

**Vulnerability Assessment, Stakeholder Assessment, Community
Assessment and Strategy Formulation: A Case Study of the
Humanitarian Response to Cyclone Nargis in Myanmar**

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Abstract

This thesis investigated the implications of assessment in terms of humanitarian response and assistance in emergency situations. A case study of four communities seriously affected by a disaster was used to investigate how assessment and related humanitarian aid processes facilitate (or impede) recovery. The study incorporates a review from multiple perspectives about the humanitarian processes which took place in four highly affected communities following the devastation of Cyclone Nargis in Myanmar.

Human Security Theory – which incorporates seven sectors for attention- provided the framework for assessing outcomes associated with the humanitarian response. The author spent several months collecting data through interviews, focus groups observations and documentary research in two townships in Irrawaddy Division of Myanmar. These represent the most affected areas from Cyclone Nargis (2008). Empirical literature, practice and guidelines provided the basis for the development of measures used in the investigation. Case study data collection took place several years following the disaster. Analyses of data included comparison with the predicted patterns, as suggested by humanitarian guidelines (ideal humanitarian aid process).

The findings from this study reveals that some (coastal) areas suffered more serious and devastating effects from the cyclone than other (inland) areas. However humanitarian aid was not disseminated accordingly. Aid was shown to be uneven in terms of support to the seven sectors of human security, and was not adjusted to local needs and context. Most

tellingly, despite the apparent liaison between external humanitarian agencies and community based organizations, it was shown that the overall humanitarian response did not provide opportunities for fulfilling community based potential in terms of relief and recovery. Further analysis revealed that, in this case study, the humanitarian aid response was based on a vacuum of information about needs and vulnerabilities. Data collected from affected communities emphasised that misguided needs assessment underlay the ineffectiveness of the aid response.

The findings from the case study resulted in the development of a revised assessment framework which is offered as a complement to humanitarian assessment tools currently in use. The revised tool, entitled Vulnerability Assessment, Stakeholder Assessment, Community Assessment and Strategy Formulation (VACS) is recommended as a way to ensure effective humanitarian assessment and response strategies incorporates the voices of local populations and addresses the needs of children and other vulnerable groups.

Declaration

I certify that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy in the Institute of Early Childhood, Faculty of Human Sciences, Macquarie University, does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university, and to the best of my knowledge and belief it does not contain any material previously published or written by another person where due reference is not made in the text. This is also to certify that this thesis meets the *Macquarie University's Human Research Ethics Committee (HREC)* requirements for the conduct of research (Ethics Ref: 5201100679), following the *National Statement on Ethical Conduct in Human Research (2007)*.



Sithu Wai

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A handwritten signature in black ink, appearing to be 'Sithu Wai', with a stylized, flowing script.

Sithu Wai

List of Acronyms

ACE Project	=	Project: Assessment and Classification in Emergencies
AGIRI	=	Agents, Goals, Institutional Structures, Resources and Interactions
AGRI	=	Agents, Goals, Resources and Interactions
CAP	=	Consolidated appeal process
CBOs	=	Community-based organisations
CERF	=	Central Emergency Response Fund
CHS	=	Commission on Human Security
CRC	=	Convention on the Rights of the Child
CWGER	=	Cluster Working Group on Early Recovery
DRR	=	Disaster risk reduction
EM-DAT	=	Emergency Events Database
FA	=	Flash Appeal
FAO	=	Food and Agriculture Organization of the United Nations
FGD	=	Focus group discussion
GOM	=	The government of Myanmar
HIV/STD	=	Human Immunodeficiency Virus / Sexually Transmitted Diseases
HPC	=	Humanitarian program cycle
HREC	=	Macquarie University Human Research Ethics Committee
HSN	=	Human Security Network
HSU	=	Human Security Unit
IASC	=	Inter-Agency Standing Committee
ICCM	=	Inter-cluster coordination meetings
ICRC	=	International Committee of the Red Cross
IFRC	=	International Federation of Red Cross and Red Crescent Societies
LRRD	=	Linking Relief, Recovery, and Development
McRAM	=	Multi-cluster Rapid Assessment Mechanism
MERLIN	=	Medical Emergency Relief International
MIRA	=	Multi-cluster/ multi-sectoral Initial Rapid Assessment
MSF	=	Médecins Sans Frontières (Doctors Without Borders)
NGOs	=	Non-governmental Organizations
OCHA -	=	United Nations Office for Coordination of Humanitarian Affairs
PONJA	=	Post-Nargis Joint Assessment
PONREPP	=	Post-Nargis Recovery and Preparedness Plan
PR	=	Periodic Review
PTSD	=	Post-traumatic stress disorder
RINAH	=	Rapid Initial Needs Assessment in Haiti

SBP	=	Supplementary feeding programs
TCG	=	Tripartite Core Group
UN	=	United Nations
UNDP	=	United Nations Development Programme
UN-		
HABITAT	=	United Nations Human Settlements Programme
UNHCR	=	United Nations High Commissioner for Refugees
UNICEF	=	United Nations Children's Fund
UNISDR	=	United Nations Office for Disaster Risk Reduction
UNTFHS	=	United Nations Trust Fund for Human Security
USAID	=	United States Agency for International Development
		Vulnerability Assessment, Stakeholder Assessment and Community
VAC	=	Assessment
		Vulnerability Assessment, Stakeholder Assessment, Community
VACS	=	Assessment and Strategy Formulation Framework
WASH	=	Water, Sanitation and Hygiene
WFP	=	World Food Program
WHO	=	World Health Organisation

List of synonyms

Myanmar	=	Burma (Country)
Myanmar	=	Burmese (Language and people)
Ayeyarwaddy	=	Irrawaddy
Bogale	=	Bogalay

Chapter 1. **Introduction**

1.1. **Background**

The world seems to be increasingly affected by various disasters (EM-DAT, 2010). From 1976 to 2000 for example, the number of reported natural disasters increased four-fold (UN-HABITAT, 2007). It was calculated that three-quarters of the world's population reside in areas affected at least once by an earthquake, tropical cyclone, flood, or drought between 1980 and 2000 (UNDP, 2004). The 21st century seems to be even more devastating with the Indian Ocean tsunami, the 2005 Pakistan earthquake, cyclone Nargis in 2008, the Haiti earthquake in 2010, and the Japan tsunami in 2011 (Amin & Han, 2009; Tripartite Core Group, 2010c; UNICEF, 2009).

Children represent one of the most vulnerable groups to be affected by disasters (Office of Disaster Preparedness and Emergency Management, 2007; Peek, 2008). Almost half of casualties during the 2004 Indian Ocean tsunami and the cyclone Nargis in 2008 were children (Save the Children, 2009; UNICEF, 2009). Children who survive continue to be highly vulnerable in the post-emergency timeframe. A mortality survey on displaced Ethiopians by Salama et al. (2001), for example, found that 54.3% of deaths occurred in children younger than five years of age. The under-five mortality rate in the study's

population was as high as 6.8/10000/day¹ (Salama et al., 2001). The World Health Organisation (WHO) has reported that the childhood mortality in some emergencies can be as high as 70 times that of the average under normal circumstances (WHO, UNICEF, UNHCR, & WFP, 2002).

Ensuring the survival of children affected by a disaster should be a priority of aid agencies and governments (Penrose & Takaki, 2006). The children should be provided with adequate food and shelter (WHO, 2004). The Convention on the Rights of the Child (CRC) has advocated for holistic care of children, not only basic physical needs but also social and emotional support, quality health care and education, the provision of information, and respect for their views (Waterston & Davies, 2006). During disasters, when children are at their most vulnerable, their rights to holistic care should be enforced by the government and concerned agencies responding to the emergency. However, studies have shown that despite promptings of the CRC, humanitarian agencies rarely consider children holistically (Penrose & Takaki, 2006).

It is well known that such negligence of children during disasters can have immediate and long-term consequences. For example, the effect of malnutrition on children is not only limited to higher mortality rates but also gives rise to negative consequences such as

¹ Acceptable maximum rate 1/10000/day for a population in crisis

impaired cognitive and psychomotor development, greater behavioural problems, lower educational attainment, stunting, low intellectual achievement, and poor career achievement resulting in a low income. These consequences may even pass into future generations (Batty et al., 2009; Carba, Tan, & Adair, 2009; del Ninno & Lundberg, 2005; WHO, 2004). The Literature Review (Chapter 2) discusses details on the effect of disasters or emergencies on children and their possible consequences.

1.2. Rationale for the thesis

Despite the importance of proper care and support for children in emergencies, there is an identified knowledge gap in designing humanitarian assistance during emergency situations. For instance, there is an ongoing debate about the most effective strategies for dealing with malnourished children. Expensive and inefficient supplementary feeding programs (SFP) with considerable logistic and managerial complexity were found to be ineffective in improving the nutritional status of the whole population (Vautier, Hildebrand, Dedeurwaeder, Baquet, & Herp, 1999). Addressing malnutrition through normal family food distributions seemed in some cases to be more effective. The above study posed a question on the effectiveness of child-focused programs versus community programs for children in emergencies. Similarly, studies have shown that remittances (cash-based responses) are preferable to commodity distribution, in particular, food aid (Mattinen & Ogden, 2006). The strengths and weaknesses of these and other programs have not been compared rigorously.

The United Nations International Strategy for Disaster Reduction (UNISDR, 2009) defined a disaster as

... a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. (ReliefWeb Project, 2008, p. 22)

According to this definition, it can be assumed that local capacity is rarely able to deal with a major disaster and that the need for external assistance is inevitable. However, this creates a paradox. Disaster response needs to be based on local capacity, values, and traditions (The Sphere Project, 2004). External assistance by its very nature can be associated with undermining the individuals' and the community's own coping strategies. Thus, external agents need to incorporate an understanding of the sociocultural background of the population to whom they are offering humanitarian programming.

A study by Duerr et al. (2003) found that weight gain and the health of orphaned and unaccompanied children fostered by their near and dear ones were not significantly different from children taken care of by their biological parents. However, the mortality of unaccompanied children who were not associated with the local population was extremely high, even in the hands of relief agencies (Duerr, Posner, & Gilbert, 2003). Similarly,

Stewart and Sun (2003) revealed that support from parents and peers can influence student resiliency and general health for children of primary school age.

It is increasingly clear that humanitarian agencies must be aware of the local context to prevent the adverse social impacts of aid programmes and that the view of beneficiaries plays a crucial role in disaster planning and response to suit their needs (Lee, 2008). The participation of beneficiaries has been increasingly recognised as a crucial factor for the effectiveness of programs. Stewart et al. (2004), for example, said that shared decision-making, planning, and community participation are key characteristics of health promoting school in addition to policy and service provisions (Stewart, Sun, Patterson, Lemerle, & Hardie, 2004). In fact, participation is one of the three pillars of the important global health initiative, Primary Health Care (MacDonald, 2012, 2013). With this in mind, many agencies have adopted community-based programs as a preferred method of assistance and development with a belief that this strategy can enhance community participation, effectiveness, efficiency, accountability, and sustainability (Dongier et al., 2001).

There is also a need for improvement in framing humanitarian assistance programs. The International Food Security Forum on “Rethinking Food Security Responses in Humanitarian Crises,” for example, was held in Rome in April 2008 in recognition that existing patterns of response and assistance to hunger and food insecurity are inadequate, or “not fit for purpose” (Maxwell, Webb, Coates, & Wirth, 2010).

Since late 1980s, the humanitarian world identified the need to link relief, rehabilitation, and development perspectives in aid-response after emergencies. The report for the European Union by the European Commission inspired the framework of “Linking Relief, Recovery, and Development (LRRD)” in humanitarian operations. The United Nations and donors, especially the two most important, USAID and the European Commission, have endorsed its concept (Harvey, 2009). Indeed, the LRRD framework itself is in its self-learning process. Implementing the linkage for relief phase, rehabilitation phase, and development phase in a linear fashion (Continuum Model) was found to be insufficient. Progress has been made to design relief, rehabilitation, and development initiatives since the early days of disaster response, resulting in the birth of the Contiguuum Model of LRRD. However, evaluation of major disaster responses discovered that humanitarian actors misconceived or still lacked knowledge and skills in translating LRRD concepts into action (Büttner, 2008).

Literatures and reports, like the evaluations of the cluster system, showed a need for an appropriate analysis on the context, existing coordination, response mechanisms, and capacities even before launching a cluster system (Steets et al., 2010; Stoddard, Harmer, Haver, Salomons, & Wheeler, 2007). Current guidelines and checklists for need assessments being used by non-government organisations lack power to understand why and how the information assessed influences injury, death, livelihood disruption, and difficulty in recovery (Wisner, Blaikie, Cannon, & Davis, 2003).

Plans and decisions made without understanding and addressing the root causes of vulnerability may even increase the long-term vulnerability of affected populations (Ingram, Franco, Rio, & Khazai, 2006), as seen in the Sri Lanka housing project in 2004. A few days after the tsunami devastated Sri Lanka, the government—without consultation with the affected people—established a coastal buffer zone where no construction was permitted. This policy, just short-lived, was criticised to increase vulnerability through socio-economic disparities, livelihood insecurities, disruption of communities, and negative impacts on the environment.

The report from Clinton (Clinton, 2006), the United Nations Secretary-General's Special Envoy for Tsunami Recovery, points out a need for an assessment to complement current assessment processes in the *preposition 5* for the *Building Back Better* (see Table 2-1 on page 49, Literature Review for details) as

... rapid assessments should be complemented with more comprehensive information ...[including] long range studies of environmental and community impacts, economic diversification, and the sustainability of different sources of livelihoods, the contribution of remittances to the development process, and the promotion of higher levels of health, education, and physical security for communities. (Clinton, 2006, p. 1)

He also points out in the *preposition 6* that

With the active engagement of their member governments, these multilateral actors need to reach clear agreement on a range of issues. A common analytical framework and a clear institutional leader for

assessing and costing needs for the initial recovery investments will be an important starting point. (Clinton, 2006, p. 1)

1.3. Overview of the thesis

This thesis addressed a knowledge gap in designing humanitarian response in emergencies. It set out to analyse humanitarian needs in emergencies, to document current aid practices including good practices and negatives factors, and to recommend measures to improve humanitarian programs. It addressed this through an in-depth analysis on a disaster recovery process in one major disaster (Cyclone Nargis in Myanmar), including service delivery from humanitarian aid agencies and community capacity, with a special focus on children affected by the disaster in question.

During the process of investigating these issues and reviewing the literature, it became clear that a critical component of humanitarian response—humanitarian assessment—is highly contentious in terms of fragmentation and incompleteness. Thus, this thesis came to focus on the critical role of humanitarian assessment in designing humanitarian programs. The findings from the investigation have informed a proposed humanitarian assessment framework process which it is anticipated, could guide humanitarian communities in designing humanitarian programs in a holistic and coordinated way, and hence to improve the lives of children and families affected by disasters or emergency situations.

A case study approach was used to understand how humanitarian aid processes facilitate recovery of a community seriously affected by a disaster. The study incorporated a review of the humanitarian process from multiple perspectives. Findings were analysed to understand humanitarian aid process and to document good practices and areas for improvement in the formulation of humanitarian aid strategy. The results were also used to review and revise the study tools into a proposed humanitarian assessment framework which is expected to complement the current humanitarian assessment process during disasters. In addition, the recommendations from this thesis are anticipated to contribute towards designing a humanitarian aid response in coordinated and comprehensive ways.

1.4. Research questions

The overarching research questions of this thesis are

- How do assessment processes impact the humanitarian strategy in post disaster contexts, for young children and their families?
- What factors need to be considered to enhance the effectiveness of humanitarian assessment processes to young children and families in post disaster contexts?

The sub-questions related to the case study are

1. What were the effects of Cyclone Nargis on four study communities in terms of humanitarian needs as reflected by damage and losses, post-cyclone risks, and coping capacity?

2. How did the humanitarian agencies assist the communities in terms of relief and recovery?
3. What were the gaps in support and assistance and what factors contributed to these gaps?
4. To what extent did the nature of the interactions between humanitarian agencies and communities impact upon the effectiveness of the humanitarian programs?

1.5. Research design

Although this thesis focuses on children affected by disasters, it is a fact that the lives of children cannot be addressed by just focusing on them. For instance, their nutrition cannot improve if the family does not have access to adequate food or cooking utensils. The children will suffer if their families have no place to live. Thus, this study incorporates research at family and community levels. The study adopted an embedded case study design, a case study with two or more sub-unit of analysis (Yin, 2009). Cyclone Nargis 2008, Myanmar is chosen as the case. The study was conducted in four communities (sub-units of analysis) in two seriously affected townships.

The participants were recruited from the pool of caretakers of children who had been seriously affected by disasters and community leaders from the four villages in Myanmar. Semi-structured interviews and focus group discussions were the primary methods of data collection. Two focus group discussions were conducted for each study village. One focus group comprised the caretakers of children affected by the cyclone. Another focus group

consisted of community leaders. Caretakers were also invited to participate in semi-structured interviews. The data collected was checked against situation reports from United Nations Office for Coordination of Humanitarian Affairs (OCHA) and major assessment reports (Appendix 1).

1.6. Theoretical framework

This thesis examines the recovery process of communities seriously affected by a disaster. Since vulnerability and disasters are strongly associated, both concepts are central to the thesis.

1.6.1. Human security theory

The Human Security Theory is an emerging concept which provides a ground for understanding the vulnerabilities of individuals (Carvalho, 2011; Shaw, 2006a). Dr. Mahbub ul Haq, well known for his pioneering work in human development theory, human development index, and Human Development Report, introduced the human security theory in the *Human Development Report* in 1994 (Shaw, 2006a; C. Thomas, 2001). Highlights of the report said that achievements towards wellbeing, development, or reducing vulnerabilities are impossible unless sustainable development which can lead to human security is guaranteed (UNDP, 1994) .

According to the Human Security Theory, threats to human security can be considered under seven main categories (UNDP, 1994). These are

1. economic security
2. food security
3. health security
4. environmental security
5. personal security
6. community security and
7. political security.

The theory emphasizes that the seven categories of threats on human security² are interdependent and that insecurity in one aspect can result in a domino effect (OCHA, 2009). Armed conflicts due to political insecurity, for example, can lead to poverty (economic insecurity), which, in turn, can lead to malnutrition and infectious diseases, among others (health insecurity). Thus, fulfilment of human security in all seven aspects is a precondition. Human security also recognizes that threats or insecurities in a territory or country can spread into wider geographical areas and have negative impact on regional and international security. The literatures and critiques on human security by scholars and experts are reviewed in Chapter 2.

The Human Security Theory influenced this thesis both directly and indirectly. First, it provided a scope to view the needs and vulnerabilities of those affected by disasters

² In this thesis these seven categories are addressed as seven aspects of human security.

through the lens of the seven aspects of human security. This gives people the power to see needs and vulnerabilities comprehensively, and it was these seven aspects that attracted this researcher to use the theory. Thus, Human Security was also used to investigate the vulnerabilities of an affected population.



Figure 1-1: Seven aspects of human security³

³ Figure developed according to Human Security Theory.

Second, the domino effect of Human Security highlighted the fact that humanitarian assistance needs to be provisioned in a balanced and holistic manner. This thesis investigated if such domino effect existed in the case study of disaster-affected communities. This thesis explored the inter-relationships of different humanitarian aspects (in terms of human security) and how one gap in a humanitarian sector could impact other humanitarian aspects of other sectors.

In addition, Human Security had an influence on the Comprehensive Security Framework (below); both Human Security and Comprehensive Security Framework were used to develop study tools. The findings further recommended that Human Security Theory should be employed in humanitarian assessment processes for its power to identify humanitarian needs and vulnerabilities. Thus, human security also acts as a foundation for a proposed humanitarian assessment framework (see Chapter 6).

