under the supervision of the China

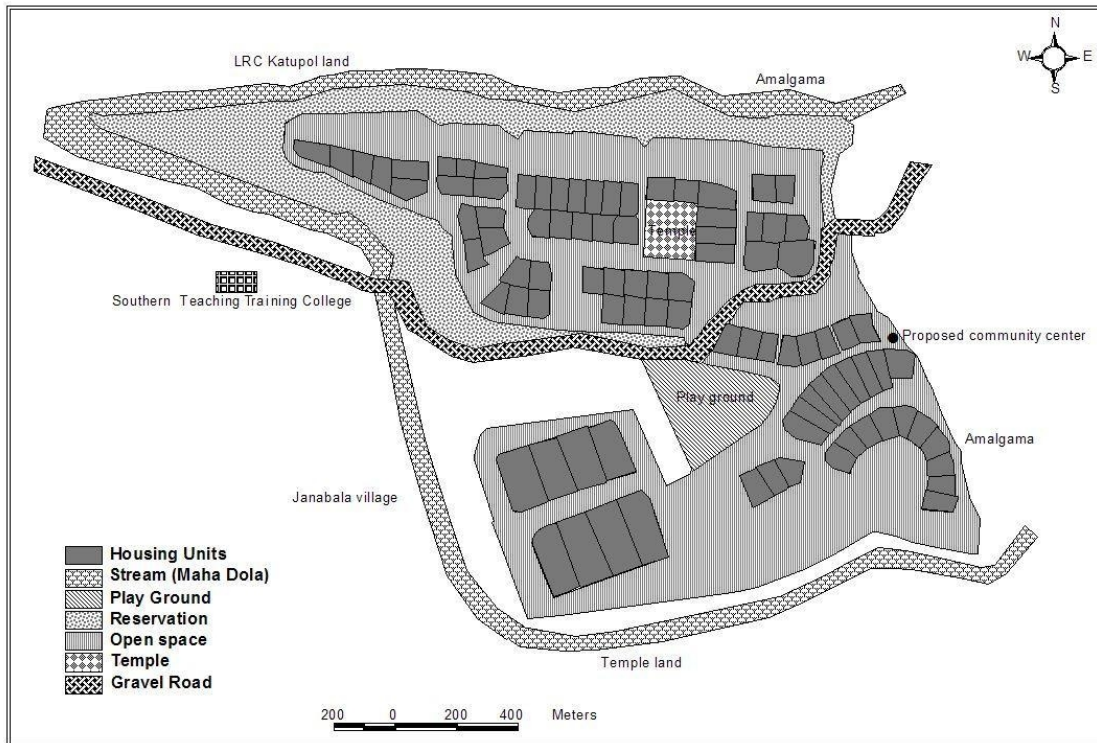
Charity Federation. The settlement is surrounded by both old villages and small-scale tea plantation estates. There are six small-scale grocery shops in the settlement.

Similar to Katupolwaththa, Cinnamon Garden settlement is also socially and economically marginalized from the outside world, not only because of the bad behaviour of some settlers (alcoholics, crime and violence) but also due to their nature of employment as fishermen. This situation is elaborated in a key informant interview with an office bearer of a community based society in the settlement: *“old villages always try to marginalize us by saying that all the thieves and drug addicts live in this settlement because we moved here from places closer to sea in the Galle city area”*. However, an old villager living close to this resettlement has a different view on the people living in the Cinnamon Garden settlement: *“the police have arrested several heroin addicts from the Cinnamon Garden settlement in suspicion of several house burglaries in the area. Some of the settlers are alcoholics and use filthy words under the influence of alcohol. The area is not as tranquil now as it was before. Therefore, it would have been better if the relevant authorities built an auditorium or an international playground in place of this settlement. This kind of settlement should have been built somewhere far from our village”*.

4.1.3. Tea Garden Relocation Settlement

The Tea Garden relocation housing settlement consists of 135 housing units built on a fifteen acre abandoned palm oil site and belongs to the State Land Commission in Ihalagoda South GN division of Akmeemana Divisional Secretary Division with financial assistance from local and international donors. It is situated 11.5 km away from Galle city close to Kuruduwattha on the Yakkalamulla-Galle main road (see map 4). The closest bus stop of the settlement, situated close to the Southern Teacher Training College can be reached from Galle city centre within one hour by public transport during the daytime followed by a walk along the road of the Southern Teacher Training College of 1.5 km. This settlement is situated on a hilly area compared to the other two settlements (see photo 3).

Map 4: Tea Garden Tsunami Relocation Site



Cartography: Fernando, 2007

Photo 3: Tea Garden Tsunami Settlement



Tea Garden Settlement situated on a hilly area surrounded by tea shrubs and fish tail palm trees (Caryota urines).

Photo: Fernando, 2007.

The “Maha Dhola” (i.e. big stream) surrounds the settlement on three sides. The Janabala and Amalgama old villages border the Tea Garden settlement next to Maha Dola. There is no proper bridge to crossover the stream other than a horse way (a concrete slab put across the stream which was used to transport rubber trees during former times). As a result, during the rainy season, it is not possible for the people to use the horse way to cross the stream as it gets flooded, which is an acute problem for the new settlers (photo 4). On such days the settlers have to enter the settlement using the bridge from Amalgama village which is another kilometre from the normal route (see section 7.2.1 for more information). Old villagers in the area also cross the stream from this horse way as it is the closest route to the main road. Compared to the other two settlements, Tea Garden settlers had not received furniture or other household equipment. Owing to these reasons some new settlers say that they live in the most disadvantaged and unlucky settlement compared to the others.

Photo 4: Access Road to the Tea Garden Settlement during Rain and Normal Days



Horse Way to the Tea Garden (left) and the flooded main access road during heavy rain (right).

Photos: Fernando, 2007.

One villager living in Amalagama (an old village) gave a short description of type of people living in the area: *“most of the families living in this area are Buddhists who belong to the Govigama caste, some Karawa and Durawa (traditional occupation of this caste is toddy tapping). There are only a few Tamil families. Most of the families earn an income from their small plots with tea shrubs or paddy cultivation. There are a few families whose members are engaged in government jobs and some work in the privately owned shoe factory close by. As a child I can still remember, that initially there were rubber trees and tea shrubs and then, palm trees on the land which was used to build the*

Tea Garden tsunami village. However, the new-comers living in the tsunami village are engaged in fishing and they do not have the knowledge of tea or paddy cultivation.”

With regard to the characteristics of the housing units, each house contains two bedrooms, a living room, a small kitchen and a toilet, has running water and electricity and is built on a ten perch land parcel. As for the common infrastructure, the settlement includes a Buddhist temple. A plot of land has been allocated to build a community centre but no land has been allocated for a play ground. According to the GN officer’s statistics, the total population of this settlement was about 450 in 2007. The construction work of this settlement began in April 2005 and was completed within eighteen months by three local contractors under the supervision of the Sri Lankan Foreign Ministry.

Table 6: Overview of the Study Villages

	Katupolwaththa	Cinnamon Garden	Tea Garden
Distance from Galle city	8.5 km	10.5km	11.5km
Distance from settlement to the main bus stop	1.5 km	50m	1.5
DS Division	Akmeemana	Akmeemana	Akmeemana
Total area allocated per resettlement	8 hectares	6 hectares	15 hectares
Area allocated per house	10 perch	8 perch	10 perch
Total number of houses	78	145	135

Source: GN officer Katupolwaththa, Cinnamon Garden and Tea Garden statistics (2007); additional own data.

4.2. Socio-Economic and Demographic Characteristics of the Study Population

This section examines the basic socio-economic and demographic characteristics, such as ethnicity, religion, age, gender, marital status, education level, current activity status, main source of income, and land ownership of the sample household population in each of the three study settlements.

4.2.1. Ethnicity and Religion

The ethnic and religious composition of the study population reveals that a significant proportion of household members belong to the Sinhalese ethnic group and Buddhist religion (see Table 7). These percentages are slightly higher than the Census 2001 data

for Galle district (94.4% and 94.1% respectively). There is not a single Moor ethnic group member in the sample population. This could be because the tsunami affected Moors living in Galle city refused to relocate to the settlements situated in Akmeemana Divisional Secretary Division as there is no mosque in the vicinity of these new settlements³⁸.

Table 7: Ethnicity and Religion of Sample Households by Location

Ethnicity	Overall (%) ¹	Location		
		Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
Sinhala	97.6	94.2	97.2	100
Tamil	2.4	5.8	2.8	-
Religion				
Buddhist	95.8	88	97.2	98.8
Hindu	2.4	6	2.8	
Christian & other Catholics	1.6	6	-	1.2

Notes: valid n¹=671, n²=139, n³=289, n⁴=243. Source: Field Survey.

4.2.2. Gender and Age

As for gender, a slightly higher proportion of females live in the Cinnamon Garden (51.2%) and Tea Garden settlements (51.4%) compared to their male counterparts, which is similar to the national pattern and the Galle district census percentages in 2001. On the other hand, an equal proportion of males and females live in Katupolwaththa settlement (see Table 8).

In relation to age distribution, a slightly higher proportion of old age people (65 or more) live in Cinnamon Garden (6%) settlement compared to the people living in Katupolwaththa (5%) and Tea Garden (5%) settlements. On the other hand, a slightly higher proportion of children belonging to 0-14 age cohort live in Katupolwaththa settlement (see Table 8). Nevertheless, the highest dependency rate is reported from Katupolwaththa (56%) which is slightly higher than the overall dependency rate of 52%

³⁸ This was revealed in some interviews conducted with the government and affected moor ethnic members in Katugoda GN division in the Galle city, which is one of the severely affected GN divisions of the Galle Four Gravets Divisional Secretary with a considerable proportion of Moor ethnic community members.

and compared to the dependency rates of the other settlements (Tea Garden 50% and Cinnamon Garden 52% respectively). The overall child dependency rate (43%) is significantly higher than the old age dependency rate (9.2%) which is similar at the settlement level. This shows the main reason for the growing dependency ratio overall and at the settlement level in particular is owing to a significant proportion of children (0-14 age group) in the household population.

Table 8: Gender and Age distribution of Sample Households by Location

Gender	Overall (%) ¹	Location		
		Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
Male	49	50.4	48.8	48.6
Female	51	49.6	51.2	51.4
Age				
0-14	28.2	31	26	28
15-64	65.7	64	66	67
65+	6.1	5	8	5

Notes: valid n¹=671, n²=139, n³=289, n⁴=243. Source: Field Survey

4.2.3. Marital Status

In relation to the overall picture, over half (nearly 51%) of the household members were never married, while 43.1% are legally married. With regard to location specific variations, a slightly higher proportion of unmarried household members (mainly children and youth) live in Cinnamon Garden (nearly 55%). It is noteworthy, that 5% of household members are widowed, which is slightly higher compared to Galle district census data in 2001 (3.2%). The main reason for this could be the death of their partners owing to the tsunami (see Table 9).

Table 9: Marital Status of Sample Households by Location

Marital Status	Overall (%) ¹	Location		
		Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
Never married	50.8	48.9	54.7	47.3
Married registered	43.1	43.2	40.1	46.5
Married customary	0.4	2.2	-	-
Legally separated	0.7	0.7	0.3	1.2
Widowed	4.9	5.0	4.8	4.9

Notes: valid n¹=671, n²=139, n³=289, n⁴=243. Source: Field Survey

4.2.4. Educational Attainment

The overall picture of educational attainment of household members shows that a majority of them have a post-primary level of education (38%), while 14.5% have primary level education and 4.5% have no formal education. In contrast, 30% have passed Ordinary Level (O/L) and only 12% have passed Advanced Level (A/L). In regard to location, it is clear that a slightly higher proportion of household members with primary, post primary and without formal education live in Katupolwaththa, while more household members with A/L and Degree or higher level education live in Cinnamon Garden. Moreover, a higher proportion of household members with O/L live in Tea Garden (see Table 10). On the basis of this data it is important to conclude that households with a reasonable level of educational attainment (O/L or more) live in Cinnamon Garden and Tea Garden.

Table 10: Educational Attainment of Sample Households* by Location

Education Level	Overall (%) ¹	Location		
		Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
No Formal Education	4.5	8.2	1.7	5.6
Primary (1-5)	14.5	17.6	11.3	16.3
Secondary (6-10)	38	42.4	41.8	30.6
G.C.E. (O\L)	30	25.9	25.4	36.3
G.C.E (A\L)	12	4.7	17.5	10.6
Degree or Higher	1	1.2	2.3	0.6

Notes: * excluding household members presently in school, and non- schooling age children below 5 yrs age, valid n¹=422, n²=85, n³=177, n⁴=160. Source: Field Survey

4.2.5. Current Activity Status

It is clear from the statistics that almost 30% of household members are employed. A slightly higher proportion of household members in Tea Garden are employed (30.5%). The highest unemployment rate is reported from Katupolwaththa (13.7%) which higher than both the overall rate (10.3%) and the Galle district rate (11%). Household members attend school is slightly higher in Cinnamon Garden (31%) than the other settlements (see Table 11).

Table 11: Current Activity Status of Sample Households by Location

Activity	Overall (%) ¹	Location		
		Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
Student	27.4	28	31	23
Employed	28.9	27.3	28	30.5
Unemployed	10.3	13.7	10	9.1
Household workers	19.4	17.3	18	22.2
Disable\Retired\Children < 5yrs	14	13.7	13	15.2

Notes: valid n¹=671, n²=139, n³=289, n⁴=243. Source: Field Survey

4.2.6. Income Earning Activities

Initially, when examining the overall income earning activities of the employed population in all three forced relocation sites, nearly one fourth of household members were engaged as daily paid labourers (25.9%), which is higher than the Galle district census data for 2001 (19.5%). Another one fifth of household members engaged in small scale business, such as mobile vendors, as well as payment hawkers (21.4%). There were 18.4% of household members engaged in service, shop, market and sales related income earning activities and another 17.4% in fishery related activities. Considering the overall distribution of income earning activities of employed household members, it is important to conclude that the majority of their income earning activities belong to the informal sector.

When looking into location specific variations of income earning activities of household members, some interesting patterns emerged. For instance, a higher proportion of household members engaged as labourers or in small scale business activities (nearly 36% and nearly 31% respectively) live in Katupolwaththa. A large proportion of household members engaged in the fishery sector live in Tea Garden (22.1%), while 25% of residents in Cinnamon Garden are engaged in service, shop, market and sales activities. What is important to note is that the household members engaged as professionals or clerks is very low. Nevertheless, the majority of people engaged in this sector live in Cinnamon Garden (see Table 12).

Table 12: Income Earning Activity of Employed Sample Households by Location

Major Occupational Groups	Overall (%) ¹	Location		
		Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
Professionals	2	-	4.7	-
Clerks	4	-	7.1	2.6
Service, shop, market & sales work	18.4	12.8	24.7	14.3
Fishery	17.4	17.9	12.9	22.1
Craft related, machine operators	8.5	2.6	10.6	9.1
Labourers	25.9	35.9	20	27.3
Small scale business	21.4	30.8	15.3	23.4
Pensioners	2.5	-	4.7	1.3

Notes: valid n¹=201, n²=139, n³=289, n⁴=243. Source: Field Survey

4.2.7. Land Ownership

No relocatees living in any of the three research locations have yet received legal deeds to their new land and house, although there are several pledges from the government officers, as well as politicians in the area, to speed up the process (see section 7.2.7 for more information). Nevertheless, it is important to explore the types of ownership of land and houses that relocatees occupied before the tsunami.

Government policy and implementation guidelines issued to various tsunami affected district secretariats on tsunami housing development clearly stated that, “only householders who previously resided in the buffer zone with legal ownership to land were entitled to receive new houses in the new settlements situated outside the buffer zone” (Presidential Secretariat, 2005:4). However, there were continuous requests to the government from the squatters who settled illegally on government land in the buffer zone area, before the tsunami. They begged the government to consider them for new houses with secure land titles in the new settlements. This was later granted by the officials. In this context, it is evident from the data that the encroachers who stayed in the buffer zone also obtained houses in the new relocation sites. For instance, a significant proportion of the encroachers who previously lived in the buffer zone are now living in

Katupolwaththa (51.6%). The largest proportion of people that formerly owned land prior to the tsunami are now living in Cinnamon Garden (69%) (see Table 13).

Table 13: Previous Land Ownership by Location

Type of ownership	Location			
	Overall (%) ¹	Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
Owned	60.1	45.2	69	59.3
Rented	2.8	3.2	3.4	1.9
Encroached	37.1	51.6	27.6	38.9

Notes: valid n¹=143, n²=31, n³=58, n⁴=54. Source: Field Survey

In conclusion on the basis of the above discussion of salient socio-economic features of households across the three relocation settlements, a higher proportion of people of the Katupolwaththa settlement reported low educational attainment (primary, post primary and no formal level of education), were engaged as labourers and small scale business operators as their main income earning activities, had no legal entitlement to land before the tsunami, and reported higher unemployment and dependency rates compared to Cinnamon Garden and Tea Garden. In other words, more poor households can be seen in Katupolwaththa (see section 6.2.1.).

5. The Impact of the Tsunami and the Forced Relocation Process

This chapter is divided into two parts: the first part attempts to examine the macro scale socio-economic impact caused by the 2004 tsunami in Sri Lanka, based on secondary data, while the second part will make an attempt to explore the forced relocation process using both sample household interviews with relocatees in the three study locations and key informant interviews with government officials who were involved in the relocation process.

5.1. Uneven Geographical Impact of the Tsunami

The tsunami struck a relatively thin, but long stretch of over two thirds of Sri Lanka's coastal line from Jaffna in the north, the entire eastern and southern coast, and a part of the west coast. Thirteen out of fourteen districts situated along the coastal belt were affected. Almost half of the DS Divisions in Ampara, Batticaloa and Trincomalee districts of the Eastern Province and one third of DS Divisions in Hambanthota and Galle districts of the Southern Province were affected. While only a negligible number of DS Divisions in the Gampaha (1%) and Puttlam (0.2%) districts were affected (see Table 14).

Table 14: Tsunami Affected Districts by DS and GN Divisions

District	Total No. of DS Divisions	No. of DS Divisions Affected	Total No. of GN Divisions	Total No. of GN Divisions Affected
Ampara	20	10	508	125 (24%)
Trincomalee	11	6	230	55(24%)
Batticaloa	14	8	348	68(23.7%)
Hambanthota	11	4	576	33(5.8%)
Matara	16	3	650	71(11%)
Galle	18	6	895	132(15%)
Killinochechi	4	3	95	9(9.5%)
Mullativ	5	1	127	18(14.2%)
Jaffna	16	2	435	31(7%)
Kalutara	14	3	762	54(7.1%)
Colombo	13	5	557	30(5.4%)
Gampaha	13	2	1177	13(1%)
Putlam	16	1	548	1(0.2%)

Source: Department of Census and Statistics: 2005

The preliminary assessment of damages as a result of the 2004 Boxing Day tsunami, estimated that Sri Lanka suffered around USD1 billion (4.5 per cent of GDP) damage to assets alone (Jayasuriya et al., 2005). The economic impact of the tsunami to the Sri Lankan national economy is limited to 1% of GDP³⁹. However, the affected provinces constitute a large proportion of the population (26%) (ADB, et al., 2005). The following section will outline and analyse the macro scale socio-economic impact caused by the 2004 tsunami in Sri Lanka under the following themes: deaths and displacement, damage to housing, loss of income earning activities and damage to infrastructure.

5.1.1 Deaths and Displacement

Eastern Province was one of the worst affected provinces and reported the highest number of deaths (14,354) and displaced persons (218,727), while Ampara as a single district of this province reported the highest number of deaths (10,436) and injured

³⁹ The tsunami is expected to slow down GDP growth in 2005 by up to 1% from an original government estimate of 6%. The relatively limited impact is due to the fact that the most affected sectors of the economy, namely fishing, hotels and restaurants, together contribute only 3% of GDP. The construction sector is expected to grow from an average of 5.5% in the recent past to 8 to 10% in the next three years.

persons (5,762). Southern (10,056 and 159,105 respectively) and Northern Provinces (6,230 and 64,067 respectively) reported the second and third highest deaths and displacements. However, Galle as a single district of the Southern Province reported the highest number of displaced persons (128,077) (see Table 15).

The number of women and children among the dead seem to be disproportionately high (IPS, 2005b; Birkmann et al., 2007). More than nine hundred children became orphans or separated from their parents (ADB et al., 2005). Most of the children who survived also lost their schools, homes and their entire way of life (UNICEF, 2005). In addition, the tsunami wiped out many important documents such as deeds⁴⁰ birth and marriage certificates, identification cards, passports, and educational certificates etc.

Table 15: Number of Tsunami Affected People by District and Province (as at 25.1.2005)

District/Province	Deaths*	Injured	Displaced Persons**
Ampara	10,436	5,762	75,172
Trincomalee	1,078	1,426	81,643
Batticaloa	2,840	1,925	61,912
Eastern Province	14,354	9,113	218,727
Hambantota	4,500	1,236	17,723
Matara	1,342	3,654	13,305
Galle	4,214	3,564	128,077
Southern Province	10,056	8,454	159,105
Killinochchi	590	3***	1,603
Mullativ	3,000	3,904	22,557
Jaffna	2,640	1,775	39,907
Northern Province	6,230	5,682	64,067
Kalutara	256	711	27713
Colombo	79	452	31239
Gampaha	6	109	1449
Western Province	341	1272	60401
Puttalam	4	NR	66
North Western Province	4	-	66

Notes: NR- Not Reported, * without missing persons, ** people staying in IDP camps or staying with relatives and friends, ***.

Source: Department of Census and Statistics: 2005.

⁴⁰ Records of property ownership.

5.1.2 Damage to Housing

Housing is commonly identified as a basic need and is also considered an important productive asset (Moser, 1998). When examining the damage caused to housing units as a result of the tsunami, 13% of the housing stock in the administrative divisions along the coast were either completely or partially damaged. The Asian Development Bank, Japan Bank for International Cooperation and the World Bank (2005) jointly compiled a preliminary damage and needs assessment report which revealed that more than 130,000 housing units in the thirteen tsunami affected districts were damaged, of which more than 99,480 were completely damaged. The report further estimated that USD 437 million would be required for the reconstruction and rebuilding of damaged or destroyed housing stock. However, Census and Statistics report (2005) showed a lesser number of (93,148) housing units⁴¹ were damaged⁴², of which 52,413 (56%) were completely or partially damaged (unusable). Further to this report, when examining the pattern of damages to houses in each province some interesting patterns emerged. For instance, nearly half of the completely damaged or partially damaged (unusable) housing units were reported from (25,535) the Eastern Province followed by another 20% from Southern and 18% from Northern Provinces (see Table 16). Moreover, most of the completely damaged or partially damaged unusable houses were situated within 500 meters of the coast.

⁴¹In order to consider building unit as a housing unit, it should be a place of dwelling of human beings, should be separated from other places of dwelling and should have a separate entrance (Census, 2005:2)

⁴²Fully damaged, partially damaged (unusable) and partially damaged (usable) housing units only were considered damaged.

Table 16: Housing Units Damaged by District

District/Province	Housing Units			Total
	Completely Damaged	Partially Damaged (Unusable)	Partially Damaged (Usable)	
Ampara	9,573	2,792	8,836	21,201
Trincomalee	4,691	1,037	3,646	9,374
Batticaloe	5,487	1,955	6,429	13,781
Eastern Province	19,751	5,784	18,911	44,446
Hambantota	1,218	304	1,019	2,541
Matara	1,804	708	4,042	6,554
Galle	4,885	1,115	6,645	1,2645
Southern Province	7,907	2,127	11,706	21,740
Killinochchi	294	-	-	294
Mullativ	4,564	627	509	5,700
Jaffna	3,819	291	2099	6,209
Northern Province	8,677	918	2,608	12,203
Kalutara	2,386	512	3,799	6,697
Colombo	3,313	646	3,039	6,998
Gampaha	290	87	629	1,006
Western Province	5,989	1,245	7,467	14,701
Puttalam	12	15	31	58
North Western Province	12	15	31	58

Source: Department of Census and Statistics: 2005.

5.1.3 Loss of Income Earning Activities

An estimated 150,000 people lost their main source of income: at least 50% of them were employed in the fishery sector⁴³, 45% in tourism and related services and the remaining 5% in agriculture and livestock (IPS, 2005a; GOSL, 2005a). The International Labour Organization (ILO, 2005) conducted a survey in the affected areas and also confirmed the fishery sector as the worst affected. It is noteworthy that 5,000 fishermen lost their lives (GOSL, 2005a) and nearly 90,000 of fisher families were displaced due to loss of houses and other household assets (ADB et al., 2005). Over 19,000⁴⁴ fishing boats (75% of the fishing fleet), such as fishing vessels, rafts (*theppam*), large fibreglass or wooden sea canoes (*oru*), fibreglass day boats with outboard or inboard engines, and multi use day

⁴³ Fish workers (labourers on boats of others), fishers (boat owners who fish on their own boats), boat owners (those who own boats and do not fish), those in fish processing (drying) and selling as well as engaged in boat and net repairing (IPS, 2005b:2).

⁴⁴ The exact figures are hard to estimate as most of the crafts were not registered.

boats were fully destroyed or damaged to varying degrees. Moreover, a huge proportion of fishing gear, including various types of nets (drift nets, trammel nets, cast nets etc) and outboard engines was destroyed. Facilities (ice plants, cold rooms, workshops and slipways) and equipment in ten fishing harbours out of a total of 12 were either damaged or completely destroyed (FAO, 2005).

As for the tourism sector, 50 large hotels, out of 242 registered hotels in the country, were partially damaged, while another 8 hotels were completely destroyed. 248 small hotels and 210 tourism related small enterprises were either damaged or destroyed (GOSL, 2005a; ADB et al., 2005). As a result, an estimated 27,000 people working in tourist and tourist related services (gem and jewellery shops, internet cafes, water sports shops (such as diving), taxi drivers, unregistered tourist guides, souvenir shops and mobile souvenir sellers) have lost their jobs (ADB et al., 2005). On the other hand, the number of tourists⁴⁵ for the year 2005 gradually decreased after the tsunami, although the tourism was on the rise before the tsunami as a result of the signing of the Ceasefire Agreement between Liberation Tigers of Tamil Elam and the Government of Sri Lanka since 2002⁴⁶ (Sri Lanka Tourist Board, 2006).

Overall damage to the agriculture and livestock sectors, as discussed earlier, was not as significant compared to the fishery and tourism sectors (GOSL, 2005a). However, a total of 2,308 ha of land, including 1,047 ha of paddy land, 589 ha of other field crops, 473 ha vegetable cultivation and 201 ha of fruit crops were either damaged⁴⁷ or destroyed (ADB. et al., 2005). As a result, less than 15,000 farmers who engaged in farming activities, both full time and seasonal, were affected (Bell, 2005). As for the livestock sector, birds, cattle and goats mainly from Ampara, Batticaola, Trincomalee and Mulaitivu districts were the most affected (ADB. et al., 2005).

In addition to the above sectors, 15,000 people involved in self employment and the informal sector, such as food processing, coir industry, carpentry, toddy tapping, food stalls, sewing, lace making and tailoring also lost their main income source (Steele, 2005).

⁴⁵ Those who come to the country for holiday, site seeing, recreation etc

⁴⁶ In 2004 total number of tourist arrivals was 566,642 and it has reduced to 549,308 in 2005(Sri Lanka Tourist Board, 2006).

⁴⁷ Damages mainly occurred owing to salinity problems and fields filling up with sand deposits (Bell, 2005).

5.1.4. Damage to Infrastructure

The impact of the tsunami on roads, railways, water, electricity, hospitals and other infrastructure, such as schools, vocational training centres and universities etc are noteworthy. The most critically damaged infrastructure was roads and railways. For instance, the Southern rail corridor, sections of the national road network, 700 km of provincial roads and 1,100 km of local government roads were damaged or destroyed (ADB, et al., 2005). USD356 million was the estimated cost to rebuild the damaged roads at national, provincial and local government levels. While 1,485 million Sri Lankan Rupees was estimated to rebuild the damaged rail tracks, rail bridges and signal communications network (GOSL: 2005a).

The electricity was only limitedly affected as major transmission lines or power plants were not damaged. As for water, it is clear that most of the households in the affected districts were dependent on individual or common wells to get water. Rough estimates showed that at least 12,000 wells were affected owing to salt water intrusion and another 50,000 were abandoned (ADB. et al., 2005).

The tsunami had a devastating impact on the education and health sectors. With regard to education, 168 public schools, 4 out of 13 universities and 18 vocational/industrial training centres were completely or partially damaged⁴⁸. Moreover, 80,000 students, 330 teachers and 50 principals were directly affected (ADB. et al., 2005). There is also considerable damage caused to the health sector. For instance, 44 health institutions (a large obstetrics and gynaecology teaching hospital, many district hospitals and health clinics) were partially or completely damaged. Losses of medical instruments, drugs and other equipment, and 54 vehicles, including ambulances, were also reported (ADB. et al., 2005).

Considering the loss of life in many households, especially the main breadwinner, and the extensive damage to homes, workplaces, other valuables and vital infrastructure in the area, Steele argues that these households could become more and more vulnerable to

⁴⁸ Damage includes physical damages to the buildings, equipments, tools, furniture, books and machinery.

falling into poverty⁴⁹ (Steele, 2005). In this context, it is a huge challenge for the government, in particular, non-governmental organizations and other groups to intervene in order to rebuild the housing stock damaged or completely destroyed and reconstruct destroyed critical infrastructure (i.e. hospitals, schools, bridges etc) within a short period of time. However, the Sri Lankan government was not prepared for such a high impact from a natural hazard causing such extensive damage. For this reason the government made an open request to both the domestic and international community for aid, in cash or otherwise, for tsunami related relief, rehabilitation and reconstruction work. USD 2.2 billion was initially estimated as the total cost. Of this, the largest financial needs were identified for the Eastern Province (45%), followed by the Southern Province (26%), Northern (19%) and the Western Province (10%). The government also projected that it would need 3 - 5 years to rebuild the structures and achieve full recovery (GOSL, 2005b).

5.2. The Forced Relocation Process

This section first outlines the general institutional arrangements for tsunami relief and reconstruction, and then examines where the surveyed sample of household members temporarily lived soon after the tsunami until they were forcibly relocated to their present settlements. It will also explore the problems they grappled with in these places, their preferred settlements, and reasons for it, allocation of houses by the Divisional Secretary officials, and finally resettling in their relocation settlements.

5.2.1. General Institutional Arrangements for Relief and Reconstruction

The Centre for National Operations (CNO) was established under the president soon after the tsunami, as the central body to coordinate relief operations and also to gather and disseminate information. Three Task Forces, namely, Task Force for Rescue and Relief (TAFRER)⁵⁰, Task Force for Law and Order (TAFLOL)⁵¹ and Task Force for Rebuilding

⁴⁹ The devastating effects of the catastrophe could add around 250,000 more poor to the population, as available poverty data in the Southern Province showed that one quarter to one third of the population in these districts live below the poverty line (ADB, 2005).

⁵⁰ Coordinate and facilitates implementation of all rescue, relief and rehabilitation activities through the relevant line ministries, District Secretaries, Divisional Secretaries and other relevant government authorities.

⁵¹ Coordinate all logistical activities of relief work, and facilitate easy access to relief supplies to those in need of it.

the Nation (TAFREN)⁵² were set up at a later time under the president. In February 2005, the work of CNO was undertaken by the TAFOR (Task Force for Relief) which formed by merging TAFER and TAFOL which looked after the distribution of food provisions, cash allowances, transitional accommodation and other duties performed by the CNO.

TAFREN was created as the primary institution to coordinate, facilitate and assist implementing organizations on recovery and reconstruction. It also coordinated donor assistance and fund raising activities. In September 2005, TAFREN reorganized itself to focus on four thematic areas: getting people back into homes; restoring livelihoods, health, education, and protection for all and upgrade national infrastructure. The management of relief and reconstruction became highly centralized as all relevant instructions, orders, policy guidelines and circulars were filtered down from the centre. TAFREN closely works with the relevant line ministries such as the Ministry of Urban Development and Housing, Urban Development Authority (UDA), National Water Supply and Drainage Board (NWSDB), Ministry of Power and Energy, Electricity Board (CEB), Ministry of Highways, Road Development Authority (RDA) and other relevant government institutions.

Overall coordination of relief, rehabilitation and reconstruction work at the district level was handled by the District Secretary. The Divisional Secretaries of the district further coordinated the work at the Divisional Secretary level under the guidance of the District Secretary, while the Grama Niladari Officer (GN) coordinated work at the GN level.

5.2.1.1. Transitional Shelters

Transitional shelters were provided under the Transitional Accommodation Project implemented by TAFOR, with financial assistance from international organizations for those living in temporary camps, which were predominantly situated in government schools, other government buildings or places of worships (GOSL, 2005b). This helped the affected people who lived in temporary camps to move into transitional shelters primarily built on government owned land, until they got permanent housing. Relevant GN officers managed these facilities under the supervision of Divisional Secretaries. A

⁵² Rebuild infrastructure and rescue development

food ration program was set in place for six months and a cash grant of Rs.5000 (USD50) was given to the affected families for four months by the government as support to re-establish their income earning activities.

5.2.1.2. Permanent Housing

The Tsunami Housing Reconstruction Unit (THRU) based in the Urban Development Authority was mainly in-charge of permanent housing reconstruction projects. The decision taken by the government (GOSL, 2005b) to reintroduce and fully enforce a buffer zone of 100 meters in the south and south west, and 200 meters in the north and the east (as the damage to life and property was higher these areas) restricted reconstruction of completely or partially destroyed housing units situated within this zone for residential purposes. As a result, more than 70,000 people who had lived in this area were forcibly relocated areas outside the buffer zone (GOSL, 2005b). In this context, two types of housing programmes were introduced by THRU in relation to the construction of permanent housing:

- 1) Housing for Forced Relocates under the Donor Built Housing Program – This program was introduced solely for the affected families who lived in the buffer zone prior to the tsunami. Relevant donor⁵³ agencies would build the houses⁵⁴ according to the Urban Development Authority guidelines and sites plans issued by the National Housing Development Authority (NHDA) after signing a Memorandum of Understanding (MoU) with THRU. Moreover, donors need to bear the cost of basic amenities (water, electricity and sewerage) in the house and infrastructure in the settlement (access roads, street lamps, community centre etc), while the government would develop the services leading up to the new settlement (Ministry of Finance, 2005a). The Divisional Secretary of the affected district, together with the support from the Urban Development Authority, needed to identify suitable land closest to the affected villages and hand them over to donors (see Table 17). The guidelines issued to the donors clearly stated that they should employ contractors, either

⁵³ Donors were often Sri Lankan, or foreign private companies, as well as National and International Non-Governmental Organizations.

⁵⁴ The housing units should be a minimum of 500 square feet with two bed rooms, a living room, kitchen and a toilet (Steele, 2005:10).

registered with the Institute for Construction Training and Development (ICTAD) or government construction agencies, to build the houses in the new settlements.

As for beneficiary selection, the guidelines issued for tsunami affected Divisional Secretaries clearly mentioned the importance of conducting a damage assessment study by a team established by each affected DS division by visiting each affected house in each GN division of the DS division. It also stated that the head of the household had to prove title of ownership to the damaged house and proof of permanent residence in order to qualify for get a house in a relocated settlement. Selected beneficiaries also got the opportunity to indicate their preferred relocation site to government officials, so that a final beneficiary list⁵⁵ could be compiled and houses allocated. In addition, beneficiaries also got an opportunity to provide their input to the settlement plan, housing structure and to supervise the overall construction work. Finally, beneficiaries were to get legal ownership of the new housing unit in the resettlement area (Ministry of Finance, 2005a). Irrespective of these guidelines, it was important to explore how these guidelines were actually implemented at the local level. The selection of beneficiaries in a fair, accurate, verifiable manner; finding land close to their previous residence (in order to keep communities intact), building durable houses with essential infrastructure; and restoring income earning activities in the new settlements were some of the challenges that both donors and officials had to face.

- 2) Home Owner Driven Housing Reconstruction Program- Affected families who legally owned land and houses that were completely or partially damaged which were situated outside the buffer zone were eligible to apply for a cash grant. In addition, affected families living within the buffer zone with legal ownership of land outside the buffer zone (within the same district) were also eligible to apply for this cash grant. Under this program, owners of partially damaged houses would receive Rs.100,000⁵⁶ (USD1000⁵⁷) in two instalments : Rs.50, 000 per instalment, and

⁵⁵ The selection of recipients of the housing units in the housing projects will be the responsibility of the government of Sri Lanka which will make the selection in consultation with the relevant Divisional Secretaries and other State Agencies (Steele, 2005).

⁵⁶ Repair cost is less than 40% of the replacement cost of the house (Ministry of Finance, 2005b).

⁵⁷ 1US\$=Rs100.

As this study focuses only on the donor built housing program implemented as a result of the forced relocation of tsunami displaced people using the new buffer zone regulation, the following section will explore how this process was implemented at the local level, irrespective of the issued guidelines.

5.2.2. Living in Temporary Camps, Tents and Transitory Shelters

A significant proportion of relocatees in the sample population had completely lost their housing units and all of their valuables as a result of the tsunami (96.5%). In this situation, the majority of them had to initially stay in temporary camps situated mainly in government schools, Buddhist and Hindu temples, churches and mosques (nearly 69%) close by. A small proportion also stayed with their relatives and friends in non tsunami affected areas (26%). Considering the displaced people who stayed in the temporary camps, most of them stayed in these places for more than six months before they moved into temporary wooden shelters which were known among the tsunami victims as “transitory shelters”. These shelters were mostly built on government land close to their former homes or new settlements until they permanently settled in their new housing outside of the buffer zone area. Families with more household members, and particularly females always grappled with the lack of space in both the temporary camps and the transitory shelters, as female household members needed separate places to sleep and change their clothes.

It is evident from the interviews with relocatees that most of them had to switch temporary camps several times until they finally settled in one transitory shelter as the camps were overcrowded; had inadequate water to use for washing, bathing, toilet facilities and for drinking, in particular, and insufficient space to accommodate large numbers of displaced people from the area. People constantly struggled with uncertainty, as they did not get sufficient information from government officers regarding where their next camp or transitory shelter would be, for how long, or whether they would have to reside in these places until they obtained permanent housing (Ingram et al., 2006).

Most of the displaced household heads could not search for work for at least for the first three months, and some for more than six months after the tsunami. They needed some

time to mentally prepare themselves to face the future after perhaps losing some or all of their family members, close relatives, homes, valuables and dealings with injuries to other household members. On a positive note, there were few problems in physically surviving during six months following the tsunami due to the food, clothes, money and assistance they received from the government and international and local non-governmental organizations (Stirrat, 2006; de Silva, 2009)

Sadun, a thirty-three year old male Fortune Teller, living in Katupolwaththa reveals his experience during his stay in various temporary camps and transitory shelters: *“I lost two of my four children, and my wife was hospitalized for nine days due to leg injuries as a result of the tsunami. Soon after the tsunami, most of my family members went to a Buddhist temple situated close to our house and stayed there for one month as my house was completely damaged, leaving only the cement floor. There were more than 100 affected people staying in the temple, at least for the first few weeks, amidst great difficulties as all the displaced people had to depend on four toilets and there was no proper garbage collection system until three weeks after the tsunami. We received cooked food and bottled water from various individuals and local organizations during the first few days. Later, a group of us had to cook all three meals for all the people living in the temple using dry rations (dhal, rice, wheat flour, potatoes and dry fish), which we received from the Divisional Secretary Officials. This was not an easy task. The GN officer who is responsible for the area came to see us only four days after the incident and then started coordinating with the relief groups and Divisional Secretary Officials.*

We were asked by the GN officer to move to another temporary camp using tents built on government land situated in the city, after staying for nearly one month in the temple (see photo 5). There were more than fifty families in the new camp and each family got a separate tent to live in. We lived there for another six months before moving into the transitory shelter. Life in the tent was hard as there was no electricity. Candles were used in the first few days and later kerosene oil lamps were used during the night. We cooked using kerosene cookers donated by an international non-governmental organization and slept in the tent. We had to depend on common taps and toilets. I feared that one of my family members may get infected by skin diseases using the common toilets in the camp, as they were not frequently cleaned. Living in the tent during the day was difficult due to

the heat. It was even worse, during heavy rain, as water would always to come inside. We had to stay in the tent with all these difficulties as there was no other place for us to go and settle as most of our relatives who lived close to our house were also badly affected and displaced.

Photo 5: Individual Tents in Galle City



Individual tents in Pettigalawaththa area in Galle city (left), a mother and daughter inside a tent in Katugoda area in Galle city (right).

Photos: Fernando, 2005.

During this period, I received Rs. 5000 on monthly basis for four months, Rs 2500 to buy kitchen utensils and dry rations worth Rs. 175 (dhal, rice, coconut and wheat flour) and Rs 200 cash for each household member, on a weekly basis for another six months from the government. I was unsatisfied with the poor quality of wheat flour and rice that we got from the government cooperative shop. There were always small insects in the wheat flour and a bad smell came out of rice even after washing it four times or more before it was cooked. Other than that, our family also received a lot of food items, clothes, bed sheets, pillows, mattresses, mosquito nets and some money from various local and international organizations and individuals. Some displaced persons always depended solely on aid, which I did not do, because my main intention at that time was to find a permanent place for my family to live.

After staying in the tent for six months, we were finally asked to move into a temporary wooden shelter situated outside Galle city on a hilly area, which was constructed and

maintained by a local non-governmental organization. There were common toilets and water (see photo 6). Each shelter consisted of two rooms. We used one for living and sleeping and the other for cooking. There were only fifteen functional common toilets for over five hundred people who lived in over one hundred and ten temporary shelters. There was no electricity, other than generator, which provided electricity for two hours during the night. This was sufficient to light one bulb only and we had to pay Rs.10 per day for fuel. Water was transported by water tankers three times a day to refill the temporary water tanks, which were insufficient for the number of people in the transitory camp. A tube-well was constructed as a solution to the water problem, which was unsuccessful as water did not come out of it. As a result, there were long queues during mornings and evenings near the common taps, shower rooms and toilets. Sometimes quarrels broke out among the displaced persons in the common facilities. A few months after residing in the temporary shelter, dust started coming out of the wooden sheets. This was a big headache for us as it accelerated my daughter's breathing difficulties. The doctor asked me to change the place we were living, in order to cure her permanently, however, I could not do this as there was no other place for us to live. My two children could not go to school for the first three months as they had lost all their books and uniforms. New school books, stationery, shoes, school bags and uniforms were donated by a Danish couple which helped them to return to their school. The environment in both the temporary camps and transitory shelters were not conducive to their studies".

Photo 6: Transitory Shelter



Wooden transitory shelters situated on a hilly area (left), common water facilities available for the displaced people (right).

Photos: Fernando, 2005.

Some affected household members stayed in tents which were constructed on their previous land, or close to it by international or national non-governmental organizations until they received permanent housing, without having to move into transitory shelters which were located outside the city. There were two main reasons for this: firstly, there was inadequate water, toilets and electricity in the transitory shelters, and secondly, it was difficult to get aid from national and international organizations, as well as individuals by living in places outside the city. This is evident from Dilan`s (37 yrs) interview. He is a motor mechanic and a former camp leader who is currently living in Katupolwaththa: *“We (two daughters, wife and myself) stayed for at least one week in the temple situated close to our house, soon after the tsunami. We then moved back into the tents next to the Galle Cement Factory which were constructed by an Italian non-governmental organization and lived their for more than one and a half years before moving into Katupolwaththa. The Divisional Secretary asked us to settle in transitory camps situated outside the Galle city area by vacating the temporary tents. We refused to do so as there was inadequate water, sanitation and electricity in the transitory shelters and it was difficult for us to get any external aid by living far away from the city. To tell you the truth, we received lot of aid in cash during the period that we stayed in the temporary tents as it was situated in the Galle city few meters away from the Galle-Colombo main road.”*

Some relocatees presently living in the Tea Garden settlement had lived in the university hostel of the Ruhuna Medical Faculty (without previously living in transitory shelters) for more than one and a half years after living in various temporary camps for shorter periods. Each affected family was allocated a separate room with electricity, common toilets with water, and kitchen facilities. These were much better conditions to live compared to the common facilities offered people living in other transitory shelters. However, the rooms of the hostel were too small for families with more than four members. Finally, temporary disconnection of electricity to the hostel, owing to overdue bills and the unwillingness of the Divisional Secretary officials to settle them, forced people to find other permanent places to settle.

5.2.3. Living with Relatives, Friends, Rented Rooms or Houses

A few of the affected households resided either with relatives or friends until they got their permanent housing, rather than staying for longer periods in transitory shelters, as discussed in earlier examples. For instance, 55 year old Sarath, who is a Tourist Guide living in Katupolwaththa settlement stated: *“we stayed for four days in the temple after the tsunami and then went to my brother’s place and stayed there for eighteen months until we were asked to move to the new house in Katupolwaththa”*.

Some household members sent only their children to live with their close relatives or friends until they obtained a permanent place to live, knowing that it was unsuitable for children to stay in both camps and shelters with inadequate facilities. However, the head or the wife of the household resided in both places in order to attend to formalities with the Divisional Secretary officials in order to obtain a permanent place to live. A few displaced households with handicapped or very old members resided either in rented houses or rooms until they got permanent places to stay, as it was too difficult for them to stay in camps under limited facilities, irrespective of their poor economic conditions.

Considering the various hardships encountered by displaced people, particularly those who moved into camps and transitory shelters, there is no doubt they were desperate to find a permanent place to settle. This is further confirmed by Chandrani (30yrs, Tea Garden) who lost her two children and mother, and for more than one and a half years lived in temporary and transitory shelters. She said: *“we always thought of how we could get out of this misery as soon as possible and move into a permanent place to stay, with the intention of putting a full stop to our various hardships”*.

5.2.4. In Search of a Permanent Place to Stay

The 100 meter Buffer Zone restriction re-imposed by the government soon after the tsunami no doubt became the second shock for those who lived in this zone prior to the tsunami, as the reconstruction of their damaged houses was not allowed. In this context, displaced people had no choice other than to settle down in houses in donor build relocation settlements situated outside the “no construction zone” (Presidential Secretariat, 2005). This situation increased fear and uncertainty among the displaced people

(Hyndman, 2007). To convey the message to the affected people government authorities used various channels such as communication via GN officers in charge of the respective areas, Field Officers of the Coast Conservation Department, and newspaper advertisements. As discussed earlier, relocating people who lived within the buffer zone of Galle city before the tsunami into new settlements situated outside the zone, was not an easy task. The biggest problem was the shortage of spare land within the Galle city limits.

5.2.4.1. Preferred Settlement

With regard to the findings of the field study, the majority (53%) of affected people did not want to live in their previous dwelling as they were frightened of another tsunami, irrespective of the buffer zone regulation, and wanted to live outside the buffer zone, somewhere in the Galle city area. Nevertheless, a reasonable proportion (almost 27%) wanted to live in their previous place but could not do so owing to the buffer zone regulations. Moreover, a small proportion of squatter settlers wanted to move out of the 'no construction zone' with the intention of saving their lives in the event of another tsunami, and also to move into houses with a secure land title somewhere in Galle city (20%). It is important to conclude that none of the interviewed household heads wanted to live outside Galle city. This could be due to the fact that 79% of respondents had permanently lived close to the sea in Galle city for more than ten years. Interestingly, out of this, nearly 60% of them had lived for more than twenty five years in that area were clearly rooted in their place of residence, especially in terms of where they worked (sea and city) social networks, and various accessible services (i.e. education, health, administrative etc), as well as other opportunities that comes with being city dwellers. When relevant GN officers first distributed the application forms requesting relocatees to name three settlements, in order of preference, they would be relocated to, it is evident from the data that a significant proportion had given first preference to settling in new places close to their previous homes in the Galle city area (93%). Their main intention was to avoid disturbances to their day-to-day activities, by remaining in the Galle city area.

5.2.4.2. Allocation of Houses from Preferred/Non-preferred Settlements

A significant proportion of affected people (nearly 90%) received names of possible relocation sites from the GN or Divisional Secretary officials before they completed the relevant application forms, in keeping with the guidelines issued. However, the majority (nearly 62%) of them were unaware of other information, such as housing structure (i.e. single or two story), and facilities for individual houses or common facilities (71%) available in these settlements. Nevertheless, the majority of household heads interviewed had visited the relocation sites before indicating their preferences in writing to Divisional Secretary officials (52%), irrespective of whether they would receive a house from the preferred settlement or not. On the other hand, none of the household heads were given an opportunity to provide their inputs either on the settlement plan or the housing structure. Interestingly, only a few household members of Katupolwaththa engaged in housing construction activities. In this context, it can be concluded that the forced relocatees have not been involved in the planning and implementation process of resettlements, which is critical to the sustainability of the settlements (Lyons, 2009).

Interviews with both resettlers and Divisional Secretary officials confirmed that most of the affected people had to complete more than two application forms at two different times, or perhaps even more, to request a house of their choice. Although there was a high demand for houses constructed in the Galle city area, demand could not be met. This is mainly owing to scarcity of government-owned land in Galle city that could be allocated to build houses. Some construction also had to be abandoned due to pending court cases challenging the legal ownership of the land. Under this context, the majority of relocated settlements were constructed on available government land far from Galle city irrespective of officials' intention to relocate tsunami displaced people close to their former village. On the other hand, Divisional Secretary officials did not receive funds from the government to buy private land in the Galle city which could be allocated for donors to construct new settlements on.

It is not very clear and transparent how the Divisional Secretary officials prepared the final beneficiary lists that were submitted to the relevant donors in order to allocate houses considering preferences. Key informant interviews with Divisional Secretary

Officials also confirmed that affected people living in the buffer zone of Galle city wanted to resettle within the city area, and most of them did not want to move out of the city. Therefore, there was a high demand for houses in new settlements situated in the city. In general, officers employed a lottery method to select beneficiaries, which they thought was a transparent method for all parties involved. For instance, when allocating houses for a particular settlement, a list of applicants, considering their first preference for the settlement, was first constructed. If the applicants exceeded the number of houses in the settlement, all the applicants who applied for houses in that settlement were informed and came to the Divisional Secretary office for a lottery draw to select the actual beneficiaries. Some of the displaced people who did not get their preferred settlement, however, complained about various malpractices of some Divisional Secretary officers such as: purposely not notifying them of the date of lottery draw, allocation of some housing units for known persons prior to the lottery draw and even allocation of houses for non-affected people by accepting monetary bribes.

Dasa (54 yrs), a fisherman living in Cinnamon Garden explains his own experience on the allocation process: *“First I wanted to get a house from Dadella settlement, as it is situated in the city, but did not get it. Then, I applied to get a house from present settlement as it is close to the main road, even though it is situated far from the Galle city. One day we were informed that we should come to the Divisional Secretary office as there was a lottery draw to select actual beneficiaries for this settlement, so I went with my wife. One officer said that there were small pieces of paper in a box with and without house numbers of this settlement and we were asked to take one from the box. Fortunately, my wife took a piece of paper with a house number on it. Not everyone who was asked to come on that day to participate in the draw got an opportunity to pick a number from the box as all the houses had been drawn. The situation then got very tense when those who did not get an opportunity to pick a number started to scold the officers. Later, I came to know that one or two officers had not put all the house numbers into the box and had been keeping them for persons known to them. I know some people paid Rs. 3000 to 10,000 to get a house in their favorite settlement”*. However, completely refusing such allegations, one officer who was involved in beneficiary selection and allocation of houses said: *we did our level best to meet people’s preferences, if not we gave them a place close to the city*. Another officer said: *“several requests came from tsunami affected,*

as well as non-affected people, asking me to assist them to obtain a good house by offering money and other material benefits, which I totally refused". Nevertheless, the Auditor General report confirms that non-affected tsunami families did benefit from the tsunami housing reconstruction program (Mayadunne, 2005). Key informant interviews with some donors revealed that they went through each and every beneficiary on the final beneficiary list they received from the Divisional Secretary officials before they officially handed over the keys to the new house. By doing this, donors wanted to make sure that they allocated houses only to genuine tsunami affected people who did not have houses in other relocation settlements or elsewhere. Although very time consuming, this was a positive step by the donors in order to trace their beneficiaries. However, most of the donors left the country as soon as they completed the construction of their settlements. Irrespective of these tracing hurdles some interviewed household heads revealed the names of the people they knew who received more than one housing unit in the settlements. Shantha (48 yrs), a labourer living in the Cinnamon Garden Settlement exposed: *I know one family who got two houses: one from here, the other from Katupolwaththa settlement. They obtained these houses by knowing relevant officers.* Refusing these allegations, Divisional Secretary officials stated that there were instances when separate housing units were allocated if there were more than one family living in the destroyed housing unit. This means married sons and daughters who stayed with their parents or in-laws also got the opportunity to obtain a new house in a relocated settlement. On the other hand, some foreign individuals donated money on an individual basis for displaced people to rebuild their partially or completely destroyed houses, both in and outside of the buffer zone, without proper coordination with government officials. As a result, there was evidence of some relocatees having benefited from both parties.

5.2.5. Re-settling: Promises and Hope

When displaced people did not receive houses in preferred settlements in the Galle city area, they were forced to select houses in settlements situated far from the city of Galle as they had no other permanent place to stay, which is evident from Saranga and Kamal's statements.

Saranga (40yrs), who is a small scale businessman living in Tea Garden settlement explained: *“we cannot imagine how we ended up getting a house in this settlement, which is very far from the city and surrounded by palm trees and tea bushes, like a forest. We really wanted to get a house, not necessarily close to the sea, but located within the city, as the environment is familiar to us, close to my work and the children’s schools. So, we applied to get a house in the Dadella (situated in Galle city) housing project. Unfortunately, we did not get a house there or in any other new settlement situated in the city area. Only god knows the reason for this. I told the Divisional Secretary that I did not need a house from the present settlement, but did not get any positive response from him. He said that some housing construction work was going on in the Pilana area which is also far from the city, but it will take some more time to complete the construction work. Finally, we moved into this house from the temporary shelter, as there is no other permanent place for us to stay.”*

Kamal (42yrs) who is an out-boat engine technician living in Katupolwaththa settlement said: *“I did not want to stay close to the sea after I lost my two children in the tsunami and do not want to lose any more family members in future tsunamis. However, I wanted to stay in a settlement situated somewhere in the city rather than staying far away from the city. But this is the place I finally got”*. However, most of the interviewed household heads received pledges from various national and provincial politicians, donors who constructed their settlements, and various national and international non-governmental organizations that they would give financial and other necessary assistances to further develop individual and common infrastructure facilities and the lives of the people in these settlements. This was done with the genuine intention of encouraging people to settle in these settlements as a strategy to build up their confidence knowing that they do not prefer to reside in settlements situated far from the city. Displaced people living in transitory shelters and temporary camps for more than one year, subject to limited facilities, and the disappointed of not getting a house within the city, cannot ignore these pledges as most of them do not have any other permanent place to stay.

Selected examples of pledges given to the settlers before and after relocation by politicians, government officers, donors and others, are briefly presented in the following section. It is evident from the interviews with resettlers of the Katupolwaththa settlement

that their project coordinator had promised to provide good quality houses with furniture and other facilities. Mahinda (52yrs) who is a fisherman said: *“when we were living in transitory houses, Sudu Nona (white lady who is the coordinator of the project) came to see us and requested that we come and settle in this settlement, as our names were on the beneficiary list that she received from the Divisional Secretary office. She promised to donate good quality houses with furniture. I got a house with three chairs. When we first moved into the new house a Christian priest came with a lorry load of furniture to distribute amongst us. However, this lady did not allow him to distribute the items, stating that she would give all the necessary furniture to us. She did not give us what she promised and even blocked others from giving us things. She created a dream world, which never came true. Considering the distance from here to the Galle city, I did not have any idea what it would be like settling in this settlement. After hearing her promises, I changed my mind about settling here, hoping at least to get a good quality house with other facilities”*.

Government officers convinced people to settle in Tea Garden settlement and to occupy the houses as soon as possible it was the only settlement constructed with the direct involvement of the Sri Lankan Foreign Ministry and with good quality houses and all the facilities. One cabinet minister promised the settlers Rs75,000 worth of furniture for each housing unit. But later only 40 houses received Rs.5000 to buy whatever furniture they choose. The politicians in the area promised to increase the number of public buses servicing the area and to operate them round the clock knowing that more settlements were being developed in the area and that most of the new settlers would want to frequently visit Galle city for various purposes. The politicians who came to the inauguration of the Tea Garden settlement also restated their full cooperation and support to help develop settlements like this which built up a lot of confidence amongst the settlers. However, most of the settlers held the view that such political pledges were limited to words designed to satisfy the settlers for a short period of time, and did not include proper actions to address problems pertaining to infrastructure, income earning and other issues.

The same list of promises was repeated to encourage relocatees to settle in the Cinnamon Garden settlement as well, which is evident from Wasantha's (45yrs) statement (he sells

firewood): *“The president (at that time) visited our transitory camp and promised to give back everything other than lost lives. The President’s visit has increased our aspiration for the future. Along the same lines, government officers promised and guaranteed that we would not have to repair our houses at least for the next ten years. We dreamt of living in a good quality house. I could not ignore these pledges. They also said that we would get not only the house, but also Rs. 120,000 worth of furniture and other household appliances. On the day of the ceremonial opening of the settlement, one cabinet minister opened five houses which were equipped with furniture and other appliances, just to show the world. The organisers promised that the rest would come later, but we received only a television set and a bed. At least now we have a permanent place to stay, irrespective of other broken promises”.*

Photo 7: Different stages of housing construction work of Katupolwaththa Settlement



Preparing the land for housing construction (left), partially constructed houses (middle) and completed houses (right).

Photos: Fernando, 2005-2006.

6. The Impact of Forced Relocation on Household Financial Capital and Livelihood Strategies

This chapter is divided into two parts: the first part attempts to explore how household income earning activities were affected and how household expenses have increased due to forced relocation, and the second section explores various livelihood strategies (coping and enhancement) used by resettled households to secure their income sources.

6.1. The Impact of Forced Relocation on Household Income and Expenditure

As evident in previous chapters, the tsunami washed away the houses (completely or partially) of most of the interviewed household members, along with their household furniture and other valuable belongings. Furthermore, most of them had little choice other than to rebuild their lives from scratch in the settlements they were forcibly relocated to far from the city of Galle, despite their desire to live in a settlement in the city. However, since coming to Cinnamon Garden, Tea Garden and Katupolwaththa settlements, which are situated 8 to 12 km away from their former place of residence in the coastal city of Galle, their household financial situation has been badly affected owing to two main factors:

1. Disruption to income earning activities
2. New household expenses

In turn, these factors have cumulatively reduced the monthly income of households, on one hand, and increased their household expenses on the other. This situation has increased the stress level of the main income earners in these households as they have had to employ various coping and enhancement strategies to increase and secure their income to meet household expenses, including new household expenses. In the following section, these factors will be elaborated separately, in detail, although they are interconnected.

6.1.1. Disruption to Income Earning Activities

This section will examine how primary income earning activities of the forcibly relocated households were disrupted after relocation.

6.1.1.1. Difficulty in accessing the city of Galle due to distance and public transport difficulties

Relocates presently living in the three study locations, which are situated far from the coastal city of Galle complained that this *new distance* could be identified as one of the key causes of disruption to their primary income earning activities. This is largely because most of the occupational groups still work in the Galle city area and no longer have easy access to the city due to public transport difficulties from their respective settlements. In the following section, the primary income earning activities of the households, their place of work, and mode of transport, will first be discussed before specifically demonstrating how their main income earning activities were disrupted due to distance and transport difficulties.

Main Income Earning Activities of Resettled Households

When examining the occupational structure of the main income earners in the households of the three study locations, the majority of them are engaged as casual labourers (25%). This is mainly at Galle harbour, the Cement Factory, the Municipal Council, the market or elsewhere. Another noticeable proportion (nearly 23%) are engaged in fisheries, mostly as fishermen, while another small proportion are fish sellers, boat engine mechanics, or involved in other fishery related activities (i.e. knitting fish nets). 21.3% are engaged in small scale businesses such as running small grocery shops in their respective settlements, or as street vendors. Those who are engaged as drivers, security officers, sales representatives, tourist guides and domestic servants come under the job category of service, shop, market and sales workers constitute only 16.2%. Nearly 10% work as jewellery makers, carpenters, masons, sewing machine operators in ready-made garment factories, which comes under the occupational category of craft related and machine operator. Only a negligible proportion of household heads are engaged as professionals (2%), clerks (1.5%) and pensioners (1.7%) (see Table 18). It is evident from the data that

the majority of main income earners are casually employed, while only a few are permanently employed. Most of those who are causally employed need to search for work on a daily basis to make a living. This is why a daily paid labourer said: “*a day’s income is sufficient only for that day’s survival and we need to earn for the next day to feed the household members*” (Gaminie, 44 yrs, Katupolwaththa).

Table 18: Main Income Earning Activities of Households by Location

Major Occupational Groups	Overall (%) ¹	Location		
		Katupolwaththa (%) ²	Cinnamon Garden (%) ³	Tea Garden (%) ⁴
Professional, clerk, pensioners	5.2	-	9	3.8
Service, shop, market & sales work	16.2	10.7	21.4	13.5
Fishery sector	22	17.9	17.9	30.8
Craft related, machine operators	9.6	7.1	12.5	7.7
Labourers	25	25.0	21.3	28.8
Small scale business	22	39.3	17.9	15.4

Notes: valid n¹=136, n²=28, n³=56, n⁴=52. Source: Field Survey.

Place of Work

As to the place of work, it is important to note, a significant proportion of main income earners (nearly 71%) still work in Galle city. Only a small proportion (12.1%) work in their respective new settlements and an even smaller proportion (nearly 14%) have no permanent place of work (see Table 19).

The data also shows that there is a strong, and statistically significant, relationship between the primary income activity and place of work (Cramer’s V, 0.552/P<.000001). For instance, a higher proportion of those who earn an income from the fishery sector and labourers (74%) work in Galle city compared to those who are engaged in small scale business (46.4%). As stated earlier, the selected study locations are situated far from the sea, therefore, those dependent on the fishery sector to generate income have no other options but to commute daily to the Galle coastal area. Similarly, as stated before, casual labourers too mainly find work in places like the Galle harbour, cement factory, the municipal council or markets, and therefore also need to commute daily.

Table 19: Main Income Earning Activity by Place of Work

Occupational Categories	Within the Settlement (%)¹	Galle MC area (%)²	Outside Galle MC (%)³	No permanent place (%)⁴	Overseas (%)⁵
Professionals	-	66,7	-	-	33.3
Clerk	-	-	100.0	-	-
Service, shop, market & sales work	14.3	66.7	4.8	9.5	4.8
Fishery sector	-	100.0	-	-	-
Craft related, machine operators	7.7	61.5	-	30.8	-
Labourers	-	73.5	-	26.5	-
Small Scale Business	42.9	46.4	-	10.7	-
Overall (%)	12.1	70.5	2.3	13.6	1.5

Notes: valid n¹=16, n²=93, n³=3, n⁴=18, n⁵=2. Source: Field Survey.

Mode of Transport

It is evident that over two thirds of the main income earners of the interviewed households still commute daily to Galle city, and a small proportion commute outside the city in search of employment or to engage in their income earning activities. Notably, almost two thirds (nearly 66%) of them use public transport (bus) to commute to the city and other places of work. When further exploring whether there is a relationship between the main income earning activities and mode of transport, it is noteworthy that a significant proportion of those engaged as labourers (76.5%) and workers in the fisheries sector (nearly 81%) use public transport (bus) compared to those who are engaged in service, market and sales occupations (nearly 39%) (see Table 20). What is noteworthy is that unlike before, it is no longer easy for the relocatees to access Galle city owing to the new distance to the city, as well as transport difficulties.

Table 20: Main Income Earning Activity by Mode of Transport Used

Occupational groups	Motor Bicycle (%) ¹	Bicycle (%) ²	Bus (%) ³	Three wheeler (%) ⁴	Mixed (%) ⁵
Professionals	-	-	100.0	-	-
Clerks	50.0	-	50.0	-	-
Service, shop, market & sales work	27.8	16.7	38.9	16.7	-
Fishery sector	6.5	9.7	80.6	3.2	-
Craft related, machine operators	15.4	38.5	46.2	-	-
Labourers	2.9	8.8	76.5	-	11.8
Small Scale Business	11.8	5.9	58.8	23.5	-
Overall (%)	11.1	12.8	65.8	6.8	3.4

Notes: valid n¹=13, n²=15, n³=77, n⁴=8, n⁵=4. Source: Field Survey.