1.6.2. Comprehensive security framework

Comprehensive Security is a theoretical framework developed by experts and scholars from University of Groningen and has been adopted as a backbone theoretical framework for masters of humanitarian action coursework.⁴ The framework is mainly based on Human

⁴ Usually known as Network on Humanitarian Action (NOHA) masters.

Security Theory and guides the assessment and identification of humanitarian problems. The handbook on Comprehensive Security is in the process of publication and is structured in the logic of humanitarian project cycle management (Zwitter, Heyse, Herman, & Wittek, In press).

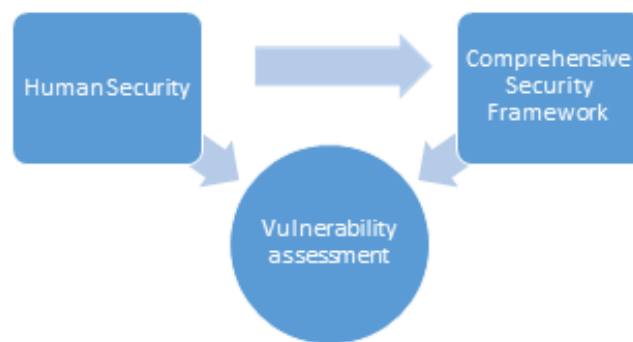


Figure 1-2: Influence of human security and comprehensive security to vulnerability assessment of the proposed framework.

Zwitter et al. suggested a way to study humanitarian situation (vulnerability or human security status) by looking through each aspect of human security as snapshots (Zwitter et al., In press). Comprehensive Security State Analysis (snapshot analysis) suggests investigating each comprehensive security aspect (human security aspect) by means of contextually appropriate indicators. Vulnerability assessment of this thesis is developed in

line with the concepts of human security concepts and comprehensive security; it assesses vulnerability of affected populations by looking at each human security components and identifies gaps according to the indicators (key issues).

The comprehensive security framework not only provides a foundation for vulnerability assessment but also inspires a way to perform stakeholder analysis with its AGIRI analysis⁵, a tool provided by the handbook on which the stakeholder analysis tool for this thesis is based.

1.7. Expected contribution from the thesis

From the early days of this thesis, it was learnt that current humanitarian assessment processes are under criticism for fragmentation and lack of power to feed planning and decision-making bodies. This thesis has thoroughly reviewed the vast literature required for humanitarian aid process. Under the theoretical underpinning of human security concepts, the study tools formulation integrated the know-how from this literature review. The resultant study tools⁶ were used in the data collection process. Since the findings confirmed that the study tools could complement the current humanitarian assessment tools

⁵ AGIRI analysis represents acronym on Agents, Goals, Institutional Structures, Resources and Interactions.

⁶ Study tools were named as VAC, representing Vulnerability Assessment, Stakeholder (AGRI) Assessment and Community Assessment.

and fill the information gap, the tools were reviewed, revised, and improved to be used in other humanitarian assessment processes. It is expected that the revised tool, the VACS⁷ Framework, will complement current humanitarian assessments and will contribute to the facilitation of humanitarian recovery strategy. The VACS Framework is named after its integral components vulnerability assessment, stakeholder assessment (AGRI⁸), Community assessment, and strategy formulation.

The thesis contributes to the knowledge base in three ways.

1. At the micro level, the thesis reports on an in-depth case report of the recovery process in highly affected villages following Cyclone Nargis. This information provides a valuable resource for the agents and agencies involved in the humanitarian aid response in Myanmar. The response and follow-up activities have had little coverage in the literature.
2. The thesis presents recommendations in formulating effective humanitarian response processes which can be used in diverse contexts. The information from the case study is integrated to provide a set of recommendations to strategize an effective humanitarian aid process in similar circumstances. As international

⁷ Named after its component of Vulnerability Assessment, Stakeholder (AGRI) Assessment, Community Assessment and Strategy Formulation Framework

⁸ Agents, Goals, Resources and Interactions

humanitarian communities practice similar humanitarian aid programs in countries affected by disasters, it is expected that the recommendations will provide valuable knowledge contribution for future humanitarian aid response programs.

3. The proposed framework (VACS) will complement current assessment tools and facilitate formulation of humanitarian aid recovery process.

1.8. Outline of the thesis

This thesis is composed of six chapters: Introduction, Literature Review, Methodology, Findings, Discussions, Recommendations and Conclusions, followed by References and Appendixes.

Chapter 1 introduces the goals of the thesis. It reports on the increasing incidence of disasters and on the literature which identifies children as one of the most vulnerable populations during disasters. In this chapter, the importance of a holistic care for children is emphasised as the means for reducing mortality and for mitigating the short and long-term consequences of disasters. It also lays out reports saying that holistic approaches to disaster relief and recovery are not prominent. As well, Chapter 1 describes how the thesis aims to fill the knowledge gap in designing humanitarian aid responses and how human security and comprehensive security framework underpin the study process.

Chapter 2 describes the prevailing literature about the effects of disasters on children, the needs and vulnerabilities of children affected by disasters, and the current status of humanitarian assessment and response practices. This chapter also reviews literature which

describes ‘good practices’ of humanitarian aid. Literatures and critiques on Human Security is reviewed in detailed fashion in this chapter as well.

Chapter 3 presents the methodological perspectives of the thesis, including a description of the conduct of the study and the rationale for choosing the particular methodologies and analytical processes used here. It also provides information on how the study has ensured its validity and reliability, and identifies the strengths and limitation of the process.

Chapter 4 presents the findings of the study. This chapter discusses the result of research and analysis under the headings 1) Effects of Cyclone Nargis on four study communities, 2) Humanitarian Response, 3) Aid Coverage and Gaps, and 4) Interaction between humanitarian agencies and communities. The chapter elucidates the humanitarian response process and community efforts for the recovery, and identifies gaps in responding to the needs and vulnerabilities of the affected communities comprehensively.

Chapter 5 discusses the implications of the findings. This chapter situates the findings within the literature, and suggests the reasons for the differences in the results. In doing this, the chapter presents good practices and areas for improvement in the approaches to humanitarian assessment and relief.

Chapter 6 contains the researcher’s recommendations and conclusions. This chapter emphasizes what findings of the study recommend future humanitarian aid practices. A key recommendation of this chapter is an assessment framework which is expected to

complement current humanitarian assessment and inform humanitarian actors for strategic humanitarian response. These are followed by recommendations for future research and conclusion.

Included in the appendices are the list of documents reviewed on the Cyclone Nargis response, the study tools (questions), tables of humanitarian agencies, and the ethical approval for conducting the thesis.

Chapter 2. Literature review

This chapter gives a comprehensive report on the current literature about the effects of disasters on affected communities. It includes literature on vulnerability, human security theory, humanitarian aid practices, and humanitarian assessment process. It also includes ongoing and emerging practices which are recommended for effective disaster recovery and the humanitarian assessment processes which act as the initial step for engagement in humanitarian programs.

The chapter is organised into four sections. These address the literature related to

1. Vulnerability and disaster
2. Humanitarian response (including humanitarian coordination and community-based approaches)
3. Recommended humanitarian practices (including human security theory), and
4. Current humanitarian assessment practices.

The first section of this chapter, *Vulnerability and Disaster*, describes the interrelationship between a disaster and the affected community, with special emphasis on children. The literature review on vulnerability and disaster highlights the importance of the vulnerability-disaster relationship and post-disaster risks, supporting the fact that disasters increase the vulnerability of affected populations and that humanitarian aid is critical for disaster-affected populations. The following section, *Humanitarian Response*, describes

current humanitarian response practices and recent developments on these practices. The literature review on humanitarian response highlights gaps in the response process of humanitarian aid, an important determinant for outcomes of disaster on affected populations.

Recommended Humanitarian Practices presents the theories and recommendations for effective humanitarian response. This section highlights the current efforts to improve the humanitarian aid processes.

Since the literature review on humanitarian response ultimately reveals a critical gap in humanitarian aid, Section 2.4, *Current Humanitarian Assessment* reviews humanitarian assessments being practiced in recent humanitarian crises.

In *assessments and practices observed during the cyclone*, the reviews of literature on the Cyclone Nargis response revealed the gaps on humanitarian assessment, among other critical gaps.

2.1. Vulnerability and disaster

The United Nations Office for Disaster Risk Reduction (UNISDR) defines a disaster as

... a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources (ReliefWeb Project, 2008, p. 22)

This section describes the impact of disasters on affected communities and the post-disaster risks. In the first part of this section, the literature on damages and losses related to disasters and trends are described. The next part presents the literature about the impact of disasters including additional risks on the affected communities, with a focus on the affected children.

This review will shed light upon the possible needs and vulnerabilities of populations affected by disasters and the short and long-term consequences when the needs and vulnerabilities are not mitigated by an effective humanitarian response.

2.1.1. Increase in number and impact of disasters, worldwide

The world seems to be increasingly affected by disasters (EM-DAT, 2010). From 1976 to 2000, for example, the number of reported natural disasters increased four-fold (UN-HABITAT, 2007). It was calculated that three-quarters of the world's population reside in areas affected at least once by an earthquake, tropical cyclone, flood, or drought between 1980 and 2000 (UNDP, 2004). Economic losses due to disasters are also increasing rapidly. The approximate annual economic loss associated with disasters, for example, skyrocketed from \$75.5 billion in the 1960s to \$659.9 billion in the 1990s (UNDP, 2004).

The 21st century seems to be increasingly disaster prone, with devastating outcomes: the Indian Ocean tsunami in 2004 killed more than 227,000 people (UNICEF, 2009); the 2005

Pakistan earthquake left 86,000 casualties (Amin & Han, 2009); Cyclone Nargis killed more than 140,000 people (Tripartite Core Group, 2010c); the earthquake in Haiti affected over 230,000 (Chu & Nicholson, 2010; Galeckas, 2011; Millard, 2010); and the 2011 tsunami in Japan resulted in 19,000 casualties (Suppasri et al., 2013) .

People from developing countries are disproportionately affected by disasters. While only 11% of people exposed to natural hazards live in countries classified as low human development, these countries account for more than 53 percent of total recorded deaths (Powers & Daily, 2010).

Children represent one of the most vulnerable groups in emergencies (Office of Disaster Preparedness and Emergency Management, 2007; Peek, 2008). They are prone to drowning or simply being taken away by powerful storm surges and tsunami waves (Weiner, 2009). Children are also vulnerable to other hazards such as physical trauma from debris during storms, earthquakes, and explosions. They may be less knowledgeable about how to act when hazards strike and thus less likely to self-help and survive (Peek, 2008). Outcomes ranging from loss of limb to loss of life may ensue for those children who cannot receive timely and proper medical care. The World Health Organisation (WHO) has reported that childhood mortality in some emergencies can be as high as 70 times that of the average child under normal circumstances (WHO et al., 2002). Children under five years of age constitute the highest group in terms of mortality and morbidity in emergencies (Torjesen & Olness, 2009). For example, a mortality survey on displaced Ethiopians found that 54.3% of deaths occurred in children under five (Salama et al., 2001).

Disasters also expose affected populations to post-disaster risks such as displacement, health and nutritional deprivations, and/or psycho-social concerns. In addition, affected populations may be faced with limited access to services; in the Haiti earthquake in 2010, for example, health services or hospitals were overburdened (Burnweit & Stylianios, 2011; Smith et al., 2012).

2.1.2. Disaster-related risks and vulnerabilities

This section describes common risks and vulnerabilities posed by disasters to affected communities. Major risks identified in the literature included health risks, nutrition risks, risks related to displacement, and psycho-social risks.

Health risks

Emergencies create a breeding ground for the spread or epidemic of communicable diseases. For instance, water sources may be contaminated or environmental changes may enhance breeding of mosquitoes after floods (Wilder-Smith, 2005). Many disasters bring about injuries and exposure to severe weather and primitive living conditions. Emergency contexts pose the affected populations with high risk of infectious diseases; measles, diarrhoeal diseases and gastrointestinal infections, acute respiratory infections, malaria, leishmaniasis, hepatitis, and skin infections and/or malnutrition are common (Baqir et al., 2012; Depoortere & Brown, 2006; MSF, 1997; Waltzman & Fleegler, 2009). Health risks increase exponentially if affected communities experience displacement (see section on displacement below).

Nutrition risks

Disasters are associated with increased risk of malnutrition. Malnutrition is endemic in developing contexts, even under normal circumstances. It has been estimated that more than one billion people (15% of the world's population) are undernourished (Doocy et al., 2011) and that approximately 146 million children (one out of every four children under five) in developing countries are underweight (UNICEF, 2006). Malnutrition contributes to over one-third of all deaths of children under the age of five. UNICEF estimates that 5.6 million children die from malnutrition every year (UNICEF, 2006). Deaths due to malnutrition tend to be particularly high in emergency contexts, largely due to the combination of a higher prevalence of malnutrition and increased incidence of communicable diseases. In general, the younger the child is, the more vulnerable they are to malnutrition (Khanna & Gupta, 2005).

Malnutrition, if not attended to in a timely manner, has both immediate and long-term consequences. The effect of malnutrition on children who survive includes impaired cognitive and psychomotor development, greater behavioural problems, lower educational attainment, stunting, low intellectual achievement, and poor career achievement resulting in a low income. These consequences may even pass into future generations (Batty et al., 2009; Carba et al., 2009; del Ninno & Lundberg, 2005; WHO, 2004).

Displacement

Displacement is commonly observed in disasters and armed conflicts. According to the Internal Displacement Monitoring Centre, it was estimated that as of January 2014, about 50 million people were internally displaced or became refugees by conflicts (Internal Displacement Monitoring Centre, 2013). In addition, natural disasters forced about 143.9 million people to displace between 2008 and 2012 (Ibid.). Children constituted significant portion of displacement. There were 18 million children displaced by conflicts across the globe (Reed, Fazel, Jones, Panter-Brick, & Stein, 2012). Torjesen and Olness estimated that another 15 million children were displaced or forced to live away from their homes due to disasters in the past decade (Torjesen & Olness, 2009).

Children and families in post-emergency/recovery periods are often involved in forced movement and end up in camp settings. Displacements or forced migrations are especially threatening to the survival, health, and wellbeing of children (Allotey & Markovic, 2008). In addition to health concerns, displacement creates competition over food, water, firewood, land, and livelihood opportunities, and can lead to overcrowded and ineffective services such as schools and health clinics. Young children in particular are likely to miss out on early childhood development services under these conditions (Baez, 2011). Displacement camps have been associated with high mortality and morbidity. Displaced people, including children, often arrive at camp in poor health, exacerbated by previous fragile conditions, harsh travelling conditions, deprivation of clean water and food, injuries, weather exposure, and psychological trauma (Allotey & Markovic, 2008). The

camps themselves pose both environmental and physical threats. Population movements can lead to exposure to new pathogens for which immunity has not been acquired, especially amongst children (Baez, 2011). Meanwhile, the close living and crowding facilitates the infection rate of communicable diseases. Multi-drug resistant pathogens have been reported to be highly prevalent in crisis situations (Ambrosioni, Lew, & Uçkay, 2010). Lack of access to food and little opportunity for income generation is associated with a high prevalence of malnutrition. Studies suggest that the mortality rate of a displaced population can be double that of the same population prior to displacement (S. L. Thomas, Thomas, & Komesaroff, 2008). This estimate is conservative in some instances. An epidemiological study of internally displaced people in Sudan showed mortality rates in children of up to six times that of the maximum acceptable mortality rate of 1/10,000 day for a population in crisis (S. L. Thomas et al., 2008).

Alternative to camps, displaced persons can be integrated into host communities. This is common in settings where host and displaced populations share common ethnicity, language, or culture. While such integration has been heralded because it can stimulate opportunities for employment and future integration, the integrated displaced populations are less likely to benefit from humanitarian aid (MSF, 1997). Meanwhile, a lack of knowledge about health care services, difficult communication due to language incompetency, cultural shocks, poverty, deprivation, and marginalisation continues to disadvantage refugees and create health and socio-economic vulnerabilities (Allotey & Markovic, 2008).

Psycho-social risks

Emergencies not only affect communities physically but also psychologically (Kar, 2009). Williams and Drury (2009) listed possible stressors in emergencies such as threats to life and physical integrity. These include exposure to injured people; exposure to dying people and to corpses; exposure to gruesome sights and noxious smells; social and material loss and bereavement; social, employment, school, and community disruption; and consequential continuing hardship (Williams & Drury, 2009). In addition, feelings of insecurity in children are caused by such factors as separation from parents and the destruction of familiar surroundings, including their homes and the physical and social structures in the community (Kelly, Jorm, & Kitchener, 2010). Children are more likely to be neglected during this time as caretakers and other adults are traumatised themselves and/or preoccupied with recovery work. The environment of children may be drastically disrupted: social networks of friends, family, and near ones, toys and playgrounds, may have disappeared. Children are frequently relocated to a new, unfamiliar and unfavourable setting such as relocation camps or temporary shelters. Psychological consequences such as post-traumatic stress disorder (PTSD) are common in post emergency populations and have been observed decades after the event (Aghayan et al., 2005; AiZhong et al., 2007; Baddam John, Russell, & Russell, 2007; Chandra, Pandav, Ofrin, Salunke, & Bhugra, 2006; Dolan & Krug, 2006; Gaffney, 2006; Jones, 2008; Man Cheung, Werrett, Easthope, & Farmer, 2004; Sahin, Batigun, & Yilmaz, 2007; Williams, 2007; Williams, Alexander, Bolsover, & Bakke, 2008).

2.2. Humanitarian response

This section reviews literature on the current humanitarian response processes. The review includes critiques on current practices and the evolution of humanitarian response in response to assessments and evaluations. The evolution embraces humanitarian coordination, humanitarian reform process, transformative agenda, humanitarian program cycle, and community-based approaches.

2.2.1. Critiques and evolution of humanitarian response

Comprehensive disaster response systems and plans are indispensable for survival and to curtail the immediate and long-term consequences of emergencies (Weiner, 2009). By its definition, external assistance is indispensable during a disaster. At the same time, there is evidence that external intervention can revert the negative consequences. For instance, nutritional interventions at early stages of malnutrition can mitigate escalation of severe malnutrition (Defourny & Harczi, 2007). Appropriate social and emotional nurturing and support can restore a sense of safety, calm, and hope in young children and families (Hobfoll et al., 2007). Child-friendly spaces and other programs, which provide integrated services for children, have been shown to address the myriad needs for children and their caretakers (Kostelny, 2008).

In the recent decades, the effectiveness of humanitarian response has been questioned (Toomey, 2011). Scholars and practitioners criticised strategies and methods adopted by humanitarian agencies as being insensitive to context, ineffective, creating dependencies,

disempowering to affected populations, and for being run in a non-participatory, top-down manner despite the long history of humanitarianism (Daskon & Binns, 2010; Toomey, 2011).

In the 1980s, international agencies were exposed to sharper criticisms for gaps in humanitarian operations, its segmentation, and indeed its erosion on development approaches (Versluys, 2007). Studies suggested that current humanitarian practices like the importation of goods, services, and introduction of western technologies could have negative effects on community capacity and weakened local economies (Buxton, 2009). The recent evaluation study on the 2004 Indian Ocean Tsunami response, for example, highlighted the fact that rehabilitation efforts were ineffective and unsustainable because the interconnection between livelihoods, community development, and resource management to other facets of recovery was not taken into account (Christoplos, 2006).

Indeed, some studies have suggested that imprudently designed relief efforts actually undermine recovery and work against the long-term development of affected regions (Lee, 2008). Practitioners pointed out that relief operations that fail to appreciate local capacity can constrain recovery to affected populations and can unwittingly exacerbate inequalities, create dependencies, divide communities, or exclude some minorities or marginalized groups (Clinton, 2006; Korf, 2007; Lee, 2008; Telford & Cosgrave, 2007). In some cases, aid has been blamed for enhancing existing vulnerabilities and/or fuelling conflicts (Anderson, 1999; de Ree & Nillesen, 2009).