Distance to the City and Transport Difficulties

In terms of total distance to Galle city from selected resettlements, Katupolwaththa is the closest (8.5km) compared to Cinnamon Garden (10.5 km) and Tea Garden (11.5km) resettlements. However, in relation to the distance to the main road and thus the distance to the closest bus stop from the respective resettlements, Cinnamon Garden is situated closest to the main road compared to Katupolwaththa (1.5 km away) and Tea Garden (1.5 km away). This means, relocatees of Katupolwaththa and Tea Garden who solely depend on public bus to travel to Galle or elsewhere need to walk this distance, which is time consuming and dangerous, especially at night as there are no street lights and the road is a haven for snakes. Resettlers could hire a three-wheeler and avoid walking this but this costs Rs. 60, one way. Hence, they prefer to walk as they are unable to bear this cost on daily basis. One resettler of Tea Garden explains this new distance by comparing it to their previous place of residence: *“the place we lived before was on the border of the Galle main harbour and it was close to popular national schools, hospitals and other services. There were only four bus stops to the city centre. The main Galle road was in front of our house. There were buses around the clock. Here, we have to walk more than one and half kilometers to even reach the main road. There is no bus which operates directly from this settlement to Galle city. I would prefer to stay in the previous place and face ten or more tsunamis rather than settling in this new place and enduring these harsh conditions.”* In this context, when exploring the relocatees satisfaction with the public

transport (bus), the majority of them are unsatisfied (64.3%), while only 35.7% are satisfied. Moreover, statistically, a very strong and significant relationship emerged between satisfaction with the public transport and the research locations (Cramer's V, 0.812/P<.000001). For instance, all those from Tea Garden and 90% from Katupolwaththa are unsatisfied with the public transport, while 82.5% of Cinnamon Garden Relocateses are satisfied with it. This could be because there is no public bus service available directly from Tea Garden and Katupolwaththa, while Cinnamon Garden settlement is situated very close to the main bus route. In general, public buses are available every twenty minutes from both Galle and Kuruduaththa from 6.00am until 7.00pm.

Relocateses of all study settlements however, complained, in general, that it is very difficult for them to travel to Galle city early in the morning (before 6.00 am) and travel back from Galle after 9.00pm by public bus, as it operates infrequently during this period. However, they can easily hire a three-wheeler to and from their respective settlements, around the clock, to Galle or elsewhere which cost Rs. 300-400, or even more, which most of them cannot afford. As a result, new settlers in their personal capacities, through their respective community development societies, and even through local politicians, requested that the Southern Transport Board operate a new bus service from these settlements to and from Galle city and from early in the morning until midnight. After continuous requests for nearly two years after resettling, the Southern Transport Board started to operate a new bus route between Katupolwaththa and Galle three times a day (morning, afternoon and evening) for a few months. However, they had to temporarily halt the service due to poor road conditions, particularly between Walahanduwa and the Katupolwaththa area. Transport authorities have promised to resume this service once the road is reconstructed. However, as of the third stage of this fieldwork, the service had not been resumed. Resettlers do not have any other option other than to bring this problem into the notice of the Pradeshiya Sabha (Village Council) and other provincial level politicians in the area.

During the short period of this new bus service, it was a great relief not only for Katupolwaththa resettlers but also for other resettlers living in tsunami resettlements⁵⁹ close to Katupolwaththa as the majority of them commute to the Galle city on daily basis for their income earning activities as well as to obtain other services (education, health, bank etc).

The Daily Struggle for Work and Income

Irrespective of the developments, in public transport resettlers who need to travel to Galle city early in the morning to engage in their occupations (e.g. fisherman) struggle with distance and transport related difficulties on a daily basis, which in turn has negatively impacted on their household income. This is elaborated in the following section, based on interviews with Ariyasena (mobile fish seller) and Hemasiri (a daily paid fisherman).

Ariyasena (50 yrs) lived close to the sea in Galle city prior to the tsunami. He currently lives in Katupolwaththa settlement 8.5 km away from the city. He is the breadwinner of his household earning a daily income as a fish seller to look after his wife and four children. He used to buy fish early in the morning directly from the fishing boats or fish auctions in the Galle fishing harbour, as it was only ten minutes away by foot from his previous home. Following forced relocation into the Katupolwaththa settlement, now he needs more than one and a half hours to reach the fishing harbour by bicycle. It is important for him to go to the Galle fishing harbour early in the morning, now as before, to buy fish for reasonable wholesale prices, as most of the fishing boats go fishing the night before returning with their stock early in the morning to the harbour. This is why he says “earlier is better” as he can actively participate in bargaining for fish which in turn helps him buy them for lower prices. This therefore increases his profit as he can sell them onto his customers for reasonable prices. Since relocation, Ariyasena has difficulties reaching the harbour early in the morning to bargain for his fish. Even if he leaves home before five in the morning in the dark, it is difficult for him to reach the fishing harbour before six as there are no street lights on the streets and it is difficult for him to peddle his bicycle on the muddy gravel road, particularly from the settlement to the main road, in the dark. In this context, he complains, “*most of the time, I am late for the auction, so there is*

⁵⁹ In relation to the interview with Additional District Secretary in charge of tsunami reconstruction in Galle district, there are 500 new houses belong to various resettlement projects in this area.

not much variety of fish left for me to buy at reasonable prices. Sometimes there are only small fish left for me to buy, which I do not like as I always want to sell a mixture of both small and big fish for my customers". It is further evident from his interview that on such days he may not sell fish and would rather return home. As he is the main household income earner, this scenario directly affects his entire household. On the other hand, such a scenario was very rare for him before resettlement. In this context, Ariyasena does not want to change his income earning activity as he done this for the last twenty years and has developed a good customer base in Galle. On the other hand, he does not have enough money to buy a motorcycle to reach the Galle fishing harbour without such difficulties.

Main income earners predominantly engaged as fish vendors, fishermen or casual labourers in the other studied resettlements, who travel to Galle city and Galle fishing harbour by using only public transport (bus) to engage in their employment, also complained that the new distance has created disruptions to their income earning activities, mainly as a result of transport difficulties, compared to the situation before. In other words, they have a risk of losing their employment. This is clearly evident from Hemasiris's interview (57yrs), who is a daily paid fisherman and lives with his three children and wife in Tea Garden, 11.5km away from Galle city. Similar to Ariyasena, Hemasiri lived very close to the sea before the tsunami, and it took him only ten minutes to reach the fishing harbour by foot. Following resettlement, he now has to leave home around 2.30 a.m. in the morning to catch the first bus, which comes from Baddegama to Galle around 3.15 a.m. After leaving home he has to walk approximately 1.5 km on the gravel road without any street lights to reach Kuruduwaththa junction, where the bus stops. Hemasiri states: *"this bus is already jam-packed with people when it reaches Kuruduwaththa junction and I need to put in a lot of effort to get on it. There are days where I am late for work as the bus does not come on time or does not even stop at Kuruduwaththa junction, and I need to report to my boat at the Galle fishing harbour before 5am. On such days, I have to walk another 1km to Pinnaduwa to catch another bus which comes at 4.15am. There were days where my boat had already left for fishing by the time I reached the harbour, and I had to return home without a single cent. Previously, I went fishing at least six days a week during the season, except on religious holidays, now it has reduced to three to four days per week. I am unable to afford Rs 400 to travel by a three-wheeler to the city. My boat owner (Mudalali) gets angry when I am late or do*

not come for work.” In addition, he has similar difficulties returning to the settlement from Galle after 9.00 pm, and sometimes he has to spend more than two hours to travelling back. This is why he said: *“now, traveling to the city early in the morning, and returning at night, is similar to confronting a war on a daily basis”*.

The few more well off fishermen who own and use their motorcycles to travel to the Galle fishing harbour, have the luxury to engage in income earning activities without any disruption to their household income, although the new cost for fuel is an added expenses. A gradual increase in petrol and diesel prices (during the fieldwork period) because of increasing oil prices in international markets, as well as the introduction of new taxes for petroleum by the Sri Lankan government in order to get more revenue has no doubt increased the cost of living in general, and for resettled people in particular. Gunarathna, who works as a fisherman (32yrs, Cinnamon Garden settlement) stated: *“earlier, my house was situated 30m away from the sea and a walk to the fishing harbour. After resettlement, now, I travel for work by my motorcycle and engage in fishing activities like before. But I now need to spend a considerable proportion of my monthly income on fuel, which was not a major expense before.”*

In response to these transport related difficulties, the Development Officer at Akmeemana Divisional Secretary confirmed that fishermen in the new tsunami settlements have difficulties accessing the sea around the clock as before. As a solution to this problem it is suggested that fisheries ministry could construct resting rooms for fishermen at Galle fishing harbour, which is not available as yet. Moreover, the national transport board could also consider operating a separate bus service early in the morning until late at night, so that not only fishermen but others could also use the service. Interestingly, none of these suggestions were put into practice during the fieldwork period.

6.1.1.2. Lack of Employment Opportunities in Newly Resettled Areas

As the commercial hub of the Southern Province, the coastal city of Galle no doubt provides a wide variety of formal and informal employment opportunities in the area. This mainly includes fishery and tourism related employment opportunities. There are also other privately owned large scale manufacturing industries (e.g. cement, readymade

garments, shoes, tyres etc), the state owned Galle harbour and the Galle market, where people can find employment, to name a few.

In terms of employment opportunities for the resettlers in their new locations, there is definitely less variety in employment opportunities compared with the coastal city of Galle. This is partly evident when exploring the occupational structure of economically active villagers (old settlers) in Akmeemana DS division, where the studied settlements are also situated. This shows the majority (37%) of people in this DS division are cultivators (Department of Census and Statistics, 2002b). They cultivate rice, tea and rubber on small plots of land, mostly using family labour. Interviews with old settlers in the vicinity of the new settlements who are engaged in tea cultivation revealed that they hire daily paid labourers, whom they have known for several years from the area, for a few days per month. This is mainly to clean tea bushes, fertilize them and pluck the leaves. As a result, new settlers living close to the cultivation areas have complained that it is not easy to find manual labour as old settlers hire mainly old villagers. Therefore, new settlers need to commute to the city on daily basis, as before, to find work. Although the new area is suitable for tea cultivation, new settlers do not have enough land or the right knowledge to do so.

There are a few large scale tea and rubber estates with factories in the area, one of which is “Mahadola Tea Estate and Factory”. It has more than four hundred employees and is situated close to all three settlements. In this estate, employment opportunities are available mainly for waged labourers where they have to pluck tea leaves from tea bushes, as well as tap rubber trees. A small number of resettlers find work in this tea factory as wage labourers for 2-3 days per week and need to travel to the city on other days to find work. Nevertheless, as stated before, most others who engage as daily paid labourers still go to the city to find work.

A readymade garment factory with over five hundred employees at Pinnaduwa⁶⁰ is a place where most of the young and middle aged females in the area are employed, mostly as sewing machine operators and helpers. A small number are also employed as quality controllers and supervisors. Some main income earners and other household members

⁶⁰ The government is planning to develop this town, which is situated close to all three resettlements, as a model town in the future after completion of the southern highway, which goes through this town.

have found employment in this factory. For instance, Chaminda (26 yrs, 2 children and a wife, living in Tea Garden Settlement) found work as a labourer at the garment factory, where he cleans the factory floor and separates small pieces of clothing from the waste.

The limited number of employment opportunities in the new area, compared to the city of Galle, is why a significant proportion of interviewed resettlers (nearly 94%) complained that it is difficult to find employment in the new area. In other words, they had more employment opportunities before. Chandranie (40 yrs) lives in Katupolwaththa and reveals: *“earlier our house was situated close to the cement factory where I used to sell hoppers and string hoppers to cement factory employees in the morning, and home cooked lunch packets with rice and curry for lunch, in addition to my husband’s income as a daily paid fisherman. Even if he found work for only one hour it was viable as we were living close to the sea. This became extremely difficult after resettlement. There were lots of opportunities for daily paid labourers, particularly in the cement factory, to load cement bags to transport lorries, and also in Galle main Harbour to load and reload goods on cargo ships. There are also no hotels close to the resettled areas to cooked lunch packets to.”*

The limited variety of available employment opportunities in the new area, still lead the majority of resettlers to depend on Galle city, as before, in order to make an income. For instance, Dilan (46yrs, 2 children and a wife living in Katupolwaththa settlement), a motor mechanic stated that he needs to travel to Galle on a daily basis in order to find work as his customers do not come to new location to repair their vehicles, and he does not know any customers from the new area. Additionally, Sarath, (55 yrs, lives in Katupolwaththa), a tourist guide, said that after resettlement he needs to travel to the city everyday as there are no tourist hotels in the current area. Previously, during the tourist season, it was very easy for him to find tourists as he was living close to the beach and tourists hotels. Now, he needs to travel to Galle and hangs around close to the tourist hotels to find foreign tourists.

6.1.2 New Household Expenses

Under the new conditions, the forced resettlers monthly household expenses have increased, largely due to increases in: 1. Transport expenses; and 2. Electricity, water and gas expenses.

6.1.2.1. Transport Expenses

As discussed above the majority of the main income earners in resettled households still work in Galle city and use public transport to travel there on a daily basis, following relocation. A significant proportion of resettled householders also acquire educational, health and banking services in the city (see Table 21). This is due to the unavailability of some of these services (i.e. hospital, banks) in the vicinity of the resettled areas on one hand (see Table 22), and some household members not being happy with the quality of the available services (i.e. schools, dispensary), on the other. In addition, most of the interviewed household members go to Pinnaduwa by bus to buy vegetables from the weekly market. Ramanie (40yrs) lives in Katupolwaththa with her husband and two children, explains: *“the place where we lived before was surrounded by all the essential services schools (i.e. Alcott and Sudharmay), banks (i.e. Rural Development Bank, Southern Development Bank) and hospitals (i.e. Malwaththa District hospital and Karapitiya). We could walk to the city center. Now, the children are still going to the same schools, and we also go to the same bank and hospitals, transport costs are now much higher than before”*. In this context, it can be concluded that the lack of availability of vital services near the new settlements, and the poor quality of some of the available services, has also forced the relocatees to commute to Galle, which in turn has increased their household expenses.

Table 21: Locations Travelled to for Essential Services

Service	Name of places				
	Galle city (%)	Pinnaduwa (%)	Kuruduwaththa (%)	Walahanduwa (%)	Other (%)
Schools	71.3	3.8	18.8	3.8	2.5
Banks	90.9	9.1	-	-	-
Hospitals	100	-	-	-	-
Dispensaries	79.7	6.3	6.3	-	-
Shopping	91.8	8.2	-	-	-
Weekly fair	14	86	-	-	-

Source: Field Survey. Valid n=143.

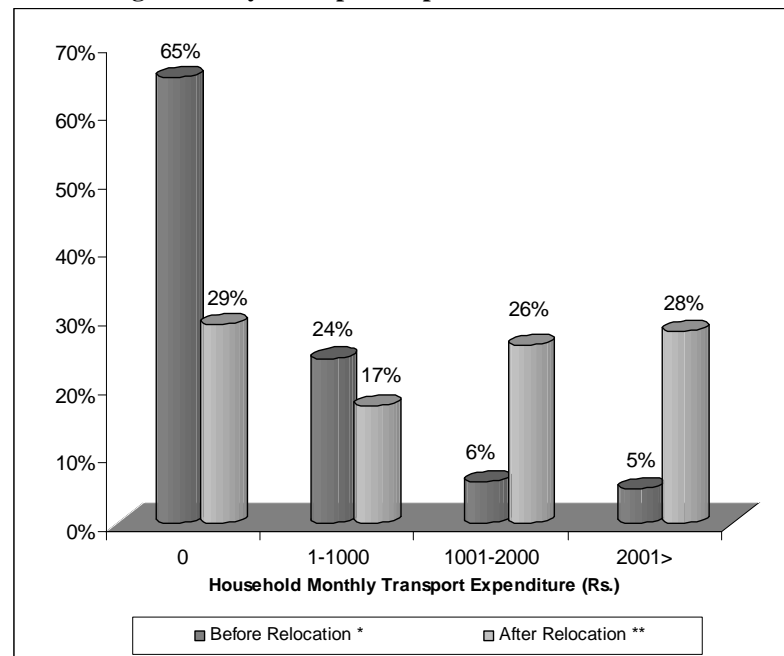
Table 22: Services Available at Walahanduwa, Pinnaduwa and Kuruduwaththa Areas

	Walahanduwa	Pinnaduwa	Kuruduwaththa
Distance from:			
Katupolwaththa	1.5km	3km	4km
Cinnamon Garden	4km	1.5 km	300 meters
Tea garden	5km	2.5km	1.8 km
Private Sector Services	Grocery shops, hair dresser (saloon), medical clinic, motor spare part shop, small hotel	Petrol station, liquor store, medical clinic, pharmacy, market place, readymade garment factory, tea factory, large shopping complex with 30 shops	Grocery shops, a small hotel and textile shop
Government Sector Services	Small Post Office, Divisional Secretary Office, Panagamuwa mixed primary school , Rathanajothi Mixed School (classes up to Advance Level), President Girls School (classes up to Advanced level)	Children's Medical Clinic, library, cooperative shop, bank, post office and Pradeshiya Sabha (local council building).	Upananda national mixed school (classes up to Advanced Level)

Source: Own data based on observations and interviews with various key informants during the period, November 2007 to March 2008.

Commuting to Galle city by public bus for main income earning activities as well as to obtain other services is a new monthly expenditure for the majority of relocated households, compared to the situation before. For instance, Vijithapala, a fisherman living with his two children and wife at Tea Garden, stated that his two children go to the same school as before, in Galle, but they now need Rs. 80 per day in bus fare, in addition to his daily travel expenses another Rs. 40 to travel to Galle fishing harbour. In total, he now needs to allocate an extra Rs120 per day for transport costs. Earlier, all of them walked to these places.

Figure 6: Average Monthly Transport Expenses: Before and After Resettlement



Notes: Before valid n*=143 and after valid n**=140. Source: Field Survey

The macro picture of average transport costs of resettled households, comparing the situation before and after relocation, is displayed in Figure 6. It shows 65% of interviewed householders did not spend anything on transport before forced relocation. This is likely to be because they lived within walking distance of their places of work and other services in Galle city. Those who lived within the Galle city area, but not that close to their places of work or other services, had to spend less than Rs. 1000 on monthly transport costs (24%) before relocation. Nevertheless, soon after relocation, the majority of householders, irrespective of their location, not only had to bear this new cost but also complained of gradual increases in this cost. This is due to the increase in public transport

fares since relocation, and the difficulty in meeting them. Increase in bus fares during the fieldwork period from the study settlements to Galle are displayed in Table 23.

Table 23: Increase in Bus Fare* from Selected Study Settlements to Galle City during the Fieldwork Period

Year	Study Locations		
	Katupolwaththa	Cinnamon Garden	Tea Garden
2006	Rs 12	Rs. 17	Rs. 17
2007	Rs. 13	Rs. 20	Rs. 20
2008	Rs. 14	Rs. 21	Rs. 21

Notes: *One way.

Source: Own data based on interviews with relocatees

6.1.2.2. Electricity, Water and Gas Expenses

All newly built tsunami housing units received individual water and electricity connections, once the respective beneficiary paid the connection fees to the Ceylon Electricity Board and Water Board. Following these connections, resettlers need to pay monthly bills for these services, which is new to some of them. This is because they did not have individual water connections in their previous places, other than using common taps (nearly 26%) or common wells (nearly 6%) to get water, which was free. Moreover, kerosene oil lamps (18%) were used for lighting before, as it is relatively cheap in contrast to individual electricity connections (see Table 24). There are no significant location related variations in this regard. However, at the time of the fieldwork, all housing units in the selected resettlements had individual connections to water and electricity, and a significant proportion of them (water 94%, and electricity 91%) were satisfied with the service.

Table 24: Source of Water and Lighting Before and After Relocation

	Source of Water		Source of Lighting		
	Before (%)	After (%)	Source	Before (%)	After (%)
Common Well	5.6	-	Electricity	82	100
Tap water within premises	68.5	100	Kerosene oil lamp	18	-
Common Tap	25.9	-			

Notes: valid n=143 Source: Field Survey

However, gradual increases in monthly water and electricity bills, and inadequate household income to meet these expenses, worried relocated households in general and, in particular, those resettlers who did not have these services before. As a result, some could not pay the full amount of the monthly bills, or ignored paying them, which lead to disconnection until they paid the outstanding balance, including an additional reconnection fee.

Similar to water and electricity, there is a shift to using Liquefied Petroleum (LP) gas for cooking following relocation. For instance, more than half (54.3%) of the resettlers use fire wood or kerosene oil cookers, while others use LP gas (45.7%). The proportion of households using LP gas increased (18% to 45.7%) after relocation. This is owing to two main reasons: some resettled households received gas cookers with cylinders, as gifts from various individuals, government and non-governmental organizations when they first came into the settlement, whereas some were forced to buy these, as there is not enough space in their new kitchen to use fire wood cookers. An increase in the price of LP gas cylinders also rose the stress level of users. Similarly, households which were using fire wood before and after relocation, complained that it is hard for them to find fire wood for free in their resettled areas.

6.2. Livelihood Strategies in the Context of Income Related Stress

It is evident from the above discussion how the monthly expenditure of resettled households has increased in their new setting, mainly due to additional expenses such as transport, water, electricity, LP gas and fuel. On the other hand, the main income earning activities of the households have been disrupted because of the distance to the city, transport difficulties and lack of employment opportunities in the new areas. One can argue that the individual supply of vital services such as water, electricity and LP gas has improved the quality of life of the resettled households. However, this is only sustainable if they are able to continue to pay for these services on monthly basis, while meeting other essential expenses such as food, medicine, education, transport etc. Therefore, the eminent question is whether all the interviewed households have a sufficient income to meet these regular expenses? The second part of this chapter attempts to examine this question thoroughly. Specifically, it will examine livelihood strategies employed by resettlers due to insufficient monthly income, by addressing specific questions such as:

What are the coping strategies generally employed by householders when dealing with income related stress? What are the enhancement strategies employed by households? How do households use and combine different assets for enhancement strategies? How successful or unsuccessful are these strategies?

6.2.1. Coping Strategies

Before exploring the coping strategies employed by householders as a result of income related stress, it is important to identify such households.

When the respondents were asked (February, 2008) whether the previous monthly income was sufficient to meet regular expenses, the majority responded in the negative (73%), while a small proportion answered positively (27%). When delving further and examining whether the income over the last six months was sufficient to meet their regular expenses, the former pattern is further confirmed. For instance, over three quarters of households did not receive sufficient monthly income to meet their regular expenses, irrespective of location (see Table 25).

Table 25: Inadequate Household Income by Location

Was the last month household's income sufficient to meet regular expenses?				
Study Locations				
	Tea Garden (%)	Katupolwaththa (%)	Cinnamon Garden (%)	Total (%)
Yes	30	21	28	27
No	70	79	72	73
Was the income in general sufficient to meet regular expenses during the last six months (August 2007 to January 2008)?				
	Tea Garden (%)	Katupolwaththa (%)	Cinnamon Garden (%)	Total (%)
Yes	20	24	28	24
No	80	76	72	76

Notes: valid n=140, Source: Field Survey

With the intention of cross-checking the above data, the total monthly income of the respondents was compared to their monthly expenses to verify whether their monthly income was inadequate. Through this exercise, it was confirmed that a significant proportion of interviewed households did not receive an adequate monthly income to meet their regular monthly expenses (73%). In addition, “poor” and “non poor”

households were identified, as their ways of coping could vary. The two groups were identified based on minimum expenditure required (per person) to fulfill their basic needs (Official Poverty Line⁶¹). This was calculated by the Sri Lankan Department of Census and Statistics (Department of Census and Statistics, 2008) for the month of February 2008 and was determined to be Rs.2, 760 for the Galle district (total for the country Rs. 2684). When this amount was multiplied by the number of people per household, and compared with their total monthly household income, it shows out the households below the official poverty line (poor households) and above (non-poor). Table 26 explains the distribution of poor and non poor households, by location, and shows that the majority of poor households are from Katupolwaththa settlement (76%).

Table 26: Poor and Non-Poor Households by Location

	Tea Garden (%)	Katupolwaththa (%)	Cinnamon Garden (%)	Overall (%)
Poor	58	76	57	62
Non -poor	42	24	43	38

Notes: valid n=138, Source: Field Survey

When monthly income is not sufficient to meet regular domestic expenditure, the head of the household (usually the breadwinner) comes under considerable stress and is forced to employ various coping strategies, which can bring either negative or positive impacts to the household.

In this regard, it is essential to note that the households with an inadequate monthly income to meet monthly expenditure had employed more than one coping strategy. The majority of them relied heavily on their relatives (24%), not only to borrow money, but also to borrow food items. Another sizable proportion relied on their friends (12%) (see Table 27). This proves that the intensive stock of bonding social capital that poor households possess, plays an important role, and acts as a safety-net in order to temporarily protect these households, irrespective of their fate, from income related stress.

Another reasonable proportion (20%) of householders has bought essential goods (rice, dhal, potatoes etc) on credit from grocery shops known to them in their settlements. They

⁶¹ For more information please see Department of Census and Statistics (2008): Poverty Indicators in Sri Lanka – Households Income and Expenditure surveys 2006/7. Colombo: Department of Census and Statistics.

must settle the accumulated bills on a weekly or monthly basis in order to continue accessing credit from the grocery shops. Most of the householders have gained trust with the grocery shop owners by settling their bills on time. However, there have been instances where a few grocery shops had to close as a result of non-payment of credit. This shows that trust and a reciprocal relationship between both parties is necessary to continue using this coping strategy. However, householders complained that they could have brought these goods from wholesale shops for cheaper prices and save some money if they had earned an adequate monthly income rather than depending on these grocery shops and buying goods for a higher cost. In light of this, one poor household member said, “in wholesale shops 1kg of potatoes costs only Rs. 48, the same potatoes cost up to Rs 96 in the retail shops in the settlement.” On the other hand, they also pointed out the importance of this strategy, because otherwise they may have to go without regular meals which are impossible for the children. The handicap of this strategy is that these households might get into a cycle of debt if they continuously rely on credit and hence they would be vulnerable to poverty or chronic poverty. Interviews with some grocery shop owners revealed that if they did not sell food items on credit they would not be able to continue their business, nor expect a decent turnover, because most of the income earners in the studied settlements are causally employed.

Obtaining money from informal money lenders (10%) at high interest rates and pawning valuables (12%) such as gold jewellery and electrical items (i.e. televisions, radio etc.) to meet their regular expenses could be categorized as a negative coping strategy which would result in further debt and vulnerable to chronic poverty if they are unable to release their pawned items or repay the money, with interest, to the money lenders. Regardless, they heavily depend on these strategies in order to cope with income related stress. Data reveals that the majority of “poor” households have employed these strategies when all other options were exhausted, compared to their “non poor” counterparts. This pattern is further confirmed when looking at pawned or mortgaged items after relocation, as most of the poor households have taken loans or pawned their valuables to meet their daily expenses or to settle water and electricity bills. Additionally, 10% of households tend to cut down their food and other household expenses. For instance, some resettlers do not eat meat, fish or eggs for their main meals, as they are expensive. They do not drink tea with milk and would rather rely on plain tea. The breadwinner of a poor household at

Katupolwaththa shared, “we eat rice with one vegetable even though my children do not like to eat this. Before the tsunami we ate well, now we eat only to escape hunger”. At times, some poor households do not send their children for extra tuition even if they require assistance with their studies, they do not buy new clothes, and travel to Galle only if it is necessary, with the intention of cutting down on transport expenses. A negligible proportion of people obtained formal loans from banks (1%), withdrew savings (4%) or took advance of their employers (3%). These are less problematic coping strategies compared to those discussed before.

Table 27: Coping Strategies Employed by Households

Coping Strategy	Last Month	During the Past Six Months Period
	Responses ¹ (%)	Responses ² (%)
Borrowed money from friends	12	11
Borrowed money and goods from relatives	24	21
Loans from banks	1	3
Cut down expenses	13	11
Withdrew from savings	4	5
Pawned valuables	12	18
Obtained money from money lenders	10	9
Bought essential goods on credit	20	19
Took advance of employer	3	3
Other	1	-

Notes: valid n¹ of responses =139 and n²=147 Source: Field Survey

6.2.2. Enhancement Strategies

As previously stated, the primary goal of an enhancement strategy is to strengthen the asset portfolio of households by managing the existing assets and investing in further assets. Enhancement strategies will provide resettlers with more capacity to withstand shocks, stress, and to manage risks situations without gain a negative outcome. Some of the enhancement strategies employed by relocatees in all three study resettlements are:

- Entering more household members into the workforce,
- Starting a new home based-income earning activity,
- Investing in children’s education,
- Increasing savings,
- Home gardening,
- Change of the main income earning activity, and
- Migration

Interviews with resettled householders showed that most of them have used one or more of the aforementioned strategies with the intention (directly or indirectly) of improving their household income and reducing expenditure. However, in reality, only a small proportion of them have managed to gain a successful outcome from such strategies. Enhancement strategies in general, and the reasons behind successful and unsuccessful implementation by the householders are also discussed below.

6.2.2.1. Entering More Household Members into the Workforce

One of the most common strategies among the study population is to include more household members into the workforce to increase their household income, after resettlement.

Children dropping out of school to find employment and support the household income is not prevalent in study areas. This is because parents have realized the importance of educating their children, with the aspiration of finding permanent employment in the future, as most of them (the adults) have only a primary level of education. Therefore, there is a tendency among most of the housewives and youngsters who had completed formal education were forced to find any form of work under the new context. As a result, some women found employment at Mahadola Tea Estate and Factory to pluck tea, tap rubber sap, or to pack tea and make rubber sheets. Finding work in this factory for five days a week, however, is hard. Females with sewing skills also work in the garment factory at Pinnaduwa as helpers, machine operators, supervisors and even quality controllers. Some household members have found work in tourist hotels in Galle city. On the other hand, some of those who found work in the tea estate and the garment factory are unsatisfied with their new work and its conditions. For instance, Anula of Cinnamon Garden found work at Mahadola Tea Estate as a tea plucker as her fisherman husband's income is inadequate for household expenses. She complained about the harsh working conditions, which are unfamiliar to her: *“we need to be on our feet for six hours or more, on hilly areas, to pluck tea leaves under the scorching heat. On rainy days, tea plucking is made worse as tea bushes and uneven ground is slippery and it is infested with poisonous worms, insects and snakes”*. Similarly Ganga of Katupolwaththa works at the Pinnaduwa Garment Factory as a helper and complained about long working hours and low salaries during the probationary period. Even under these harsh working conditions,

none of the respondents wanted to quit, knowing how vital their income was for the survival of their households.

A few household members, who old or suffering with arthritis, or poor eye sight, have problems finding work in the tea factory, garment factory or elsewhere. For example, Malkanthi (50 yrs) of Katupolwaththa went for a job interview as a helper at Pinnaduwa Garment factory, but did not succeed as a result of her poor eyesight. Irrespective of issues related to health, they are optimistic of starting a home-based income earning activity in the future.

6.2.2.2. Home Based Income Earning Activities

A few household members in the study settlements are actively involved in home- based income earning activities, such as running grocery shops (see photo 8),

making handicrafts, selling fire wood, running a grinding mill to make curry powder, making paper bags, ice packets, string hoppers, sweets, packed lunches etc. Some of these activities, such as making paper bags or string hoppers do not require much up-front financial capital compared to starting a grocery shop or a grinding mill, although all activities require some basic skills. Householders have used one or several sources of financial capital for example, used their own savings,

financial assistance from either non-governmental organizations or personal loans from government or private banks, or financial donations from various foreign or local individuals to initiate these enterprises. Chandrika (40yrs) of Cinnamon Garden opened a grinding mill to make curry powder, as her husband's pension was insufficient to cover household expenses. She received a grinding machine, weighing scale, and 5kg of red

Photo 8: Grocery Shop at Katupolwaththa



This photo shows a small grocery shop that operates in front of the new house.

Photo: Fernando, 2008.

chilli, pepper, corn and turmeric from a non-governmental organization. She makes packets of curry powder and sells them at home. She confides, *“I can earn Rs 300-400 per day as there is a great demand for my curry powder packets from the settlers”*. Not all entrepreneurs were as successful as Chandrika. Others who ventured into self employment were unsuccessful, mainly due to mismanagement of income, lack of profit and some even fell into debt. For instance, Chandranie (40 yrs) of Cinnamon Garden loaned Rs. 25,000 from an informal money lender to start a small grocery shop. She explains, *“There was little profit as there were already quite a number of small scale grocery shops in the settlement. Most of the people bought only mosquito coils or soap and sometimes I had to use the goods on sale for household consumption”*. During the time of the fieldwork, she was in the process of settling this loan, with the interest, on a monthly basis amidst great difficulties. She had to pawn her jewellery to make the monthly installments. Battered from the previous experience, Chandranie wants to train as a beautician with the intention of starting a ladies salon in her house in the future, as there are no salons in the settlement, or in the general vicinity.

Similar to Chandranie, Anusha (35 yrs) from Katupolwaththa obtained a loan of Rs. 20,000 from an informal savings scheme with the intention of starting a fish stall at home. But she did not succeed it, as she had to use part of the loan to clean the drainage system of the house, and the rest for daily household expenses. She needs to repay the loan in monthly installments of Rs 2800. Another story was that of, Chithra (52 yrs) in Katupolwaththa who purchased furniture (tables and chairs) and a gas cooker with a cylinder, to run a small tea shop in her house. The money was given by a non-governmental organization but she had to close the shop down after one year. She reveals that: *“there were days when my husband did not get a single cent from his work as a casual labourer and I had to use the income of the shop to meet household expenses. Under these circumstances, I used items which were for sale, such as soap, milk powder, bread etc for household consumption, and gradually lost the income as there was very little to sell on one hand and no money to buy new goods on the other. This culminated in closing down the shop”*.

Despite the unsuccessful cases, nearly 80% of interviewed householders expressed their desire to be self employed in order to strengthen their household income as most the

households relied on a sole breadwinner to meet their household expenses. The majority of them wanted to start a small grocery shop (36%) in their house, while another 25% expressed their desire to engage in dressmaking by purchasing a sewing machine. Moreover, a small proportion of people expressed their interest to make paper bags (3%), sweets (2%), yoghurt (2%), packed lunches (7%), fruit drinks (1%), handicrafts (weaving lace) (7%), floor carpets (4%), coir rope (5), artificial flowers (2%) and sell firewood (2%). Significantly, nearly 97% of them shared that they lacked the required capital to begin these home based income ventures, although they were equipped with the basic skills (84%) and knew the market to sell them (74%). Therefore, these resettlers expect government or non-governmental organizations to give them low interest or interest free loans, this is because most of them cannot get loans from government or private banks, as they are unable to meet vital prerequisites such as guarantors, mortgaged land, permanent employment etc which are essential. Some do not like to obtain loans from informal money lenders owing to the high interest rates despite, not having to satisfy any prerequisites, similar to formal commercial banks. In this context, it can be concluded that the lack of financial capital prevented these people from starting home based income earning activities.

Livelihoods Development Officer

Livelihoods Development officers (LD) were appointed by the Ministry of Labour and Employment Development with the intention of restoring the livelihoods of those affected by the tsunami. The officers were stationed at various tsunami affected DS divisions. In Galle, Four Gravets Divisional Secretary area, where most of the affected persons lived in temporary camps and transitory shelters before they were forcibly relocated into DS divisions unaffected by the tsunami, such as Akmeemana. Some of the resettlers benefited from micro credit projects initiated by non-governmental organizations and donations of equipment (in order to start a business). For example AMUT (Ananda Marga Universal Relief Team) distributed sewing machines along with textiles worth Rs. 5,000, coir roping and cement brick making machines. Similarly, Red Cross, Red Crescent, ILO (International Labour Organization) and UNHABITAT (United Nations Human Settlement Programme) conducted various training programs to equip affected people with self employment skills. The officer, however, admitted that these activities were conducted during the first year after the tsunami, and no such programs were conducted

specifically focusing on forced relocatees. This is, because most of the international organizations left the country by the time construction of the resettlements were concluded and government did not allocate financial resources to implement such programmes. During the third stage of fieldwork, it became evident that all livelihoods development officers attached to tsunami affected divisional secretaries in the Southern Province were suddenly transferred to newly liberated areas (freed from Liberation Tigers of Tamil Elam (LTTE)) in the Eastern Province and were asked to reassign their work load to Social Development Officers in the respective divisional secretaries.

The Development Officer of the Akmeemana Divisional Secretary responsible for improving livelihoods of resettled persons in the designated area has difficulties as there are no funds available for such work. These officials are hopeful that they will receive government funding, and they have brought the matter up with their superiors, politicians of the Southern Provincial Council and members of Parliament, but are reluctant to commit to a time period when they would actually receive funds. Non- governmental organizations also showed interest in improving more than just the economic situation of the resettlers. They also wanted to improve infrastructure. In this context, the majority of the resettlers suffering without basic financial capital to begin self employment, as shown before, have to wait and rely on what the government says will happen to them in the future. What is clear from the above discussion is that none of the government organizations responsible for forced relocation have paid enough attention to improving the economic status of the relocatees after completion of resettlement, which is crucial for the sustainability of resettled lives, similar to other resettlement programs in Sri Lanka (Hettige, et al., 2004; Scudder, 2005; Muller and Hettige, 1995, Fernando, 2004). In other words, responsible government authorities have intentionally or unintentionally neglected to improve the economic conditions of relocated households clearly knowing the economic hardships that most of them have to face in their new homes situate far from the city of Galle.

6.2.2.3. Investing in Children's Education

Education is considered important to moving out of poverty or to break free from the cycle of intergenerational poverty, as it helps vulnerable household members obtain employment or secure their livelihoods (Rakodi, 1999). Most of the household members

interviewed see a positive link between education and occupation. In other words, a good education may help people to obtain a secure job. The scenario was different when the interviewed household members were attending school when they were children. For instance Jayantha (47yrs), who is a daily paid fisherman from Cinnamon Garden, with a primary level of education stated: *“in those days our parents sent us to school to learn how to read and write. Then, asked us to drop out because they were unable to meet the financial costs of education if they had to educate all their children. Nowadays, people know the value of education as it helps obtain secure employment”*.

Householders know by experience that casual employment brings a sense of instability to their household economy and that it is important to acquire a good level of education, and at least pass Ordinary Level (O/L) and Advanced Level (A/L) examinations in order to satisfy the minimum prerequisite to obtain secure employment. This is the critical reason why parents opt to invest in the education of their children, even after relocation, and amidst dire economic difficulties, rather than letting them drop out of school in order to minimise household expenses or to find work to contribute to the household economy. Untiring efforts of parents to educate their children is further reaffirmed by the statement of Chandrasena (41yrs), a street vendor living in Cinnamon Garden: *“four of my five children go to the Galle Convent as before. But now we need at least Rs. 200 per day for their bus fare. Overall, I spend at least Rs. 7,000 per month on their education, including transport and tuition fees. I do not want to discontinue their education, though I do have financial difficulties meeting their educational expenses. I want to educate them as my wife and I could not study beyond grade five”*.

With the introduction of free education, where children studying in Government schools are provided with free text books, school uniforms etc., parents of poorer households were encouraged to send their children to school as education was not an additional expense, and children could continue their schooling without early dropouts. Therefore, none of the children in the interviewed households have dropped out of school due to resettlement. However, some parents are unable to send their children to extra classes as they do not have enough income to do so. This is evident from Sarath's statement: *“I cannot send my three children to private tuition classes as my income is insufficient for it.*

Therefore, they have to be satisfied with school education (Fisherman in Katupolwaththa settlement)”.

Nearly 61% of the interviewed households have at least one child in school. Of them, 89% still go to schools in Galle, while the rest (11%) go to schools close to their new settlement. Before relocation, all of them attended popular girls (Southland, Sangamiththa, Convent etc) and boys (Mahinda, Richmond, Vidyaloka, Vidyaloka etc) schools in Galle city. Since relocating to settlements situated far from the Galle city, most of the resettlers have problems of sending their children to their previous schools because of their inability to meet commuting costs. As a result, a small proportion of people (11%) managed to gain admission to schools nearer to their settlement, sometimes by using political connections or through the influence of police and government officials, or if all failed, by bribing relevant authorities. For instance, Somarathna (daily paid labourer, 50 yrs) of Cinnamon Garden managed to gain admission for his three children to the school closest to his settlement, with the help of a Southern Provincial Council Minister. Previously the school authorities had asked for a bribe to grant admission to the school. Similarly, Sagara of Cinnamon Garden (40 yrs, boat owner and fisherman) had to obtain a letter from a Pradeshiya Sabha member (Local Council member) to enrol his child in the nearby school. His first attempt failed and the school principal claimed that there was “no space available in the class rooms to accommodate more children”. In this unsavoury context, some people did not manage to gain admission to the schools nearby as they did not have connections to politicians, or other influential people or were reluctant to 'grease anyone's palms'. The school officials, however, assured the relocatees that they would consider admitting their children in the new school year, as they have received funding from the government to build new buildings to accommodate more children. However, the resettlers who were unsuccessful in admitting their children to the schools nearby have no other option but to send their children to schools in Galle, amidst economic difficulties. For instance, a father of three children, working as a jewellery maker in Tea Garden settlement said, *“There are days when my three children are unable to attend school as I can't find money for their bus fare. Sometimes, I have to borrow money from my friends and neighbours”.*

Another group of resettlers continue to send their children to the popular national schools in Galle, as before, bearing the transport costs, with the view that these schools provide quality education as they are equipped with better libraries, computers and science laboratories compared to schools nearby. Some children stay with relatives in Galle as a temporary measure, which makes it easier them to access the schools and reduces their daily transport costs, on one hand and the overall cost of education on the other.

It is evident from this discussion that resettled households with *bridging social capital*, as puts in Putnam's (2000) terms, both succeeded to enrol their children in new schools close to their new settlements, or sent their children to schools in Galle and had them board with family living close by places. It can be concluded, under the above discussed context, that both bridging and bonding social capital assists human capital formation in the forcibly relocated households.

6.2.2.4. Increase Savings

Compared to formal methods of saving money (depositing money in a bank), resettlers generally opted for informal modes of saving, such as by putting money into a till, giving it to someone else for safe keeping, burying it, or becoming a member of a seettu group⁶² (informal saving group) or other small savings group. Most of the resettled householders knew the importance of savings (formal or informal) as some of them used their savings soon after the tsunami hit until their relocation, to support their household members. Following forced relocation, most resettlers expressed their inability to save money daily, weekly or monthly, owing to new expenses compared to before. This is why Sadun (30 yrs, a fortune teller) of Katupolwaththa questioned: "*now what we earn is not enough to eat, so how can we save*". Priyadarshani, the wife of a daily paid labourer from the same settlement said: "*before the tsunami, I managed to save some money which I got from my husband for household expenses. But after coming to this place, I now cannot even think about it*". It is, however, important to note that an increase in savings is reported from some non-poor households with a fixed income or more income earners following resettlement. For instance, Sunimal, a fisherman who owns a boat at Katupolwaththa

⁶² An informal saving scheme is where each participant is required to contribute a fixed amount of money – daily, weekly or monthly, for a period from one to twelve months. Each participant collects the lump sum at, some time or another, as it rotates within the group (Kottegoda, 2004).

stated, *“Although it is difficult to save with new expenses, somehow I save Rs. 500 per week”*. On the other hand, Gune (40 yrs), a fisherman of Cinnamon Garden purchased a motor boat using a personal loan taken from a foreigner. Therefore, he needs to deposit Rs. 3,000 into the foreigner’s account on a monthly basis for several years, in accordance with the agreement reached by the foreigner. Repayment of this loan is perceived as savings as he will own the motor boat when the loan is paid in full. In other words, this is a good investment for the future.

A few poor resettlers are actively engaged in “seettu” (informal saving groups) for various purposes (such as to buy gold jewellery, furniture, electrical or electronic items, start new self employment activities or to develop existing self employment activities, settle debts, release pawned jewellery, to buy a motorcycle etc) depending on the amount contributed on a daily, weekly or monthly basis. Most of these seettu groups consist of kinsmen, friends or neighbours, as this practice is based on trust, otherwise it would not work.

Similar to “seettu” groups, a small number of household members actively participate in small saving groups initiated by non-governmental organizations, with the intention of disbursing low interest loans only with the surety of two group members. On the other hand, this is mainly aimed at breaking the cycle of dependence on informal money lenders to obtain high interest loans for different purposes, and to increase household savings and foster saving practices, on the other. All of the study settlements have such groups operating. In these groups, members need to save some money on a daily basis for at least six months, before they are able to apply for a loan. Some of the interviewed female household members are actively participating in these groups by saving Rs 10 or 20 daily. They can then obtain a loan of Rs. 5,000 for any purpose at just one percent interest. For example, Kanchana (45 yrs) of Katupolwaththa settlement is involved in a savings group with the intention of obtaining a loan of Rs. 5,000 at the end of six months of saving. They can also request a higher amount once the repayment of the previous loan is fully completed. This is why Geertz (1962) thinks informal saving groups serve as an important channel for economic development of poor people.

6.2.2.5. Home Gardening

Growing vegetables and fruits at home, for their own consumption helps reduce the resettlers food expenses, as most of them complained about the increased prices of vegetables and fruits during the study period. On the other hand, they can also earn a little additional household income. Agricultural officers in the area initially encouraged home gardening by conducting various training programs in all three settlements. Coconut Development Board distributed two coconut plants with 2kg of fertilizer per house in all three settlements. Saving groups, as well as non-governmental organizations, encourage resettlers to engage in home gardening by offering them low interest loans. However, with all these incentives, only a few householders grow their own vegetables

and fruits in their garden. The majority of the other householders claimed they had no time for such work, or mentioned that the land was unsuitable for cultivation. Observations over the study period revealed that the soil in all three settlements was unsuitable for home gardening. It needs to be prepared for cultivation which requires considerable time and resources.

However, there are a few successful households that are profiting from home gardening. For instance, Sunil (47yrs), a labourer of Katupolwaththa has grown king coconut and coconut trees in his home garden in addition to banana, papaya, green chilli, lady finger, sweet potatoes and tomato (see Photo 9), with the intention of reducing his daily food cost. He gathered the initial knowledge of home gardening from an agricultural officer at the Akmeemana Divisional Secretary. He then spent his own savings and spare time making

Photo 9: Home Garden at Katupolwaththa



Tomato and green chilly plants can be seen on the right.

Photo: Fernando, 2008

the soil to be suitable for home gardening. Finally, he planted the vegetable and fruit plants and seeds received as gifts from the agricultural officer and others. He mentioned the value of using the fertilizer and watering the plants regularly in addition to protecting them from insects in order to obtain a good harvest. Sometimes he exchanges his harvest of vegetables and fruits with his neighbours, and even sells produce especially bananas and king coconuts, at the Pinnaduwa Sunday fair, which gives him an additional income. He plans to start a small scale poultry farm in the future. Further, with regard to Sunil, *“As tsunami victims, we cannot always depend on others, although both the tsunami and forced resettlement turned our lives upside down. Others also need to grow their own vegetables and fruits like me and my neighbours to minimise expenses.”*

Similar to Sunil, Gunadasa (60 yrs) of Cinnamon Garden and his wife gathered basic knowledge about cultivating mushrooms after they met the agricultural officer. Initially Gunadasa invested Rs. 2,000 to prepare the soil, buy seeds and fertilizer for which he now gets a harvest worth of Rs. 200-300 per month. He sells part of it, and uses the rest for household consumption. They aspire to expand it in the future by cultivating green chillies and tomatoes.

6.2.2.6. Change of Main Income Earning Activity

A few primary income earners, who worked as daily earning fishermen before the tsunami, now work as fish net knitters (see Photo 10). This shift in income earning activity within the fishery sector took place mainly to avoid the commute, which most fishermen are grappling with in their new settlements, as discussed earlier. They now do not have to go to Galle fishing harbour early in the morning and return home late at night, as before. Piyasena (53 yrs) who was a daily paid fisherman before the tsunami and presently works as a fish net knitter after relocation to Tea Garden explains: “now I leave

Photo 10: Fisherman Knitting a Net at Cinnamon Garden



This fisherman knitting a net in front of his house.

Photo: Fernando, 2008.

home for Galle fishing harbour around seven in the morning and search for nets to repair. Boat owners know me well so I can find work. Normally, I can earn Rs. 500 per day. They also provide lunch and tea as well. I can then return home around seven at night after completing the day's work”.

The main income earning activity of most households has not changed despite the distance to the Galle city and the sea, and the commuting difficulties. What is noteworthy is that instead of changing their source of primary income, some have opted to engage other household members into the workforce, or to engage in home based income generation to increase total household income to meet new expenses. When looking at reasons

for such a decision, some have done this as a defense measure. To illustrate this point, finding new employment or engaging in home based income earning activities is not an easy task, it could be unsuccessful due to mismanagement of funds, or illness, lack of skills etc. Therefore, it is wise to continue with the primary income source, while other household members attempt to find employment, or become self employed. In other

words, if these initiatives are unsuccessful, then at least the other household members can continue to survive off the primary income for some time, although, it is inadequate.

Another important reason is that most of the main breadwinners function as daily paid fishermen or labourers do not have any other skills to easily shift their income earning activity. For instance, Mahinda (52 yrs) of Katupolwaththa settlement said: *“I do not have any other skills other than fishing. Therefore, I do not want to change.”* They do not like to learn new skills as there are no other income earners in the household and their income is vital for the daily survival of the household members. Moreover, most of them have learned fishing related skills mainly from their parents and treat it as a gift that they obtained from their parents. Therefore, they do not like to simply change this long-established traditional income earning activity. This is evident from the interview with Gunarathna (32 yrs) of Cinnamon Garden: *“I was born and brought up on the beach. My options were either to work as a daily paid labourer at the Galle port or as a fisherman. I opted to be a fisherman as my father was a fisherman. I gained a lot of experience by working as a fisherman since the age of 12. I learned the necessary skills by working under him. Now, I can even repair in boat or out boat engines.”*

However, fishermen are also grappling with some general issues such as the gradual increase in oil prices, an increasing number of fishermen with new boats donated by various individuals, government and non-governmental organizations, predominantly after the tsunami (Mulligan and Shaw, 2007), difficulty in finding daily paid labourers as support staff, and, of course, the distance to the sea from the new settlements. These in turn negatively influence their income. Despite these difficulties, most of them want to continue as fishermen and some even aspire to buy their own motor boat in the future.

6.2.2.7. Migration

Migration could be identified as a 'last resort' enhancement strategy employed by those who are unable to successfully cope with the combination of stresses they are exposed to as a result of forced relocation (i.e. distance to the city, lack of employment opportunities, poor quality housing and common infrastructure, conflicts with the host community etc). 12% of respondents across all three study settlements intend to employ this strategy. In other words, they want to settle in another location close to Galle city, or in their previous

place close to the sea, by selling, renting or closing down their present house in the near future. One could argue that considering the total sample population, 12% is negligible. However, what is important to note here is that a number of houses were reported as closed (Katupolwaththa: 4, Tea Garden: 6 and Cinnamon Garden: 10) sold (Katupolwaththa: 1, Tea Garden: 2 and Cinnamon Garden: 2) or rented (Katupolwaththa: 3, Tea Garden: 2 and Cinnamon Garden: 7) even prior to this research. So, when combining these two scenarios, it can be concluded that there is a tendency among occupants to move out of these settlements (since relocation) and the possibility that these settlements could be occupied by non tsunami victims in the long run. In this regard, it is worth exploring this further.

Two household heads that have moved back to their previous place of residence (a place closer to the sea) after forced relocation were interviewed. Their reasons for migration are discussed below.

Mohamed, 27 yrs, looks after his two children, wife and his parents, (both parents are cancer sufferers) by working as a daily paid labourer. He received a new house in Ankokawala settlement, far away from Galle city as, his previous one was completely destroyed. His extended family lived in their new house for more than one year with great difficulties: *“it was difficult for me to find work from that place, I had to come to the city, there is no mosque close by, no hospital, if my parents need it, no Tamil school for my children to attend and the cost of transport was difficult to bear”*. Mohamed brought up these problems with government officers with the intention of finding another house in a settlement closer to the city. However, failure to do so drove him to settle in his previous location by renting out his new house for Rs.1000 per month. Knowing his family is now exposed to future tsunamis or other coastal hazards, as the current residence is situated only 20m from the sea, Mohamed is of the view that- *“it is better to die from another tsunami than die of hunger in the resettled area”*. He also stated that he and other family members would run and protect themselves from another tsunami.

Priyantha, 37 yrs, lives 35m away from the sea. He looks after his two children and his wife by fishing, using his own boat. Priyantha received a house in Katupolwaththa, but returned back to his previous place: *“it is difficult to reach the fishing harbour early in*

the morning, the two children have to go to schools in Galle city and transport costs to and from the city were difficult to bear. There was no place to dump garbage in the resettlement, the house was not constructed using quality materials and the kitchen was too small". It was evident that he waited for more than a year to see whether there would be any solution to these problems. When he realized the situation was not going to change, he moved back to the previous place, built two rooms of the house and then the other family members came a few months later by closing their house at Katupolwaththa. Now, his wife goes to clean it two days a week. He does not like to go back and stay at Katupolwaththa any more as the present place is much more convenient since all the services are close by.

Divisional Secretary officials and relevant GN officers are already aware of this growing tendency, but are unable to stop it. They know there are some unaddressed grievances. One can argue that it is difficult to sell the new house without even obtaining a proper document of landownership (deed) from the government. However, it is clear from the interviews that those who have sold their land did so by signing a letter in front of a lawyer assuring to transfer the original deed to the new owner when they received it. In this context, some buyers agreed to pay 75% of the total amount upfront and the rest when they receive the original deed. On the other hand, houses have been rented out for a monthly rental of Rs.1,000-2,000 which is another income source for some settlers.

Those who moved back to their previous place (see Photo 11), or somewhere close to the sea, run the risk of being exposed to another tsunami or other coastal hazards in the future, but they are no longer exposed to the various risks and stresses related to forced relocation. When questioned about it, most of them now know what a tsunami is, and where to run to protect their lives when they get the evacuation call, similar to what Mohamed stated. However, they did not comment on possible damages to their houses and other assets. A reduction in the original 100 meter buffer zone within the Galle city limits (between Ginthota and Mahamodara area is 45m and between Mahamodara and Devata area is 55m), improper enforcement of new buffer zone regulations by CCD officials due to political pressure, acceptance of new housing plans in the new buffer zone with the help of municipal officials and the mayor without any prior approval or certificate of CCD, and obtaining other services such as water and electricity with the

help of politicians creates an environment conducive for others resettle in the buffer zone. However, at the same time the municipal council and CCD officials are worried about this growing trend as it could lead, once again, to deaths, missing people and a loss of assets from the same area if another tsunami hits. In other words, this could be seen as a lost opportunity, not only to properly develop the coast but also to redevelop the lives of the relocatees in their new settlements. This underscores the importance of addressing the grievances and concerns of the relocatees in their respective resettlements as soon as possible and to properly enforce the new buffer zone regulation in order to prevent another catastrophe.

It is noteworthy that a few of those who were willing to sell their land did not wish to go back to their former location close to the sea, in fear of another tsunami. Instead, they were looking at locations close to the city. Nevertheless, they were unable to do so because of high land prices. *“One buyer was willing to buy this house for Rs.500, 000, but we did not want to sell it for this price as we could not buy a house for that price close to the city. We need at least Rs. 1,000,000”* said Somarathna (50 yrs) a daily paid labourer of Cinnamon Garden. Therefore, it is uncertain whether those wishing to move to a new location other than the buffer zone will change their mind in the future and settle somewhere within the buffer zone.

Photo 11: Illegally Reconstructed Houses in the New Buffer Zone



The sea is behind these newly reconstructed houses. There is still some debris of houses damaged as a result of tsunami 2004 still in the vicinity.

Photo: Fernando, 2007

7. The Impact of Forced Relocation on Housing, Common Infrastructure, Other Services and Social Relationships

This chapter is divided into two parts: the first attempts to explain the numerous inconveniences most of the resettlers encountered as a result of inferior housing and lack of common infrastructure in the new settlements. The second part mainly examines the relationship between the host and resettled communities. It further examines how tensions and some physical conflicts with the two groups disturb the peaceful atmosphere of resettled areas.

7.1. Poor Quality Housing

As stated before, resettlers had high aspirations of living in well built houses with basic common infrastructure, as promised by government authorities and politicians when they were in temporary camps and or in transitory shelters. This is evident from Pradeep's (daily paid labourer) statement about the Katupolwaththa resettlement, *"I thought this resettlement was the best one in the area and I came here with high hopes of getting a good house with common infrastructure and facilities. We were in a transitory shelter for more than one year under very difficult conditions, and I was in a desperate situation to move into any permanent place as soon as possible."* Nevertheless, after settling in their new settlements, it took only few months for them to personally experience the poor quality of the house they are now residing in. Pradeep further said, *"All our aspirations were shattered after coming to this settlement"*. There was much frustration with the quality of house construction.

A question was posed in order to ascertain which houses were comparatively better present or previous dwelling. Overall percentages indicate that a significant proportion of interviewed householders are of the view that the house that they lived in before the tsunami were better (78%) when compared to their present one (22%). With regard to the location, it is evident that a higher proportion of householders in Tea Garden (85%) and Katupolwaththa (81%) thought their previous house was in a better location when compared to Cinnamon Garden (61%) householders (see Table 28).

Table 28: Preferred Housing by Location

Preferred House	Location			
	Tea Garden ¹ (%)	Katupolwaththa ² (%)	Cinnamon Garden ³ (%)	Overall ⁴ (%)
House lived in before tsunami	85	61	81	78
Present house	15	39	19	22

Notes: valid n¹=54, n²=31, n³=58, n⁴=143. Source: Field Survey.

When the reasons were further explored, a clear majority of respondents in all three resettlements noted their dissatisfaction with poor roofing (69%), inferior walls (66%) and poor sanitation (71%) (see Table 29). With regard to location, a significant proportion of householders of Katupolwaththa complained about leaking roofs during the rainy season (90%) and cracked walls (83%), while a significant proportion of Cinnamon Garden resettlers complained about lavatories with stagnant waste water and overflowing septic tanks (82%).

Table 29: Satisfaction with Elements of the House by Location

	Satisfactory roofing			
	Tea Garden ¹ (%)	Katupolwaththa ² (%)	Cinnamon Garden ³ (%)	Overall ⁴ (%)
Yes	35	10	37	31
No	65	90	63	69
	Satisfactory walls			
	Tea Garden ¹ (%)	Katupolwaththa ² (%)	Cinnamon Garden ³ (%)	Overall ⁴ (%)
Yes	31	17	44	34
No	69	83	56	66
	Satisfactory toilets			
	Tea Garden ¹ (%)	Katupolwaththa ² (%)	Cinnamon Garden ³ (%)	Overall ⁴ (%)
Yes	39	31	18	29
No	61	69	82	71

Notes: valid n¹=54, n²=29, n³=57, n⁴=140. Source: Field Survey.

This situation is further explained by Mahinda (52 yrs), a fisherman in Katupolwaththa: *“The floor of toilet is not levelled, therefore, the waste water gets stagnant. A small cylinder is buried in place of a proper septic tank to remove sewage. As a result, we have to clean it every three months which requires Rs.3,900, although the first cleaning was done for free with the assistance of a municipal council member at Galle Municipal Council. During rainy days, the situation gets worse as the rain water spills into it and it overflows as there is no system to properly drain the rain water outside the housing premises. Heated arguments are reported among neighbours when some do not clean*

their overflowing septic tank properly, as others cannot bear the bad smell. The roof is not properly constructed therefore, when it rains, it leaks and the floor gets wet (see Photo 12) and needs to be covered in furniture and other items. Every day we blame the

Photo 12: Water Leaking from the Roof of a House at Katupolwaththa



Occupants have placed small buckets to collect rain water to prevent further dampness

Photo: Fernando, 2008

people who are responsible for the construction of this house”.

Similar to Mahinda, Sriyalatha from the same resettlement explained: *“the walls are cracked, there is no separate place for the kitchen, water comes inside the house from the roof (as the asbestos sheets which have been put on to cover the roof are damaged) as well as from the bottom (as the houses were built on low lying land without constructing a proper drainage system)”.*

Gunadasa (60 yrs) of Cinnamon Garden is critical of the construction of toilets and faces problems similar to Mahinda and Sriyalatha, although he belongs to a different settlement. Gunadasa also expressed his discomfort of staying in the house during the day time because the house heats up as a result of using corrugated sheets to cover the roof. Similar

complaints such as stagnant waste water in toilets due to uneven flooring, water leaks owing to the use of poor quality pipe fittings, and cracks in the cement floor are also reported from Tea Garden. Irrespective of the poor quality housing and the daily struggle of living in the resettled areas, a few resettlers who were squatters on government owned land before relocation, are satisfied with the housing conditions as they are now better off than before and have a permanent place to stay with a secure land title, although they have not yet received the original deeds from the relevant authorities (see 7.2.7).

In addition, Katupolwaththa and Cinnamon Garden resettlers complained that doors, door frames and window frames of houses are constructed using poor quality timber. As a

result, doors and windows won't open and close properly. In Tea Garden door and window frames have been constructed with concrete, and the doors with poor quality timber.

Photo 13: Makeshift Kitchen at Cinnamon Garden



A temporary kitchen adjacent to the back of the house

Photo: Fernando, 2007.

The interviewed householders of all three resettlements complained about the small kitchen in their new house, which is inadequate for cooking. As a result some have even built a makeshift kitchen adjacent to their house where they can use fire wood for cooking (see photo 13).

In Katupolwaththa, the Red Cross has constructed waterless composting toilets (to produce compost) in ten selected houses as a pilot project to help resolve the existing problem and also to generate compost for home gardening. At the time of fieldwork, none of these toilets were in use because of the difficulty of using them without water (as they did not use such toilet practices before) and the difficulty in finding sawdust to cover urine and faeces. In addition, some even mentioned that their children were unable to use it. It was observed that most of these toilets were being used to store fire wood and other items. A small number of householders have built proper septic tanks using their own savings, while another few have connected their sewer system illegally to the main drain as a temporary solution, as they lack money to build a proper septic tank or to empty the existing one every three months.

Most of the respondents complained that contractors who undertook construction used poor quality materials purposely to increase their profits, as there was no proper supervision either from relevant government officials or from donors. When such problems were reported to the relevant GN officer and other officials of the Divisional Secretary “*they note our problems and go*” (Nimal of Tea Garden). Sunil (47yrs) of Katupolwaththa reported some of the problems related to the construction to the

coordinator of the international non-governmental organization responsible for the construction of the houses, Sunil shares his experience - *“she (the coordinator) asked me to handover the house if I was unable to live in it rather than giving any solutions to the problems. I was unable to do so, as I do not have another place to go. If the authorities provided another place close to the city, I would not stay here for a second.”*

With the financial assistance of an international non-governmental organization, the Galle District Secretary has conducted a census in all resettlements in Galle Four Gravets and Akmeemana Divisional Secretaries using technical officers to identify construction related problems in housing units in order to resolve them later. Six months after the census when one officer was questioned on the matter he said, *“We are still in the process of analysing collected data”*. In this context, uncertainty further develops, as no one knows when the above discussed problems will be resolved.