Along with evaluation of humanitarian response and criticisms, UN and humanitarian agencies as well as individual practitioners and scholars propose concepts and practices to improve humanitarian response.

2.2.2. Humanitarian Coordination, Humanitarian Reform, and Cluster Approach

Studies and evaluation reports revealed that lack of coordination can have serious consequences on the overall success of the humanitarian response (Coles, Zhuang, & Yates, 2012; Onyango, 2008).

The result of failure in coordination was noted as overlapping of activities, inefficiency, and inequality of humanitarian operations, competition, and unwise use of scarce resources.

Despite its importance, some analysts have noted that the very nature of a humanitarian response challenges effective coordination: lack of time, chaos, the nature of emergencies, competition over funding, and disagreements regarding priority areas are common characteristics of an emergency response (Balcik, Beamon, Krejci, Muramatsu, & Ramirez, 2010). An evaluation study on coordination of the humanitarian response to the 2004 Indian Ocean Tsunami revealed that agencies competed to work in particular areas or with specific populations because of the enhanced visibility for the agency (Bennett, Harkin, Samarasinghe, & Wickramatillake, 2006). A study by Balcik et al. claimed that issues of coordination are exacerbated by the fact that diverse actors are involved (Balcik

et al., 2010). This could include governments, military and concerned ministries, the United Nation organisations, international non-government organisations, and local and civil actors and agencies. The study noted that each actor or agency has their own set of goals, interests, mandates, capacity, and expertise and each is accountable for different issues and to different bodies (Balcik et al., 2010).

An independent review on the global humanitarian system was performed in 2005 (Adinolfi, Bassiouni, Lauritzsen, & Williams, 2005). The document, entitled *Humanitarian Response Review*, studied humanitarian capacity of various actors including the UN, Red Cross, and Red Crescent movement organisations, and non-governmental organisations. The key recommendation of the review was to adopt an approach that could enhance coordination and aid effectiveness, namely the cluster approach. The cluster approach was aimed to ensure predictability and accountability of international responses to humanitarian emergencies under the Humanitarian Reform process (Adinolfi et al., 2005; Landegger et al., 2011; OCHA, 2013a). The reform involved a lead agency concept where cluster lead agencies work with organisations from different backgrounds to take responsibility to improve effectiveness, predictability, and technical competency of humanitarian aid for the respective sector (IASC, 2006).

Cluster Approach

The ‘Cluster Approach’ was first deployed in the 2005 earthquake in Pakistan (Morris, 2006). According to the cluster approach, humanitarian actors including UN and non-UN

agencies were grouped into relevant sectors such as health cluster, food security cluster, and the like (IASC, 2006; OCHA, 2013a). Humanitarian country teams were led by a resident coordinator and/or humanitarian coordinator who was responsible for overall coordination; however, each cluster was led by cluster-lead agencies to ensure coordination with the cluster. Cluster leads were the focal contact point for government and humanitarian country teams and were responsible for coordination of sector-specific humanitarian response towards humanitarian emergency.

Several evaluation studies on the Cluster Approach were conducted (Bennett, Harkin, & Samarasinghe, 2006; Steets et al., 2010; Stoddard et al., 2007; Telford, 2007). The reports argued that the process could actually constrain coordination with other response mechanisms and could exclude national and local authorities and community sectors, the most important actors for recovery and development (Bennett, Harkin, & Samarasinghe, 2006; Steets et al., 2010; Stoddard et al., 2007).

The study by Harvey et al. (2010) revealed that the use of English as the operational and coordination language mainly between international agencies could disregard national capacity and could lead to a parallel system with the government (Harvey, Haver, Harmer, & Stoddard, 2010).

An evaluation study by Bhattacharjee and Lossio (2011) on OCHA Response to the Haiti Earthquake pointed out the importance of information management in humanitarian coordination (Bhattacharjee & Lossio, 2011). The study also argued that the current

coordination tools, 3W (Who, What, Where) and One Response, were not effective. The OCHA forms used to collect 3W turned out to be very complicated. The 3W did not convey information beyond the organisation's names and hence concluded that the tool did not deliver the supposed result. Bhattacharjee and Lossio claimed that similar findings were observed with Real Time Evaluation of the Cyclone Nargis response with regards to the 3W tool. The report said that

3W data was of only limited value as it often did not provide sufficient detail for planning purposes and failed to differentiate between an organization with a significant, long-term presence and one doing a one-off relief distribution. (Bhattacharjee & Lossio, 2011, p. 44)

Likewise, Walle and Dugdale (2012) argued that information management was a key factor for successful humanitarian coordination and that many aspects of information collection, sharing, and analysis needed improvement (Walle & Dugdale, 2012). The studies and reports on humanitarian coordination found that information dissemination was not timely (Bennett, Harkin, & Samarasinghe, 2006; Steets et al., 2010; Stoddard et al., 2007). In addition, local communities were not effectively consulted nor invited to participate in humanitarian coordination. Identical findings were also observed in an independent study in Sri Lanka. The Sri Lankan report states that

top-down delivery mechanisms reinforced dependence on aid and did little to encourage self-sufficiency (Lee, 2008, p. 1413).

Transformative agenda and humanitarian program cycle

The Haiti earthquake and Pakistan floods in 2010 again exposed further weaknesses and inefficiencies in the international humanitarian response. Transformative agenda was endorsed by IASC in December 2011 based on learning and experiences of humanitarian responses in 2010 and 2011 (IASC, 2012a, 2012c, 2013).

The IASC Transformative Agenda calls for a more evidence-based, strategic, and prioritised humanitarian response (OCHA, 2014e). The Transformative Agenda focuses on three key areas: leadership, coordination, and accountability (IASC, 2012a). One important proposal of IASC was the Humanitarian Program Cycle. It can be summarized in Figure 2-1: Humanitarian program cycle.

The humanitarian program cycle (HPC) consists of a coordinated series of actions undertaken to help prepare for, manage, and deliver humanitarian responses (OCHA, 2014f). The above diagram shows five elements of the humanitarian program cycle, namely, (1) needs assessment and analysis, (2) strategic response planning, (3) resource mobilization, (4) implementation and monitoring, and (5) operational review and evaluation. Recently, the humanitarian program cycle is being introduced especially for protracted crises which was usually taken care of by the consolidated appeal process (CAP) (OCHA, 2014f). Academic literature on transformative agenda and humanitarian program cycle is limited.

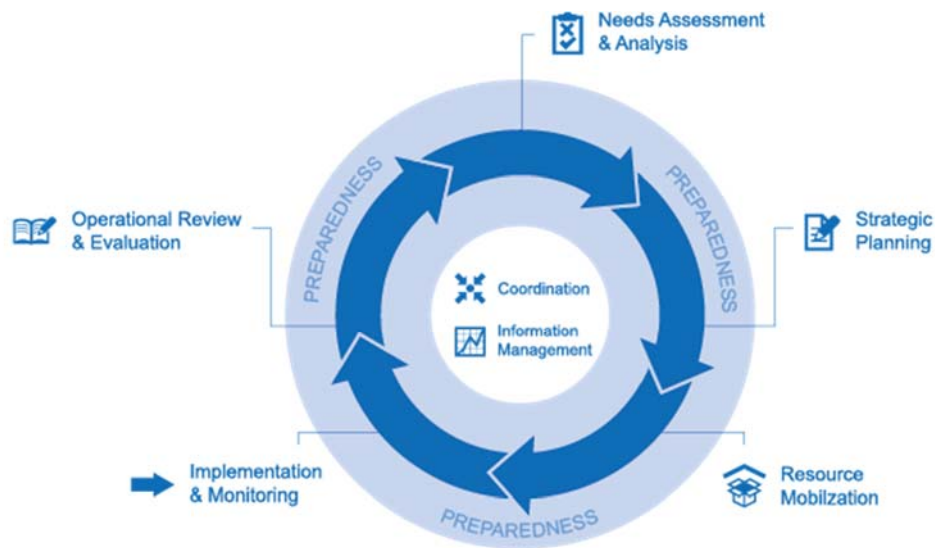


Figure 2-1: Humanitarian program cycle (OCHA, 2014f)

In terms of needs assessment and analysis, humanitarian needs overview is intended to replace the need analysis sector of the Consolidated Appeal Process (OCHA, 2014e). OCHA recommends the humanitarian needs overview to be produced in advance of strategic response planning. OCHA is also responsible for Humanitarian Dashboard, a documentary tool to assist stakeholders to understand the strategic priorities of a response quickly, including the key figures, the most important humanitarian needs and related response per sector. The dashboard is recommended to introduce once CAP or flash appeal was launched (OCHA, 2014d). The new process also called for “prioritisation and assessment planning” to systematically identify information gaps in following joint needs analysis, recommended to be repeated twice a year.

2.2.3. Community-based approaches: Local capacity and context in humanitarian response

By its very definition, a disaster means that external assistance is required. However, external assistance, no matter how well intended, carries the potential to undermine the coping strategies of individuals and communities (Briggs, 2005; Buxton, 2009; Daskon & Binns, 2010; Toomey, 2011).

Analysts criticised the approaches adopted by humanitarian agencies. They said that top-down approaches in particular can result in community division, disempowerment, exclusion of marginalised people, and weakening of local capacity (Buxton, 2009; Hayden & Wai, 2013; Toomey, 2011; Yanacopulos, 2008). Indeed, it was feared that aid interventions might actually be working toward an opposing end, the *creation of dependency*. Scholars, analysts, and donors recognised that even the best designed intervention could not succeed in a cultural vacuum and that local context needs to be incorporated for sustainable, meaningful development (Daskon & Binns, 2010; Easterly, 2007; Hayden & Wai, 2013; Yanacopulos, 2008).

A recent study in Syria, for example, reported worsening food insecurity and higher prevalence of acute malnutrition despite the presence of a huge food assistance program there (Doocy et al., 2011). World Food Program (WFP) food assistance packages are scientifically calculated to meet the calorie and nutritional requirements of the people. The WFP food assistance package includes cereal grains, pulses (beans of varying kinds), vegetable oil, salt, and sugar (Briel & Webb, 2003). However, it was found that food aid

packages could result in a radical change from traditional diets in some cases. Children were shown to suffer more during food crises than adults, as found in the studies in Lesotho (Renzaho, 2006), Democratic Republic of Congo (Coghlan et al., 2006), Sudan (WHO, 2005), and Ethiopia (Salama et al., 2001). Attending to traditional ways of feeding and interacting with children may be more effective than delivering high protein but unfamiliar foodstuffs into communities. Most revealingly, in a study by Duerr, Posner, and Gilbert (2003), it was shown that weight gain and the health of orphaned and unaccompanied children were not significantly different from that of children taken care of by their biological parents, when the orphans were fostered by locals and people familiar to them. Conversely, the mortality rate of unaccompanied children, who were *not* associated with the local population but in the hands of relief agencies, was high. (Duerr et al., 2003).

Various analyses suggest a fundamental reorientation from supplying aid to facilitating the communities' own recovery priorities (Telford, 2007). Disaster response is much more likely to be sustainable and effective when it is based on local capacity, values, and traditions. Thus, humanitarian guidelines advocate for an understanding of local social, cultural, and behavioural contexts that should be incorporated in international procedures (Clinton, 2006; Sphere Project, 2011; UNICEF, 2005).

It is generally acknowledged that interventions and programs that are initiated through community leadership have higher success rates than government or other top-down programs (Botchway, 2001; Simpson, 2007). Community-based and driven development projects become popular and become significant portfolio of humanitarian aid (Dongier et

al., 2001; Mansuri & Rao, 2004). Many agencies now recognise community-based programs as the preferred method of assistance and development with a belief that this strategy can enhance community participation, effectiveness, efficiency, accountability and sustainability (Dongier et al., 2001; Fritzen, 2007; Labonne & Chase, 2009).

The *Glossary of Humanitarian Terms* by the ReliefWeb Project (ReliefWeb Project, 2008) endorses a technical glossary on community-based approach by the United Nations High Commissioner for Refugees (UNHCR), the UN refugee agency:

Community-based approach motivates women, girls, boys, and men in the community to participate in a process which allows them to express their needs and to decide their own future with a view to their empowerment. It requires recognition that they are active participants in decision-making. It also seeks to understand the community's concerns and priorities, mobilizing community members and engaging them in protection and programming.... Participatory assessment is carried out in the spirit of shared responsibility for enhancing protection of all members of the community and is an essential component of community-based work. (ReliefWeb Project, 2008, p. 18)

On the other hand, according to Dongier et al (2001), World Bank defines community-driven development as...

giving control of decisions and resources to community groups. These groups often work in partnership with demand-responsive support organizations and service providers, including elected local governments, the private sector, NGOs, and central government

agencies. CDD is a way to provide social and infrastructure services, organize economic activity and resource management, empower poor people, improve governance, and enhance security of the poorest. (Dongier et al., 2001, p. 303).

Dongier clarified the supportive role of humanitarian aid as strengthening and financing community groups (CBOs), facilitating access to information, and creating an enabling environment (Dongier et al., 2001).

Both definitions emphasised participation and decision-making by the community or community groups. Community-based organisations are deemed to be closer to the grassroots sector and thus likely to incorporate local values and traditions into service provision than centralised systems (Datta, 2007; Hayden & Wai, 2013; Reimann, 2005).

Although community-based approaches are hypothesised as a better approach, literatures suggest the benefits may be fully utilised if they are aware of certain pitfalls (Fritzen, 2007; Wong, 2010).

Participation, the major backbone of community-based approaches, are sometimes manipulated by NGOs. Robert Chamber, a pioneer on participatory development, showed a concern over quality assurance along with rapid spread of participatory assessments (Robert Chambers, 1994b). Likewise, Cullen and Coryn (2011) highlighted a confusion over the practice of participatory evaluation and called for precise and specific definition

(Cullen & Coryn, 2011). The evidences suggest participatory assessments were sometimes used by some facilitators to legitimise existing relations of power/knowledge and “facipulate” community consensus (Azadi, Samari, Zarafshani, Hosseininia, & Witlox, 2013; Cornwall & Pratt, 2011; Koryang, 2011).

Elite capture is a documented risk in the studies on community-based projects (Alatas et al., 2013; Pan & Christiaensen, 2012). It refers to a situation whereby elites manipulate the decision-making arena and agenda and obtain most of the benefits of community-based services (Fritzen, 2007; Hayden & Wai, 2013; Platteau, 2004; Wong, 2010). Volunteerism of the community-based approach can affect representation by excluding poor and marginalized populations and favour affluent population, resulting in skewed representation or elite capture, which means elite populations utilising the programs for their interest (Hayden & Wai, 2013).

2.3. Recommended humanitarian practices

This section reviews concepts and recommendations which advocate for effective humanitarian response in emergencies. The concepts included linking relief, recovery and development, Build Back Better, vulnerability, and human security.

2.3.1. Linking Relief, Recovery and Development

Practitioners and scholars observed that even though resources were plenty in the Indian Ocean Tsunami 2004 recovery, the results, especially in terms of long-term recovery, were not impressive (Telford, 2007). In addition, it was found that the potential loss of livelihood and capacity from disasters can destroy social cohesion within communities and impact the long-term wellbeing of individuals in a number of other ways. Practitioners and scholars hence call for rebuilding needs to involve more than reinstating physical structures to pre-crisis conditions (Richards, 2010).

In a recent report from the Cluster Working Group on Early Recovery (CWGER), the aim of effective early recovery process was described as being able to

...generate self-sustaining, nationally owned, resilient processes for post crisis recovery ... encompass(ing) the restoration of basic services, livelihoods, shelter, governance, security and rule of law, environment and social dimensions, including the reintegration of displaced populations. (The Cluster Working Group on Early Recovery, 2008, p. 6)

In the recent decades, the concepts of linking relief recovery and development became popular among humanitarian practitioners. Mosel and Levine (2014) claimed that the concept of LRRD was rooted from discussions on the food security crises in Africa in the 1980s (Mosel & Levine, 2014). According to Buchanan-Smith and Maxwell (1994), the

linkage between relief, recovery, and developments were inter-connected (Buchanan-Smith & Maxwell, 1994). Statistics indicated that disasters have an effect on the development of a country or a population. At the same time, the studies suggest that better development can reduce the need for relief aid whilst better rehabilitation can ease the transition between relief and development (Buchanan-Smith & Maxwell, 1994; Christoplos, 2006; Koddenbrock & Büttner, 2009).

This notion is encapsulated by the theory of “linking relief, recovery and development” (LRRD) (Büttner, 2008), which advises that early recovery programs should introduce recovery/development activities along with relief work (Harvey, 2009). This concept has been endorsed by the UN, the United States Agency for International Development (USAID), the European Commission, and other international donors (Harvey, 2009). Concepts of LRRD have been employed in many countries and extensively reviewed for their benefits. For instance, the LRRD aspects of the 2004 Indian Ocean Tsunami were evaluated twice, in 2006 and again in 2009 (Brusset et al., 2009). A fundamental finding was that long-term development is related to the involvement of local communities and local partners in the relief, recovery, and development stages. The concept of LRRD is especially noted for its emphasis on assessment as an integral component of relief, recovery and development.

Figure 2-2, below, shows the components of LRRD, including decentralised approaches, integrated services, focus on partner involvement, targeting specific needs and results, and ensuring that assessment is contextualised. Each of these components contributes to

effective long-term planning which will be monitored and adapted through the continuous LRRD cycle.

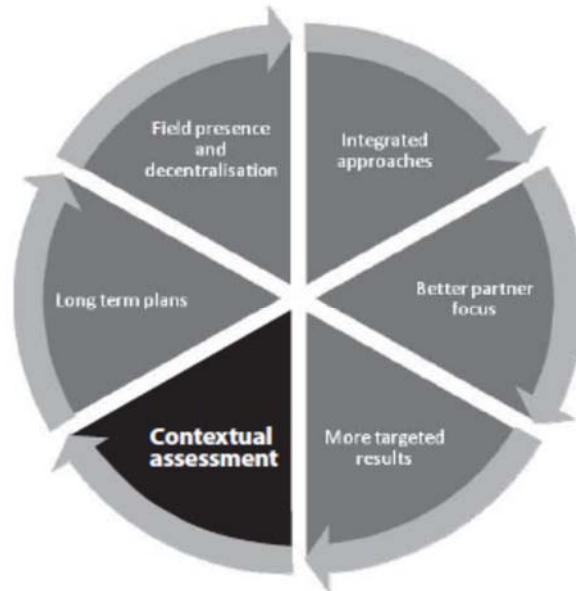


Figure 2-2 Linking Relief and Recovery to Development Cycle (Brusset et al., 2009).

Despite this framework, emergency experts and scholars argue that conceptually defining and putting the theory to practice of ‘linking relief, rehabilitation and development’ was not simple (Mosel & Levine, 2014). Recent humanitarian crises showed managing of smooth transition from immediate humanitarian relief assistance to more sustainable development programs was not easy (Ramet, 2012). Büttner claimed that humanitarian actors misunderstood how LRRD concepts should be applied in practice (Büttner, 2008).

At the same time, humanitarian practitioners also showed concerns over reinstating the government authority and ownership, a key outcome of Linking Relief and Recovery to

Development Cycle in a conflict environment since it may contrast with the humanitarian principles of neutrality, impartiality, and independence (Christoplos, 2006)

Indeed, LRRD itself represents a self-learning process. The initial conceptualisation of LRRD was the ‘continuum’ model which called for smooth and continuous one-way transition relief phase to a phase of development phase (Mosel & Levine, 2014). The studies showed that implementing the linkage for relief phase, rehabilitation phase, and development phase in a linear fashion (continuum model) was found to be insufficient (Büttner, 2008). Progress has been made to design relief, rehabilitation, and development initiatives since the early days of disaster response, resulting in the birth of the continuum model of LRRD (Büttner, 2008; Koddenbrock & Büttner, 2009).

Mosel and Levine recommend an analysis of chronic problems, underlying structural causes, and acute vulnerabilities or needs jointly by emergency and development practitioners (Mosel & Levine, 2014).

2.3.2. Build Back Better

A tragedy like the tsunami in the Indian Ocean in 2004 received global attention on humanitarian aid. The statement of William J. Clinton, UN special envoy for the tsunami recovery, to “not only rebuild what was destroyed but to use the opportunity Build Back Better” became an advocacy agenda for other disasters including Cyclone Nargis in Myanmar 2008 (Clinton, 2006; Fan, 2013). The underlying scope of the concept was based

on the fact that a disaster can offer an opportunity to rebuild the affected communities better (Clinton, 2006; Fan, 2013).

Clinton proposed ten propositions to guide Build Back Better. These propositions are described in Table 2-1 below (Clinton, 2006; Fan, 2013; Lyons, Schilderman, & Boano, 2010). Build Back Better concepts were well endorsed and widely used as a governing concept in many disaster responses including responses to the Pakistan Earthquake 2005, Cyclone Nargis Myanmar 2008, and Haiti Earthquake 2010 (Fan, 2013).

Despite being a key concept guiding many disaster response operations, a review on post-disaster response cases on Indian Tsunami 2004, Cyclone Nargis 2008, and Haiti Earthquake 2010 have suggested that the common concept Build Back Better is elusive (Fan, 2013). Some scholars emphasise the structural aspect of building back better (Lamond, Proverbs, Booth, Mannakkara, & Wilkinson, 2013). This focuses on building codes, regulations, and quality assurance. Lyons et al. (2010) emphasised community participation as being vital to building back better, even for large scale projects (Lyons et al., 2010). According to Mannakkara et al. (2014), building back better can be generally categorised into the broad categories of risk reduction, community recovery, and implementation of reconstruction and recovery activities (Mannakkara & Wilkinson, 2014; Mannakkara, Wilkinson, & Potangaroa, 2014), with requirement of monitoring and evaluation. To them, the Build Back Better concept aims to ensure functions of affected communities, to reduce risk, and to improve resilience to future disasters.

A study by Fan (Fan, 2013) showed that Build Back Better was found to be practiced differently at different settings. According to her, in the Indian Tsunami 2004 in Aceh, Build Back Better was described in terms of physical reconstruction and changes in social and political aspects. In the Cyclone Nargis case, Build Back Better was interpreted as a focus on disaster risk reduction and livelihood but limited attention was given to political changes, infrastructure, and shelters. In the case of the earthquake in Haiti, Build Back Better incorporated a plan consisting of territorial rebuilding, economic rebuilding, social rebuilding, and institutional rebuilding (Fan, 2013).

Despite a theoretical perspective, critics claimed that Build Back Better did not achieve its claim even in case of the Indian Tsunami response when access to financial resources was not a constraint at all (Khasalamwa, 2009). Some argued that post-disaster period is not

Table 2-1: Key Propositions for Building Back Better (Clinton, 2006, p. 1)

Proposition 1

Governments, donors, and aid agencies must recognize that families and communities drive their own recovery.

Proposition 2

Recovery must promote fairness and equity.

Proposition 3

Governments must enhance preparedness for future disasters.

Proposition 4

Local governments must be empowered to manage recovery efforts, and donors must devote greater resources to strengthening government recovery institutions, especially at the local level.

Proposition 5

Good recovery planning and effective coordination depend on good information.

Proposition 6

The UN, the World Bank, and other multilateral agencies must clarify their roles and relationships, especially in addressing the early stage of a recovery process.

Proposition 7

The expanding role of NGOs and the Red Cross/Red Crescent Movement carries greater responsibilities for quality in recovery efforts.

Proposition 8

From the start of recovery operations, governments and aid agencies must create the conditions for entrepreneurs to flourish.

Proposition 9

Beneficiaries deserve the kind of agency partnerships that move beyond rivalry and unhealthy competition.

Proposition 10

Good recovery must leave communities safer by reducing risks and building resilience.

always a good time to practice Build Back Better, claiming that Build Back Better should be practiced only when conditions are favourable (Fan, 2013).

Despite critiques, it is widely accepted that Build Back Better concepts are based on good humanitarian practice. For instance, Fan (2013) claims that Build Back Better prepositions (except preposition 10) are existing humanitarian good practices, not new and specific to the concept itself (Fan, 2013). It also commonly agreed that risk reduction/ vulnerability reduction is a critical step in minimising the risks from future disasters (Khasalamwa, 2009; Lamond et al., 2013; Lyons et al., 2010; Mannakkara & Wilkinson, 2014; Mannakkara et al., 2014). Also, Build Back Better adopts a holistic approach incorporating physical, social, environmental, and economic aspects of a community in reconstruction, recovery, and resilience (Mannakkara & Wilkinson, 2014).

2.3.3. Vulnerability

The investigation of vulnerabilities as part of disaster assessment is a relatively new approach. Prior to the 1970s, the focus of projects and programs of risk reduction and disaster relief was on physical infrastructure over and above human components (O'Keefe, Westgate, & Wisner, 1976; Westgate & O'Keefe, 1976). More recently, academic literature has recognised the role of vulnerability as a foundation for disaster management efforts and researchers have noted that research on emergency response and recovery is incomplete without a focus on the relationship between vulnerability and disasters (National Research Council, 2006; Wisner et al., 2003). UNISDR defines vulnerability as

“the conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards” (ReliefWeb Project, 2008). In this thesis, vulnerability is regarded as the opposite of human security, i.e., insecurity in the aspect of health, food, economic, personal, environment, social and political security.

A model called “*Pressure and Release*” was developed to explain the role of vulnerability and its relationship with disaster risks (Lizarralde, Johnson, & Davidson, 2009; Wisner et al., 2003). According to the *Pressure and Release* model, disasters are the result of two opposing forces: those processes generating vulnerability on one side, and a hazard event (or sometimes a slowly unfolding natural process) on the other (Wisner et al., 2003). The progress of vulnerability is a result of underlying causes (root causes), dynamic causes or dynamic pressure, immediate causes or unsafe conditions. Thus, vulnerability plays a vital role in the impact of disasters. In other words, the model highlights the fact that vulnerable people, groups, or countries are usually more affected in case of disasters.

The role of vulnerability on impacts of disasters as explained by the Pressure and Release Model was symbolised by a schematic equation:

$$R = H \times V$$

where *R* is risk (disaster), *H* is hazards and *V* is vulnerability (Birkmann, Garschagen, Van Tuan, & Binh, 2010; Hamdani, Setyawan, Setiawan, & Affandi, 2012). There are some

variations to this equation. For instance, some authors described Risk (R) as a function of Hazard (H) and Vulnerability (V), represented by

$$R = f(H, V)$$

(Birkmann & Wisner, 2006; Suroso, Kombaitan, & Setiawan, 2013). Despite variations in schematic equations, all analysts have accepted the notion that risk of a disaster increases when the vulnerability of a population increases.

On the other hand, the literature suggests that disasters increase the vulnerability of affected populations at the same time. A study on the cholera outbreak in Haiti and studies on risks following major natural disasters which occurred from 2000 to 2011, confirmed the increased vulnerability after disasters (Andrews & Basu, 2011; Ceccarelli, Spagnoletti, Cappuccinelli, Burrus, & Colombo, 2011; Kouadio, Kamigaki, & Oshitani, 2010; Sack, 2011). The study showed the earthquake (disaster) in Haiti (2010) destroyed already poor water and sanitation facilities, leaving people in more vulnerable situations resulting in a cholera outbreak (another disaster) in the following months (Andrews & Basu, 2011; Ceccarelli et al., 2011; Sack, 2011). Similarly, extremely high morbidity and mortality related to measles outbreak in children (another disaster) are common after a disaster. This is due to increased vulnerability to measles under conditions of displacement and crowding, malnutrition, and low vaccination coverage in addition to the disruption of the health system (Kouadio et al., 2010). Thus, it can be said that disasters and vulnerability have an interrelationship or a two-way relationship.

Despite the increased application of concepts of vulnerability in disaster risk management (disaster risk reduction), analysts suggest that that current models of vulnerability fail to indicate the appropriate actions to be taken when a disaster occurs, i.e., when hazard and vulnerability coincide (Lizarralde et al., 2009). It is argued that vulnerability is a difficult term to translate into practice, especially in disaster response.

The human security theory (below) provides a way of looking at vulnerability through a different lens.

2.3.4. Human security

Despite some differences, it is commonly accepted that vulnerability can be identified as the *opposite* of security in the context of disasters. In other words, vulnerability is equated with insecurity (IFRC, 1996; Wisner et al., 2003). Thus the disaster-vulnerability process can be examined within the framework of human security.

Human security is an emerging concept which provides a ground for understanding the vulnerabilities of individuals. Concepts of human security gained global awareness in 1994 when it was published in the *Human Development Report* (UNDP, 1994)

Scholars claimed that human security theory shifted from state security point of view (Chandler, 2008; Nathan, 2009). Security was first seen as a state responsibility to protect its national security (from other nations) and hence assumed a state-centred approach (Chandler, 2008; Nathan, 2009). However, it soon became evident that even though there

is no enemy to fight, people cannot be said to be secure since they continue to be affected by negative social, economic, and ecological forces that induce disasters (Nathan, 2009). This point of view called for a change in paradigm from state-centred, military-based security (state security) to individual-centred, bottom-up approach of security (human security).

Recent concepts of human security inspired by Dr. Mahbub ul Haq, world-known pioneer for human development approach and human development report (UNDP), called to adopt human security into practice under the theme of human development. In Chapter 2, the ‘New dimensions of human security’ of Human Development Report 1994 (UNDP, 1994), the concepts is articulated sensibly and rightly (Martin & Owen, 2010).

Human security claims two conditions (minimal requirements) essential for individual lives. They are

...a decent life at reasonable standards (freedom from want, i.e., from the most basic needs); and stability, i.e., a possibility to consider life and the future with serenity (freedom from fear), exempt from killings, injuries, huge losses, brutal changes, job insecurity, disasters, etc. (Nathan, 2009, p. 1128)

The Human security concept (UNDP, 1994) has grouped the major threats the disruption of which can create vulnerability (insecurity) of individual lives into seven main categories

- food security
- health security
- environmental security
- personal security
- community security or social security
- political security and
- economic (livelihood) security.

Human security highlighted that the seven aspects of human security are interdependent facets (OCHA, 2009). When there are gaps or insecurities in any one of the facets, some or all of the other facets are likely to be affected. For example, armed conflicts due to political insecurity can lead to poverty (economic insecurity), which, in turn, can lead to food shortages (food insecurity) and then malnutrition, infectious diseases, etc. (health insecurity). Similarly, Bunde-Birouste et al. highlighted the interrelationship between health and conflicts / violence (Bunde-Birouste & Ritchie, 2007). Human security theory also recognises that threats or insecurities in a territory or a country can spread into wider geographical areas and have negative impacts on regional and international security (Shaw, 2006a; C. Thomas, 2001).

The theory implies that all the aspects of human security should be maintained at a condition which can be said as secured (at an acceptable state, a state of non-existence of insecurity or vulnerability). If there is insecurity (vulnerability), the other aspects of human security will be affected. In other words, insecurity in one or more aspect of human security

can undergo a domino effect and result in high vulnerability. The tragic loss of Dr. Haq in 1998 affected the evolution of the theory of human security (Martin & Owen, 2010).

The concept of human security was well supported and endorsed by the UN and world leaders, including Secretary-General of the United Nations and famous scholar and Nobel Prize laureate Dr. Amartya Sen, and adopted by many nations. In 1999, UN Secretary General Kofi Annan remarked the concepts of Human Security in his Millennium Declaration in terms of twin objectives of ‘freedom from fear’ and ‘freedom from want’. The declaration was followed by subsequent development of systems in UN such as United Nations Trust Fund for Human Security (UNTFHS) and Human Security Network (HSN) in 1999, Commission on Human Security (CHS) in 2001, Human Security Unit in OCHA (HSU) in 2004 (OCHA, 2009). However, some scholars criticised the UN approach of human security in early days as

... ambiguous, lack a clear distinction between human rights and human security and conceptual overstretch, and hence poorly institutionalized (Martin & Owen, 2010, p. 213)

Others have suggested that under the rubric of human security, development is seen to be more than just economic growth. Human security in fact emphasises the interconnectedness of development, peace, and human rights in order to accomplish human capacity development (Takasu, 2012). Other scholars argue that human security and

human development are not the same, but are complementary to each other; improvement in human security enhances human development and vice versa. Likewise, a failure in one area can result in the failure of the other (UNDP, 1994).

Some scholars claim that human security encourages a balanced approach between top-down and bottom-up approach as it sees protection (top-down approach) and empowerment (bottom-up) approach as mutually reinforcing (den Boer & de Wilde, 2008; N. Thomas & Tow, 2002). To them, human security is a people-centred approach and is based on context-specific, cooperative, and multi-sectoral response. According to O'Brien (O'Brien & Leichenko, 2007; O'Brien et al., 2008), human security

... includes the means to secure basic rights, needs, and livelihoods, and to pursue opportunities for human fulfilment and development. (Khagram, Clark, & Raad, 2003), cited in (Matthew, Barnett, McDonald, & O'Brien, p. 170).

Human security is an essential basis for sustainable development (Khagram et al., 2003). In 2009, the Human Security Unit, OCHA published *Human Security in Theory and Practice: Application of the Human Security Concept and the United Nations Trust Fund for Human Security* (OCHA, 2009).

2.4. Humanitarian assessment

This section describes the current processes and practices of humanitarian assessment. It also reports on the progress and evolution of humanitarian assessment process in the recent days. In addition, reports and literatures on the assessment process during the Cyclone Nargis are also reviewed here.

Need assessment plays a critical role in saving lives and recovery from a disaster: its timeliness and quality portray effective humanitarian response (OCHA, 2014c). Darcy and Antoine-Hoffman (2003) highlight the fact that proper information is essential to make humanitarian decisions: whether to intervene; the nature and scale of the intervention; prioritisation and allocation of resources; and programme design and planning (Darcy & Antoine-Hoffman, 2003a). A comprehensive assessment is needed to feed proper information to decision-making and coordinating bodies in order to pave the way for effective coordination and well-designed humanitarian response programs.

The principle of impartiality, a key foundation in humanitarian principle, advocates that assistance should be given on the basis of need alone. A need assessment is a fundamental requirement to fulfil this principle (Darcy & Antoine-Hoffman, 2003b).

2.4.1. Current humanitarian assessment processes and response practices

Although humanitarian need assessments were criticized as “slow, overlapping, poorly shared, and imprecise,” international communities are on a review process to improve humanitarian assessment process and information coordination (Garfield & Blake, 2011; Telford & Cosgrave, 2007).

The Inter-Agency Standing Committee (IASC) Global Health, Nutrition and WASH Clusters in 2006-2009 (IASC, 2009) has recommended multi-cluster/ multi-sectoral Initial Rapid Assessment⁹ (MIRA) be undertaken in the first stage of emergencies (within two weeks of the crisis). Another important assessment in humanitarian emergencies is the Emergency Assessments by the International Committee of the Red Cross (ICRC), the International Federation of Red Cross and Red Crescent Societies (IFRC) (IFRC, 2008). The purpose of these assessments, according to the IFRC/ICRC manual for Assessments in Emergencies, is:

...not to identify an intervention but to find out whether an intervention is needed or not ... to identify the problem(s), the source of the problem(s) and the consequences of the problem(s). (IFRC, 2008, p. 12)

⁹ Sometimes also acronym as IRA

The goals described in MIRA documents are slightly more comprehensive. MIRA is undertaken in order to:

... identify the immediate impacts of the crisis, make initial estimates of the needs of the affected population for assistance, and define the priorities for humanitarian action (and funding for that action) in the early weeks. Initial Rapid Assessment (IRA): Guidance Notes (IASC, 2009, p. 3)

One major criticism of humanitarian assessments is that they tend to be completed far too late, and to provide too little useful information for guiding funding decisions or providing a comparative base for monitoring during recovery (Garfield & Blake, 2011). Analyses have shown that common need assessments (MIRA) which have been conducted, namely Multi-cluster Rapid Assessment Mechanism (McRAM/Pakistan), Post-Nargis Joint Assessment (PONJA/Myanmar), and Rapid Initial Needs Assessment in Haiti (RINAH/Haiti), delivered information late. The quickest process of these assessments,

McRAM in Pakistan, took 27 days from time of decision (to conduct a MIRA) to complete the assessment (Garfield & Blake, 2011).¹⁰

According to current recommendations by IASC and the Need Assessment Task Force, second level assessment (that is, assessments following rapid assessment, MIRA) should be cluster-specific or sector-specific. These secondary assessment outcomes are subsequently analysed through inter-cluster coordination meetings (ICCM) (ACE Project, 2009; IASC, 2011b). However, in one review of this process, it was found that sharing and aggregating data from the multiple cluster/sector assessments is wrought with difficulties under emergency conditions (IASC, 2011b) and that the specific needs of affected populations were frequently not addressed through these common decision making mechanisms (ACE Project, 2009).

Humanitarian communities and donors have expressed concern with respect to the lack of a needs assessment for evidence-based, coordinated, effective humanitarian responses (IASC, 2011a). Assessment tools can lack the ability to incorporate vital information about underlying influences on injury, death, livelihood disruption, and barriers to recovery (Wisner et al., 2003). Poor or fragmented information can result in an improper and poorly coordinated response (Cowan, 2011). For example, nutritional surveys, which indicate

¹⁰ Original sentence: The more recent McRAM in Pakistan was the most rapid of these assessments once the decision to field a survey was taken, lasting 27 days from start to finish.

protein shortages, may not be effective in directing programs to improve the nutritional status of children. Reviews of the response to the 2004 Indian Ocean Tsunami disaster provide another example. Analysts labeled the response overfunded and ineffective (de Ville de Goyet & Morinière, 2006; Korf, 2007; Telford & Cosgrave, 2007). Several investigators have suggested that the failed approaches were because “assessments were slow, overlapping, poorly shared and imprecise” (Telford & Cosgrave, 2007).

In a recent review, mapping key emergency need assessments and analysis initiatives (ACE Project) by IACS, it was shown that various humanitarian agencies employed different rapid assessment tools, that tools were fragmented, often repeated, used up scarce time and resources, and created assessment fatigue in the already traumatized respondents (ACE Project, 2009).

Rapid assessment means that results need to be recorded without the luxury of time. As these assessments aimed to assess survival needs rather than recovery needs as mentioned in the objectives, identification of recovery needs is not one of its functions. Hence, there is a need for a more comprehensive assessment in order to ensure that critical issues are included in the assessment of needs. The identification of vulnerable populations that need extra support, for example, is rarely included in rapid assessment reports.

Plans and decisions made without understanding and addressing root causes of vulnerability can increase long-term vulnerability of affected populations (Ingram et al., 2006). This was evident in practices in Sri Lanka following the 2004 Indian Ocean tsunami.

The government reacted by establishing a coastal buffer zone where no construction was permitted. While this appeared to be a safety measure, the officials failed to consult with the affected population and thus neglected to ensure that a number of issues were addressed. This buffer zone decision has since been associated with increasing vulnerability through socio-economic disparities, livelihood insecurities, disruption of communities, and negative impacts on the environment (Ingram et al., 2006).

2.4.2. Concerns about assessment processes

From the review of the literature presented above, it is clear that humanitarian assessment currently practiced was under criticism. Experience has shown that the current rapid need assessment (MIRA) was not timely and could not offer adequate information to design effective humanitarian responses (ACE Project, 2009; Darcy & Antoine-Hoffman, 2003b; Garfield & Blake, 2011). Although evaluations were conducted on current assessment practices and recommendations were made, the reviews found that the recommendations contradicted the requirements of effective need assessment.