The Additional District Secretary of Tsunami Reconstruction for the Galle district admits that some land used for resettlements was only partially suitable for such settlements, but advised the donors to construct quality housing considering the land quality. He also admits that there was huge pressure, both from politicians in the area as well as from displaced people, to speed up the housing construction in resettlements, which could have also led to the construction of poor quality houses. He further highlighted the importance of developing the vital common infrastructure before settling beneficiaries in their new location, but was unable to deliver this due to lack of funds. Irrespective of the lack of funds to develop common infrastructure, it is argued that government officials did not closely inspect the construction of houses other than providing the land and issuing beneficiary lists for the allocation of houses. It is further evident that there was no proper coordination, even between relevant divisional secretaries (i.e. Galle Four Gravets and Akmeemana) and local councils (i.e. Galle municipal and Akmeemana Pradeshiya Sabha) (Mulligan and Shaw, 2007; de Silva, 2009). For instance, in relation to the statement by the Assistant Director of Development and Planning of Akmeemana Pradeshiya Sabha (village council), he notes *“None of the government authorities responsible for reconstruction informed us of any resettlements in our area, instead, we received official invitations to participate in most of the opening ceremonies of such settlements.. There are 13 new settlements under the purview of our PS and we have not visited most of*

them”. If there was proper coordination between relevant local councils, there would have been a great opportunity to minimize some of the problems related to construction by requesting technical officers in Akmeemana PS to oversee the construction in order to maintain the building quality. However, the usual involvement of local authorities in approval of site planning was done by the Urban Development Authority in Colombo and the contractors worked under time pressure. Further, in line with this argument a Development Officer of Akmeemana Divisional Secretary complained about the lack of coordination, not only between divisional secretaries, but also amongst beneficiaries of new houses with some donors. Involving beneficiaries in initial construction work, perhaps through paid labour, may have infused a sense of ownership to their house, and perhaps minimized poor construction. It would also have helped to develop a good relationship with the host community.

7.2. Lack of Common Infrastructure and Other Services

7.2.1. No Bridge to Cross Maha Dola

Tea Garden resettlers lack a proper bridge to cross the Maha Dola (a large stream), other than a horse way built long ago to transport rubber wood to an estate nearby. Crossing, particularly during rainy season, is a very difficult task as it gets flooded. On such days, residents have to wait until the water level goes down. There were days when resettlers were confined to their settlement and their travelling was restricted. This, in turn, disrupts their day to day activities. For instance, children cannot go to school on time and residents cannot go to work etc. During the third stage of fieldwork, growing anxiety was observed amongst students who were to sit for the Ordinary Level national examination, as it was uncertain on whether they would be able to cross the stream and reach their examination, centers on time during the two week long examination period. Anxiety arose as there had been at least five times when residents were bound to their homes for two days due to floods. During the latest floods, resettlers were trapped in their settlement for over three days. As a result, politicians and other neighbouring villagers had to send cooked food and dry rations using cables with the help of the Navy. In this context, the most urgent infrastructure for Tea Garden resettlers is a proper bridge. This is evident from the ranking exercises undertaken with community based society office bearers (see Table 30).

Table 30: Ranking Exercise with Community Based Society Office Bearers on Housing and Common Infrastructure Related Problems by Study Locations

Tea Garden ¹	Katupolwaththa ²	Cinnamon Garden ³
1. No proper bridge to cross Maha Dola	Cracked walls and leaking roofs	Cracked walls, roofs and floors
2. Cracked walls, roofs and floors	No proper construction of septic tank	No proper construction of septic tank
3. No proper construction of septic tank	No drains for waste water and rain water disposal	No drains for waste water and rain water disposal
4. No drains for waste water and rain water disposal	No space for kitchen	No proper land ownership
5. No place to dump garbage	No mail delivery	No place to dump garbage
6. Lack of proper access roads	No street lamps	No street lamps
7. No community centre	Lack of proper access roads	No separate kitchen
8. No mail delivery	No proper land ownership	
9. No street lamps	No place to dump garbage	
10. No proper land ownership		
11. Small kitchen		
12 No playground		

Notes: ¹Conducted on 7 November 2008. Participants: Secretary of Sri Lanka Freedom Party Branch, President of Community Development Society, GN Officer, President of Death Donation Society and President of Women Society. ²Conducted on 9 February 2009. Participants: GN Officer, Secretary of Women Society, President of Community Development Society, President of Death Donation Society, President of Senior Citizen Society. ³Conducted on 18 November 2008. Participants: GN officer, Secretary of Death Donation Society, President of Community Development Society, Secretary of Women Society, Treasurer of Small Savings Group.

Due to the great importance of this matter, resettlers had taken it up with Government Ministers, the Divisional Secretary, parliamentarians, the village council members and even the President. A response letter arrived from the President stating that he had directed it to the relevant ministries to take necessary action, but to date, nothing has happened. The same problem was broadcast on radio and television. Continuing the effort, the Community Development Society organised an inspection trip of the settlement with the participation of provincial councilors, party electoral organisers, parliament ministers, the President of Pradeshiya Sabha, and the Divisional Secretary of Akmeemana Division to bring their attention to the common infrastructure problems in the settlements, in general, and the bridge in particular. Following the inspection tour a formal request was

made asking them to intervene to solve the matter. There were verbal promises, but no real action so far. For this reason the President of the Community Development Society of Tea Garden said, “*Officials should have known to first build a bridge over Maha Dola and then resettle us. This is their responsibility*”. Admitting that it is the responsibility of the Government to develop proper common infrastructure (i.e. roads and bridges) for the settlement, the Additional District Secretary of the Tsunami Reconstruction for Galle district stated that their inability to do so was due to lack of funds. Interviews with DS officials revealed that the Road Development Authority estimated it would cost five million Sri Lankan rupees to construct the bridge, but they did not have the required money from the government, or any other organization, to commence construction. This means that Tea Garden settlers need to continue with the daily struggle of crossing the *Maha Dola* with increasing uncertainty, irrespective of the various political promises to resolve this problem soon.

7.2.2. No Drains

Photo 14: Stagnant Rain water in a House Garden at Katupolwaththa



Stagnant muddy rain water as a result of no drainage system at Katupolwaththa

Photo: Fernando, 2008.

There is neither a proper drainage system for individual houses, nor for the settlement as a whole, to remove waste and rain water properly in any of the three research locations. Therefore, some of the gravel roads in all three resettlements are highly damaged, and householders complain that rain water comes into their houses. For instance, Ramanie (40yrs) of Katupolwaththa complained that her house

gets flooded even after short rain as there is no proper drainage system to remove out rain water outside her premises (see Photo 14).

In Katupolwaththa, the Red Cross started to construct a drainage system to properly remove both rain and waste water outside the settlement. However, the construction work had to be abandoned as the old villages in neighbouring settlements blocked the main drain that ends up in government land, stating that they were unable to bear the stench. No government officers intervened to resolve the problem. As a result of improper drain systems in all three resettlements, some of the houses get flooded several times during the rainy season, and householders feel that they have been neglected by relevant authorities, which is a major sign of social marginalization, as discussed by Cernea (2000).

7.2.3. No Community Centre or Playground

There is no community centre for Tea Garden settlers to use for community activities (such as conduct meetings of different community based societies, religious functions etc) as well as no playground for children. One international non-governmental organization pledged to build a community centre at Tea Garden. The land is already allocated, but the construction work has not yet begun. Both Cinnamon Garden and Katupolwaththa settlers have a community centre where they hold monthly meetings of various community based societies, training programs and tuition classes for school children, and other functions in their respective centers.

7.2.4. Access Roads

There are no tarred access roads in either Katupolwaththa or Tea Garden settlements, but rather gravel ones (see photo 15). While in Cinnamon Garden, the donor tarred most of the access roads. Settlers of Katupolwaththa and Tea Garden find it difficult to walk through the settlement during the rains because the sludgy roads force them to walk barefoot to the main road. In addition, at night there are no street lights so they are unable to see potholes on the gravel road. In Tea

Garden, there are houses without proper access roads which may result in cutting across the garden of another house, which could lead to land disputes in time to come. In view of these examples, it is clear that the donors who built Katupolwaththa and Tea Garden settlements have not paid any attention to developing proper access roads. Some of the interviewed resettlers are of the view that some of the above discussed problems could be resolved quickly if there is an election in the near future, where politicians will taken action in order to win the votes of the resettlers.

Photo 15: Damaged Gravel Access Roads at Tea Garden



Note the bushes at left and cracked gravel road on the middle.

Photo: Fernando, 2008.

7.2.5. No Garbage Collection

There is no separate place allocated to dump garbage or no garbage collection from individual houses in all three study resettlements. Therefore, some have dug a hole in their garden and to bury the garbage, some burn it, and some even throw it into common places like abandoned lands or streets corners, thus polluting the area with stench and there is no one to clean it. Dayawathie of Cinnamon Garden said, *“People throw the garbage alongside the street or any place other than their own premises”*. It was observed during fieldwork that some Katupolwaththa settlers throw their garbage into the rubber estate close to their settlement (see photo 16), while Cinnamon Garden settlers

throw it into empty land adjacent to the community centre, Tea Garden settlers dispose of their was on vacant land close to the *Maha Dola*, which also pollutes the water stream.

Photo 16: Garbage Dumped in Empty Land Close to Katupolwaththa



Note the pile of garbage on the right. As there is no one responsible keeping the area clean, resettlers continue to dump garbage.

Photo: Fernando, 2008.

The Village Council (Pradeshiya Sabha) responsible for garbage collection confirmed that they do not have enough resources to undertake this task properly. For instance, the village council has only one tractor which is not sufficient to collect garbage from the three study locations. They do not have a gully emptier (gully tanker), which is important to clean drains, have too few labourers, and insufficient land to dump garbage.

Under these conditions, village council officials are unable to resolve the problem until they receive the required resources from either the central government, or another organization. However, the Development Officer of Akmeemana DS division is of the view that it is important to introduce a garbage recycling program at household level as a solution, but do not know when they will be able to implement it in reality. In other words, this situation stressed a clear point: it is important to develop the relevant resources of the relevant village council before relocating people. In relation to the Akmeemana village council officials they have not received any additional funds or resources to resolve the garbage collection problem after relocating people into settlements.

7.2.6. Mail Delivery

There is no postal service available to individual houses in Tea Garden and Katupolwaththa settlements, rather relevant postal documents are handed to one house or a shop in the settlement. For instance, in Katupolwaththa the postman will hand over all the postal documents addressed to the resettlers to one particular house rather than distributing them to individual houses. While in Tea Garden it is handed to a grocery shop

in the settlement. As a result, settlers need to go to these places on a daily basis to check whether there is any mail for them. If anyone gets registered mail then the person needs to go to the main post office to collect it. Officials of the community development societies informed the divisional secretariat of this problem, but they claimed that the number of postmen was inadequate for the two main post offices and eleven sub-post offices in the area. There was also, no word from officials on whether there were any plans to recruit more postmen in the near future. In other words, resettlers need to continue with the existing system until the officials recruit sufficient postmen for relevant post officers after obtaining funds from the government.

7.2.7. No Legal Documents Assigning Property

None of the new occupants in the three study locations received formal landownership (original deed) to their new land. Furthermore, land boundaries have not been properly demarcated by the relevant authorities. Some settlers have built fences or have planted trees to mark the boundary of their land (see Photo 14). However, in all three settlements disputes were reported between neighbours regarding land demarcations. The Survey Department started to survey the land as the first step to mark the boundaries for each housing unit in all three settlements, but later had to stop their work as no one came forward to pay for their service. In this context, relocatees do not know when they will be able to get their original deeds as DS officials in the area do not even have a clear answer, as they did not receive any information from the central government. This situation further increases the uncertainty for relocatees.

Photo 17: Fences Built to Demarcate Land Boundaries at Cinnamon Garden



Note a fence built by planting trees to mark the boundaries of two different lots.

Photo: Fernando, 2008.

7.3. Social Relationship between Old and Resettled Communities

7.3.1. New Income Earning Opportunities and New Common Services for Old Settlers

Several income earning opportunities were created for old villagers during and after construction of resettlements, therefore, some of them are of the view that the new settlements are better than the former bare land which had only Katupol (dried coconut). When the study settlements were under construction, some old villagers worked in the construction sites as daily paid labourers, while some even earned an income by selling homemade breakfast and lunch packs to the construction workers. A few of them have opened up small scale grocery shops close to the study settlements following completion of construction work. For instance, there are two grocery shops owned by old settlers situated outside Tea Garden. New settlers are of the view that these two shops operate well. On the other hand, a few old settlers who worked on the construction site of Katupolwaththa also received financial assistance from the donor to renovate their houses.

Old villagers also use some of the new and improved common services constructed and offered, as a result of the new settlements. For instance, old settlers living in villages close to Katupolwaththa also benefited from the new bus service operating from Katupolwaththa to Galle, which had not been there previously. In addition, some of their children also participate in kindergarten and tuition classes conducted in Katupolwaththa community centre, free of charge. Amalgama villagers also use the main access road to Tea Garden as a short cut to reach Kuruduaththa junction, while old villagers living close to Cinnamon Garden participate in training courses (sewing, first aid etc) or meetings (government, non-governmental or political) held for both communities, at Cinnamon Garden community centre. It is noteworthy that neighbouring old villagers to Cinnamon Garden can also use the Cinnamon Garden community centre by reserving it from the Pradeshiya Sabha to hold meetings or other social events as it has more space and facilities compared to the villagers' old community centre. The Pradeshiya Sabha has already employed a watchman to look after the building.

Resettlers go to the village temple to participate in religious activities on special occasions, with the participation of old settlers, although Cinnamon Garden and

Katupolwaththa resettlers have separate Buddha shrines in their settlements. They also conduct similar religious programs there with the participation of village temple monks and some old villagers.

7.3.2. Fractured Social Relationships

Irrespective of new income earning opportunities and common services for old villagers living close to new settlements, interviews conducted with both new resettlers and old villagers revealed that there is not a close relationship between them. But, both sides will participate for example, when a funeral is reported from either side or would pass their condolences and share the sorrow. For instance, while conducting field research at Katupolwaththa, the death of a new settler was reported and old villagers came to the funeral house, participated in the funeral procession and the religious activities. Respect is being offered as a social norm. Conversely, those from the 'other' community will not attend a private function, like a marriage, birthday party, puberty ceremony or private religious activity such as sermon or pirith (religious verses being chanted), without an invitation. Most of the old villagers are of the view that more time is necessary to develop a good relationship between both groups. Moreover, a reasonable social relationship could be developed in the future due to possible marriages between family members of the two communities. There are instances when the resettlers have to depend on the old settlers, particularly during water cuts, and while trying to find medicinal plants or other. For instance, during water cuts, Tea Garden settlers go to private wells belonging to old villagers at Amalgama to take water. They even go in search of medical plants or curry leaves near the old villages. Similar behaviour is also reported from Katupolwaththa and Cinnamon Garden.

Two main factors emerged when examining the reasons for fractured relationships between resettlers and old villagers:

1. Physical conflicts and tension over resources; and
2. Inappropriate practices by new settlers

7.3.2.1. Conflicts and Tensions Over Resources

Physical conflicts and tension were reported over resources (land, access roads, community centre, and play ground) between old and resettled communities in all three study areas. Heated arguments were reported between some Tea Garden settlers and the chief monk of the Buddhist temple, who lives neighbouring Tea Garden, when he attempted to expand his temple land by illegally encroaching on the spare land belonging to the settlement. New settlers, however, successfully managed to stop this after informing the GN officer and Divisional Secretary officials. As the boundaries of Tea Garden are not properly demarcated or enclosed with a fence (rather the boundaries are marked by trees and the stream (Maha Dola)), this encouraged neighbouring old villagers to expand their boundaries. As a result of these incidents, new settlers, particularly those bordering the temple, neither engage in conversation with the priests nor visit the temple.

Children and youth of the old villages living close to Cinnamon Garden used the new playground for a few months but later had to shift to another school playground as some of the new settlers complained of them breaking windows of the Cinnamon Garden community centre. After this incident, most of the village youth and children refused to participate in sports activities on this ground. For instance, very few villagers from the neighbouring old villages participated in the New Year Sport Festival which was open for everyone in the area to take part in games organized by Cinnamon Garden residents, not only to celebrate Sinhala and Tamil New Year in April, but also to develop the relationship between the two groups.

The land used to build Katupolwaththa settlement was formerly abandoned bare land filled with Katupol (dried coconuts) where old villagers used to go for various purposes, such as collecting firewood, searching for medicinal plants, cattle grazing, and a few had even planted vegetables. Moreover, an old settler operated an illicit liquor and cannabis business on this land as it was a safe place for these types of illegal activities. All these activities had to stop due to the construction of the new settlement. As such, old settlers lost their access to a common property resource to engage in various activities, as before. One old settler said, *“Selling illicit liquor and cannabis has stopped thanks to the settlement, but on the negative, we do not have common land to use any longer”*.

Neighbouring villages to Katupolwaththa neither have a playground nor a community centre. Therefore, in the beginning, some old villagers wanted to use the playground as well as the community centre at Katupolwaththa, but the new settlers were opposed to this. Eventually, it led to increased tensions and physical conflicts. For example, old settlers used the community centre (see Photo 18) as a meeting spot to have a drink in the evening, which created a lot of noise and would disturb others. Sometimes it even led to heated arguments with new settlers when they requested the noise be kept down. When the other party refused to comply with the continuous requests, the new settlers did not have any other option but to enclose the open hall by constructing walls, windows and doors and keep it under lock and key. Sajeewa, a young female from Katupolwaththa was appointed by the donor (a monthly salary) to look after the community centre. This action, however, angered the old villagers and some of them came and threatened the new caretaker.

The situation escalated up to the point where the police became involved. Old villagers could not gain access to the community centre, even to hold monthly meetings of the Death Donation Society or other community based societies. They had to hold meetings in places where they had formerly, such as in a free school class rooms or someone's house.

Similar to the community centre, new settlers refused to give access to their playground stating, "*this is ours and not yours*". In this context, children and youth in neighbouring villagers had to use a school ground nearby to play. Later, some old settlers damaged several new houses by throwing stones when they were drunk, as revenge for the above actions.

Photo 18: Open Community Centre at Katupolwaththa Before Enclosing It



Tuition class conduct for school children in the area

Photo: Fernando, 2008.

Further tensions erupted over empty land belonging to Katupolwaththa, where the authorities planned to expand the playground. The old settlers had requested that the same land be used for a burial ground. Relevant government authorities failed to make a final decision on this matter, which then led to the villagers burying a dead body on the land as a signal to the new settlers that they are definitely using it as their burial ground (see Photo19).

Photo 19: Grave of an Old Villager at a Controversial Burial Site at Katupolwaththa



A white monument built by the deceased's family on the new burial ground. New houses of tsunami victims can be seen in the background.

Photo: Fernando, 2008.

Disputes over the road also led to conflicts between old villagers and Katupolwaththa resettlers. Old settlers used the gravel road situated across from the new settlement as a short cut to get to other villages, mainly by foot, and sometimes by vehicle. Katupolwaththa settlers, however, did not like neighbouring villagers using their vehicles on the gravel road and complained about dust. They requested old villagers to refrain from using vehicles until the road got properly constructed. However, the old settlers' continued to use their vehicles on the road, despite the request. As a result, some Katupolwaththa settlers physically assaulted a neighbouring villager with iron bars and

swords while he was riding his motorcycle on the road which resulted in severe injuries. Angry villagers stormed into Katupolwaththa with iron bars and swords and ordered all the resettlers to switch off their lights. They then damaged more than twenty houses (see Photo 20). Police took into custody those who were involved in both incidents, and the cases were heard in court. The damaged houses were repaired with financial assistance from the donor. After this incident, the controversial road was closed to outsiders for a few weeks and later re-opened. Following these shocking experiences, Katupolwaththa settlers live with great fear and uncertainty, and a police jeep now patrols the area at least three times a week. This was a rare sight before the construction of Katupolwaththa.

Photo 20: Windows of a Damaged House as a Result of Physical Conflict between Old Villagers and Katupolwaththa Settlers.



Damaged glass window (left) and a damaged window temporarily covered with cardboard (right)

Photo: Fernando, 2007.

Following these incidents, several meetings were held with both Katupolwaththa residents and neighbouring villagers in attendance, along with the participation of government and police officials to ease the tensions. Several steps were taken to organize joint activities to strengthen the relationship between both communities, and to stress the need to encourage both parties to participate in these activities. As a part of this endeavor, neighbouring villagers invited Katupolwaththa settlers to become members of their Death Donation Society. However, only five Katupolwaththa settlers wanted to obtain membership. This could be due to the fact that most of the Katupolwaththa settlers are

members' of a Death Donation Society which operates in their settlement and saw no point in obtaining a membership in a similar society. On other occasions old settlers' organized a religious program and Katupolwaththa people were invited to participate. Katupolwaththa settlers helped them to organize the activities but did not participate in the religious ceremony, which the old settlers were unhappy about. When asked about this behaviour, Katupolwaththa settlers are of the view that it is difficult to heal the wounds from the above mentioned incidents. As such, a close relationship does not exist between Katupolwaththa settlers and the neighbouring villagers. Kamala an old settler said, "*they are in their village and we are in our village*".

In conclusion, the above examples stress the importance of developing essential infrastructure in the neighbouring old villages to minimize resource related tensions and physical conflicts between old villagers and new settlers.

7.3.2.2. Inappropriate Practices by the Resettlers

Dumping Garbage in Common Places

Tension mounted between host and resettled communities in the study areas as a result of inappropriate practices by resettlers which infuriated the old settlers. This is largely because the two groups belonged to different cultures and their ways of communication, attire, employment and even eating habits were opposed to one another. One officer at the PS (village council) disclosed that: "either group of settlers need to adapt to one culture or a mixture of both to decrease the tension between the two groups, however this would require some time". Therefore, under these circumstances, developing a reasonable relationship between the two groups is difficult. For instance, villages neighbouring Tea Garden are anxious because some of the new settlers throw bags of garbage on the road or on vacant land close by. Irrespective of several requests from old settlers to discontinue this practice, Tea Garden settlers continued with it. Similarly, villagers neighbouring Cinnamon Garden are also unhappy with the dumping of garbage on the main road or vacant land as they cannot bear the stench of it. In addition, the Pradeshiya Sabha does not clear the garbage away. On one occasion, the neighbouring villagers cleaned up some of the common places where new settlers had dumped garbage, and then put up notices with the assistance of Pradeshiya Sabha, requesting they refrain from this bad practice.

Irrespective of these notices, however, new settlers continue to dump their garbage, particularly at night, and increase the anger of old settlers. Similar situations also occurred in Katupolwaththa. As stated before, a proper garbage disposal system was not introduced by the Pradeshiya Sabha owing to lack of resources. Resettlers use this as an excuse to dump their garbage in common places, and as such the tension between old villagers and new settlers continues.

Alcoholics and Burglars

Old settlers are of the view that some new settlers swear under the influence of alcohol, publicly on the roads, which was not a common sight before. Unsuccessful attempts were made by old settlers to put a stop this practice by personally having a chat with them, and later with the help of the police. For instance Sarath, from the old village close to Tea Garden attempted to stop two drunken resettlers from shouting filth at old villagers and as a result, ended up in the police station. This is because some youths in the area joined to help Sarath, and not only physically assaulted the two new settlers, who were injured, but also threw stones at their houses and damaged property.

Villagers neighbouring Katupolwaththa and Cinnamon Garden also complained that they witnessed drunken new settlers shouting filthy words at old settlers, which disturbed the peace of the area. This is why they claim, *“the peaceful environment which prevailed is no longer due to the new settlements”*. They also complained that even children use indecent words. In this context, parents of old settlers do not wish their children to mix with the children of the new settlers fearing that their children would be influenced.

In addition, at least fifteen burglaries were reported from old villages neighbouring Cinnamon Garden after resettling the tsunami displaced people. Most of the old settlers suspect that new settlers were involved in these burglaries- *“before they came here only a few thefts were reported which were minor, like stealing someone’s banana or coconut from the tree”*. There was an incident at Cinnamon Garden, when youth from the new settlement got caught plucking a guava from a tree belonging to an old settler. The youth was handed over to the police. This incident increased the tension between old and new settlers. However, some of the new settlers went to the police station and got the youth released without any charges.

In light of the aforementioned evidences, it can be concluded that physical conflicts and tension over resources, as well as inappropriate practices of new settlers has led directly to a fractured relationship between old and new settlers.

8. Specific Case Studies: The Impact of Forced Relocation on Household Social Vulnerability

The analysis in the previous chapters discussed how the households in three study settlements were exposed to various forced relocation related stress, such as increase in household expenses (new transport costs, monthly bills for electricity and water etc) on one hand and a decrease in income, on the other (lack of income earning opportunities, distance to the city and transport difficulties). Poor quality housing with lack of common infrastructure, and tension and violent conflicts between resettled and host communities also led to further stress.

Both quantitative and qualitative data analysis was carried out, mainly by using ‘categories’ and ‘sub categories’ to address the questions. These modes of analysis no doubt underplay the social significance of individual behaviour. Therefore, it is important to examine some of the ‘unique cases’ relevant to the study context in order to understand the short and long term impact of the tsunami, the cumulative effects of forced relocation related stress and risks at the household level, how are household roles changed, how existing and new household conditions (debt, alcohol, chronic illness, number of dependents, single parent etc) limit livelihood strategies and options, and the final outcome after employing various livelihood strategies. Finding answers to these questions, based on household specific case studies, would shed more light on understanding not only the various forced relocation related stress and risks that relocatees are exposed to, and also attempts to discover some existing household socio-economic conditions that hinder coping capacities, and in combination give a complete picture of the day to day struggle of livelihood security under the impact of forced relocation.

This chapter focuses on six specific households (two households from each settlement) that belong to lower and upper socio-economic groups and is based on several in-depth interviews carried out at the time of the fieldwork, presented in a narrative style. This way of data presentation, however, reveals only some aspects of the households social vulnerability, and their livelihood situation before and after relocation. Direct and indirect speeches were used when present household profiles followed by authors analytical remarks. Anonymous names have been used as a method to protect their real identity.

8.1. Household Profile 1: Bandu (40yrs, a daily paid fisherman) and Chamila (37yrs, housewife) belong to the lower socio-economic group at Cinnamon Garden

Bandu is a fisherman and has been living with his wife, Chamila, at Cinnamon Garden since June, 2006. They are Buddhist. This household receives Samurdhi⁶³ which helps them buy Rs.240 worth of essential goods from the grocery shop on a monthly basis. Five of their seven children: five daughters (ages 16,15,13,12 and 11 yrs) and two sons (ages 5 yrs and 7 months) go to school in Galle, even after relocating to Cinnamon Garden. Both Bandu and Chamila can read and write in Sinhala although they were forced to drop out of school prior to completion of primary education, when they were children, owing to their families' economic difficulties.

Chamila's father was a daily paid labourer who looked after his five children (four daughters and son) amidst great economic difficulties, while Bandu's father is a fisherman and an alcoholic. He used up almost his entire income to consume liquor and Bandu's mother had to take care of three children (two daughters and son) by making string hoppers and hoppers to sell them to nearby hotels.

After dropping out of school, Bandu went on fishing as the only male in his family, while Chamila stayed at home for a few years helping her mother with cooking and other household activities. She later started to sell home-made lunch packs for those working at the Galle market.

Both families previously lived very close to the sea, illegally on government land in Galle city. Following the love marriage of Bandu (at the age of 25) and Chamila (at the age of 22), they built a small hut with two rooms (a bedroom and a sitting room) and a small kitchen using timber and corrugated sheets as the roof on the same land where they lived since birth. They had to share a common toilet and tap with eleven other households and used kerosene oil lamps to light the house. There were no electrical items in the house. Other furnishing included three wooden beds, a cupboard and a plastic table with eight chairs. The couple continued with their respective income earning activities after marriage. It should be noted that Bandu works for only six months a year as fisherman as the rest of the year the sea is too rough. For the remainder of the year he works as a daily

⁶³ National program introduced by the government in 1994 to alleviate poverty.

paid labourer. He, however, did not have a problem in finding work during the off season, as he was living in the city before relocating to Cinnamon Garden. He explains “I mostly find work in fish stalls at the fish market or sometimes work as a helper on building construction sites”. What is important to note is that they did not save money in a bank or buy any electrical appliances. In other words, what they earned was adequate to meet daily household expenses. Chamila said, “at the end of the day nothing was left for us to save after spending it on meals”.

The first household profile, from Cinnamon Garden is in the lower socio-economic group due to having a single source of casual household income, a lack of savings in cash or kind, and many dependents. Household characteristics of the previous generation of both Bandu and Chamila points out the fact that both were born and brought up in a poor household, namely a single source of casual income, insecure ownership of land and more dependents in their households on the one hand and Bandu’s fathers’ alcoholism, in particular, on the other. These conditions no doubt forced them to drop out of school as a strategy to reduce household expenditure on one hand and increase income by finding casual work on the other. It can be argued that intergenerational transmission of poverty is visible when examining the socio-economic conditions of Bandu and Chamila following marriage. Although there were two sources of income to meet household expenses, nothing was left to save at the end of the day. Interestingly, they depended on common facilities (water and sanitation) provided by the Municipal Council on the illegally occupied land. They also did not have problems finding employment during the off season as there were enough employment opportunities in the city.

As a result of the tsunami, their house was completely destroyed along with all the furniture. Bandu dislocated his left shoulder when he fell as he was running to escape from the tsunami, and was hospitalised for three days. Fourteen of their close relatives died, including Bandu’s father. Displaced, Bandu’s family stayed for a month in two different temples (two weeks each) before going to Chamila’s sister’s place where they stayed for another seven months, until moving into a transitory house, far from Galle city, but closer to Cinnamon Garden. Bandu went back to work six months after the tsunami, and used money from the government (Rs 5,000 for four months) and food stamps (worth of Rs. 375 per month for four months) for their survival during the period he was unemployed.

Bandu's family did not want to move back to their previous location, even if the 100 meter buffer zone regulations were not enforced, for fear of future tsunamis. But, their intention was to find a house in a resettlement situated somewhere in the city, without disrupting their main income earning activities and the children's schooling. One and a half years after the tsunami, despite their aspirations, they had to permanently settle in a two bedroom house at Cinnamon Garden, situated nearly even kilometres away from Galle city. This was possible because the government allowed for the tsunami affected displaced who were without secure landownership were eligible to receive a permanent house in a resettlement. Six chairs and a table, and a television set were gifted to their new house from the donor.

The tsunami was no doubt a shock for Bandu's family as they lost everything (house, furniture, close relatives etc) and he dislocated his shoulder, which has now become a chronic illness, as he dislocated again and doctors advised him to undergo major surgery, which he preferred not to do. This is mainly because there is no other income earner in the household to provide for them after the surgery when he has to rest for at least two months without lifting anything.

Forced relocation to Cinnamon Garden, more than ten kilometres away from the city, could be seen as another shock, as it has already increased household expenses on one hand and decreased household income owing to reduced access to the city and sea, on the other.

Chamila and Bandu need Rs. 500 a day to cover daily household expenses, including new expenses. Of this, a considerable proportion needs to be allocated for daily transport costs which is at least Rs. 150, as all five school age children are still going to school in Galle. They need to save at least Rs. 30 per day to settle monthly electricity and water bills, which is around Rs700. This is why Chamila said, "we need money for everything after coming in to this settlement". Most importantly, these new expenses are recovered only through Bandu's income as Chamila no longer sells lunch packets following the tsunami, as she needs to care for her seven month old boy, and there is also no demand for lunch packets in the settlement. There were instances when their water and electricity was disconnected as a result of non payment. On one such occasion, they had to take a loan

from an informal money lender to regain the connection. Conversely, as a result of the new distance to the city of Galle, Bandu needs to leave home around 4.30 am to go to Galle fishing harbour by public transport to find employment. There were days Bandu did not find work as he got there late because of transportation problems. On such days, Chamila depends on her mother and other relatives living in Cinnamon Garden for meals. Bandu wants to buy a bicycle in the future to reduce the cost of transport, but does not know where to find the money. Bandu is clear that he does not want to obtain a loan for the bicycle as he does not get an adequate monthly income to repay the debt.

They now live in a cement house with a secure land title with an individual water and electricity supply with an attached toilet, which would improve their quality of life, compared to before. However, they are unsatisfied with the poor construction of houses- “when it rains the rain water leaks from the roof, and the cement floor and walls are cracked. The toilet pit over flows as it is not built properly”. They are unable to solve these problems because of insufficient income. They also shared their concern over having to pay a fee of Rs.500 to use the community centre, even if it is for a private function of a settler. They are hopeful that the relevant government authorities will attend to these issues. Bandu is of the view that similar, to him, most of his fellow resettlers go to Galle daily for work, as well as to obtain other services (banks, schools, hospital etc) like before.

In order to improve their household income, Chamila had taken a loan of Rs. 15,000 from a small savings group in the settlement to start a fish stall in front of her house. She was unsuccessful in this venture as she had to use part of the money for household expenses, as Bandu dislocated his shoulder during this time and was unable to work for over two weeks. She now plans to start a vegetable stall instead of a fish stall as she can manage it with the remaining money. It is to be noted that she needs to pay Rs. 600 as the monthly instalment for the loan, which could be seen as another burden on household expenses.