The following section reviews the literature which specifically addresses the humanitarian aid practices during the Cyclone Nargis. The list of key documents is attached in Appendix 2¹¹. These documents also provided valuable information with regards to the background

¹¹ Key documents reviewed are OCHA situation reports (Appendix), PONJA, Periodic Reviews (Periodic Review One to Four) for assessment reports and PONREPP, Flash Appeals and Revised Flash Appeal

information and devastation experienced by the affected communities and also helped to validate this study's findings.

2.5. Assessments and practices observed during the cyclone (PONJA, PR, PONREPP and FA)

The review of literature and reports suggests that the response towards Cyclone Nargis underwent typical humanitarian cycle with a few exceptions. According to the situation reports, the cluster system was activated and Central Emergency Response Fund (CERF) was served in the immediate days following the disaster. Flash Appeal (OCHA, 2008a) and Revised Appeals (OCHA, 2008b) were launched. Joint need assessment (Multi-sectoral Initial Rapid Assessment) , namely Post-Nargis Joint Assessment (PONJA), was conducted (Tripartite Core Group, 2008a). The Tripartite Core Group (TCG) organised by the ASEAN, the Government of Myanmar, and the United Nations led the PONJA process along with humanitarian agencies (Tripartite Core Group, 2008a).¹²

Flash Appeal and Revised Flash Appeal Documents, the key documents on Cyclone Nargis recovery plans, were published on May 9, 2008 and July 10, 2008 respectively, well before the PONJA report was available. The following table (Table 2-2) shows the date of

¹² Joint assessments are usually conducted by a team of emergency specialists, including assessment and sectoral specialists, drawn from the various clusters/sectors (IASC, 2012b; Tripartite Core Group, 2008a).

publication of Flash Appeal, revised Flash Appeal, and PONJA. Thus, it is evidenced that these documents were not based on the need assessment report (PONJA) for planning purposes (OCHA, 2008a, 2008b; Tripartite Core Group, 2008a).¹³

Following the PONJA, the TCG conducted Periodic Review assessments (One to Four) to document the overall humanitarian progress (Tripartite Core Group, 2010a). According to TCG, the goal of the Periodic Review Reports was:

The Periodic Review is a process of assessment, monitoring, and reporting on the needs of people and communities affected by Cyclone Nargis. It is being conducted by the Tripartite Core Group (TCG). The goal of the Review is to generate data that can be used to target assistance, inform future assessments and thereby help alleviate suffering and accelerate the process of recovery. (Tripartite Core Group, 2008b, p. 3)

The assessments (PONJA, Periodic Reviews and Social Impact Monitoring) used credible research and sampling methods, and involved extensive efforts from the UN, humanitarian agencies, and the Government of Myanmar along with experts and teams from ASEAN. In addition to PONJA and Periodic Reviews, Social Impact Monitoring studies were

¹³ Revised Flash Appeal claimed that information from Village Tract Assessment, a portion of PONJA (OCHA, 2008b), contributed in the process of the development of the revised Flash Appeal.

undertaken to reflect qualitative aspects. Social Impact Monitoring Reports were published three times as shown in Table 2-2.

Table 2-2: Publication date of key documents¹⁴ on Cyclone Nargis assessment and response

Report	Data collection	Publication
Flash Appeal		9 May 2008
Revised Flash Appeal		10 July 2008
PONJA	10 - 19 June 2008	21 Jul 2008
Periodic Review I	29 October - 19 November 2008	December 2008
Social Impact Monitoring Report I	November 2008	January 2009
Periodic Review II	7 May – 2 June 2009	July 2009
Social Impact Monitoring Report II	June 2009	December 2009
Periodic Review III	21 October - 19 November 2009	January 2010
Periodic Review IV	4 May - 29 May 2010	July 2010
Social Impact Monitoring Report III	April 2010	July 2010

Source: Periodic Review IV (Tripartite Core Group, 2010c) and Revised Flash Appeal (OCHA, 2008b)

According to PONJA and Periodic Reviews, the cyclone resulted to about 140,000 (killed or missing) casualties and affected 7 million; of these, 2.4 million was identified as severely affected (Tripartite Core Group, 2010c). In terms of damages, the reports

¹⁴ The Post-Nargis Recovery and Preparedness Plan (PONREPP) which outlined a three-year strategy, was published in December 2008. However, there was limited funding available for Revised Flash Appeal (2008) that the PONREPP document was reviewed and revised in October 2009 (Financial Tracking Service, 2013; Tripartite Core Group, 2008a, 2010b).

calculated that 450,000 homes along with large numbers of infrastructure components such as jetties, roads, and piers were destroyed. The cyclone also caused displacement of approximately 800,000 people. The livelihood of the affected population was devastated as the cyclone took not only food stocks and capitals but also seeds, farm animals, and livelihood-related equipment such as boats and farming tools (Tripartite Core Group, 2008a, 2009b, 2010c). The condition was compounded by reduced soil fertility after the cyclone (Tripartite Core Group, 2010c).

According to Periodic Review IV, the last report conducted two years after the cyclone, health, nutrition, water and sanitation situations were improved or stabilised. However, livelihood, food security, and shelter conditions were below normal status (not yet recovered). The report identified a critical need for continued humanitarian assistance for affected communities. Social Impact Monitoring Reports which were undertaken to reflect the qualitative aspect of the Cyclone Nargis response confirmed this finding. The reports showed that the affected communities fell into debt traps (Tripartite Core Group, 2009c). The majority of villages experienced significant decline in fish stock and reduced farming inputs of more than thirty percent below pre-cyclone level (Tripartite Core Group, 2010c).

A review of program documents (Flash Appeal and Revised Flash Appeal) suggested that provision of humanitarian aid to Cyclone Nargis was not imbalanced. Table 2-3 below describes overall funding allocation as reported in Flash Appeal and Revised Flash Appeal.

Table 2-3: Budget request in Flash Appeal and Revised Flash Appeal for Cyclone Nargis (OCHA, 2008a)

Cluster	Flash Appeal	Percent	Revise Flash Appeal	Percent
Agriculture	10,000,000	5.34	58,406,169	12.12
Early recovery	4,850,000	2.59	54,060,169	11.22
Education	7,500,000	4.00	25,896,000	5.37
ETC	1,320,000	0.70	1,578,247	0.33
Food	56,000,000	29.90	112,500,000	23.35
Health	15,780,000	8.43	46,700,529	9.69
Information management and coordination	1,608,337	0.86	4,561,363	0.95
Logistics	49,664,697	26.52	50,515,347	10.48
Nutrition	7,100,000	3.79	17,910,000	3.72
Protection of children and women	4,390,000	2.34	16,848,700	3.50
Shelter	20,300,000	10.84	42,472,160	8.82
Water and sanitation	8,785,120	4.69	50,355,262	10.45
Grand total	187,298,154	100.00	481,803,946	100.00

According to Flash Appeal 2008, food and logistics sectors requested more than 56.42% of total appeal, 29.90% and 26.52% respectively, while early recovery and agriculture sector requested only 7.93% of the total budget. No funding request was found for environment and other related issues. Although Revised Flash Appeal increased funding request for early recovery and agriculture, 23.34% (12.12% and 11.22% respectively), only one-third (33%) of request for agriculture and half (52%) of request for economic recovery was funded (Financial Tracking Service, 2013). In other words, funding allocation for

agriculture was only 5.5% and for early recovery was only 8.1% of total revised Flash Appeal budget for Cyclone Nargis (see the table below).

Table 2-4: Budget availability for agriculture and early recovery clusters

Sector	Budget Available	Percent
Agriculture	19,147,565	5.5
Early recovery	28,137,797	8.1
Total Budget	348,842,785	100.0

Source: (Financial Tracking Service, 2013)

2.6. Summary

This chapter has reviewed the literature related to disaster and human security, and reported the following:

Disasters have an enormous effect on affected communities, imposing risks and vulnerabilities to affected populations. External assistance is crucial for disaster affected communities. Lack of external assistance or ineffective aid can result in short and long-term consequences.

On the other hand, humanitarian response, despite a long history, has been criticised for its ineffectiveness. In response, a more complex ‘humanitarian aid architecture’ has evolved, guided by concepts and practices which include Linking Relief, Recovery and Development, Build Back Better, and analyses of the notions of vulnerability and human security.

One critical part of effective humanitarian response is assessment. Lack of proper information can lead to ineffective program designs and impact recovery. The current approach to humanitarian aid assessment is multi-sectoral initial rapid assessment (MIRA). This is implemented through coordinated efforts by various stakeholders. However, reviews and evaluation suggest that MIRA has not been adequate in terms of retrieving the relevant information needed for appropriate program designs. Also, the MIRA process tends to deliver assessment information late.

MIRA has been reported to have been conducted as Post-Nargis Joint Assessment (PONJA) in Cyclone Nargis case. The data was used as a baseline for monitoring the response to Nargis through Periodic Reviews and Social Impact Monitoring Reports. Unfortunately the assessment documents were published after key planning documents for Cyclone Nargis were developed. In this thesis, PONJA and Periodic Reviews served as standard tools to compare and validate the study tools (see Chapter 3: Methodology)

A review on appeal documents for Cyclone Nargis highlighted that humanitarian aid for Cyclone Nargis was imbalanced. Economic recovery aid (agriculture and early recovery clusters) received approximately 5.5% and 8.1% of total budget respectively.

Chapter 3. Methodology

Previous chapters described the importance of humanitarian aid in disasters. The introduction chapter (Chapter 1) and early sections of the literature review (Chapter 2) reported that disasters can have serious consequences on affected populations, especially children. Humanitarian aid plays a vital role to mitigate such consequences as the capacity of affected community is overstretched to cope with a disastrous event (ReliefWeb Project, 2008).

This chapter describes the process of data collection and analysis in a community seriously affected by a catastrophe, Cyclone Nargis in Myanmar. It describes setting up the research design, selecting the location, development of the data collection tool, the data collection process, and the analysis done in order to address the research questions.

This thesis uses a case study approach as the primary methodology with four embedded cases. Cyclone Nargis in Myanmar was chosen as the study case. Caretakers of the children and community leaders were invited and recruited for participation in the study. The first section of this chapter, *Research Design*, describes the rationale for the choice of methodology and the selection of the case. The following section, *Participants*, details the selection and recruitment process.

The study was guided by Human Security Theory. The data collection tools were developed accordingly to be carried out using two data collection methods: focus group discussion and semi-structured interview. Data collection tools were tried out in a pilot study before the data collection itself. The third section of the chapter, *Data Collection Tools*, details the process and justification for making choices about study method. The next section, *Data Collection*, describes the process of data collection in the study communities. Processing and analysis of the collected data are detailed in the subsequent section, *Data Processing and Analysis*. Arrangements to ensure rigor of the data collection tools as well as the study findings are presented in the following section. The last section of this chapter discusses the limitations of the study.

3.1. Research Design

A case study approach was chosen as the primary methodology. There were five reasons for choosing the case study as the methodology of choice. These reasons are discussed below:

Type of research questions

The majority of research questions in this thesis are explanatory in nature, i.e., how and why questions. These types of questions lend themselves best to a case study approach (Baxter & Jack, 2008; Mills, Durepos, & Wiebe, 2010; Yin, 2009).

The study aimed to explore and document the recovery process of populations affected by a disaster. The overarching research questions of this thesis are

- How do assessment processes impact the humanitarian strategy in post disaster contexts, for young children and their families?
- What factors need to be considered to enhance the effectiveness of humanitarian assessment processes to young children and families in post disaster contexts?

The following questions were asked in order to answer the overarching research questions.

1. What were the effects of Cyclone Nargis on four study communities in terms of humanitarian needs as reflected by damage and losses, post-cyclone risks, and coping capacity?
2. How did humanitarian agencies assist the communities in terms of relief and recovery?
3. What were the gaps in support¹⁵ and assistance and what factors contributed to these gaps?

¹⁵The Myanmar government was criticised for the blockage of humanitarian aid flow in the immediate post-cyclone days, possibly due to its concern of humanitarian aid becoming a vehicle for outside interference in the country's affair at a time when it was undergoing considerable change, i.e., at the time of referendum for current constitution (2008). This issue however is not a focus of this thesis.

4. To what extent did the nature of the interactions between humanitarian agencies and communities impact upon the effectiveness of the humanitarian programs?

Issue of interest

The case study is the preferred methodology for examining contemporary issues by allowing the researchers to add more evidence to the usual historian's repertoire (Yin, 2009). The recovery process of a population affected by a disaster is an existing issue of interest. This study was conducted not only to document the recovery process of Cyclone Nargis as an event but to understand the effects of the humanitarian aid on recovery process (contemporary issue) as well and to consider how this knowledge can be applied to recovery for future disasters in diverse contexts.

Inability to control the research environment

The effect of Cyclone Nargis and the recovery process afterwards were events that cannot be investigated under a controlled environment. Such lack of control over the event points to the choice of a case study (Baxter & Jack, 2008; Gerring, 2007; Mills et al., 2010; Yin, 2009).

Diffuse topic

In a diffuse topic where the case and context are difficult to differentiate, case study methodology allows the researcher to integrate contextual conditions into the analysis

(Baxter & Jack, 2008; Gerring, 2007; Yin, 2003). In the case of Cyclone Nargis, the event or the phenomenon and the context were diffuse, they were not clear-cut issues. Although the study focused on the cyclone recovery process of the communities affected, the context, in this case, the communities, their needs and vulnerabilities, and humanitarian aid, cannot be excluded from the study.

Added value of the approach

In addition, the case study approach offers an added value to this study. It provides an opportunity to use multiple sources of evidences and allow triangulation because it integrates the perspectives of multiple participants through different data collection methods (Hardwick, 2009; Yin, 2009). Gillham (2000) explained the triangulation exercise in a case study research:

Different methods have different strengths and different weaknesses. If they converge (agree) then we can be reasonably confident that we are getting a true picture. If they don't agree then we have to be cautious about basing our understanding on any one set of data. That doesn't mean that one set of data is wrong (or any of them) but that the picture is more complicated than we expected. This approach from different methodological standpoints is usually known as triangulation. If they give you the same fix, that's fine. If not, then you have to explain that or question the adequacy of the methods. (Gillham, 2000, p. 13)

3.1.1. Cyclone Nargis (Myanmar) as a case study

The selection of a case in a case study should be purposeful and should be selected on the basis that will provide the best information to fulfil the study objectives (Merriam, 2010).

Cyclone Nargis (Myanmar) was purposefully chosen for the case study. There were three important reasons for choosing Cyclone Nargis as a research case:

1. *Familiarity with the case* was one of the reasons for choosing Cyclone Nargis. Thomas (2011) highlighted that local knowledge, i.e., the one familiar to the researcher, should be an important criteria for selection of a case (G. Thomas, 2011). Being a native, living in Myanmar in post-cyclone days, having personal experience of the situation, speaking the same language of the participants, and having contacts in the country, the researcher has a good knowledge of the case. The familiarity also allowed the researcher to have access to participants, which is most likely denied to many others.
2. *Representative of a major event*. The cyclone Nargis was a major disaster – a case representing a major event. Categorised as a very severe (category IV) cyclone, Nargis was in fact the deadliest cyclone in the history of Myanmar. It devastated Ayeyarwaddy Delta on 2-3 May 2008. With wind intensity of over 200 kilometres per hour, the cyclone resulted in 140,000 casualties (Tripartite Core Group, 2010c). About 2.4 million out of the 7.35 million people in the affected township was severely affected (Lateef, 2009).

3. Cyclone Nargis can be assumed as *a typical case* of humanitarian operation.

Humanitarian operations can vary in order to adapt context-specific needs. For instance, a response to an earthquake might be somewhat different from a cyclone response. The researcher recognized that the Cyclone Nargis response had some additional features to a disaster response. Examples included blockage of international humanitarian aid in early days of the cyclone and the role of the Association of Southeast Asian Nations (ASEAN), a regional organization through Tripartite Core Group (Downman, 2013; Tripartite Core Group, 2008a). Despite the above differences, the case was assumed as typical because the responses followed the predicted pattern of aid response,¹⁶ including the launch of the cluster system, a conduct of multi-sectoral assessment, funding mainly channelled through Central Emergency Relief Fund (CERF) and Consolidated Appeal Process (CAP), and other typical practices (IASC, 2009; OCHA, 2013a, 2014b, 2014g; WHO, 2014a). Techniques of case selection can be different according to study objectives; a choice is usually made from typical case, diverse cases, extreme case, deviant case, influential case, most similar cases, and most different cases (Seawright & Gerring, 2008). A typical case is recommended when patterns are sought and inferred from a typical case, not a special case (Gerring, 2007; Seawright &

¹⁶ Recent changes to aid response pattern with introduction of Humanitarian Program Cycle and Transformative agenda resulted in the phase out of Consolidated Appeal Process (see literature review for details)

Gerring, 2008). Being a typical case also rationalised for choice of a single case design (Mills et al., 2010; Yin, 2009).

The embedded single case design was adopted for its advantage over the single holistic case design (Yin, 2009): the study included four communities (villages) as embedded cases. Yin (2009) warns that holistic design tends to examine a specific phenomenon at abstract level with vague measures or data. There is also risk of a shift to the nature of the case study (Yin, 2009). Embedded case study design can avoid such issues by increasing the number of sub-units (embedded cases) to improve sensitivity. The unit of analysis for the study was a community (village) severely affected by Cyclone Nargis (an embedded case).

3.2. Participants

Two townships that were the most severely devastated during the cyclone, Labutta and Bogale, were selected to be included in the study. These two townships were purposefully chosen as a review of Cyclone Nargis. Situation reports (see Appendix) suggested that the humanitarian aid activities were substantial in these townships; hence, the needs and vulnerabilities of populations affected would be more obviously observed (Merriam, 2010). A village from Labutta Town was chosen for the purpose of testing the data collection tools in a pilot study.

In the chosen townships, the coastal areas were known to be more affected than non-coastal areas. Coastal areas suffered not only from the storm but also from tidal waves (storm

surge), higher than that of the tsunami in the Indian Ocean in 2004 (Fritz, Blount, Thwin, Thu, & Chan, 2009). The coastal areas suffered high casualties and destruction.

In this thesis, villages in the coastal areas with high casualties and destruction due to the combined effects of storm surge and strong winds were categorized as Band Zero. The areas further inland suffered mostly from strong winds. These areas had relatively less casualties. Villages in these inland areas were grouped and named Band One.

Table 3-1 : Selected villages and zone of devastation

Community	Township	Zone of devastation
Test-Village ¹⁷	Labutta	Band One
Village A-1	Labutta	Band One
Village A-0	Labutta	Band Zero
Village B-1	Bogale	Band One
Village B-0	Bogale	Band Zero

Two villages from Band Zero (one Band Zero village in each study township) and two villages from Band One (one Band One village in each study township) were chosen with the anecdotal understanding that humanitarian organisations tended to help villages with

¹⁷ The village visited for testing data collection tools

high numbers of casualties. Therefore, aid programs may be different between villages categorised as Band Zero and Band One.

The study recruited two groups of people. The first group comprised caretakers of children affected by the cyclone. The second group was of community leaders.

3.2.1. Caretakers of children

The caretakers of children affected by the cyclone were chosen for the following reasons:

1. Caretakers¹⁸ were generally the community members in the study communities (villages). The research questions for caretakers involved needs and vulnerabilities and the humanitarian aid response at community level. For instance, the presence and absence of environmental degradation was required as part of environmental security questions; caretakers as members of the community were assumed to have knowledge with regards to these issues.
2. Caretakers were recruited as informants for children affected during the cyclone. Children are the most vulnerable populations in disasters (see Chapter 2, page 23). Therefore, this thesis collected information on the needs and vulnerabilities of affected children and the services offered to them as part of the study questions.

¹⁸ A caretaker refers to any person who took care of a child; he / she might be a mother, father, grandparent, foster parent, or member of an extended family

Caretakers were assumed to be appropriate participants for inquiry of such information.

3. Caretakers themselves also suffered from the effects of the cyclone. Thus, individual experience with regards to the needs and vulnerabilities can be gathered from their own personal experience as well.

The following selection criteria were used to recruit caretakers. The inclusion criteria were indicative for recruitment: those caretakers who did not meet the selection criteria (e.g., a caretaker of a child over 8 years of age) were not excluded from the study.

Inclusion criteria

- Caretakers of children preferably between ages 5 -7 years
- Those living in the selected village since the time of the cyclone
- Those who are willing to participate (voluntarily) in the research case study

The first inclusion criterion was to invite caretakers who had a child of age 5-7 years at the time of the study. The study was conducted 2.5 years after the cyclone. Thus, children at the age of 5-7 years at the time of study would have been aged 2-5 years at the time of cyclone. This age criterion was indicated because the study lays emphasis on young children who are the most vulnerable in disasters.

The participants who lived in the selected communities since the time of cyclone were invited to participate in the data collection process. As the study explored the cyclone response from the early days to the time of study, the respondents should have resided at the village since the time of the cyclone.

The semi-structured interview and focus group questions towards caretakers were developed according to the seven aspects of human security. Data collectors were trained to follow each question with “how and why” and for three different timeframes (before the cyclone, after the cyclone, and at the time of study) whenever relevant. Thus, the questions not only captured the status of needs and vulnerabilities but also investigated the process and the reason for success and hindrances in fulfilling the needs and vulnerabilities of affected communities.

3.2.2. Community leaders

Community leaders are village authorities and members of community-based organisations, locally known as committee members. A village authority is usually a volunteer¹⁹ who manages administration of the village and is usually respected and selected by the community. A member of a community-based organisation is also a person who was involved in village welfare activities and is usually respected and elected by the

¹⁹ Village authorities at village-tract level are supported with some form of compensation from the government since 2011.

community. Especially in the post-cyclone era, community leaders who were involved in village welfare had been formally organised into respective community-based organisations, locally known as committees, e.g., disaster management committee or health committee.

3.2.3. Sample size and number of participants

The recommended number of participants for a focus group discussion is six to eight (Creswell, 2008; Jupp, 2006). One focus group with caretakers and one focus group with community leaders were planned for each village. Thus, the total of four focus group discussions with community leaders and four focus group discussions with caretakers were planned.

Table 3-2: number of participants by village and methods of data collection

Data collection method	Number planned	Number to be recruited by village			
Semi-structured interview (caretakers)	30	8	7	8	7
Focus group discussion (caretakers)	30	8	7	8	7
Focus group discussion (community leaders)	30	8	7	8	7

Aiming for each focus group to have seven to eight participants, 30 caretakers and 30 community leaders were calculated to be included in focus group discussions. The same

number of caretakers (seven to eight for each village) was planned to be recruited for the semi-structured interviews because it would make data collectors (total of four) to interview two respondents each, providing a suitable timeframe for data collection. In addition, DePaulo recommended a sample size of thirty in qualitative research although many qualitative researchers claimed that sample size is not important (DePaulo, 2000). The following table describes the number of participants planned to be recruited for the study.

3.3. Data collection tools

The data collection tools²⁰ were developed in order to address the research questions. The following table (Table 3-3) summarizes the information identified as needed according to the literature to address the research questions.

3.3.1. Processes involved in development of data collection tools

The questions for semi-structured interviews and focus group discussions were developed into English and translated in Myanmar (Burmese). Being a native speaker of Burmese and the one who developed the English version of the data collection questions, self-translation was believed to be an appropriate option. The questions were translated to Burmese

²⁰ Data collection tools are named as VAC for its components of assessing vulnerability, stakeholders (agents involved), and community assessment.

because participants speak the native Burmese language and were known to be non-English speakers. The questions were tested in a community (see section on the pilot study: testing data collection tools). Translation of all information was revised before data collection occurred in the four study communities.

Table 3-3: Information identified

Research questions	Data to be collected which addresses the following areas
What were the effects of Cyclone Nargis on four study communities in terms of humanitarian needs as reflected by damage and losses, post-cyclone risks and coping capacity?	Casualty and destruction Post cyclone risks Effect of cyclone on community coping capacity
How did the humanitarian agencies assist the communities in terms of relief and recovery?	Humanitarian agencies involved, number, type Humanitarian coordination Humanitarian assessment Timeframe
What were the gaps in support and assistance and what factors contributed to these gaps?	Humanitarian aid coverage and uncovered needs ²¹
To what extent did the nature of the interactions between humanitarian agencies and communities impact upon the effectiveness of the humanitarian programs?	Community participation Community capacity and resources Representation of community based agencies and elite capture

²¹ Uncovered needs refer to the seven aspects of human security, namely health security, food security, economic security, personal security, community security, environmental security, and political security.

Data collection was carried out in Myanmar²² (Burmese). Myanmar is a peculiar language and not similar to any language, even with neighbouring countries like China, India, or Thailand although the country being religious in Theravada Buddhism adopted many words from Pali, the liturgical language of Theravada Buddhism (LaPolla, 2001). There are some adopted modern words, like “computer” or “motor car.” In brief, it means that the language cannot be directly translated to English.

It is also worth noting that there are some English words which cannot be easily translated and understood in Myanmar, such as “vulnerability.” Another issue in translation / transcription into English is that the answer “Yes” to negative questions means “No” or the respondent agrees with the negative question. The reverse is also true for “No.” This called for the necessity for data collectors and translators / interpreters to be native to understand these nuances.

- The field data collection processes were approved by the Macquarie University Human Research Ethics Committee (HREC) – “Post emergency recovery for

²² The country was formerly known as Burma and its nationals, Burmese. The country has diverse ethnicities; the majority speaks the national dialect, Burmese. It is especially true for the study area (Ayarwaddy Division) where Burmese is the local language. The terms were changed recently; officially, the country, the language, and the nationals are now all called Myanmar.

young children: Assessing the needs and response” (Ref: 5201100679) (see appendix - attach the letter of approval).

Data collection process was recorded in two forms, short notes and the voice recording. Records were taken in accordance with the ethical considerations and with the voluntary permission of the participants. Although the interviewers took short notes, participants were very interactive and fluent that many important answers were not written down. Fortunately, the participants allowed recording of the semi-structured interviews or focus group discussions in digital voice recorders. Thus, the voice recordings provided details of the responses; analysis was also mainly based on voice records (see data analysis).

Semi-structured interviews and focus group discussions were used for data collection. These are described below.

3.3.2. Semi- structured interviews

A semi-structured interview, or conversational interview guided by a list of general questions, was employed as one of the main data collection methods in this study (D. Cohen & Crabtree, 2006; Stake, 2010). The questions with regards to needs and services towards health, food, livelihood, and personal security were collected using this approach (see Table 3-5 below). Caretakers were invited to be involved in this process.

Semi-structured interviews were chosen as the primary method for data collection because it has the advantages of allowing the interviewers to engage in two-way communication

and interact with the participants, probe the response, and further explore the questions of interest (Jupp, 2006). The interview allowed data collectors to explain the questions, to rephrase the questions as needed, and to clarify the answer. Thus, semi-structured interviews had the added value of flexibility balanced with structured questions, and therefore the quality of the data would be enhanced (Gillham, 2005). It provided the opportunity not only to collect answers to the questions but also to probe the scope of the questions if required in order to further explore the reason behind the answers.

3.3.3. Focus group discussion

The focus group discussion was another data collection method employed. Focus group discussions are associated with enhanced data collection in which group dynamics facilitate open discussion and allow for diverse opinions and insights to emerge (Jupp, 2006). Focus groups were also useful to stimulate memories and ideas which might not have developed with one-on-one interviews (Jupp, 2006). The interaction between the participants enhanced and enriched the collected data (Have, 2004).

As this study investigated the experience of the participants during the cyclone, how they managed or responded, and how they were supported by the external humanitarian agencies, it demanded memories. Focus group discussion helped the participants to recall the events by stimulating memories and facilitated open and friendly conversation through group dynamics (Have, 2004; Jupp, 2006).

Table 3-4. Purpose of data collection activities

Activity	Participants	Purpose
Semi-structured interviews	Caretakers	<i>Needs and vulnerabilities</i> on health, food, livelihood, and personal security
Focus group discussion	Caretakers	<i>Needs and vulnerabilities</i> on Environment, community, and political security
Focus group discussion	Community leaders	Impact of the cyclone and humanitarian aid response ²³

Table 3-5: The information needed and the questions developed

Information needed	Questions	Focus group
Casualty and destruction	Village profile, damage and losses during the cyclone	Community leaders
Post cyclone risks	Village profile, damage and losses during the cyclone	Community leaders
Humanitarian agencies involved, number, type	List of humanitarian agencies, children specialized agencies and their work	Community leaders
Coordination and Timeframe	List of humanitarian agencies, children specialized agencies and their work	Community leaders
Humanitarian assessment	Humanitarian assessment experienced	Community leaders
Community response in immediate days	How the community helped each other during the cyclone	Caretakers
Representation of community leaders	How the community leaders were selected and the presence of aid abuses	Caretakers
Community participation	Interaction and engagement between humanitarian agencies and community	Community leaders
Community capacity	Many different questions including the use of local capacity in humanitarian aid	Caretakers

²³ Stakeholders and Community Assessments

Questions were developed according to the literature review and theoretical framework. Each data collection activity served different purposes and is summarized in the Table 3-5 and Table 3-6.

3.3.4. The Pilot Study: Testing data collection tools

Data collection tools were tested in a village (an additional village to four study villages) in Labutta Township, one of the study townships (see section on Participants). The pilot study provided an opportunity to test the data collection tools in a population that share a similar background with the study communities. The village was chosen for its convenience.

Local support was solicited in a visit before the pilot study started. A focal person (local contact person and coordinator) who would assist in the data collection was identified in each township before the pilot study (see section: garnering local support). With the help of the focal person, a team of data collectors (three interviewers including the focal person) who were experienced humanitarian workers in responding to Cyclone Nargis in Labutta Township was recruited. The team met and were briefed about the research and the processes for data collection.

Their role would be to work as a team to:

- Participate in training and workshops for data collection and review
- Provide advice on the selection of villages to be included in the study

- Assist in logistic arrangements for data collection
- Explain the information about the research to potential participants in each community
- Interview the participants
- Provide feedback on the data collection tools and share their experience during data collection

Prior to departure to Labutta Town for the pilot data collection, the focal person (local coordinator) was informed and requested necessary arrangements for the field work. The focal person informed the data collection team and made contacts with the community leaders about the visit.

Data collection training was provided to data collectors before the pilot study. The training included the background of the study, data collection tools, and important information in relation to the conduct of ethical research. The data collectors were also trained to probe further with regards to the questions of how and why. During the training, data collection tools were reviewed and refined, particularly in terms of translation.

The village chosen for the pilot study is approximately a 45-minute boat trip from the town. On arrival in the village, the data collection team went to the house of a community leader (village authority). The village authority invited other community leaders to gather in his house.

The purpose of the study was explained to the community leaders. The information consent sheets were also distributed at this time. The data collection team members explained and read the information sheet for those who cannot read well due to poor vision or illiteracy.

The community leaders arranged a community meeting for the visit and invited potential participants for the meeting; the community leaders were informed of the selection criteria beforehand, during a preparatory visit. In the community meeting, they also introduced the data collectors to the community.

The data collection team (the researcher and local data collectors) distributed information consent forms and explained to the potential participants of the study and invited them to participate in interviews or focus group discussions. The fact that participation was totally voluntary was emphasised. Those willing to participate in the study were asked for their preferred location to be interviewed. The recruitment continued until the required number was fulfilled. Many of the participants chose a location (a house of a villager or a public place in a village) where other interviews were also being conducted.

Prior to the semi-structured interview, participants were again provided with information about the voluntary nature of participation in the study and their right to refuse/withdraw from the interview at any point during the study; and they were reminded if the public place they chose might affect their privacy and confidentiality. Then, they were asked for their permission to do the voice recording and to sign the consent forms and the interviews were conducted at the place of their preference.

In addition to the semi-structured interview, caretakers were invited to participate in a focus group discussion at a location chosen by the participants. Participation in the focus group was also voluntary.

Community leaders were approached and invited to participate in a different focus group discussion. The number of community leaders presented was seven which suited the required number for a focus group. Focus group discussions were held with the voluntary participation of the community leaders.

After the data collection, a review workshop was held with data collectors in the town. The data collectors shared their experience with data collection and provided feedback on the tools used. In the workshop, each one presented feedback in relation to the data they collected.

The aim of testing data collection tools was to check if the tools developed were relevant and useful for the actual data collection. The collected data were not used in the case study analysis.

During the review workshop, it was confirmed that feedback from each data collector with regards to the recovery process of the test-village was consistent. This consistency endorsed the reliability of the tools. The review also pointed out that some questions were difficult to understand by the participants. The data collectors commented that this issue was associated with translation and recommended some changes.

The pilot study showed the average time required to conduct the semi-structured interviews and focus group discussions and identified the required logistic arrangements, for instance, a need for back-up recorders. The data collection tools were reviewed again after the visit. The review showed the data collection tools would address the research questions and provide an overview of the recovery process.

During the review, some modifications were made. Changes made were generally in terms of rephrasing the questions for clearer messages and better translation: the questions were developed in English and translated into Myanmar (Burmese). Some questions were found to be awkward and needed to be rephrased in Myanmar (Burmese) terms. The revisions were mainly based on recommendations provided by the data collectors during the review workshop.

3.4. Data collection

The study was then conducted in four communities in the Labutta and Bogale Townships. These were badly hit townships which experienced high casualty rates and high levels of destruction from Cyclone Nargis. It was estimated that out of the overall casualty of approximately 140,000, Labutta Township alone had an estimated casualty of about 80,000 (MNA, 2010) and Bogale had 10,000 (Telegraph, 2013; UNHCR, 2010).

Participating communities were visited for the purpose of garnering local support and data collection.

3.4.1. Garnering local support

The purpose of the first visit to the study area was to garner local support for engaging in the research project. Personal contacts were used in this effort. The contacts had been made from the researcher's previous position as a humanitarian professional for an international NGO which assisted people in eleven townships (almost all the area affected by the cyclone) who had been affected by Cyclone Nargis.

A preparatory visit to the study townships was conducted in order to establish relationships, facilitate data collection processes, and to recruit possible data collectors.

Labutta Township was visited first. A meeting with some local people who worked or volunteered during the cyclone (those whom the researcher identified through personal contacts) was held, during which the terms of reference for the research project was presented and discussed. The meeting enabled the recruitment of a local coordinator and interviewers (three interviewers including the focal person); study villages were chosen in the subsequent meetings.

During the preparatory visit, the researcher, with assistance from the data collection team, visited the chosen villages (study communities) and met with the community / village leaders. The names of the study villages are not mentioned in this report to avoid a breach in confidentiality, but they were coded as Village A-1, Village A-0, Village B-1 and Village B-0.

First, the selected village (Village A-1) in Band One was visited. The data collection team members already knew some of the community leaders in this village. The team had made a contact with the community leaders before the visit.

The team went to the house of a community leader (a village authority) and the team introduced the researcher to the community leader. The community leader had already informed other community leaders about the visit and asked them to gather in his house. The team again introduced the researcher to the community leaders and a meeting was held. In the meeting, the study was explained and permission was sought to conduct the study in the village. The leaders were kind enough to warmly welcome the study and agreed to assist the data collection team. The possible selection criteria for recruitment were shared with community leaders.

The community leaders mentioned that they would help the data collection team with introduction to their villagers and recruitment of possible participants who met the selection criteria, as explained by the researcher.

The next day, the team visited another chosen village (Village A-0) in Band Zero of Labutta Township. None of the data collection team knew the community leaders of this village. The team first visited a village authority, introduced themselves, and explained about the purpose of the visit. The team was able to build rapport quickly as the humanitarian organizations with which some team members worked had some relief activities in Village A-0 during the cyclone.

As in the first village, the villager authority invited other community leaders and held a meeting. Information on the study was given and the community leaders were requested for their agreement and assistance with the future data collection visit.

Bogale Township was paid a visit after the preparation in Labutta. Phone calls and appointments were made in advance. As in Labutta, a local humanitarian worker volunteered to be a focal person for coordination of local logistics and communication. With his assistance, a data collection team²⁴ was organized with two other interviewers, both with humanitarian experience.

The same procedure followed in Labutta was repeated for selection of the study communities (villages) in Bogale Township. The team selected one village (Village B-1)

²⁴ At the time of data collection, members (two data collectors) of the data collection team in Bogale Township had moved out of the township, as data collection took some time due to ethical approval. The team in Labutta Township assisted the researcher for data collection in Bogale Township.

in Band One and one village (Village B-0) in Band Zero. The team visited the selected villages to request permission and assistance from community leaders. Similar to Labutta, the team members knew the village (Village B-1) well but were strangers to the other village (Village B-0) in Band Zero. The boat captain, a friend of an influential Band Zero villager, introduced the team to the village leaders through his local contact.

3.4.2. Study data collection

Data collection was conducted in two selected townships (Labutta and Bogale) in late 2011. Data collection processes took place in four communities (villages) identified during the preparatory visit.

Data collection was first carried out in Labutta Township, Village A-1 and Village A-0. The data collection team moved to Bogale Township after data collection was completed in Labutta.

The data collection team (the researcher, the focal person, and interviewers) gathered and held a one-day data collection workshop in Labutta Township before starting the data collection itself. Data collectors were the same people who did the data collection in the pilot study (testing the data collection tool). Hence, they had received training for data collection before and had experienced the process of doing it. The team mainly consisted

of three interviewers and the researcher. In the study communities (villages), the team was logistically supported by other people, for example, a boat captain.

The data collection workshop served two purposes. First, the team discussed the logistic and communication arrangements for data collection. Contact persons (community leaders) from study communities (villages) were informed of data collection during the workshop. Secondly, the team discussed the data collection process. Data collectors were informed of the changes to the data collection tool, were refreshed on ethical requirements, and reminded about the information needed from each research question. For instance, the data collectors were encouraged to follow the responses to the semi-structured interviews questions with “why” and “how” questions.

Data collection in Labutta Township took place in two villages, Village A-1 and Village A-0. Village A-1 belongs to Band One and Village A-0 belongs to Band Zero. Both villages were only reachable by boat. Village A-1 was visited first. The data collection process occurred in the same order as the pilot process.

A review workshop was held after the completion of data collection in Labutta. In the workshop, the data collection team shared their experiences with regard to data collection and their comments and reflections on the collected data. Each data collector also presented their observations and reflected their feedback with regards to information sought by the study. As these data collectors were locally experienced, their clarification and reflections were valuable inputs to data analysis.

The same data collectors were deployed for data collection in Bogale Township.²⁵ The focal person from Bogale helped the team with logistic and communication arrangements. Data collection in Bogale took place in two villages, Village B-1 and Village B-0. Both villages were only reachable by boat. Village B-1 belongs to Band One and Village B-0 belongs to Band Zero.

The same data collection process took place in Bogale Township and a workshop was held after the completion of data collection there.

Data collected were noted in two forms, short notes and voice recordings. As voice recording files offer a complete record of data collection (semi-structured interviews and focus group discussions), voice files were chosen as the primary source, i.e., short notes were not used. On the other hand, short notes were the primary form of record for other field activities, i.e., review workshops with data collectors in particular.

3.5. Data processing and analysis

This section describes how data analysis was designed and processed. It is presented in two parts; the first describes how data analysis was designed and redesigned before and

²⁵ Three data collectors from Bogale were recruited for data collection in Bogale; however, two of them were not available for personal reasons at the time of data collection. Thus, the team from Labutta carried out data collection in Bogale.

after the data collection. The second part presents the three phases of data analysis employed.