Against this backdrop their household economy has worsened after relocation, despite having a permanent place to stay. Bandu reveals that “prior to resettling we did not save anything but the income was adequate to cover bare household expenses. After relocation our income is inadequate to even cover expenses for food. As a result, Chamila and I skip breakfast, rarely eat meat or drink tea with milk because we cannot afford it”. Having said

that Bandu and Chamila do not intend to go back to their previous home because the land has already been taken over by the Galle harbour expansion project, and they do not wish to live close to the sea due to tsunami warnings. They are however, contemplating whether to settle somewhere close to the city by selling or renting their house, as some of their neighbours have done.

Despite these difficulties, Chamila and Bandu intend to educate their children well enough to seek government sector employment in the future so they do not have to live on daily income. In order to realize this goal, they send their children to the same school in Galle and bear the new transport cost, as well as the cost of additional tuition classes. Moreover, they do not want their children to drop out of school to minimise household expenses and find employment as domestic servants.

When the daily income is inadequate to meet household expenses, Chamila depends on her relatives for meals and even skips a meal as a coping strategy. Additionally, an enhancement strategy employed by Chamila to increase household expenses backfired and increased the stress of the breadwinner as he had to earn more to pay off the loan on top of other expenses. Obtaining a loan from a money lender to regain the electricity and water supply could also be seen as a coping strategy which further trapped them in debt rather than reducing it. It is important to credit their continuous and untiring effort to improve their economic condition. Learning from their own experiences of low educational attainment, they aspire to provide a reasonable level of education for their seven children, amidst dire economic difficulties, which is a vital prerequisite to obtaining secure employment in the future. This will also help the children break out of the intergenerational cycle of poverty and successfully withstand future shocks, stress and risks successfully.

8.2. Household Profile 2: Gune (32 yrs, boat owner and fisherman) and Sriya (30 yrs, grocery shop owner) belong to the upper socio-economic group at Cinnamon Garden

Gune and Sriya lived at Cinnamon Garden with their two children (son-11yrs and daughter 16yrs) since May 2006. Gune goes out to fish in his own motor boat and had employed two other fishermen. Sriya runs a grocery shop from home at Cinnamon Garden in addition to money lending. Gune owns a motorcycle. Their house has a

television, cassette recorder, fridge and other furniture. Gune does not drink alcohol or smoke. He studied up to grade 5, but is unable to read and write in Sinhala. Sriya Sinhala literate but she failed her G.C.E. ordinary national exam on both attempts. Gune is a Catholic while Sriya is a Buddhist. Their children adhere to both religions and attend temple and church. Gune is a member of a fishery society, while Sriya is a member of Women's, Community Development and Death Donation societies. She became a member of the women's society to get a loan if the need arises, and joined the other two to serve the community. She actively participates in all monthly meetings.

Gune had to repay a loan and make monthly instalments of Rs. 3,000 for his motor boat, which can be seen as an investment, as he will get full ownership at the end of the loan repayment. Moreover, he saves five hundred rupees in each child's savings account. During the time of fieldwork there were up to Rs 20, 000 in his personal savings account in a government bank. Sriya also saves Rs 50 to 100 per day from the grocery shop, but did not like to reveal the income gained from lending money.

This household belongs to one of the few upper socio-economic households at Cinnamon Garden as a result of low dependents, three sources of income, different modes of savings, valuable household appliances, out boat engine motor boat and a motorcycle.

When looking back at their life before marriage, Gune was born and brought up in his parents' brick house with electricity, which was situated close to the sea in Galle city. Sriya lived inland around ten kilometres away from Galle city. She came to Gune's house after their marriage. Gune's father was a fisherman, while Sriya's father was a carpenter and both their mothers were housewives. Gune was the eldest of three children and dropped out of school stating that he, "does not like to study". His parents did not encourage him to continue school so he went fishing with his father at the age of twelve and, interestingly, his brother followed in his steps. Gune has been a fisherman for the last twenty years and gained knowledge and experience initially by working under his father, and later by working on his own. He bought a sea canoe worth Rs. 100,000 before tsunami using his own savings.

Sriya and Gune lived for more than ten years together in Gune's house which he inherited from his parents before the tsunami. Gune's income was more than sufficient to cover

their daily expenses and he was even able to save Rs.50-100 per day. Sriya deposited part of it in a savings account in a government bank on a weekly basis and the rest was invested in informal savings. She managed to purchase gold jewellery for her and her children. Sriya also used the savings to lend money to neighbours for a minimal rate of interest. This activity would occupy Gune during the off season. On the rare occasion their income became insufficient to cover household expenses, Sriya withdrew money from the bank. She also received her share of rice grain from her parents paddy fields during the harvest two times a year so they did not purchase rice, which in turn reduced monthly expenses considerably. With regard to Gune he states that “there was a good daily income before the tsunami owing to low fuel prices and less number of fishermen with boats.”

Compared to the previous household profile, Gune was born and brought up in an economically and socially stable household. Dropping out of school early did not create problems to Gune as it paved the way for him to acquire skills of fishing from his father. The habit of saving money and investing to improve and strengthen household income are prevalent before and after marriage. This could be seen as a definite sign of building up economic assets, which are useful to successfully cope with shocks and stress situations. Further to this, the rice Sriya receives from her parents no doubt helps to ease household expenses.

The tsunami was a shocking experience for Gune and Sriya as they lost their daughter (5yrs) and son (2yrs), and their eldest son was injured (8yrs). Gune did not go fishing that day as it was a Buddhist holiday, but he could not save his two children from the wave. He, however, managed to save himself and the eldest son by running towards the Galle road. Their house was completely destroyed along with all the furniture, electrical appliances and fishing gear. This situation forced them to rebuild their lives from scratch, which was a mammoth task. They stayed in temples and churches during the first two months after the tsunami, amidst scarce water and sanitation. They then moved to a transitory shelter situated outside the city until they received a house at Cinnamon Garden. Sriya did not want to stay with her parents, despite repeated requests from them, as she wanted to quickly find a permanent place to stay so she could restore their income earning activities as soon as possible and did not want to disrupt their son’s education. She however, received provisions such as vegetables and rice frequently during this

period from her parents. Most Gune's relatives lived close to the sea and so they were unable to help them, as they themselves were affected.

It took four months for Gune to go back fishing after the tsunami as his canoe was damaged and most of the fishing gear was lost. The church where Gune goes for Sunday prayers gifted him a new sea canoe and some fishing nets, which helped him return to fishing. Sriya also received a sewing machine in addition to aid (from individuals, non-governmental organizations) such as food, clothes and essential medicine, particularly within the first three months. They also received support from the government in cash and kind (Rs. 5,000 for four months, Rs. 2,500 to buy kitchen utensils and food stamps worth of Rs. 375 to buy essential food items for five months) which no doubt helped them to survive with few problems. Sriya and Gune were of the view that they needed to put in more effort to improve their living conditions without being solely dependent on aid, like most of the displaced were used to.

The death of their children and loss of their house and valuables discouraged them to settle in their previous place and they preferred to live somewhere in the city, not close to the sea. Gune was disappointed when they received a house at Cinnamon Garden, thinking of the distance to Galle city, but was satisfied that the place was not too far out. Gune purchased a motorcycle from his savings to enable him to go out to sea without hassle, though it was expensive considering the increased fuel price. Despite these disadvantages, purchasing a motorcycle helps him reach Galle fishing harbour early in the morning to begin his fishing without the burden of public transport. He, however, complained that there were new fishermen with new sea canoes after the tsunami, which has increased the competition. This led him to buy a motor boat from a loan he took from a foreigner he came to know through the priest of his church. With the new motor boat, Gune can go out to sea faster and spend more hours fishing compared to the sea canoe. As mentioned earlier Gune needs to deposit Rs. 3,000 a month in the Sri Lankan bank account of the foreigner, as the monthly instalment of this loan for another three years. Gune has a profit of Rs. 1,000-1,500 after settling daily wages for his two assistants and accounting for costs such as fuel and meals.

Sriya did not start her money lending business right after relocating because most of her clients may have difficulties repaying the money as their income was unstable. Therefore,

she started a grocery shop in her house by initially investing some of her savings. She received Rs. 15,000 from the Women's Society to improve it. Gune brings necessary items from Galle when he comes back from work on his motorcycle which reduces the cost of transport for Sriya. She earns an income of Rs. 200-300 which is more than enough to repay the monthly loan instalment. The rest is invested to further develop her business and Gune's income is used to cover household expenses. They eat rice for all three meals and have not changed their dietary habits. She sells goods for credit to her customers, which they usually settle on a weekly or monthly basis. This has attracted more customers, irrespective of their frequent complaints, such as, "prices are relatively expensive in Sriya's shop compared to grocery shops outside the settlement". Charging higher prices no doubt in turn increases her income. During the last stage of fieldwork, it became apparent that Sriya has started lending money to some of her old clients.

Sriya maintains a very good relationship with her neighbours, and they babysit her seven month old daughter when she is busy with household chores and the grocery shop. In return, Sriya provides their meals, exchange food items and lends money whenever they need it. She does not have any relationships with the old villagers as all her customers are new settlers. Even if an old villager comes to her shop to buy goods on credit she says, "I would not give them on credit on the first day without knowing them for some time". She is confident that she has gained good business skills by engaging in this activity and, most importantly, knows how to refuse to give items on credit for customers who do not pay their debt on time, without spoiling the relationship, which is important for a small business to succeed.

Gune understands the value of education, as he is not literate and therefore, needs Sriya to assist whenever he has to draft a formal letter or undertake banking matters. Against this backdrop, they plan to well educate their children, even if they choose to pursue their parents' profession in the future. Gune said, "a good education is not a waste, as children can use it to broaden opportunities in their life". Gune managed to enrol his only son in a school close to Cinnamon Garden, with the help of a village council member (his initial attempt failed as the school claimed that there was no space in the class rooms, therefore he had to use the influence of a local politician) in an attempt to reduce transportation costs.

A few months after moving into the house, Gune painted the whole house, fixed a leak in the roof and built a separate septic tank unit, all of which cost over Rs. 10,000, which came from his savings. This was after repeated attempts of trying to bring it to the attention of the divisional secretary and GN. When it failed he decided to repair the house himself. He is of the view that most of the other settlers are unable to do the same, as their income is insufficient to meet their expenses. Sriya hopes to build a separate kitchen as the current one is too small and also wants to expand her grocery shop. They are concerned that the settlement lacks a proper garbage disposal system, street lights, an adequate drainage system to dispose of waste and rain water, and most importantly, a lack of formal ownership to the land. Gune has already conveyed these problems personally to some local politicians in the area, but so far no action has been taken, other than reassurances, which just adds to their frustration.

Even with the infrastructure problems, Gune is optimistic about their future and would not like to move back to their previous place closer to the city due to the trauma of the tsunami. Since the buffer zone regulations were eased Gune hopes to build a two storied building on their former eight perch land in Galle and rent both floors. Preferably, the ground floor will be rented out for commercial activities, and the top floor as residential. At the moment, he is unsure whether he will get the finance for the endeavour, but is hopeful to obtaining a loan from the same foreigner who lent him money for the motor boat.

8.3. Household Profile 3: Sagarika (46 yrs, home cooked lunch packet seller) belongs to the lower socio-economic group at Katupolwaththa

Sagarika's household belongs to one of the lower socio-economic households in Katupolwaththa. She has four children: three daughters (22 yrs, 18yrs and 17yrs) and a son (15yrs) and has been a resident in Katupolwaththa since February, 2006. The eldest daughter, Amala is unemployed and is married to a fisherman, Ramya is studying for the Advanced Level Examination, the only son, Kasun is in school (attending grade 9) in Galle, while the third daughter, Sumana has dropped out of school because of economic constraints, and is at home helping Sagarika. The death of her husband in the tsunami was a shock to her and her children. This forced her in to the position of sole income earner and she had to look after her three children with much bigger responsibility as the

household head. She earns Rs. 4,000 a month, which is insufficient to cover household expenses.

Sagarika is a member of the Death Donation and Community Development societies. She pays the monthly membership fee of Rs. 50 to the Death donation Society and actively participates in Community Development Society meetings. She does not want to be a member of an informal savings group because she does not intend to get loans from these groups as she does not have a permanent income. The valuables in her house include a radio she received from a foreigner, a bicycle from a non-governmental organization (following the recommendation of the Community Development Society) and six wooden chairs and a table from the donor who built the resettlement.

Before marriage, Sagarika lived in a remote village far from Galle, with her parents. Her father was an agricultural labourer. She was the eldest daughter of three children in the family (sister and brother) and studied up to third grade and then dropped out of school. According to her, “in those days we did not know the value of education, and our parents only thought of providing the meals and didn’t encourage schooling”. Then she worked as a rubber tapper, tea plucker, and made rope out of coir, in addition to household activities. These activities no doubt helped her earn a little money to buy a new frock and to save the rest in a jar. She also learned how to sew her own clothes from her mother. However, this knowledge was insufficient to find work in a garment factory, as a machine operator, because they used electric sewing machines.

Sagarika’s arranged marriage with Nanda was the turning point of her life, as she had to migrate from her remote village to Galle city. Sagarika was ignorant about Nanda’s alcoholism before getting married to him. Nanda was the only son of his family and was illiterate. Both Sagarika and Nanda lived in Nanda’s parents’ house, which was situated by the coast. They used the common tap for water, and kerosene oil lamps for light. Nanda worked as a labourer in a concrete construction factory. His income was insufficient to cover household expenses as the income was low and due to his alcoholism. Under these circumstances, Sagarika rented out a room in their house to cover household expenses, and bought food on credit from the grocery. She still has an outstanding debt of Rs. 2,500 to pay the grocery shop. Due to the lack of income, she could not save any

money. She said, “after buying his alcohol, little money was left for food, and certainly nothing was left to save, which instead adds to the debt”.

The tsunami was a great shock for Sagarika as it took her husband and completely damaged their house and its valuables. The remaining family members spent a few weeks in temples and then moved back into their tattered house, and built a temporary tent. They lived there until they received transitory housing. They received bed sheets, mosquito nets, kitchen utensils and food items from relatives and non-governmental organizations. In addition, the government gave them Rs. 5,000 (for three months), and Rs. 2,500 to buy kitchen utensils, and a stamp card worth Rs. 375 to receive essential food items from the cooperative shop (for five months). This assistance was no doubt vital for their survival during the first six months after the tsunami.

Sagarika played the role of the hidden household head, even before the death of Nanda. The death of Nanda, no doubt, put more formal responsibilities on her shoulders. Amala, the eldest daughter, dropped out of school after the tsunami to find employment to support the family. Initially, Sagarika did not encourage her daughter’s decision and wanted to find employment herself. But when she realised it was not possible, there was no other option other than to send her daughter to a garment factory at Koggala Free Trade Zone (16 kilometres from Galle towards Matara). Meanwhile, Sagarika thought of selling lunch packets in front of her destroyed house to earn a living. When Sagarika earned a reasonable income to cover most of the household expenses, she used part of her daughter’s salary to invest in an informal savings group (Seettu group). Savings from this was used to buy jewellery for her daughter. During fieldwork, Amala was married to Ajith, a fisherman from the same area. The newly weds live alternately in Ajith’s parents place in Galle and Sagarika’s place in Katupolwaththa as they do not have their own place. Nevertheless, an attempt was made to get a separate house for the couple, adding them as a separate tsunami displaced family, but they were unsuccessful.

Sagarika did not want to stay in their previous place after the tsunami, but wanted to stay somewhere in the city. When she received a house at Katupolwaththa, far from the city, she attempted to find a house closer to the city by stating her problems (new transport cost, distance to the city, children’s school etc) to the Grama Niladari and Divisional Secretary officials, but was unsuccessful. She had the option of migrating to her home

village, but she did not like this, as it would disrupt her children's education and her income earning activity. In this context, she did not have any other option available to her other than to move to Katupolwaththa.

After settling in Katupolwaththa, Sagarika continues to sell lunch packets, while both children attend the same school in Galle as before. Sagarika needs to carry thirty or more lunch packets daily to Galle, by bus, which is not an easy task. She also brings home vegetables and fish from Galle market daily, as they are cheaper than the grocery shops in Katupolwaththa. Nevertheless, because of the move from the city she needs to allocate Rs. 65 daily for transport for her and the children. In this context, she complained her daily income is insufficient to cover household expenses with new expenses such as water and electricity bills and commuting costs.

She attempted to reduce the cost of transport by finding work closer to the settlement but was unsuccessful. For instance, Sagarika found work as a rubber tapper in the nearby estate. This work was easier as she had some experience, but she quit it as she did not get work for all five days per week.

As a result of low income and increasing expenses, Sagarika cooks only one vegetable with rice for dinner, amidst complains from her children, as they do not like to eat this way. Sagarika is worried about her daughter, Sumana, because she has not yet been able to find employment. Sumana can easily find work as a domestic aid in a house in Galle, but Sagarika wants her to find employment in a garment factory as a helper as she has studied up to grade ten. On the other hand, Sagarika does not like to depend on her married daughter for financial assistance, as she is still financially unstable. She hopes the situation will get better in the future when her children find employment with their reasonable level of education. She educates her two school children amidst great economic constraints after the death of her husband, and has moved in to the new settlement with the hope of sending one child to university.

Sagarika could not save any money under this situation. She does not want to take loans from formal or informal organization to start a home based income earning activity or for any other purpose, for fear of paying back the loan with interest. Once she wanted to sell firewood from home, but, could not realise it, as she did not have money to buy firewood

and did not want to take a loan from a savings group to get started. In other words, Sagarika was of the view that the government or non-governmental organizations should provide interest free loans to start such income earning activities. Borrowing a small amount of money from friends and neighbours in the event of a desperate need, is common. She said, “I borrowed money Rs. 100- 200 from friends and neighbours, and settle this later”. She is of the view that there is no one to help her move out of this situation. This is why she said, “I do not know what to do” which shows her frustrations and uncertainty about the future.

Sagarika had to move from the first house that she received from Katupolwaththa into another in the same settlement after the former house flooded several times. This is because the houses were constructed on low ground, without a proper drainage system to remove rain water. Even with the change of house, she complains about construction problems of the current house. According to her, “the walls are cracked, there’s no kitchen, the roof leaks during rain and most importantly, there is no proper construction of a septic tank”. She does not have enough income or savings to resolve these problems. Therefore, she keeps complaining to the government officers in the Divisional Secretary, including the Village Officer (GN), but nothing has been resolved so far. Under this context, she cannot even rent out a room to earn extra income to ease her household expenses.

Her house was not attacked by the old villagers in the recent conflicts between some new settlers and old villagers, although she was frightened as a result of these incidences. Sagarika is of the view that the use of the word “tsunami villagers” used by the old villagers to identify new villagers is a sign of marginalizing them socially. With these new issues and problems, Sagarika does not have any plans of going back to her previous place, fearing another tsunami. However, she will definitely sell this property and migrate somewhere closer to the city if the above problems are not resolved during the coming year or two.

8.4. Household Profile 4: Sathyendra (52 yrs, bakery owner) and Pushpa (42yrs, housewife) belong to the upper socio-economic group at Katupolwaththa

Sathyendra and Pushpa have lived in Katupolwaththa with their six children (three girls – Kumari 25yrs, Kanthi 16 yrs and Yasodara 14yrs and three boys – Ramesh 25, Sadun 18

and Dinesh 11) since November, 2005. They are the only Tamil family in the new settlement. Sathyendra runs a bakery in part of his house with the assistance of Kumari and Sadun, while Ramesh works at the Galle harbour as a contracted labourer. Yasodara, Kanthi and Dinesh are studying in Tamil at a Muslim school in Galle. The total income of the household is Rs. 20,000 per month. Sathyendra has undergone a by-pass operation and needs at least Rs. 1000 per month for his medication.

They have a television set, a cassette recorder and a bicycle, which is used to deliver baked goods (bread, buns, cakes etc) to the nearby hotels. Pushpa is a member of the Death Donation, Women's and Community Development societies in Katupolwaththa. Pushpa had taken a loan of Rs. 20,000 from the Women's Society and added another Rs. 5,000 by pawning some gold jewellery at a government bank to develop their bakery. She is confident of repaying the loans, as well as getting the jewellery released in the future.

Sathyendra is the second of seven children in his family (four sisters and two brothers) who were formally from Kilinochchi. His father was a farmer. Sathyendra studied up to grade five and helped on his father's farm after dropping out of school. He came to Galle at the age of eighteen, with a friend, in search of employment and worked in several bakeries. Since then he has gained skills in making bread, cakes, and buns etc.

Pushpa was the only child in her family. Her father was a daily paid fisherman. They lived in a wooden hut, close to the sea, built on reserved land belonging to the Railway Department. They had to use a common tap for water and kerosene oil lamps to light the hut. Similar to Sathyendra, Pushpa studied up to primary level but cannot read or write Tamil fluently. After dropping out of school, she helped her mother to manage the household for some years and then worked as a domestic servant in a rich and popular businessmen's house until her marriage. This enabled her to save some money to buy gold jewellery. As Pushpa was a trusted domestic servant, she received food and clothes in addition to her salary. Sathyendra and Pushpa lived in a rented house for eleven years after their marriage. Their income was sufficient to pay the house rent and to meet other household expenses. After she had children, Pushpa was unable to work as a domestic servant as she had to look after her children. This forced them to move to her parents hut as Sathyendra's income was insufficient to meet all household expenses, especially the rent. During this time, Sathyendra had to undergo heart surgery and could not work for

over six months. As a result, Pushpa had to completely depend on her father's small income for their survival. Under these circumstances, Ramesh, as the eldest son of the family, had several jobs (vending carpet made out of coir, worked at the Galle fish market and the vegetable market as a labourer) as did the eldest daughter, Rathna (who eventually died due to the tsunami) who worked in a garment factory as a helper to relieve the economic burden of the family.

Both Pushpa's parents, and her eldest daughter died due to the tsunami. All three of their bodies were buried by the government. Their hut was completely destroyed with all their valuables, which forced them to stay in various government schools for the first two weeks and thereafter in a community centre, where they lived for another seven months until they got a transitory shelter close to Katupolwaththa. Ramesh went back to work one month after the tsunami. The bakery owner where Sathyendra worked provided food, clothes and money for the first three months, in addition to the other assistance received from Pushpa's wealthy former employer, and other assistance they received from various government and non-governmental organizations.

Sathyendra and Pushpa wanted to find a house away from the sea, but somewhere within the city. They were happy to receive a permanent place to stay within a year of the tsunami, albeit in Katupolwaththa, situated far from Galle city. The non-governmental organization which provided financial assistance to build Katupolwaththa resettlement also assisted some resettlers to restore a source of income. Under this initiative, a small bakery worth over Rs. 300,000 was built adjoining Sathyendra's house for him to continue his profession. According to Pushpa, "new settlers are jealous that we received this". Sathyendra and his daughter Kumari work in the bakery, while son Sadun delivers the bakery products in his bicycle to nearby hotels and grocery shops. Most of the householders in the Katupolwaththa would buy at least a loaf of bread on credit, and would repay this on a weekly or monthly basis. Due to this, Sathyendra needs extra money to continue with production, which becomes difficult. Therefore, he relies on a wholesale grocery shop in Walahanduwa to buy wheat flour and other ingredients for baking on credit.

Sathyendra wants to purchase a three-wheeler in the future with the intention of delivering baked items quickly to his clients and to service new customers further from

Katupolwaththa. Pushpa intends to take a loan from the women's society after they complete the repayment of the existing loan. Previously, Sathyendra rented a three-wheeler for Rs. 250 per day, which was expensive considering the added cost of fuel which was Rs. 450 per day. He is hopeful that they can gradually develop their business in the future as they have the courage to do so, unlike most of the other settlers in Katupolwaththa. Sathyendra said, "after the tsunami and relocation, most of the affected people completely depended on external assistance, without attempting to or move forward with the assistance received. But we tried our level best to develop our lives using the cash and kind aid".

They are also satisfied with their present house, compared to the former one, though there have been some problems, which they later resolved by themselves. For instance, they have colour washed the house, built a proper septic tank and even repaired the roof.

There are some discouraging factors in Katupolwaththa. For instance, an argument that arose between Ramesh (eldest son of Sathyendra) and a youth of the old village when drunk, led to a physical brawl. As a result, some youths from the old village wrecked Sathyendra's house and damaged furniture, valuables (including the television and the cassette recorder) and some bakery equipment using iron bars and swords. This was an unexpected and shocking incident for them. During this incident, none of the new settlers intervened on Sathyendra's behalf, fearing similar consequences. However, the police have taken the suspects in to custody and the case is being heard in court. According to Pushpa, the damage accounted around Rs. 100,000. Following this incident, the non-governmental organization that financially assisted Sathyendra to build the bakery further assisted them to repair the house and the bakery. Nevertheless, following this shocking experience, Pushpa and Sathyendra are fearful of living in Katupolwaththa, despite continuous assurance from the police and divisional secretary officials. They also feel that they are classified by the old villagers as "outsiders or new comers", while within their own resettled community they are marginalised due to their "Tamil ethnic identity". However, they are unable to leave Katupolwaththa and live somewhere close to the city due to the bakery.

In addition, Pushpa is of the view that after coming in to Katupolwaththa, they no longer frequently visit the Hindu temple (Kovil) in Galle due to transport costs. She said, "we

used to go to the Hindu temple in Galle at least twice a week, but now it is difficult to visit it once a week. There is no Hindu temple close by other than the one in Galle”. Their three children attend a Muslim school in Galle where medium of instruction is Tamil, as there is no such Muslim school close by. Therefore, Sathyendra’s family has to allocate at least Rs. 65 per day for bus fares for the three school children.

It is evident from the household profile of Sathyendra and Pushpa that they exerted much effort to improve their socio-economic condition after relocation. Their economic situation has become better than before due to their bakery which was built with financial assistance from a non-governmental organization. Employing of two other household members in the bakery is no doubt a great move towards its development. Receiving a house with a secure land title could be another plus when compared to their situation before. However, damage to their property as a result of a conflict with a youth in the old village and marginalization by the old and new settlers make them feel about staying longer in Katupolwaththa. In this context, they are caught in a dilemma whether to migrate somewhere close to the city, or stay out, as a strategy to secure their livelihoods, which both have positive as well as negative consequences.

8.5. Household Profile 5: Roshan (28 yrs, street vendor) and Ganga (27yrs, housemaid in Kuwait) belong to the lower socio-economic strata at Tea Garden

Roshan has lived with his two children (Gayan, 8yrs and Saduni, 7yrs) and his mother-in-law (54yrs) at Tea Garden since December, 2006. All household members are Buddhist. Roshan’s wife Rani went to Kuwait to work as a housemaid two years ago, since then his mother-in-law has been looking after the two children. Roshan does not have a permanent income source, however, one way or another he manages to earn an income to cover household expenditure. For instance, he sometimes earns money by selling photos of local and Hindi film stars, selling coir carpets and sometimes as a labourer, mainly on construction sites. He earns Rs. 7,500 per month which is insufficient to meet household expenses, especially considering his heavy smoking behaviour. As such, he has to rely on his parents, brothers and sisters for food and money. Roshan’s wife rarely sends money. This is because according to Roshan, “I have asked her to save her salary rather than sending it to us.” He does not know how much money Rani has saved in total, but is hopeful of investing her savings to start a grocery shop in Galle after she comes back from Kuwait.

Both children are going to their previous schools in Galle following relocation. Roshan has a television and a cassette recorder as the only valuables. His mother-in-law is a member of Death Donation and Community Development societies in Tea Garden, as Roshan does not have time to participate in the weekly or monthly meetings of these societies.

When looking back at Roshan's family background, he hails from a well- to-do family in the Galle area. He was the youngest of his family. His father was a clerk in a village council and his mother was a graduate school teacher. Both were pensioners at the time of the fieldwork. Roshan dropped out of school after he failed to pass the Ordinary Level exam. He has one sister and three brothers, who are employed in both government and private organizations. His only sister is married to the chairman of a town council.

Rani had to drop out of school after her father's sudden death and helped her mother with household activities. Rani also has a younger sister. Rani's mother looked after her two children by making rope out of coir and weaving decorative lace. Later, Rani followed a sewing course (Juki Machine) and worked as a Juki Machine operator in a garment factory.

A love marriage between Roshan and Rani, without the consent of Roshan's parents, was the turning point in his life. His parents were unhappy with his marriage as Rani belonged to an economically poor and lower caste family. As a result of this marriage, Roshan's parents severed all ties with him. Roshan lived with Rani in her mother's small brick house with two rooms, which was built on government land belonging to the Galle Municipal Council. They had to use the common tap for water and kerosene oil lamps as light. In those days, Roshan used to work as a fisherman, and later even worked as a diver, illegally scavenging metal items from sunken ships, and earned more than Rs. 20,000 a day. However, Roshan had to quit the latter when he was taken into custody by the police and appeared in court. Before the tsunami, there were several income earners (Roshan, Rani and Rani's mother) in the household, and the income was adequate to cover the monthly household expenses.

None of the household members died due to tsunami, although their house was completely destroyed along with all their modest furniture. They stayed in a temple for one month and moved to another temple where they stayed for four months before moving into a transitory shelter. The children did not go to school for at least three months after the tsunami and Roshan took one year to find work after the tsunami. During this period, they were dependent on aid given by the government and other organizations. Roshan's parents reunited with his family after the tsunami and they helped his children by providing not only food, but also books, shoes and uniforms to get back them to school. Further, Roshan's brother (who is an assistant manager of a leading publishing company in Colombo) gave money to Rani to pay a foreign employment, agency to find her foreign employment which would help her to save some money to rebuild their lives in the future.

Roshan wanted to find a house in the city, as it is important to find work without much hassle, and it is easier for the children to go to school and access other common services. He used his political connections through his brother-in-law, who is the chairman of a town council, to influence officials to get a house closer to the city but was unsuccessful. This resulted him settling in Tea Garden. After settling in Tea Garden, it was difficult for him to find work in the new area, as there were no construction sites. He did not want to work in a tea or rubber plantation as a labourer. As a result, he needed to go to Galle city to find work. Then, he took a loan of Rs. 10,000 from an informal money lender in Galle and started selling pictures of actors and actresses as a mobile vendor. He purchased pictures from Colombo and sold them in Galle city. Sometimes he sold coir carpets on the street as a pavement hawker in the Galle city and even in other areas outside Galle by hiring a small lorry. When he goes outside Galle in the lorry to sell carpets, he also uses this opportunity to buy coconuts and bananas at wholesale rates and sell them to shops in Galle.

Roshan is of the view that his income is insufficient to meet household expenses due to the increasing expenses of transportation, water and electricity bills etc. For instance, he now needs to allocate Rs. 1,000 monthly for transport costs for the children, which were previously non-existent. Moreover, he has to allocate another Rs. 1000 for electricity and water bills. Earlier, there were three income earners (Roshan, Rani and Rani's mother) but now all the expenses are to be covered by Roshan's income as Rani does not send any

money to support the family (as requested by Roshan) and Rani's mother does not weave coir rope any more as her spinning wheel was destroyed due to the tsunami.

Roshan is unsatisfied with the common facilities at Tea Garden. He said, "when it rains, no one knows whether we will be able to cross the Maha Dola as there is no proper bridge. This affects all our daily household activities. Gravel access roads without street lights make it difficult to travel at night. As a result of improper drains in individual premises, as well as throughout the whole resettlement, soil erosion is certain during heavy rain. This can gradually create landslides in the settlement, as it is situated on a hilly area. There is no public transport operating from Tea Garden to Galle city, despite repeated requests by the settlers to the transportation board". Roshan reveals that he has to walk for at least twenty minutes to the main road and the same on his return trip on a daily basis. Against this backdrop, he is uncertain whether he wants to stay for the rest of his life in this settlement. Nevertheless, he wants to continue to live there until he receives the original deed to the house in order to sell it in the future. This money, together with Rani's savings, would help them purchase a small plot of land closer to Galle and build a house, in addition to starting a small business.

This household profile belongs to the lower socio-economic group at Tea Garden. Distance to the city, inability to find employment in the new area and problems with common infrastructure disrupt daily household activities, discouraging them to stay on in the settlement. However, one member of the household being employed abroad and saving her income with the intention of investing in a small business, could be seen as a good enhancement strategy to rebuild their lives and secure their livelihoods in the future.