3.5.1. Approach to data analysis

Data analysis was taken into consideration during the development of the data collection tools. Themes were identified and designed to inform the research questions. The themes in this study were formulated mainly from research question protocol / theoretical interest as identified below (Braun & Clarke, 2006; Ryan & Bernard, 2003).

Research questions induced themes and acted as the primary guidance for identifying useful data from a large amount of data retrieved from the data collection process. Hancock and Algozzine (2006) stresses the importance of interpretation of only meaningful data to research and in the light of research questions (Hancock & Algozzine, 2006). Bassey (1999) also discusses the need to extricate only meaningful statements from enormous amount of data generally collected in case studies (Bassey, 1999).

The Human Security and Comprehensive Security Framework was used to review and analyse needs and vulnerabilities comprehensively according to the seven aspects of human security. This guided the analysis of research questions, research question four in particular which examines the needs and vulnerabilities of affected populations and humanitarian aid coverage and the gaps to fulfil these needs and vulnerabilities.

3.5.2. Data processing and analysis

Data were analysed manually. Data analysis included three phases (Yin, 2011). In phase one, the sources of data to be used were identified and built into a database. The second phase reviewed the database, filtered the useful data, and assigned the filtered data into codes and categories. In the third phase, patterns from the data were searched and reviewed as to how it can inform the research questions. These three phases are described as below.

- Phase one: Establishing the database
- Phase two: Disassembling
- Phase three: Reassembling

Phase one: Establishing the database

Phase one, establishing the database, included identifying sources of information and compiling data. Table 3-6 below summarizes the *main sources of information* actively collected. In addition to the main sources of information, the analysis integrated multiple sources of information, i.e., other sources of data. For instance, the impact of the cyclone (damage, losses, and post cyclone risks) was identified and extracted also from semi-structured interviews as well as focus group discussions with caretakers, in addition to the focus group discussion with community leaders (the main source of information).

Table 3-6: Research questions and main source of information

Research question	Main source of information
Effects of the cyclone ²⁶	Focus group discussions with community leaders
Humanitarian assistance ²⁷	Focus group discussions with community leaders
Interactions between humanitarian agencies and communities ²⁸	Focus group discussions with community leaders / caretakers
Humanitarian aid coverage and gaps ²⁹	Focus group discussions / semi-structured interviews with caretakers

Establishing the database included categorizing the sources of information into relevant folders and tagging (giving folder names) with attributes as below.

- village name
- type of data – semi-structured interview / focus group discussion / report / field note

²⁶ What were the effects of Cyclone Nargis on four study communities in terms of humanitarian needs as reflected by damage and losses, post-cyclone risks and coping capacity?

²⁷ How did the humanitarian agencies assist the communities in terms of relief and recovery?

²⁸ How were the interactions between humanitarian agencies and affected communities?

²⁹ What were the gaps in support and assistance and what factors contributed to these gaps?

- type of participants – caretaker or community leader
- type of media – voice file or document

Phase two: Disassembling

The purpose of phase two was to assign codes. Saldana (2012, p. 3) defines a code as follows:

A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña, 2012).

According to Yin (2011), phase two can be deemed disassembling (Yin, 2011). The data collection tools were designed in such way that can capture data relating to research questions (Braun & Clarke, 2006) under relevant themes during the development of the tools.

The use of terminology “code, category, theme” is inconsistent and many researchers interchangeably use terms - themes, categories, thematic units, chunks, or codes (Ryan & Bernard, 2003). This thesis adopts the terminology and hierarchy in a way that codes were categorized into categories which turns belonged to themes as shown in the table below.

Table 3-7: Coding table

Themes	Categories	Code
Effects of the cyclone (Band Zero and Band One)	Damage and losses	Casualties
		Destruction
	Post-cyclone risks	Health risks
		Food / nutrition risks
		Displacement
	Coping capacity	Effects to community capacity
Interactions between humanitarian agencies and communities	Community participation	Community leaders
		Community members
	Use of local capacity	Aid supplies
		Services
		Employment opportunities
	Elite capture	Band Zero
		Band One
	Community representation	Band Zero
		Band One
Humanitarian Response	Assessment	What assessment and how
		Effectiveness and participation
	Aid prioritisation	Band Zero
		Band One
	Humanitarian coordination	National level
		Township level
		Community level
	Timeframe	Relief
		Recovery aid
Coverage	Health security	Coverage
		Gap
	Food security	Coverage
		Gap
	Personal security	Coverage
		Gap
	Economic security	Coverage
		Gap
	Environmental security	Coverage
		Gap
	Political security	Coverage
		Gap
	Community security	Coverage
		Gap

This phase of disassembling data involved codifying and categorising (Saldaña, 2012). As the data were analysed, codes were assigned to relevant data and categorised into respective themes designed beforehand. As the process advanced, some changes were made to (pre)designed themes and categories. For instance, a new (sub)category “post-cyclone risks” was introduced under the theme “effects of the cyclone.” A memo was noted for each such significant change made (Yin, 2011). The categorisation and coding were summarised in the table above.

Phase three: Reassembling

In this phase, the coded data were reviewed for how they could resolve the research questions (Yin, 2011). Patterns were searched for and matched. In the review process, data were organised into both matrix and hierarchical arrays. The phase underwent two folds of analysis.

First, each study community (village or embedded case) was analysed for patterns. As mentioned, the analysis deployed research questions and theory-derived categories as initial *priori* themes. This thematic analysis approach can facilitate within or cross case comparisons (Lapadat, 2010).

The case study approach involved single embedded design with four embedded cases. Coded data related to each embedded case were put into a table matrix. A row dimension of matrix represented categories identified during design and disassembling phase (phase

two) while the column dimension represents of each embedded case (study community or village). Patterns were matched across the matrix.

The second fold of analysis included the comparison of recommended patterns of humanitarian aids with the data collected of the humanitarian aid practices in the study villages. Recommended patterns hereby refers to patterns of the humanitarian aid practices or standard minimum aid packages as recommended by the literatures and guidelines (Anderson, 1999; Clinton, 2006; Sphere Project, 2011; UNICEF, 2005, 2010). The practices reported during data collection were coded as good practices, issues and gaps, and practices that calls for intersectoral coordination.

3.6. Rigor

This section describes the measures taken to ensure rigor of this thesis. The section is reported in two parts. The first part discusses measures taken to enhance the reliability and validity of data collection tools while the second part describes measures taken to ensure the rigor of study findings.

3.6.1. Validity and reliability of the data collection tools

In recognition that validity and reliability of a measurement tool (data collection tools) can affect the quality of the research output, the following measures were taken for the data collection tools to be reliable (gives a consistent result) and valid (gives a correct answer) (Goddard & Melville, 2006). In addition, the data collection tools were tried out in a pilot

study (see section the pilot study: testing data collection tools) and checked for reliability, validity, and applicability.

Reliability of the data collection tool

A workshop was held at the end of testing the data collection tools (the pilot study) in a community. Workshops were also held after the completion of data collection in each township. During these workshops, data collectors discussed and shared the experience of data collection. Each data collector presented their individual comments in relation to interview responses. These comments were compared for each community. This approach can be assumed to have similar effect as a test-retest approach (Goddard & Melville, 2006) for checking the reliability of a measurement tool (data collection tools). In a test-retest approach, a measurement, e.g., interview, is done twice and the results are compared. In this case, the same community was investigated by different data collectors and the results were compared.

Validity of the data collection tool

Of three approaches to check the validity of an instrument, i.e., criterion-related validity, construct validity, and content validity, this study employed construct validity and content validity checks. The construct validity check would not be relevant in this case as there was no criterion or variable-related standard tool to compare with the data collection tools.

Content Validity

The data collection tools were presented to a group of humanitarian workers in Myanmar for their feedback and comments before the data collection. In addition, the data collection tools were presented at an international conference. The audience consisted of academic and professional experts from disaster-related fields. Their feedback was sought. The reflection of experts validated that the test is useful and applicable, in terms of content validity (Goddard & Melville, 2006).

Construct validity

The findings were checked against findings from standard tools (tools in current practices), especially post-disaster need assessments – in this case Post-Nargis Joint Assessment and follow up Periodic Reviews. This provided construct validity as there was no key discrepancy of findings between the assessments. (Goddard & Melville, 2006).

3.6.2. Validity of study findings

External validity

In recognition that a major criticism of case studies is its generalisability (external validity) to wider populations (Hancock & Algozzine, 2006; Yin, 2009), the study did not aim to and claim for generalisability of its findings as a representative case. However, assessment processes, organisational structures of humanitarian regime, and response processes were assumed as more or less standardised and guided by guidelines, manuals, organisational

mandates and policies (see Chapter 2). Thus, the case (response process to Cyclone Nargis) itself might simulate other cases (emergency response elsewhere). In this way, the study may inform audiences on a recovery process, in terms of *fuzzy generalisation*. Fuzzy generalisation, as Bassey states, “carries an element of uncertainty. It reports that something has happened in one place and that it may also happen elsewhere. There is a possibility but no surety. There is an invitation to 'try it and see if the same happens for you.’” (Bassey, 1999). Generalisability of the case may be enhanced if similar studies were conducted elsewhere in the future.

Construct validity

With the acknowledgement of the use of multiple sources as a benefit of case study research, many sources of evidence were used. Semi-structured interviews and focus group discussions with different types of participants (caretakers and community leaders from four study communities) were deployed to investigate the case. Triangulation of information from different sources of evidence ensured construct validity of the study.

Construct validity of this study was also improved by the use of a review process. Yin (2009) suggests that construct validity can be enhanced by a review by key informants (Yin, 2009). In this case study, several reviews were arranged.

1. There were review workshops with data collectors (experienced humanitarian workers) during and after data collection

2. Summary of the findings (translated version) was sent to some of the community leaders (key informants)

Another measure that enhanced construct validity of this study was the availability of an evidence chain. The documentary evidences (reports and documents by humanitarian agencies) reviewed in this study are available to the public and easily retrievable online. A reference list as well as a step-by-step data collection procedure is reported in this thesis. This allows an external observer, the reader, to follow the evidences (chain of evidence) in this study easily. This chain of evidence also increases the reliability of the study.

3.7. Limitations of the study

The study collected data through focus group discussions and personal interviews on the experiences of the participants. The responses were mainly based on the participants' memories of the event, thus, information provided might be incomplete or result in bias. With recognition of such recall bias, the study opted for the focus group discussion method which has the advantage of stimulating memories in a group setting (Have, 2004; Jupp, 2006; Ritchie, Lewis, Nicholls, & Ormston, 2013). Participants had a chance to correct the biased answers or diversity of views. The data collectors had a chance to validate the response from a participant with other participants in the group. Also, it was found that many participants, especially community leaders, had some supporting documents like brochures from humanitarian agencies, personal written record of events / activities, or official records. The participants were encouraged and given time to review such

supporting documents during the semi-structured interview and focus group in order to reduce recall bias and memory effect. In addition, the tools were designed in such a way that the researcher can cross-validate (triangulate) the information with different data collection methods (interviews with caretaker, focus group discussions with caretakers, and focus group discussion with community leaders) (see *Construct Validity* in Section 3.6.2 for more information). Bearing in mind the risk of the effect of memory fading as data is collected three years after the cyclone, additional measures were taken to enhance authenticity of the information collected (see Section 3.6, *Rigor*, for more details). The measures included triangulation with reports and literatures, review workshops with data collectors who had significant experience with the cyclone response, and review of summary of findings by community leaders.

The study did not use random sampling in the recruitment of the participants. Random sampling was not recommended in qualitative research (Coyne, 1997; Marshall, 1996). The researcher recognised that there was an element of uncertainty in the representation of participants in the study. Selection criteria was employed in choosing the appropriate participants to the study (Palinkas et al., 2013; Suri, 2011).

This study focuses on four communities severely affected by the cyclone in two most affected townships. Thus, the study findings cannot be generalised as presenting an overall picture of all communities affected by Cyclone Nargis, especially those living in townships relatively less affected by the cyclone. The recovery process in other less affected areas may be different.

The study was investigated from the perspectives of the communities, i.e., the beneficiaries and service provision at community level. No empirical data was collected from the perspective of external stakeholders, for example, the international NGOs and the UN. The importance of the perspectives from service provider side is acknowledged. However, most NGOs and UN services on cyclone relief and recovery were over by the time of the study (see Findings); hence, almost all the staff members who were either expatriates or nationals who worked for the relief and recovery projects were no longer available for an interview. This fact was confirmed during the first visit to the study townships for garnering local support.

The government was concerned about humanitarian aid becoming a vehicle for outside interference in the country's affair at a time when Myanmar was undergoing considerable change and was under great international scrutiny. This led to much-criticised delays in government response. However, the time factor is not the focus of this thesis. The study investigates how assessment impacts sustained outcomes for communities once access has been achieved.

It was also not possible to access the internal program documents from these organisations. Thus, the perspectives of the external stakeholders might not be fully captured in this study. Instead, the researcher tried to cover this through the desk review of reports and

documents³⁰ available to the public. The list of reports and documents is included in the Appendix.

3.8. Ethical Considerations

This study prioritised the ethical conduct of research as it involved people who were affected by a disaster. The study practiced the following arrangements to ensure ethical conduct of human research as guided and approved by Macquarie University Human Research Ethics Committee (HREC) – "Post emergency recovery for young children: Assessing the needs and response" (Ref: 5201100679) (see Appendix 5 for the letter of approval).

3.8.1. Confidentiality agreement

The study assured confidentiality of information collected from the participants. All the materials (questionnaires, notes, voice recording files) were stored in a locked cabinet or as encrypted files in a password-protected computer. The materials will be destroyed when the time period required to keep the evidences on the study is fulfilled. This thesis did not report any information which can trace any participant or study villages. For instance, the

³⁰ For instance, Flash Appeal documents had project descriptions by each humanitarian agencies

study villages were reported as coded names Village A-1, Village A-0, Village B-1 and Village B-0 rather than their actual names.

3.8.2. Voluntary participation

To avoid any possible conceived pressure to participate in the study, the participants were repeatedly reminded that their participation in the study was voluntary. They were informed during community meetings, the recruitment process, and before the start of the interview through verbal and written communications. The fact that participants were free to choose not to answer certain questions was also emphasised before and during the data collection process.

3.8.3. Care for psychological trauma

With the acknowledgement that participants might recall sad or traumatic experiences during the cyclone, the study identified resources beforehand for psychological support if a person showed some distress during the data collection process. However no participant showed any signs of distress during the data collection.

Chapter 4. Findings

In this chapter, findings will be reported from the data collected from four communities (villages) in Ayeyarwaddy Division, Myanmar which were devastated during Cyclone Nargis in 2008. The study's purpose was to analyse the recovery process in communities affected by the disaster, especially from the communities' perspectives,³¹ and to shed light upon the humanitarian aid process undertaken as a response to the disaster.

³¹ The data generated from this study is primarily based on retrospective reporting of the respondents who had been affected by the disaster. The weaknesses of this method have been overcome by securing information from a variety of sources. Many community leaders had kept brochures from humanitarian agencies and brought (written) records on village statistics and humanitarian aid received for their villages.

This study incorporates an in-depth case report³² of the recovery process in four study communities which were devastated during the cyclone. Four study questions guide the investigation:

1. What were the effects of Cyclone Nargis on four study communities in terms of humanitarian needs as reflected by damage and losses, post-cyclone risks, and coping capacity?
2. How did the humanitarian agencies assist the communities in terms of relief and recovery?
3. What were the gaps in support and assistance and what factors contributed to these gaps?
4. To what extent did the nature of the interactions between humanitarian agencies and communities impact upon the effectiveness of the humanitarian programs?

In response to the research questions, the findings are organised into the following sections.

- *Effects of Cyclone Nargis on four study communities*: This reports the damage and losses, post cyclone risks, and coping capacity of affected communities.

³² This is one of the intended contributions of my thesis.

- *Humanitarian response*: This section discusses the humanitarian response, timeframe, humanitarian coordination, and assessment done during and after the cyclone.
- *Aid coverage and gaps*: This section reports the findings related to humanitarian aid coverage, and describes the gaps in terms of the seven aspects of human security:
 - Health Security
 - Food Security
 - Economic Security
 - Personal Security
 - Environmental Security, and
 - Community Security.
- *Interaction between humanitarian agencies and communities*: The findings in relation to the scope of community participation, utilisation of local resources and capacity, aid abuses, and representation of community leaders are discussed here.
- *Summary*: This chapter closes with a summary of the key findings of the study.

In this chapter, narratives (quotes)³³ are rephrased for better translation and readability.

³³ Original quotes were shown in transcript files and / or available in original voice files.

Data collection of this study was conducted in two communities (also referred to as ‘villages’) in Labutta and two communities in Bogale Township. For confidentiality, village names were replaced with codes:

- **A-0** refers to a coastal village (Band Zero) in Labutta with high devastation.
- **A-1** is an inland village (Band One) in Labutta.
- **B-0** is a coastal village (Band Zero) in Bogale with high devastation.
- **B-1** is an inland village (Band One) in Bogale.

Table 4.1 shows the number of population in the communities at the time of the study. Data was collected and confirmed during the focus group discussions with community leaders. As described in Chapter 3, a number of participants were identified as the study population. The next table (

Table 4.2) describes the actual number of participants who were involved in this study.

Table 4.1: Population size of the communities at the time of study

Village	Township	Zone of devastation	Population	Households
Village A-1	Labutta	Band One	646	150
Village A-0	Labutta	Band Zero	467	154
Village B-1	Bogale	Band One	2400+	650
Village B-0	Bogale	Band Zero	1314	317

Source: FGDs #1, #2, #3, #4

Table 4.2: Number of participants planned versus actual number of participants involved in this study

Data collection method	Number planned	Actual number of participants who took part in the study	Number recruited by village			
			A-1	A-0	B-1	B-0
Semi-structured interview with caretakers	30	30	8	7	8 ³⁴	7
Focus group discussion with caretakers	30	27	8	8	5 ³⁵	6
Focus group discussion with community leaders	30	31	8	8	8	7

³⁴ Of 30 semi-structured interview respondents, one respondent from Village B-0 was excluded from analysis since the caretaker did not live in the study village in the immediate post-cyclone days (see inclusion criteria, Section 3.2.1).

³⁵ One respondent in Village B-1 needed to leave the focus group discussion early and thus was not counted as a participant, although some responses were included in the discussion findings.

4.1. Findings on the effects of Cyclone Nargis on four study communities

This section is presented to answer the study question: What were the effects of Cyclone Nargis on four study communities in terms of humanitarian needs as reflected by damage and losses, post-cyclone risks and coping capacity?

4.1.1. Damage and losses

Casualties: High casualties in Band Zero villages

This study findings confirmed that coastal areas (Band Zero) suffered the effects of the cyclone more severely than inland areas (Band One); in focus group discussions, community leaders from Band Zero (FGD #2, #4) agreed that Band Zero villages (Village A-0 and B-0) suffered not only from strong winds but also from high floodwaters (storm surge). On the other hand, community leaders from Band One (Village A-1 and Village B-0) reported that their villages suffered mainly from strong winds only (FGD #1, #4).

Table 4.3 below summarises the number of casualties reported by community leaders³⁶ in the study communities. They were in agreement on the statistics (FGD #2, #4). As shown in the table, the cyclone killed more than half of those who lived in two study villages in Band Zero compared to none in Band One villages (FGD #1, #3).

³⁶ Community leaders (FGD #1, #2, #3, #4) are the best source of information on such data because official statistics were known to be outdated while the village population was reported to be very fluid. In addition, records were reported as destroyed during the cyclone. The last official census before the study was conducted in 1983. A new census was collected in 29 March to 10 April 2014 after 30 years (UNFPA, 2014).