8.6. Household Profile 6: Priyantha (40 yrs, Trawler boat fisherman) and Shirani (34yrs, Grocery shop owner) belong to the upper socio-economic group at Tea Garden

Priyantha and Shirani have lived with their four children (three boys: Shiran-16 yrs, Roshan-15 yrs, Ashan- 11 yrs and a girl: Nipuni-8yrs) at Tea Garden since March, 2007. Three of their children attend schools situated close to Tea Garden. All household members are Buddhist. Priyantha earns an income as a fisherman, while Shirani, and their eldest son Shiran, jointly run the home based grocery shop as an additional source of income. Their total household income exceeds more than Rs. 30,000 per month. Shirani

had taken a loan of Rs. 100,000 from a government bank to start the grocery shop, and she needs to pay a monthly instalment of Rs. 6,600.

Priyantha is a member of the fishery society in Galle, while Shirani holds memberships to Death Donation, Community Development and Women's societies. She is also a member of the Tea Garden branch of the political party "Sri Lanka Freedom Party", and is actively involved in political activities in the settlement. For instance, when the president came to Galle for a political meeting, the chief organiser of the Akmeemana electorate requested all party members to participate in this meeting and Shirani was to mobilise all party members in Tea Garden to participate. A sewing machine, table fan, refrigerator, bicycle, motorcycle and a television set are some of the valuables in their house, in addition to the furniture.

Shirani was born in Galle, but lived in Balangoda, which was her mother's village, until her marriage. Her father sold tea leaves while her mother sold clothing material from home. Shirani has two younger and older brothers and two older sisters. She studied up to eighth grade and refused to study further, despite continuous requests from her mother. On the other hand, Priyantha has only one sister. His father was a fisherman, while mother was a housewife. He did not study beyond grade five, and went on to fish with his father. Later, he joined the crew of a trawler boat to catch fish in the deep sea.

Shirani returned to Galle due to her arranged marriage with Priyantha when she was fifteen years old. Both of them lived in Priyantha's parents' three bedroom, brick house with individual water and electricity connections, which was situated on five perches land, of seventy five meters away from the sea. Shirani started to sell readymade ladies clothes when she was at home, which earned additional income. She also learned from her mother-in-law how to sew lace. Income from these activities was used to buy gold jewellery, electrical items for the house and also to save some money in their children's savings accounts. Priyantha's income was sufficient to meet household expenses. Further, they even had a washing machine and over Rs. 200,000 worth gold jewellery at home before the tsunami.

None of the household members died or were severely injured due to the tsunami. However, their house with all the electrical and electronic equipment was completely

destroyed. The children of Shirani and Priyantha were sent to Balangoda to stay with Shirani's parents as the conditions in the temporary camps were unsuitable due to a lack of water and sanitation facilities. However, Shirani and Priyantha stayed in both temporary camps and transitory shelters with the intention of obtaining a permanent place as soon as possible. Priyantha said, "most of the displaced people went after receiving some aid, which we did not do, as our intention was to find a permanent place as soon as possible". Similar to other households, they did not want to move out of the city, but did not want to stay in their previous place due to the trauma of the tsunami.

Priyantha's trawler boat owner, Shirani's parents, brothers and sister (Priyantha's sister is married to a sailor who works on a foreign ship) helped them in cash and kind during the first six months after the tsunami, along with numerous assistance received from various government and non-governmental organizations. Their children came back from Balangoda three months after the tsunami and went to school by residing in transitory shelter. Priyantha also went to work in his trawler boat six months after tsunami.

Both Shirani and Priyantha visited resettlement sites before indicating their preferred settlement to the government officials. Earlier they did not want to settle in Tea Garden considering the distance to Galle city and the distance to the main road from Tea Garden. They also did not know at that time it is situated in a flood prone area. However, their inability to stay in a transitory shelter with limited space and a lack of water and electricity, further forced them to settle in Tea Garden. Priyantha purchased a used three-wheeler by taking a loan from a finance company, using the owner of the trawler boat as his guarantor. He had easy access to the city, and in addition, he could hire it out and earn another income during his leisure time. However, Priyantha had to sell the three-wheeler and settle the loan when he realized his income was not enough to cover both household expenses, as well as the finance company instalments. He said, "I did not want to fall into debt knowing the situation". Later, he purchased a motorcycle by using his savings and financial assistance from his brother-in-law. In order to rebuild the household economy to its former state, Shirani started making artificial flowers and sold them at flower exhibitions. But, income earned from this was inadequate to even cover the children's tuition fees. Therefore, she started a grocery shop in a part of the house by obtaining a loan from a government bank. Obtaining this loan was not difficult as she has been a customer of this government bank for the last ten years. Her eldest son, Shiran, also

helped to run the grocery shop after he failed to pass the Ordinary Level exam. In the future Shirani intends to hand it over to her son and resume lace weaving. They, however, have two main concerns about running this shop one is the difficulty in transporting goods from Galle city to the settlement as they have to hire a three-wheeler and they are unable to transport the goods on the bus as there is too great a distance from the bus stop to the settlement, and the goods cannot be carried that far. The other concern is that clients take goods on credit and they cannot be refused. Nevertheless, even with these problems, the grocery shop is a good business. Shirani is able to deposit at least Rs. 200 in each child's savings account per month from the profit of the business.

Three of their school age children, who previously attended schools in Galle, were successfully enrolled in schools closer to Tea Garden with the help of the chairman of the Pradeshiya Sabha (village council). This is mainly due to the close political affiliation both Priyantha and Shirani have with the chairman. As a result of this, they managed to reduce the daily cost of transport for their children. Shirani plans to resend their children to tuition classes, as this was discontinued due to their financial situation after the tsunami.

Common infrastructure problems such as gravel access roads, non-existent individual mail delivery, street lights, garbage collection and a proper bridge to cross Maha Dola (the stream) discourage them to further stay in the settlement. During the rainy season they were unable to cross Maha Dola (the stream) which stranded them in the settlement and restricting their movements, which came as an unexpected shock. They have brought these problems to the notice of the politicians in the area, but were not given any practical solution other than repeated pledges of resolving them soon. This is why Shirani said, "this is the most disadvantageous and unluckiest resettlement complex compared to others in the area".

The easing of the 100 meter buffer zone restriction following relocation has opened up another opportunity for them to move back to their previous place and newly construct their completely damaged house in the future, as Priyantha has the legal ownership to this land. The tsunami experience as well as recent tsunami warnings does not encourage them to go back to their previous place. Nevertheless, Priyantha wants to build a house there and rent it for at least Rs. 5,000 which would be an additional income. He however

does not know where to find the money to build this as they have now taken a loan to start the grocery shop and he does not have enough savings.

They are happy with the serene environment where their house is situated. The house was colour washed and the roof was repaired using their money rather than bringing this to the attention of government authorities. Additionally, Shirani plays an active role in the Community Development society which helped her receive a bicycle from a non-governmental organization. She said, “our Community Development society received ten bicycles from a non-governmental organization to distribute among householders who are actively involved in community development, as a bid to encourage others to come and participate in such activities. I also received one bicycle under this scheme”. Moreover, she received a cheque worth Rs. 5,000 from a Catholic church to buy household equipment and she purchased a sewing machine. She is actively involved in religious programs organized by the Community Development society and the Women’s society to annually commemorate those that died in the 26th December 2004 tsunami.

This household profile shows successful attempts by household members to rebuild their household economic situation using both their savings and support from relatives following relocation. It also shows how affiliation to a political party in combined with connections to the local council indirectly helped to ease household transport expenses, after successfully enrolling the children in a nearby school they can walk. On the other hand, easing the buffer zone restriction has created more opportunities to strengthen their physical assets (land), which can be used as an additional source of income in the future. In other words, households who had legal ownership of their previous land have now become owners of another property, in addition to their previous land. Unresolved common infrastructure problems would be the main factor discouraging them to live in the new settlement, although they do not have plans to move away from the settlement in the near future. Nevertheless, this would be an option.

A Synopsis of the Household Profiles

The above case studies belong to both lower and upper socio-economic households, in terms of the assets possessed at the time of the fieldwork, although all of them were affected by the tsunami and forcibly relocated into settlements far away from the city. In

other words, the common feature of these households at the time of the study, was that they were exposed to stress and risks resulting from forced relocation.

In relation to the households in the lower socio-economic group, they have been exposed to stress due to multiple factors before the tsunami, and after relocation. Looking back at past experiences before tsunami, all of them have been subjected to economic and social shocks. These households have been vulnerable to poverty or chronic poverty in the past, as much as the present. With regard to their livelihood strategies, particularly after relocation, all of them have employed various coping strategies. On the other hand, most of their attempted enhancement strategies, particularly those implemented to strengthen household financial assets, were either only partially successful or unsuccessful due to various reasons. However, they all invest in their children's education.

Looking back at the past experiences of households belonging to the upper socio-economic group, most of them were not vulnerable to poverty or chronic poverty before the tsunami. Even after the tsunami and forced relocation, they employed a combination of existing savings, family support, and political and other connections to rebuild their financial assets, which helped them to invest in other assets, namely, physical and human assets to withstand future shocks, stress and risk situations. However, they are also worried about unresolved common infrastructure problems in their respective relocation sites.

9. Conclusions

The discussion and analysis of the empirical findings clearly highlights the impact of forced relocation on the livelihoods of tsunami affected households who were forced to live in new settlements situated far from Galle city in the Southern province of Sri Lanka. To conclude the study, this section summarises the key findings of the various stresses and risks that new settlers were exposed to after forced relocation on one hand, and the various livelihood strategies employed by them to secure their livelihoods and some outcomes on the other. It also briefly discusses the relevance of these findings for development policy and practice in the context of disaster induced forced relocation, and highlights some of the areas where more research is needed in the Sri Lankan context.

9.1. Conclusions of the Empirical Findings

9.1.1. Forced Relocation of Tsunami Displaced People

It is evident from the interviews conducted with household members who previously lived close to the sea in Galle city and were subsequently forcibly relocated into three settlements far from the city, that tsunami was a great shock for them. It completely destroyed their houses, other valuables, and killed family members or close relatives. In other words, they have had to begin their life again from scratch. The complete destruction of their homes resulted in the majority of displaced people having to live in overcrowded temporary camps, for in excess of six months until they moved into transitory shelters. These facilities had inadequate water, poor sanitation facilities and very limited space.

However, irrespective of the daily struggle with the lack of facilities, and grieving for lost ones, there were few problems in physically surviving in temporary camps. There was adequate food, clothes, money and other assistance, which was received mainly from government, international and local non-governmental organizations. Nevertheless, as stated before displaced people had to continuously grapple with the

stresses that resulted from the lack of common facilities and health-related issues (infectious diseases, dust coming out of temporary wooden houses etc) when living in transitory shelters, which were mostly built on government land outside the city. Under these circumstances, they were desperate to find new permanent places to settle as a strategy to reduce their stress. This was not an easy task as most of the new settlements were under construction at that time, and most importantly, relevant government officials did not have a clear idea about when displaced people would be able to occupy the new houses, which in turn further increased their uncertainty. Knowing the harsh conditions both in the temporary camps as well as in the transitory shelters, a few of the tsunami affected household members chose to live with their relatives or friends, and some even rented rooms or houses until they were able to move into permanent housing.

The 100 meter buffer zone restriction re-imposed by the government, which was intended to protect lives and properties from future tsunamis or other coastal hazards, as well improving the quality of life of the displaced people in the new settlements, became the second shock for those previously lived in this zone, as the reconstruction of their destroyed homes was not allowed. This situation further increased fear and uncertainty among the tsunami displaced people as they were forced to settle in donor built new settlements, mainly situated far from the city, irrespective of their preference to settle somewhere in the city in order to avoid disturbances to their day to day activities. However, the scarcity of government owned land in the city area, and no government funds allocated to buy private land in the city for donors to build new houses, resulted in the majority of resettlements being constructed on available government land far from the city, despite officials' prior pledges to relocate displaced people close to their former villages. In this context, there was a high demand for limited houses constructed in the city area, which could not be met.

Knowing clearly that forced resettlers did not want to settle in new settlements far from the city, various non-governmental and international representatives, along with politicians, gave various pledges to develop individual and common infrastructure

facilities in the new settlements as a strategy to build up confidence among forced resettlers and encourage them to occupy new houses located far from Galle city. In this context, disappointed displaced people, who had lived for more than a year in harsh conditions, both in temporary and transitory shelters, had nowhere else to go other than resettling in new settlements far from the city, which would bring new stresses and risks that they would have to grapple with after relocation.

In terms of permanent relocation in the donor built new settlements, displaced people did not get any opportunity to provide their input to the settlement plan, housing structure, or supervise any settlement construction work, other than a few Katupolwaththa resettlers who worked on the construction site as labourers and watchers before settling in. Therefore, it can be concluded that none of the forced resettlers were actively involved in the planning and implementation process of the resettlements, which is critical to the sustainability of the settlements (Lyons, 2009). It is not clear or transparent how Divisional Secretary officials prepared the final beneficiary lists that were submitted to the relevant donors in order to allocate houses for displaced people, taking into account their preferred new settlement, as complaints of various malpractices undertaken by Divisional Secretary officials were reported during beneficiary selection and allocation of houses.

9.1.2. Exposure to Financial Capital Related Stresses and Risks

The forced relocation settlements chosen for the present study, namely Cinnamon Garden, Tea Gardena and Katupolwaththa, are situated 8 to 12 km away from the coastal city of Galle. In relation to the distance to the main road, and thus the distance to the closest bus stop from the three settlements, Cinnamon Garden is situated closest to the main road when compared to Katupolwaththa and Tea Garden. It is evident from the household survey that the monthly expenditure of resettled households has increased following the relocation, mainly due to additional expenses such as transport, water, electricity, LPG and fuel. In addition, the main income earning activities of the householders have been disrupted due to the new distance to the city, transport difficulties and a lack of employment opportunities in the new areas. In

general, the new distance to the city has been identified as one of the key causes of disruption to new settlers' primary income earning activities, especially as most of the occupational groups still work in the city but do not have a reliable mode of transport to reach their place of employment.

Main income earners belonging to economically poor households are predominantly engaged as fish vendors, fishermen or casual labourers and need to travel to Galle city or Galle fishing harbour early in the morning using only public transport. Unlike before, they are now worried about disruptions to their income earning activities due to transport difficulties. On the other hand, there are a few economically rich fishermen who own and use their motorcycles to travel to the Galle fishing harbour to engage in their income earning activities without any disruption to their income earning activities, as before. However, the new cost of fuel is an added expense.

The coastal city of Galle, as the commercial hub of the Southern Province, provides a wide variety of formal and informal employment opportunities, while there is less variety of employment opportunities for new settlers in their new locations (other than work as labourers in rice paddy fields, tea and rubber estates). This is why the majority of resettlers still need to depend on Galle city to find employment as before. On the other hand, the lack of availability of vital services in the vicinity of the new settlements, and the poor quality of some of the available services, has forced relocatees to commute to Galle. In this context, households need to bear not only the new transport costs, but also the gradual increases in such costs, which worried them in general, particularly those who belong to the economically poor households.

All of the newly built post-tsunami houses received individual water and electricity connections, which is new to some of the residents. Gradual increases in monthly water and electricity bills and inadequate household expenses, again worried relocated households in general, and especially those resettlers who did not have these services before.

9.1.3. Exposure to the Poor Quality Housing, Lack of Common Infrastructure and Other Services

Resettlers had high aspirations of living in well built houses with basic common infrastructure, as promised by various government authorities and politicians. Nevertheless, a significant proportion of interviewed resettlers in all three settlements are of the view that their previous house where they lived before the tsunami was better (78%) when compared to the present one (22%). This is mainly due to poor roofing (69%), inferior walls (69%) and poor sanitation conditions (71%) in their new houses. The lack of a close inspection of the construction of houses by government officers, other than providing the land for donors to build the houses and issuing beneficiary lists for their allocation, in addition to the lack of supervision of contractors who undertook construction by relevant donors led to the deliberate use of poor quality materials (thereby increasing the profit margin of contractors) could be identified as some of the reasons for these outcomes. As such, these outcomes stress the importance of proper coordination between relevant parties and close supervision of construction in order to minimize such outcomes when constructing similar settlements in the future.

According to the memorandum of understanding signed between government officials and donors, the development of common infrastructure within the new settlements was the responsibility of the donor, while the government promised to develop the common services to the new settlement (Ministry of Finance 2005a). Irrespective of these written pledges, Tea Garden resettlers lack a proper bridge to cross Maha Dola, other than a horse way built long ago, which is an additional burden for them. As a result, crossing Maha Dola during the rainy season is a difficult task as it gets flooded. This, in turn, disrupts the Tea Garden settlers' day to day activities. Admitting that it is the responsibility of the government to develop proper infrastructure for the settlement, government officials stated their inability to do so was due to lack of funds. This means that Tea Garden settlers need to continue with the daily struggle of crossing the Maha Dola, which significantly increases uncertainty.

There is neither a proper drainage system for individual houses, nor for the settlement as a whole, to remove rain and waste water properly in all of the three research locations. As a result, some of the gravel roads, particularly in Katupolwaththa and Tea Garden, were highly damaged and some of the houses get flooded several times during the rainy season. No postal service was available for individual houses in Tea Garden and Katupolwaththa, but rather relevant documents are handed to one house or shop in the settlement. None of the new settlers in the three study locations received formal land ownership to their land, and DS officials in the area did not have any clear answer to this question as they had not received any information from the central government. There is no separate place allocated to dump garbage or no collection from individual houses in all three settlements. In this context, some settlers throw garbage into common places like abandoned lands or street corners, thereby polluting the area. The village council responsible for garbage collection stated their inability to do so was due to a lack of resources to undertake this task properly. In this situation, householders feel that they have been clearly neglected by relevant authorities. The above evidence stressed the importance of developing common infrastructure in the new settlements and ensuring the relevant resources of the village councils are adequate before relocating people, in order to properly address their needs.

9.1.4. Exposure to Fractured Social Relationships between Old and Resettled Communities

Several income earning opportunities were created for old settlers during and after the construction of the settlements. Old settlers also used some of the improved common services constructed as a result of the new settlements. Therefore, some old villagers are of the view that the new settlements are better than the former bare land, which contained only Katupol (dried coconut). Irrespective of these opportunities, it is evident from interviews with both old and new settlers that they do not have a close relationship with each other, mainly due to physical conflicts and tension over resources (i.e. common land, access roads, play ground and community centre) and some inappropriate practices of new settlers (dumping garbage in common places,

alcoholics and burglars). Moreover, new settlers also feel that they are socially and economically marginalized by the old villagers due to their employment as fishermen, and daily paid labourers, and also to their low caste status, as the majority of new settlers belong to the Karawa caste group compared to the dominant Govigama caste which the majority of the old villagers belong to. In this context, developing common infrastructure in old villages in parallel to the construction of new settlements is important to minimize conflict and tension over common infrastructure.

9.1.5. Livelihood Strategies and Outcomes

It is evident from household survey that, on the one hand, the monthly expenditure of resettled households has increased, and on the other hand, their income earning activities have been disrupted. In this context, the majority of households' monthly income was insufficient to meet regular household expenditure, which had forced them to employ more than one coping strategy, which in turn brought negative impacts, particularly for economically poor households.

In relation to specific coping strategies for those households suffering from income related stress, they largely used their intensive stock of bonding social capital as the main coping strategy. In addition to this, some economically poor householders have bought essential goods on credit, obtained money from informal money lenders at high interest rates, and even pawned valuables when all of their other options were exhausted. These strategies in turn have led to a further decrease in the security of their households. Nevertheless, only a handful of households employed less problematic coping strategies such as obtaining formal loans from banks, withdrawing savings or obtaining assistance from their employers.

In depth interviews with selected household members highlighted their intention of employing various enhancement strategies in order to strengthen the household assets portfolio by managing the existing assets and investing in further assets. Moreover, most of them have used one or more enhancement strategy, mainly in an attempt to strengthen their financial capital, although in reality only a few householders have

managed to gain a successful outcome from such strategies. For instance, some householders who started home based grocery shops to earn an additional income were unsuccessful, mainly due to mismanagement of income or a lack of profit and some even fell into debt traps. Irrespective of these reasons, many new settlers express their desire to start a home based income earning activity, although a lack of financial capital has prevented them doing so. It is noteworthy, that none of the government organizations responsible for relocation have paid enough attention to improve the economic conditions of new settlers after relocation, which in turn has increased uncertainty.

Parents continuing to invest in their children's education under economic difficulties, with the intention of obtaining secure employment for their children in the future. This is rather than asking them to drop out of school to minimize household expenses is another common enhancement strategy. A few households managed to gain admission to schools close to their settlements using political connections or through the influence of police and government officers, or even by bribing relevant authorities in order to minimize household transport costs.

A few households have increased their savings using mainly informal modes of savings, with the intention of using the funds in an urgent situation or to invest them to improve the economic situation of the households in the future. Growing vegetables and fruits at home to minimize expenditure and the change of primary income earning activities can be identified as other enhancement strategies employed to strengthen household financial capital.

Migration could be identified as another enhancement strategy employed by those forcibly relocated households who were unable to successfully cope with the combination of the various stresses they were exposed to as a result of forced relocation (i.e. distance to the city, lack of employment opportunities, poor quality housing and lack of common infrastructure etc). It is evident from simple observations and interviews with resettled households that a number of new

households were rented, leased or sold during the field study period. Some of these household members have moved back to their previous place, or somewhere close to the sea, running the risk of being exposed to another tsunami or other coastal hazards in the future. However, on the positive side, they are no longer exposed to the various day to day risks and stresses related to forced relocation. A reduction in the original 100 meter buffer zone within the Galle city, improper enforcement of new buffer zone regulations by CCD officials due to political pressure, acceptance of new housing plans in the new buffer zone with the help of municipal officials and the mayor without any prior approval or certificate of CCD, and obtaining other services such as water and electricity with the help of politicians creates an environment conducive for others resettle in the buffer zone. This could be seen as a lost opportunity, not only to properly develop the coast but also to redevelop the lives of the relocatees in their new settlements.

9.2. Further Research

A close examination of forcibly relocated households over a long period of time, in the form of a longitudinal study, is necessary to establish a clear link between macro level political and economic changes on one hand, and the internal dimensions of vulnerability on the other, with a view to confirming many of the relationships that have been identified in the context of the present study. Given the fact that vulnerability dynamics become clearer over time, there is no substitute for longitudinal studies, particularly at the community level. This is a significant limitation of a study of the present nature. Though an attempt has been made to gather retrospective data through some case histories, an adequate understanding of vulnerability dynamics within households and communities requires data of a longitudinal nature collected over a longer period of time.

References

- Adger, W. N.**, (2006): Vulnerability. *Global Environmental Change*, 16: 268-281.
- Alwang, J., Siegel, P. and Jorgensen, S.** (2001): Vulnerability: A view from different disciplines. Social Protection Unit of the Human Development Network: The World Bank.
<http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/Social-Risk-Management-DP/0115.pdf>. <accessed on 22.12.2008>
- Anderson, M. and Kendrick, S.** (1994): Individual and Household Strategies. In: Anderson, M., Bechhofer, F. and Gershuny, J. (Eds.): *The Social and Political Economy of Household*. Oxford: Oxford University Press. 19-67.
- Ashely, C. and Carney, D.** (1999): Sustainable Livelihoods: Lessons from Early Experience. London: Department for International Development <http://www.livelihoods.org/info/docs/nrcadc.pdf>. <accessed on 8.12.2008>
- Asian Development Bank (ADB)** (2005): An Initial assessment of the Impact of the Earthquake and the Tsunami of 26, 2004 on South and Southeast Asia. www.adb.org/Documents/Others/Tsunami/impact-earthquake <accessed on 3.6.2008>
- Asian Development Bank (ADB), Japan Bank for International Cooperation (JABIC) and World Bank** (2005): Sri Lanka 2005 Post Tsunami Recovery Program: Preliminary Damage and Need Assessment. <http://www.adb.org/Documents/Reports/Tsunami/sri-lanka-tsunami-assessment.pdf> <accessed on 10.11.2007>
- Asian Disaster Preparedness Centre (ADPC)** (2006): Regional Analysis of Socio-Economic Impacts of the December 2004 Earthquake and Indian Ocean Tsunami. Bangkok: ADPC.
- Akmeemana Divisional Secretary** (2006): Population Characteristics of Akmeemana Divisional Secretary. Sri Lanka: Akmeemana Divisional Secretary.
- Arksey, H. and Knight, P.** (1999): *Interviewing for Social Scientists – An Introductory Resource with Examples*. London: Sage Publication Limited.
- Bebbington, A.** (1999): Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods and Poverty. *World Development*, 27(12):2021-2043.

- Bell, M. and Rickman J.** (2005): Sri Lanka Trip Report. Philippines: IRRI (International Rice Research Institute). www.agridept.gov.lk/NEWS/IRRI_Tsu.pd <accessed on 28.5. 2007>.
- Birkmann, J., Fernando, N., Hettige, S., Amarasinghe, S., Jayasingam, T., Paranagama, D., Nandana, M., NaBl. M., Voigt, S., Grote. U., Engel, S., Schraven, B. and Wolfertz, J.** (2007): Rapid Vulnerability Assessment in Sri Lanka. Bonn: United Nations University-Institute of Environment and Human Security.
- Birkmann, J. and Fernando, N.** (2007): Measuring Revealed and Emergent Vulnerabilities of Coastal Communities to Tsunami. *Disaster*, 32(1):82-105.
- Birkmann, J. and Fernando, N.** (2007): Reducing Vulnerability by Intervention Tools. In: Birkmann J., et al., Rapid Vulnerability Assessment in Sri Lanka. Bonn: United Nations University-Institute of Environment and Human Security. 53-55.
- Blaikie, P., Cannon, T. and Wisner, B.** (1994): *At Risk, People's Vulnerability and Disasters*. London and New York: Rutledge.
- Bohle, H. G. and Adikari, J.** (1999a): *Food Crises in Nepal – How Mountain Farmers Cope*. Delhi: Adroit publishers.
- Bohle, H. G.** (1999b): Coping with Vulnerability and Unsustainability: The Case of Nepalese Upland Farmers In: Lohnert, B. and Geist, H. (Eds): *Coping with changing environments –social dimensions of endangered eco-systems in the developing world*. Aldershot: Ashgate. 55-74.
- Bohle, H. G.** (2001): Vulnerability and Criticality: Perspectives from Social Geography. *IHDP update*. Bonn: International Human Dimension Programme on Global Environmental Change. 1-5.
- Bohle, H. G.** (2007): Living with Vulnerability: Livelihoods and Human Security in Risk Environments. Bonn: United Nations University, Institute for Environment and Human Security.
- Bourdieu, P.** (1998): The Forms of Capital. In: Halsey, A., Lauder, H., Brown, P. and Wells A., (Eds): *From Education: Culture, Economy and Society*. Oxford: Oxford University Press.
- Bromley, R.** (1978): Introduction – The Urban Informal Sector: Why is it Worth Discussing? *World Development*, 6 (9/10):1033-1039.
- Bromley, R.** (1997): Working in the Streets of Cali, Colombia: Survival Strategy, Necessity, or Unavoidable Evil? In: Gugler, J., (Eds.): *Cities in the Developing World –Issues, Theory and Policy*. Oxford: Oxford University Press, 124-138.

- Brooks, N., Adger, W. and Kelly, P.** (2005): The Determinants of Vulnerability and Adaptive Capacity at the National Level and Implications for Adaptation. *Global Environmental Change*, 15:151-163.
- Carney, D.** (1998): Sustainable Rural Livelihoods: What Contribution Can We Make. UK: Department for International Development.
- Cernea, M.** (2000): Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement. In: Cernea, M. and McDowell, C., (Eds.): *Risks and Reconstruction: Experiences of Resettlers and Refugees*. Washington D.C: The World Bank, 11-55.
- Cernea, M. and McDowell, C.** (2000): Reconstructing Resettlers' and Refugees' Livelihoods. In: Cernea, M. and McDowell, C., (Eds.): *Risks and Reconstruction: Experiences of Resettlers and Refugees*. Washington, DC. : The World Bank, 1-10.
- Chambers, R.** (Ed.) (1969): *Settlements Schemes in Tropical Africa*. London: Routledge.
- Chambers, R.** (1989): Editorial Introduction: Vulnerability, Coping and Policy. *Institute of Development Studies Bulletin (IDS)*, 20(2): 1-7.
- Chambers, R.** (1995): Poverty and Livelihoods: Whose Reality Counts. *Environment and Urbanization*, 7 (1): 173-203.
- Chambers, R. and Conway, G.** (1992): Sustainable Rural Livelihoods: Practical Concepts for the 21st Century. IDS Discussion paper 296. Brighton: IDS.
- Coast Conservation Department (CCD)** (1997): Coast Conservation Management Plan (revised) 1997. Colombo: Coast Conservation Department.
- Coast Conservation Department (CCD)** (2006): Relevant Regulations and Permit Process for any Development activities in the Coast Conservation Zone. Colombo: Coastal Conservation Department.
- Coast Conservation Department (CCD)** (2005): Developers Guide and Procedures for Coastal Development. <http://www.coastal.gov.lk/PERMIT> Guideline - English.pdf <accessed on 30.10. 2008>.
- Cohen, M. and Sebstadt, J.** (2000): Micro Finance, Risk Management and Poverty Synthesis Study Submitted to Office of Micro Enterprise Development, by Assessing the Impact of Micro-Enterprise Services (AIMS). Washington, DC: USAID.
- Coleman, J. S.** (1998): Social Capital in the Creation of Human Capital. In: Halsey, H., Lauder, H., Brown, P. and Wells, A., (Eds): *From Education: Culture Economy and Society*. Oxford: Oxford University Press. 80-95.

- Crow, B.** (1989): The Use of the Concept of Strategy in Recent Sociological Literature. *Sociology*, 23: 1-24.
- Cutter, S., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E. and Webb, J.** (2008): A Place Based Model for Understanding Community Resilience for Natural Hazards. *Global Environmental Change*, 18: 598-606.
- Das, J. R.** (2004): Social Capital and Poverty of the Wage-Labour Class: Problems with the Social Capital Theory. *Royal Geographic Society Journal*, 29 (1): 27-45.
- Davies, S.** (1993): Are Coping Strategies a Cop Out? *IDS Bulletin*, 24(4): 60-72.
- De Blij, H.** (2007): *Why Geography Matters: Three Challenges Facing America*. New York: Oxford University Press.
- Department for International Development (DFID)** (1999): Sustainable Livelihood Guidance Sheets. London: Department for International Development.
- Department of Census and Statistics Sri Lanka** (2005): *Census of Buildings and Persons Affected by the Tsunami – 2004*. Colombo: Department of Census and Statistics.
- Department of Census and Statistics Sri Lanka** (2005): *Census of Buildings and Persons Affected by the Tsunami – 2004 in Galle Four Gravates DS Division in Galle District*. Colombo: Department of Census and Statistics.
- Department of Census and Statistics Sri Lanka** (2002a): *Headcount Index and Population below Poverty Line by DS divisions*. Colombo: Department of Census and Statistics.
- Department of Census and Statistics Sri Lanka** (2002b): *Census of Population and Housing -2001*. Colombo: Department of Census and Statistics.
- Department of Census and Statistics** (2002-2003): *Area, Population, Registered Voters and Employees of Municipalities*. Colombo: Department of Census and Statistics.
- Department of Census and Statistics** (2008): District Official Poverty Lines. Colombo: Department of Census and Statistics. http://www.statistics.gov.lk/poverty/monthly_poverty/index.htm <accessed on 20 .4. 2008>.
- Department of Census and Statistics** (2008): Poverty Indicators in Sri Lanka – Households Income and Expenditure Surveys 2006/7. Colombo: Department of Census and Statistics.
- De Silva, A.** (2009): Ethnicity, Politics and Inequality: Post Tsunami Humanitarian Aid Delivery in Ampara District, Sri Lanka. *Disasters*, 33(2): 253-273.

- Dewar, D., Todes, A. and Watson, V (1986):** *Regional Development and Settlement Policy*. London: Allen and Unwin.
- De Wet, C. J., (Ed.) (2006):** *Development Induced Displacement: Problems, Policies and People*. Oxford: Berghahn books.
- Disaster Management Centre (DMC) (2005):** *Towards a Safer Sri Lanka: Road Map for Disaster Risk Management*. Colombo: Ministry of Disaster management.
- Dwivedi, R. (1999):** Displacement, Risks and Resistance: Local Perceptions and Actions in the Sardar Sarovar. *Development and Change*, 30: 43-78.
- Farrington, J., Ramasut, T. and Walker, J. (2002):** Sustainable Livelihood Approach in Urban Areas: General Lessons with Illustrations from Indian Cases. Sweden: Swedish International Development Cooperation Agency, Department for Infrastructure and Economic Cooperation.
- Few, R. (2003):** Flooding, Vulnerability and Coping Strategies: Local Response to a Global Threat. *Progress in Development Studies*, 3(1):43-58.
- Fernando, L. (2006):** An Introduction to the Local Government System in Sri Lanka: Changes and Key Issues.
http://www.lorc.ryukoku.ac.jp/docs/prof_fernando_060610.pdf. <accessed on 24.9.2007>
- Fernando, N. (2004):** A Measure of Urban Vulnerable Livelihoods – A case of Colombo. *Institute of Workers Education Journal*, 4: 64-89.
- Fine, B. (2001):** *Social Capital vs. Social Theory: Political Economy and Social Services at the Turn of the Millennium*. London: Rutledge
- Food and Agriculture Organization of the United Nations (FAO) (2005):** Tsunamis Destroyed Tens of Thousands of Fishing Boats (Online). <http://www.fao.org/newsroom/en/news/2005/88321/index.html>. <accessed on 27 5. 2008>.
- Fünfgeld, H. (2007):** *Fishing in Muddy Waters: Socio-Environmental Relations under the Impact of Violence in Eastern Sri Lanka*. Studies in Development Geography 32. Saarbrücken :Prisma Verlagsdruckerei .
- Giddens, A. (1984):** *The Constitution of Society*. UK: Polity Press.
- Gonzalez- Parra, C. and Simon, J. (2008):** All that Glitters is not Gold: Resettlement, Vulnerability, and Social Exclusion in the Pehuenche Community Ayin Mapu, Chile. *American Behavioral Scientists*, 51 (12): 1774-1789.

- Gordon, A., Davis, J., Long, A. and Meadow, K.** (2000): The Role of Natural Resources in the Livelihoods of the Urban Poor, Policy Series 9. University of Greenwich: Natural Resource Institute.
- Government of Sri Lanka (GOSL)** (2005a): The Tsunami: Impact, Responses and Issues. http://www.erd.gov.lk/devforum/Tsunami_Impact_Responses_Issues.pdf <accessed on 4 June 2008>.
- Government of Sri Lanka (GOSL)** (2005b): *Post Tsunami Recovery and Reconstruction: Progress Challenges and Way Forward*. Colombo: Ministry of Finance and Planning.
- Grant, E.** (2001): Social Capital and Community Strategies: Neighbourhood Development in Guatemala City. *Development and Change*, 32 (5): 975-997.
- Grootaerc, C.** (1998): Social Capital: The Missing Link? In Expanding the Measure of Wealth: Indicators of Environmentally Sustainable Development. Environmentally Sustainable Development Studies, Monograph series No.17: Washington.
- Hansen, A. and Oliver-Smith, A.,** (Eds.) (1982): *Involuntary migration and resettlement: the problems and responses of dislocated people*. Boulder: Westview.
- Hettige, S. T.** (2008): Introduction In: Hettige, S.T., (Ed.) *Tsunami Recovery in Sri Lanka: Retrospect and Prospect*. Sri Lanka: Social Policy and Research Centre (SPARC), University of Colombo. 1-7.
- Hettige, S. T.** (1990): Subsistence Reproduction among Settled Urban Poor: A case Study from Sri Lanka. *Urban Anthropology*, 19 (3): 185-213.
- Hettige, S.T., Fernando, N., Mayer, M., Noe, C., and Nanayakkara, G.** (2004): Improving Livelihoods of the Urban Poor – A Study of Resettlement Schemes in Colombo. Colombo: German Technical Cooperation (GTZ).
- Human Development Report** (1994): New Dimensions of Human Security. New York: United Nations Development Programme (UNDP).
- Hyndman, J.** (2007): The Securitization of Fear in Post-Tsunami in Sri Lanka. *Annals of the American Geographers*, 97(2): 361-372.
- Ingram, J., Franco, G., Rumbaitis-del Rio, C. and Khazai, B.** (2006): Post Disaster Recovery Dilemmas: Challenges in Balancing Short-Term and Long Term Needs for Vulnerability Reduction. *Environmental Science and Policy*, 9: 607-613.
- Institute of Policy Studies (IPS)** (2005a): Livelihood Post Tsunami: Build Back Better? Colombo, Sri Lanka 1-2 December, 2005. Colombo: IPS.

- Institute of Policy Studies (IPS)** (2005b): Listening to those who Lost: Survey and Analysis of Rebuilding and Relocation of Tsunami Affected Households in Sri Lanka. Colombo: IPS.
- International Labour Organization (ILO)** (2005): Rapid Assessment of the Tsunamis Impact on Livelihoods in Affected areas in Sri Lanka. Colombo: ILO.
- Jagoda, D.** (2000): Sustainable Housing Development for Urban Poor in Sri Lanka – Recommendations for the Improving Relocation Housing Projects in Colombo. <http://www.hdm.lth.se/fileadmin/hdm/alumni/papers/ad2000/ad2000-14.pdf>. <accessed on 14th November 2008>.
- Jayasuriya, S., Weerakoon D., Arunatilaka, N. and Steele, P.** (2005): *Economic Challenges of Post Tsunami Reconstruction: Sri Lanka Two Years on*. Colombo: IPS.
- Jayawardena, A. (nd.): Disaster Mitigation Initiatives in Sri Lanka.** management.kochi-tech.ac.jp/PDF/IWPM/IWPM_Jayawardane.pdf. <accessed on 14th November 2008>.
- Jutting, P.** (2005): *Health Insurance for the Poor in Developing Countries*. UK, USA: Ashgate Publishing.
- Kalpagam, U.** (1985): Coping with Urban Poverty in India. *Bulletin of Concerned Asian Scholars*, 17(1): 2-18.
- Kabir, A., Rahaman, A., Salway, S. and Pryer, J.** (2000): Sickness among the Urban Poor: A Barrier to Livelihood Security. *Journal of International Development*, 12, 707-722.
- Koenig, D.** (2002): Toward Local Development and Mitigating Impoverishment in Development-Induced Displacement and Resettlement. Oxford: Refugee Studies Centre, Oxford University.
- Kottegoda, S.** (2004): *Negotiating Household Politics: Women Strategies in Urban Sri Lanka*. Sri Lanka: Social Scientists' Association.
- Kumar, R.** (1996): *Research Methodology a Step by Step Guide for Beginners*. Melbourne: Longman.
- Lewis, O.** (1968): *La Vida: A Puerto Rican Family in the Culture of Poverty-San Juan and New York*. New York: Vintage Books.
- Lominitz, L.A.** (1977): *Networks and Marginality: Life in Mexican Shantytown*. London: Academic Press.
- Lyons, M.** (2009): Building Back Better: the Large Scale Impact of Small Scale Approaches to Reconstruction. *World Development*, 37 (2): 385-398.

- Mathew, B. and Huberman, A.** (1994): *An Expanded Source Book on Qualitative Data Analysis* (Second Edition). London: Sage Publication Limited.
- Mayadunne, S. C** (2005): Interim Report on the Auditor General on the Rehabilitation of the Losses and Damages Caused to Sri Lanka by the Tsunami Disaster on 26th December 2004. Colombo: Auditor General's Department. 1-12.
- McDowell, C.,** (Ed.) (1996): *Understanding Impoverishment: The Consequences of Development- Induced Displacement*. Oxford: Berghahn books.
- McDowell, C.** (2002): Involuntary Resettlement, Impoverishment Risks and Sustainable Livelihoods. *Australian Journal of Disaster and Trauma Studies*, 6 (2). <http://www.massey.ac.nz/~trauma/issues/2002-2/mcdowell.htm>. <accessed on 4th January 2009>.
- Ministry of Finance** (2005a): Tsunami Housing Construction Program: Homeowner Driven Housing Operational Instructions for Beneficiary Selection and Project Implementation. Colombo: Ministry of Finance.
- Ministry of Finance** (2005b): Tsunami Housing Construction Program: Homeowner Driven Housing Operational Guidelines. Colombo: Ministry of Finance.
- Mirza, H. S. and Reay, D.** (2000): Redefining Citizenship: Black Women Educators and the Third Space. In: Madeline, A. and Dillabough, J., (Eds.): *Challenging Democracy: International Perspective on Gender, Education and Citizenship*. London: Routledge. 58-72.
- Moench, M. and Dixit, A.,** (Eds.) (2004): Adaptive Capacity and Livelihood Resilience – Adaptive Strategies for Responding Floods and Droughts in South Asia. The Institute for Social and Environmental Transition, International, Boulder, Colorado, U.S.A and the Institute for Social and Environmental Transition, Nepal.
- Moore, M.** (1999) Truth, Trust and Market Transactions: What do we know?' *Development Studies*, 36 (1): 74-87.
- Morrow, B.** (1999): Identifying and Mapping Community Vulnerability. *Disasters*, 23(1): 1-18.
- Moser, C.** (1998): The Assets Vulnerability Framework; Reassessing Urban Poverty Reduction Strategies. *World Development*, 26(1): 1-19.
- Moser, C.** (1996): *Confronting Crisis: A Comparison of Household Responses to Poverty and Vulnerability in Four Urban Communities*. Environmentally Sustainable Development Studies and Monographs Series No.8. Washington DC: The World Bank.

- Muggah, R.** (2008): *Relocation Failures in Sri Lanka – A Short History of Internal Displacement and Resettlement*. London: Zed Books.
- Muggah, R.** (2003): *Pressing Humanitarian and Development Issue: Reflections on Internal Displacement and Resettlement*. <http://programs.ssrc.org/gsc/publications/quarterly9/muggahpressing.pdf> <accessed on 1st November 2008>.
- Mulligan, M. and Shaw, J.** (2007): What the World can Learn from Sri Lanka's Post Tsunami Experiences. *International Journal of Asia-Pacific Studies*, 3 (2):65-91.
- Murray, C.** (2001): *Livelihoods Research: Some Conceptual and Methodological Issues*. Background Paper 5, University of Manchester: Chronic Poverty Research Centre, Institute for Development Policy and Management.
- Muller, H. and Hettige, S.** (1995): Introduction. In: Muller, H. and Hettige, S. (Eds.): *The blurring of a vision –the Mahaweli-its social, economic and political implications*. Colombo: Sarvodaya publishers. 1-22.
- Narayanan, D. and Woolcock, M.** (2000): Social Capital: Implications for Development Theory, Research and Policy, *The World Bank Research Observer*, 15(2): 225-249.
- Norris, W.P.** (1988): Household Survival in the Face of Poverty in Salvador, Brazil; Towards a Mode of Integrated Household Activities. *Urban Anthropology*, 17(4): 299-321.
- Oliver-Smith, A.** (1990): Post Disaster Housing Reconstruction and Social Inequality: A challenge to Policy and Practice. *Disasters*, 14 (1): 7-19.
- Oliver-Smith, A.** (1991a): Success and Failures in Post-Disaster Resettlement. *Disasters*, 15 (1): 12-24.
- Oliver-Smith, A.** (1991b): Applied Anthropology and Development Induced Displacement and Resettlement. In: Kedia, S. and Willigen, J., (Eds.): *Applied Anthropology: Domains of Application*. United States of America: Praeger publishers. 189-219.
- Oliver-Smith, A.** (1996): Anthropological Research on Hazards and Disasters. *Annual Review of Anthropology*, 25: 303-328.
- Oliver-Smith, A.** (2002): *Displacement, Resistance and the Critique of Development: from the Grass-Roots to the Global*. Refugee Studies Centre, Oxford: University of Oxford.

- Oliver-Smith, A.** (2005): Communities after Catastrophe-Reconstructing the Material, Reconstituting the Social. In: Hyland, E., (Ed.): Community Building in the Twenty-First Century. New Mexico: School of American research press.
- Oxford Dictionary** (1995): (9th Ed.) Oxford: Oxford University Press.
- Palgi, M. and Moore, G.** (2004): Social Capital: Mentors and Contracts. *Current Sociology*, 52(3): 459-480.
- Pelling, M. and High, C.** (2005): Understanding Adaptation: What Can Social Capital Offer Assessment of Adaptive Capacity? *Global Environmental Change*, 15: 308-319.
- Perry, R. and Lindell, M.** (1997): Principles of Managing Community Relocation as a Hazard Mitigation Measure. *Journal of Contingencies and Crisis Management*, 5(1): 49-59.
- Portes, A. and Landolt, P.** (1996): The Downside of Social Capital. *The American Prospect*, 26, May-June: 18-21.
- Presidential Secretariat** (2005): Assistance Policy and Implementation Guidelines for Housing and Township Development. Colombo: Presidential Secretariat.
- Pryer, A. J.** (2003): *Poverty and Vulnerability in Dhaka Slums – The Urban Livelihood Study*. England: Ashgate Publishers.
- Putnam, R., Lanoardi, R., and Nanetti, Y.** (1993): *Making Democracy Work: Civic Traditions in Modern Italy*. Chichester: Princeton University Press.
- Putnam, R.** (2000): *From Bowling Alone*. New York: Simon & Schuster publishers.
- Rakodi, C.** (1995): Poverty Line or Household Strategies? A review of Conceptual Issues in the Study of Urban Poverty. *Habitat International*, 19 (4): 407-426.
- Rakodi, C. and Lloyd- Jones T.** (Eds.) (2002): *Urban Livelihoods – A People Centred Approach to Reducing Poverty*. London: Earthscan Publications Limited.
- Rakodi, C.** (1999): A Capital Asset Framework for Analysing Household Livelihood Strategies. *Development Policy Review*, 17: 315-342.
- Rakodi, C.** (1995): The Household Strategies of the Urban Poor: Coping with Poverty and Recession in Gweru, Zimbabwe. *Habitat International*, 19 (4): 447-72.
- Rao, V. and Woolcock, M.** (2001): Social Networks and Risks Management Strategies in Poor Urban Communities: What Do We Know? http://poverty.worldbank.org/files/11983_WDRNNetworksNote.doc.
- Reconstruction and Development Agency of Government of Sri Lanka-(RADA) Livelihood Unit** (2006): Galle District Divisional Livelihood Development Plans. Colombo: RADA Livelihood Unit.

- Roberts, B.** (1978): *Cities of Peasants: Explorations in Urban Analysis*. London: Edwards Arnold Publishers Limited.
- Robinson, L. and Jarvie, K.** (2008): Post-Disaster Community Tourism Recovery: the Tsunami and Arugam Bay, Sri Lanka. *Disasters*, 32(4):631-645.
- Ruwanpura, K.** (2009): Putting Houses in Place: Re-Building Communities in post-Tsunami Sri Lanka. *Disasters* 33 (3):436-456.
- Samaranayake, R.** (1995): Resources Volume for Tertiary Level Education and Training in Coastal Zone Management. Coastal Conservation Department: Colombo. <http://www.coastal.gov.lk/PERMIT%20Guidline%20-%20English.pdf> <accessed on 1st November 2008>.
- Scoones, I.** (2009): Livelihoods Perspectives and Rural Development. *Journal of Peasant Studies*, 36(1): 171-196.
- Scoones, I.** (1998): Sustainable Rural Livelihoods: A Framework for Analysis. Brighton: Institute for Development Studies, University of Sussex.
- Scudder, T.** (2005): *The Future of Large Dams: Dealing with Social, Environmental and Political Costs*. London: Earthscan Publications Limited.
- Scudder, T.** (1981): The Development Potential of New Land Settlements in Tropics and Sub-Tropics: A Global State of the Art Evaluation with Specific on Policy Implications. Binghamton, NY: Institute for Development Anthropology.
- Sen, A.** (1997): Editorial: Human Capital and Human Capability. *World Development*, 25(12): 1959-1961
- Seeley, J.** (2003): Livelihood Labelling: Some Conceptual Issues, Working Paper, Norwich: School of Development Studies, University of East Anglia. http://www.livelihoods.org/static/jseeley_NN178.htm. <accessed on 8th December, 2008>.
- Shawn, S. and Duan Y.** (2002): Policies and Practice in Three Gorges Resettlement: A Field Account. *Forced Migration*, 12: 10-12.
- Silva, P.** (1982): Land Resettlement and Regional Development in the Dry Zone of Sri Lanka. In: Wimaladhrma, K., (Ed.): *Land Settlement Experience in Sri Lanka*. Colombo: Karunarathna & Sons. 13-20.
- Silva, K.T., and Athukorala, K.** (1991): *The Watta Dwellers: A sociological study of selected low-income communities in Sri Lanka*. America: University Press of America.

- Sinha, S. and Lipton, M.** (1999): Damaging Fluctuations, Risks and Poverty: A Review. Background Paper for the World Development Report 2000/2001. UK: Poverty Research Unit, University of Sussex.
- Smit, B and Wandel, J.** (2006): Adaptation, Adaptive Capacities and Vulnerability. *Global Environmental Change*, 16: 282-292.
- Sorensen, B.** (1996): *Relocated Lives: Displacement and Resettlement within Mahaweli Project, Sri Lanka*. Amsterdam: VU University press.
- Steele, P.** (2005): *Phoenix from the Ashes? Economic Policy Challenges and Opportunities for Post Tsunami Sri Lanka*. Colombo: IPS.
- Stirrat, R.L.** (2003): The Concept of Social Capital in Poverty Issues in Sri Lanka – Towards New Empirical Insights, Sri Lanka. Colombo: Improving Capacities for Poverty Research Program (IMCAP) University of Colombo.
- Stirrat, R.L.** (2006): Competitive Humanitarianism-Relief and the Tsunami in Sri Lanka. *Anthropology Today*, 22(5):11-15.
- Swift, J.** (1989): Why are Rural People Vulnerable to Famine? *IDS bulletin*, 20(2): 49-57.
- Tacoli, C.** (1998): Rural-Urban Linkages and Sustainable Rural Livelihoods. In: Carney, D., (Ed.): *Sustainable Rural Livelihoods*. London: DFID. 67-92.
- Titus, M and Hinderink (Eds) (1998):** *Town and Hinterland in Developing Countries*. Amsterdam: THELA THESIS.
- Tourist Board of Sri Lanka** (2006): Annual Statistical Report of Sri Lanka- 2006. Sri Lanka: Sri Lanka Tourist Board Colombo.
- Tsunami Housing Reconstruction Unit – Galle** (2006): Donor Driven Permanent Housing for Tsunami Affected Internally Displaced People in Akmeemana and Galle Four Gravets Divisions. Galle: Tsunami Housing Reconstruction Unit.
- Turner, J.H.** (1999): The Formation of Social Capital. In: Dasgupta, P. & Serageldin, I. (eds.): *Social Capital- A Multifaceted Perspective*. Washington DC: World Bank. 94-146.
- Turton, D.** (2003): Conceptualizing Forced Migration. Refugee Studies Centre Working paper no.12, Oxford: University of Oxford.
- Turton, D.** (2006): Who is a Forced Migrant? In: De Wet, C. J., (Ed.): *Development-Induced Displacement: Problems, Policies and People*. Oxford: Berghahn books. 13-37.
- Twigg, J.** (2001): Sustainable Livelihoods and Vulnerability to Disasters. http://www.benfieldhrc.org/disaster_studies/working_papers/pdfs/workingpaper2.pdf <accessed on 8th December 2008>.

- United Nations Office for Coordination of Humanitarian Affairs (UNOCHA)** (1998): Guiding Principles on Internal Displacement. <http://www.unhcr.ch/html/menu2/7/b/principles.htm> <accessed on 6th November 2008>.
- United Nations Development Program (UNDP)** (2005): *Survivors of the Tsunami: One Year Later - UNDP Assisting Communities to Build Back Better*. New York: UNDP.
- United Nations Children's Fund (UNICEF)** (2005): Building Back Better-A 12 Month Update on UNICEFS Lives and Restore Hope since the Tsunami. New York: UNICEF Division of Communication.
- Van Dillen, S.** (2002): A Measure of Vulnerability. *Geographica Helvetica*, 57: 64-77.
- Vinay, P.** (1985): Family Life-Cycle and the Informal Economy in Central Italy. *International Journal of Urban and Regional Research*, 9 (1): 82-98.
- Vincent, M.** (2001): Introduction and Background. In: Vincent, M. and Sorensen, B. *Caught Between Borders – Response Strategies of Internally Displaced*. London: Pluto press. 1-16.
- Wallace, C.** (2002): Household Strategies: Their Conceptual Relevance and Analytical Scope. *Social Research in Sociology*, 36(2): 275-292.
- Watts, M. and Bohle, H. G** (1993): Hunger, Famine and Space of Vulnerability. *Geo Journal*, 30 (2): 117-125.
- Watts, M.** (1983): Hazards and Crises: A Political Economy of Drought and Famine in Northern Nigeria. *Antipode*, 15:24-34.
- Werellagama, D., Jeyavijithan, V., Manathunga, J. and Nakayama, M.** (2004): Lessons Learned from Communities Displaced by the Mahaweli Multipurpose Development Project Sri Lanka. <http://www.wrrc.dpri.kyoto-u.ac.jp/~aphw/APHW2004/proceedings/LFP/56-LFP-A364/56-LFP-A364.pdf> <accessed on 5th November 2008>.
- World Bank** (2002): World Development Report 2000/2001. Washington, DC: The World Bank.
- Yan, T. and Qian, W.** (2003): Rural Resettlement and Land Compensation in Flooded Areas: The Case of Three Gorges Project, China. *Asia Pacific Viewpoint*, 44(1): 35-50.
- Yuefang, D. and Steil, S.** (2003): Three Gorges Project Resettlement: policy, planning and implementation. *Journal of Refugee Studies*, 16: 422-443.

- Zaman, Q. (1996):** Development and Displacement in Bangladesh. *Asian Survey*, XXXVI, 7: 691-703.
- Zhao, Y. (2002):** Measuring the Social Capital of Laid –Of Chinese Wrkers. *Current Sociology*, 50(4): 555-571.

Appendices

1. Semi-structured interview guide to interview key informants

Background – age, gender, position, for how many years

Organization history and number of staff members.

Description of various activities being conducted/conducting in resettlement projects: infrastructure development (access roads, street lights, distributing garbage bins, construction of sewerage lines, community centers, day care centers, kindergarten schools, primary and secondary schools etc), livelihood development activities (offering various training programs for resettlers, by whom, duration etc) donating boats, nets and other livelihood enhancement equipment- kitchen utensils, furniture, stationery, household electrical items, counselling programs, foster parent programs, forming small scale saving groups to dispense low interest loans to start self employment.

Specific problems and issues materialise when working with resettled households, how did those issues and problems get resolved? If the organization actively worked since the tsunami in the area, it is important to know the activities carried after tsunami until resettlement in brief.

If the organization involved in resettlement project planning and construction- whether the organization discussed the settlement plan with government, INGOs, community representatives and other relevant officers? Any issues and problems confronted during the time of construction, resettlement and after, if so what are were (i.e. land acquisition, selection of genuine beneficiates, providing water and electricity connections to the individual households, construction of access roads, garbage disposal etc). Total amount of money spent to built one housing unit, for the total housing project,

Whether he/she is aware about present problems and issues of resettlers (poverty, marginalization, conflicts with the host community, finding employment, poor construction of housing, some settlements are situated in flood or landslide prone areas, fractions, distance etc). Are there any solutions to these from his/her institution side? Did your organization anticipate these problems and issues to happen?

Are there any protest rallies, petitions, hunger strikes etc (to get more quality housing, because the land is not suitable for living, to improve the water quality, asking for a better transport system, etc) against your organization or other institutions, if yes or no reasons.

Are there any plans to develop small towns (Pinnaduwa, Mahamodara etc) situated close to the settlements?

If you happen to select the best resettlement project in this area, what are the factors that you would consider whilst selecting it? In relation to your given criteria what is the best resettlement project?

Do you think that most of the resettlers have adapted to their new environment by now, or do they still have problems/issues to solve? If no reasons?

Are you aware of certain host communities that are opposing resettlement projects in their areas? If yes, what are the reasons? (Due to cultural and social problems)

What are the urgent steps one needs to take to further improve the socio-economic conditions of resettlers and their settlements in general?

2. Semi-structured interview guide to conduct interviews with host community members

Background – age, family size, type, marital status

Place of origin- self, if migrated, places, duration and reasons

Occupation – present and past, type, sector, permanency

Education –school, formal, informal vocational, technical training and other general skills

General village structure before the emergence of resettlement's in terms of – occupation, ethnicity, religion, caste, resources (schools, hospitals), culture (values, norms, behaviour etc) common land and other.

Changes in the village structure after the resettlement projects – occupation, ethnicity, caste, religion, culture.

Is there a competition among the host community and resettlers over some of the resources (woodland, community centre, roads etc)? If yes, for what.

How is the relationship between the host community and the resettled households – no relationship at all, weak relationship, moderate, good or very good relationship. If in case of weak or no relationship at all, reasons?

Are there any conflicts between host and resettled communities, if yes what were the reasons, what are those incidents, if violent conflicts had occurred, how many times, what were the estimated damages (property, lives or other)

Is there a person or a party carrying out negotiations or any kind of mediation to resolve these tensions or aggressive behaviour? If yes, by who? Was there any progress?

3. Semi-structured interview guide for in-depth interviews with selected resettled household heads

Background – age, family size and type

Place of origin- self, if migrated, places and reasons

Occupation of the parent - present and past, other members, type, sector, occupational choices, permanency

Parent's educational attainment - formal, informal vocational training and other general skills

IMPACT OF THE TSUNAMI – number of injured household members, number of household diseased household members, nature of the damage to the house, other valuables (boats, furniture, electrical items etc), whether the household has become a female headed household or single parent household after the tsunami.

SITUATION AFTER TSUNAMI UNTIL RELOCATION – places occupied after the tsunami (neighbours, relative's houses, temporary camps, transient camps), duration, problems and issues faced, numerous assistance (cash and kind) by government, NGOs, private, political parties, community based societies and other organizations. What types of aspirations did you have before coming into this settlement?

OCCUPATION (Self) - type, sector, skills if any, livelihood related problems (if any) before the tsunami, coping and enhancement strategies applied to resolve these problems if any, skills and experience gained by doing various occupations, occupational choices, why do/did you select certain occupations, who helped you to find jobs, permanency, occupational mobility.

INCOME (Self)- from main income earning activities, other sources (multiple sources of income earning activities), issues, problems, coping and enhancement strategies adopted as solutions for problems, investment in different assets, if any and how they managed those assets before tsunami.

livelihood after tsunami and before resettlement – number of days (months) spent unemployed- reasons (i.e. lost the boat, nets and fishing gear, no income earning opportunities were available for labourers), on what support did his/her household members survive (assistance from the government, neighbours, kinsmen, friends or other organizations).

Income earning activities after resettlement – any disruption (owing to the reasons; distance, lack of new employment opportunities etc) whether any plausible solutions were employed to resolve above mentioned issues and problems, if so what were they? If the concerned individual did not employ suitable solutions, reasons.

EXPENDITURE – (Self) on family matters and other (daily, monthly, annually)

Same questions should be repeated in order to explore the situation after tsunami and after resettlement (if the expenses have increased after tsunami, what do you do to overcome it).

SAVINGS -type, why, changing pattern after tsunami and resettlement, investments if any, debt, credit (informal and formal sources)

EDUCATION (Self) - school education, what did you expect to gain from your school and other education (aspirations and expectations from school, vocational and other types of education), perceptions about own level of education, problems (dropouts, reasons etc), any support from family, friends or others, if yes, type of support, formally or informally acquired vocational education, problems, perceptions about own level of vocational education, any other general skills, why do you acquire such skills (reasons, choices), use of leisure time to improve skills, do you think that ,

knowledge and skills that you acquired in school are helpful to cope better in difficult situations (yes, no), if yes, what kind of education was useful, and how, any examples (your own or other family members or friends), if not, why (your own or any other examples), if you had more education, skills and knowledge do you think that your life could have been better, if yes, in what ways (what type of education do you need)

CHILDREN'S EDUCATION - why do/did you educate your children, aspirations and expectation from children's educational, professional and vocational qualifications? Aspirations and expectation of children's livelihood activities, efforts made so far to realize your aspirations. Children's educational situation after tsunami (any school drop outs), if it so reasons, other children's school related issues and problems after relocation (change of school owing to distance, tuition, school drop outs, quality of education etc).

HEALTH CONDITION- Self, family (any chronically ill members before tsunami and also as a result of tsunami, if yes, disease/s) negative impact on household and other income sources, short-term and long-term strategies adopted, how successful are the strategies (what they lost and gained – record the exact stories)

LIFESTYLE (Self) – food habits, household goods, problems (short/long term strategies) whether the life style has changed after tsunami and resettlement.

SELF- role in the family, community, own perceptions about your role in the family and community, how others perceive your role in the family and outside, influence, support.

Threatening factors in life if any (alcohol, drugs, casual employment, debt etc), if he/she is using hard drugs (an alcoholic), how did you (they) get used to hard drugs, negative impact on family, income sources and other due to these factors, any positive impact if any, own perception and how other family members perceive these factors, short-term and long-term strategies adopted, effort/s made, how successful are the strategies (what they lost and gained- record the exact stories)

Specific needs in different times, what were they, how did you fulfil those needs (before tsunami, after tsunami until resettlement and after resettlement) short and long-term strategies (could be legal or illegal), what were their losses and gains– needed to record exact stories.

Role model if any (there could be different role models for different needs) – who, why have you selected that person.

KINSHIP CONNECTIONS- perceptions, conflicts and visiting patterns (them and you), support gained at different times for different reasons especially after resettlement (Need to record positive as well as negative experiences with exact stories)

NEIGHBORHOOD RELATIONSHIP- nature of relationship, whether you have special relationships with select neighbours, if so, why, any conflicts (reasons: for new land boundaries, drug addiction, alcoholism etc) and how new neighbours perceive you and your household members.

Community based societies in the resettlement, activities carried out, membership, is it dominated by certain political, occupational, ethnic, caste group or area (location).

INDIVIDUAL NETWORK- community level and outside the community (work place, membership in community and other societies, political parties....etc). How do you maintain these networks, why, positive and negative aspects, what do you gain by maintaining these networks.

Any collective activity organized with other resettled members (political activities such as picketing, protest rallies, signing petitions, hunger strike etc in order to win some demands from government or other institutions, cultural activities such as new year celebrations, alms giving, any religious activity etc.), if yes, describe the experience (number of settlers participated, success or failure, reasons for it). Any similar or different activities planned for the future, if so what are they?

CONFLICTS – Any conflicts between host community (old settlers view on resettlers) and resettlers (reasons: access to new roads, community centre, new houses, caste and other resources). Any conflicts within the settlement between various settlers come from different areas (reasons: identity, caste etc). Any physical and verbal harassment against any resettled group, if it is examples. Any discrimination on the basis of gender, caste, occupation etc in the new settlement?

POVERTY, MARGINALIZATION AND SOCIAL EXCLUSION - General economic and social conditions (satisfaction with housing conditions, infrastructure, land ownership etc) of your household before tsunami, after tsunami until resettlement and after resettlement and staying in this place for one year or more. Some settlers say that they are experiencing poverty situations compared to the situation before Tsunami (risk of getting into poverty or chronic poverty situations or moving out of poverty or chronic poverty situations), what is your opinion considering the present household situation after resettlement (before tsunami, after the tsunami until resettlement)

SATISFACTION WITH THE NEW HOUSING UNIT – Construction material, space, physical appearance, infrastructure within the housing and settlement. Access to services such as banks, hospitals, schools etc, all in all satisfaction with regard to the housing unit (Settlement).

If one wants to improve the living standard of resettlers of this settlement what are the areas that person should develop, if you happen to select the most successful resettlement project of this area what is it and what are the reasons for you to select it?

FUTURE- Life in the resettlement (aspirations and expectations for children's education, occupation), any plans to move out, if so reasons (factors encourage or discourage to stay such as security, infrastructure within and outside the settlement, distance). Preference to stay in the buffer zone? How did you and people in your settlement react to the recent tsunami warnings?