Table 4.3: Number of casualties according to devastation zone

Village	Zone of devastation	Number of deaths ³⁷	Total population
Village A-0	Band Zero	222	422 ³⁸
Village B-0	Band Zero	1800+	2800-
Village A-1	Band One	0	646 ³⁹
Village B-1	Band One	0	2400+ ⁴⁰

Source: Community leaders (FGD #1, #2, #3, #4)

Damage and destruction: Higher destruction in Band Zero Villages

While the community leaders in all study villages (FGD #1, #2, #3, #4) reported that damage and destruction to their villages was very high, my investigation confirmed that Band Zero villages suffered more than Band One villages, as elaborated below.

³⁷Direct deaths exclude indirect deaths from diseases, e.g., stroke; it was noted that there were more casualties in the fields (farm houses) near the villages but these casualties were not counted.

³⁸At the time of Cyclone Nargis, according to records from the community leaders.

³⁹Population at the time of study; the population at the time of the cyclone was not known.

⁴⁰Population at the time of study; the population at time of the cyclone was not known.

Village A-1

In Village A-1, about eight houses were reported to be in liveable condition after the cyclone while the other houses collapsed or were totally destroyed (FGD #1). According to Village A-1 community leaders, rice stock garages were also destroyed. The rice stock destroyed was estimated to be at 2,000-3,000 baskets but only four farm animals were killed. In the focus group discussion, the community leaders agreed on these data.

Village B-1

Similarly, community leaders from Village B-1, a big village (village tract) with more than 600 houses, reported that only over 20 houses were in liveable condition after the cyclone (FGD #3). According to them, all the rice stocks were contaminated and destroyed⁴¹; farm animals in this village were carried away. Community leaders further reported that some animals were later retrieved but these animals died a few days later (FGD #3). All community leaders of Village B-1 agreed on these data.

⁴¹Destroyed hereby meant that rice stocks were contaminated with flood water. The villagers lived on this rice during the immediate cyclone days but the taste was bad and they could not sell them anymore.

Village A-0

The community leaders from Village A-0 (Band Zero) reported that their villages were left flat; nothing was left at their original location (FGD #2, #4). The following narratives were reported by various community leaders which showed the extent of destruction in Village A-0.

During Nargis, 222 people in this village died. In terms of destruction, not even a monastery or pagoda⁴² was left, all buildings were destroyed leaving the ground only.

No building was left behind.

Nothing was left indeed.

Only the ground was left.

People were left naked; we did not have paso or htami⁴³... we covered our private parts with PVC bags, robes⁴⁴ or whatever was available. Most were in this situation.

- FGD #2, A-0

⁴² To my knowledge, these buildings were usually believed to be strongest buildings in rural villages

⁴³Surround, traditional dress used by men or women to cover lower part of the body instead of pants or skirts

⁴⁴Clothes used by Buddhist monks

Village B-0

Likewise, community leaders from Village B-0 (Band Zero) reported that the storm surge wiped out their village except for three strong houses which were said to be protected by nearby trees (FGD #4).

According to the focus group discussions with community leaders from Band Zero villages, it was revealed that houses, animals, and other materials in their villages were totally wiped off by a high storm surge (according to the literature, storm surge was at least 5 meters high, see Chapter 5, Section 5.2.4) and carried away, leaving nothing in situ (FGD #2, #4). In contrast, the focus group discussion with community leaders in Band One villages revealed that houses and assets in their villages were destroyed but they did not experience the storm surge (FGD #1, #3).⁴⁵ It means that the materials for their houses were not carried away and they were able to reconstruct their houses afterwards. Some materials like fishing nets were also reusable⁴⁶; even though rice stocks were contaminated

⁴⁵ Information is complemented / confirmed through semi-structured interviews with caretakers.

⁴⁶ This fact was confirmed during the focus group discussion with community leaders as well as caretakers (when relevant, for instance questions on personal security, i.e., about their houses).

with floodwater, they were still edible during the emergency period (as reported in the sections below). Thus, I concluded that Band Zero villages had higher devastation.

4.1.2. Post-cyclone risks

This section reports immediate risks and common threats—in terms of health, food security, nutrition, and displacement—for populations affected by a disaster, especially children.

Health risks: Higher risks in Band Zero villages

The following post-cyclone health issues were identified during the semi-structured interviews and focus group discussions (FGD #1, #2, #3, #4):

- The cyclone brought a storm surge or floodwaters, resulting in a risk of contamination of the village water supply reservoirs (ponds).
- The floodwater also contaminated or carried away food stocks, resulting in limited access to healthy food and nutrition.

Additional health issues experienced in Band Zero villages: Displacement and lack of access to health services

In addition to these health issues, my analysis extracted the following additional issues in Village A-0 from the focus group discussion with caretakers (FGD #6).

- Some survivors, especially children, had physical injuries, cuts, or blunt trauma during the cyclone
- Villagers did not have access to health services
- They experienced displacement

In a focus group made up of caretakers (FGD 6#), statements in response to inquiry on casualties included:

There were children who died after one day. They were brought to (nearby village). There, they died of injuries, in front of us.

Two died around 8 pm on the third (of May 2008).

After the children died, blood came out from mouth and ear, in massive amount...

... They could talk before they died.

The health staff (from a displaced village) did not treat them; the health centre was locked, there was no medicine. She gave treatment to no one...

- FGD #6, A-0

Similarly, my analysis extracted the following issues in the other Band Zero Village (Village B-0), from the focus group discussions with community leaders (FGD #4).

- Basic health staff disappeared after the cyclone
- No health service provision was available in immediate days
- The need for health services were high since people were injured or suffered from extreme weather during the cyclone
- Most of the village population were displaced

Food insecurity and nutrition risk: Higher risk in Band Zero Villages

Band One villages: Food stock contaminated but edible

In Band One villages (Village A-1 and B-1), although majority of the rice stocks were destroyed by the storm, community leaders reported that villagers survived eating wet rice in the immediate post-cyclone days, although the rice was salty and tasted terrible (FGD #1, #3). This showed that rice (food), although contaminated by floodwater (usually referred to as wet rice), was available.⁴⁷

⁴⁷ The cyclone brought floodwater / storm surge containing sea water.

Band Zero villages: Population displaced for basic survival

As shown in Table 4.4 below, the community leaders of Village A-0 and Village B-0 (Band Zero villages) reported that survivors of these villages had to move to a nearby village or town where they reportedly experienced food shortage (FGD #2, #4).⁴⁸ The following response was extracted from the focus group discussion with community leaders (FGD #2) in Village A-0 as part of a response to an inquiry on relief humanitarian aid:

We all dispersed after the cyclone on May 2. Nobody (was left) at the village. Survivors also moved to (a nearby village). There, we all experienced starvation. We had to skip meals ... Later days were quite okay. We worked this and that, begged from here and there. There were no donations⁴⁹ at that time. We begged from those who we knew before. Also (we) worked (for food). (We) begged from rice shops. Rice shop gave us some wet⁵⁰ rice and we cooked (only that) wet rice...for about 6 days⁵¹ at the displaced village⁵².

- FGD #2, A-0

Table 4.4: Displacement in Band Zero and Band One villages

⁴⁸ All the community leaders in the focus group discussions agreed that their villages experienced displacement. Semi-structured interviews also confirmed the presence of displacement.

⁴⁹ Distributions from humanitarian agencies or from individuals from other parts of Myanmar

⁵⁰Wet rice refers to the rice being contaminated with saltwater brought by the storm surge.

⁵¹Mentioned as 3-4-5-6 days, can be understood as “about 6 days”

⁵² Name of the village is not mentioned for confidentiality

Zone of devastation	Village	Township	Displacement
Band One	Village A-1	Labutta	No
Band One	Village B-1	Bogale	No
Band Zero	Village A-0	Labutta	Yes
Band Zero	Village B-0	Bogale	Yes

Source: FGD #1, #2, #3, #4

The community leaders of Village A-0 said that the villagers could not survive in their village. They had to move immediately to a nearby village (village tract) with relatively less destruction for their survival needs, as narrated below (FGD #2).

As we could not survive in this village, all survivors moved to (a nearby village). That village had less destruction....

... At (displaced village), we had to live at the high school at first. Second, we lived at (moved to) a place⁵³ at the back of the school. There were such⁵⁴ huts. We lived there. From there, we moved to (another place).... From there we moved to the monastery (at a place). At each place,⁵⁵ we worked for casual jobs and got some rice, 1 or 2 pyi⁵⁶. While we worked, we got contact with (a monk). We asked for help.⁵⁷ The monk supported us with some cash and asked 'you want live back at your (old)

⁵³ Name of the place is not mentioned for confidentiality

⁵⁴ Temporary shelter made of tarpaulin

⁵⁵ Mentioned as *Step by step*

⁵⁶ Local measure, equal to 0.256 liter (according to Wikipedia http://en.wikipedia.org/wiki/Burmese_units_of_measurement)

⁵⁷ Direct word was *donation*, translated as *help*, as it may be the meaning of word

village?’ We replied ‘We do.’ With cash support, we (re)built (our village).

- FGD #2, A-0

Similarly, the community leaders from Village B-0 reported population displacement two days after the cyclone (FGD #4). According to their reports, the residents of Village B-0 survived at their village location for two days before a rescue boat came. The river current brought food items from damaged villages upstream and deposited food items on the riverbank opposite the village. They used those food items. Drinking water was available from tube wells. After two days, a rescue boat came to the village and took many villagers to rescue camps. Some individuals voluntarily asked to be left behind in the village. The boat gave two bags of rice to those who stayed (FGD #4).

4.1.3. Coping capacity

The coping capacity of a community is reported to play a crucial role in disasters (ReliefWeb Project, 2008). This section reports on how the cyclone affected the villages’ community capacity (coping capacity) in the immediate post-cyclone days. Chaskin (Chaskin, 1999) defines community capacity as

the interaction of human, organizational, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of a given community.

It may operate through informal social processes and/or organized efforts by individuals, organizations, and the networks of association among them and between them and the broader systems of which the community is a part. (Chaskin, 1999, p. 4)

The findings show that community capacity was negatively affected by the cyclone and these negative effects were major especially in coastal communities (Band Zero Villages), as elaborated in the following sections.

Community capacity in the immediate days: Band Zero Villages could not cope

Band One: Able to cope with basic survival needs

In Band One villages, the following scenario was described by community leaders (FGD #1, #3).

- Individuals of Band One villages helped each other during the post-cyclone days. They shared food, shelter, and other essential items (FGD #1, #3)
- Village B-1 helped individuals from seriously affected communities (FGD #3)

Respondents in the focus group discussion with the community leaders (Village B-1, Band One) explained how they helped each other in the immediate post-cyclone days as below (FGD #3).

... Families who lived in police quarters, the village administrator's family, and my family sheltered in my house. As my house was too crowded, we modified⁵⁸ the rice garage and also sheltered there. Both my house and garage were fully occupied. We cooked (and shared) rice; each person got a bowl of rice.

- FGD #3, B-1

Village B-1 helped people from other villages

The following narrative was by a Village B-1 community leader, describing the support and assistance to people displaced from seriously affected villages (FGD #3).

Over there in the big field, a rescue camp was set up ... About 600 people were displaced there.⁵⁹ Some were displaced from other villages ... Individual donations⁶⁰ were available. We prioritised the neediest⁶¹ first for (donated) aid items; we held a meeting and decided that ... as donated items were not enough, we would prioritise⁶² the neediest⁶³.

- FGD #3, B-1

⁵⁸Mentioned as *we made another floor*.

⁵⁹Mentioned as 4-5-600 in Myanmar, usually understood as "about 600".

⁶⁰ Donations from private people from areas unaffected by the cyclone.

⁶¹Mentioned as *the most in trouble*.

⁶² Mentioned as *gave*.

⁶³Mentioned as *the most important but it does not mean VIP*.

Band Zero Villages: Cannot cope with basic survival needs

Community leaders from Band Zero villages, Village A-0 and Village B-0, reported the following scenario (FGD #2, #4):

- Villages could not access basic survival needs in their village locations.
- Village people could not help each other for survival.
- Relocation and displacement became the only coping mechanism.
- Villagers had to request assistance from external communities (other villages) for survival.

The scenarios above reveal that the cyclone eroded the response capacity of coastal communities (Band Zero villages). Band Zero villages had no choice but to rely on external help (humanitarian assistance) for survival.

4.1.4. Summary on effects of the cyclone

The findings from this study show that the cyclone had an enormous effect on the study communities in terms of casualties and devastation. Band Zero villages experienced high casualty and relatively higher devastation than Band One villages. This study findings also show that Band Zero villages experienced food insecurity (no access to food), displacement, and limited access to basic survival needs and to health services. In terms of

response capacity, Band One villagers reportedly helped each other and helped those from seriously affected villages (Village B-1). In contrast, Band Zero villages had to opt for displacement and sought assistance from external communities for their survival.

4.2. Humanitarian Response

This section describes the overall humanitarian aid in the study communities. It is presented in response to the study question: *How did the humanitarian agencies assist the communities in terms of relief and recovery?*

This section also reports on humanitarian aid prioritisation in accordance with humanitarian needs, as well as humanitarian assessment, coordination practices, and the timeframe of the humanitarian aid from the perspectives of the affected communities.

Humanitarian aid was not consistent

My investigation on the type and amount of humanitarian aid,⁶⁴ according to responses by community leaders (FGD #1, #2, #3, #4),⁶⁵ showed that humanitarian aid packages were *not consistent* across the study communities. For instance, in Village B-0, people received

⁶⁴ Amount and type of humanitarian aid items to study villages were reported by community leaders in response to the study questions. I compared the amount and types of aid items to each village.

⁶⁵ Also from semi-structured interviews with caretakers, the recipients of aid items.

rice and cooking oil only.⁶⁶ In three other villages, the items consisted of rice, cooking oil, and chickpea (described by participants in FDG #1, #2, #3). Timeframes and target beneficiaries (see Table 4.7) were also inconsistent between villages.⁶⁷ Inconsistencies in non-food humanitarian aid packages were also reported.

No prioritisation of Band Zero

Comparisons of the reported amount and type of humanitarian aid in different study communities⁶⁸ revealed that *no aid prioritisation to seriously affected communities* took place (Band Zero Villages). Table A-1 in the appendix 1 summarises the number of humanitarian agencies and type of humanitarian aid activities to the study communities as reported during the focus group discussions with community leaders (FGD #1, #2, #3, #4).⁶⁹ As shown in the table, caretakers from Village A-1 reported receiving a cash grant

⁶⁶ For Village B-0, food was first distributed by an agency for rice, oil, and pulse (chickpea) but it was just for a short period of time. The regular distribution task was later handed over to another agency which distributed rice and oil only.

⁶⁷ In addition to variations in timeframe and target across villages, the amount of distributed items also varied even in the same village on different timelines. For instance, Village A-1 received food rations of rice – 5 pyi and 4 cans (local measures) for each person in the early days but this was reduced gradually to 3 pyi, and then the ration stopped (FGD #1).

⁶⁸ Amount and type of humanitarian aid items distributed in their villages were reported by community leaders during the focus group discussions (FGD #1, #2, #3, #4). I compared the reported amount and types of aid items against Band Zero and Band One villages.

⁶⁹ Complemented or triangulated by focus group discussions with caretakers (#5, #6, #7, #8).

twice (from two humanitarian agencies) in addition to commodity supplies⁷⁰ (FGD #5).⁷¹ In contrast, Village A-0 received only one cash grant (one of the humanitarian agencies which helped Village A-1 provided cash grants) (FGD #2).⁷² No other humanitarian agency was reported to have addressed the provision of economic recovery aid to Village A-0.

In other words, Village A-1 received more economic recovery aid than Village A-0 (Band Zero) which suffered more serious damage than Village A-1. This fact was confirmed by the individual experience reported during the semi-structured interviews and focus group discussions with caretakers.

Humanitarian aid was not distributed in accordance with village population

As shown in Table 4.1, the population of the study villages ranged from 467 to more than 2,400. Village B-1 and Village B-0 had much larger populations. This study revealed that the humanitarian agencies did not bring enough humanitarian aid for the whole village in Village B-1 and Village B-0; humanitarian aid items were enough for only a portion of the

⁷⁰ It was reported that the first humanitarian agency provided cash up to 90,000 kyats to beneficiaries in Village A-1 and that the second humanitarian agency provided additional cash grant to those who received a cash grant of less than 50,000 kyats to become (lump sum of) 90,000 kyats.

⁷¹ Confirmed by semi-structured interviews.

⁷² Confirmed by semi-structured interviews.

community (FGD #3, #4). According to community leaders, a lucky draw system was deployed for fair distribution of humanitarian aid items in Village B-1 and Village B-0. In fact, semi-structured interviews revealed that some families in Village B-1 and Village B-0 did not receive recovery aid at all⁷³ (Interview #24, #25). In contrast, the relatively low-populated Village A-1 and Village A-0 did not report these issues in relation to accessing humanitarian supplies (FGD #1, #2).

Shelter was not distributed according to needs

The focus group discussion with community leaders revealed that a private company (donor) and a humanitarian agency provided support to build a strong building (cyclone shelter) to be used as an evacuation centre in Village A-0 and Village B-1. No such building was provided to Village A-1 and Village B-0.⁷⁴ Amazingly, this type of building was not provided to Village B-0, despite its casualty rate of more than 50%, but was provided to Village B-1 which experienced no casualties from Nargis. It is clear that aid for shelter was not distributed according to any kind of logic or needs assessment.

⁷³Semi-structured interview, one and two, Village B-0 for example.

⁷⁴ The study suggested that the coastal areas (Band Zero) had higher risk from the deadly storm surge and were geographically vulnerable to tsunami (see Chapter 5, Discussion).

4.2.1. Humanitarian Assessment: There was no assessment done

In response to my inquiry on humanitarian needs assessment, none of the community leaders reported being aware of a humanitarian assessment done in their villages (FGD #1, #2, #3, #4).⁷⁵ They claimed that humanitarian agencies just brought in predefined aid supply packages without any known assessment (FGD #1, #2, #3, #4).

The quotes below were extracted from a focus group discussion with the community leaders from Village B-0. The focus group was asked to comment on how humanitarian agencies could improve humanitarian aid processes (FGD #4).

An assessment would make humanitarian aid better.

An assessment to know who are farmers, who are fishermen, who are net fisher (another kind of fishermen), who are general workers, who breeds animal etc. Also, humanitarian agencies should have discussed with community leaders. If they did so, the correct items would go to those who needed it.

In reality, those who needed fishing nets got pigs, those who wanted pigs got fishing net ...

- FGD #4, B-0

⁷⁵Some community leaders reported that the humanitarian agencies did inquire about the village profile which included questions on village population, number of families, and types of livelihood.

In addition, the community leaders from Village A-0 (FGD #2) reported that they had been reluctant to identify their real needs to the donors. This reluctance was based on fear that if they complained about donations, they may end up with less aid or with nothing at all. Comments in response to questions about how goods were distributed to communities included

A few humanitarian agency staff asked what our needs were... but in most cases they did not ask.

They said they could only support certain things ...

We could not be choosy.

We could not say that those things were not suitable for us. We just accepted those things. For instance, we have always used fishing nets with lead balls on the edges - but they gave out different kinds of nets – with wrapped an iron wires. But we accepted because they donated with good will.

- FGD #2, A-0

4.2.2. Humanitarian aid coordination

This study investigated humanitarian coordination from the perspective of the community. The investigation included local coordination mechanisms and inclusion of all relevant

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stakeholders (humanitarian agencies, CBOs, the government, and private donors) in local coordination mechanism.

No known local coordination

Coordination effort is hereby referred to as a meeting or any arrangement between relevant actors (the government service providers, humanitarian agencies, and private donors) to discuss how to coordinate (work together) humanitarian activities in study villages. None of the community leaders from the four study communities reported being aware of any coordination effort occurring at the village level. (FGD #1, #2, #3, #4).

In response to my inquiry on coordination, community leaders from Village A-1 said (FGD #1):

In my point of view, humanitarian agencies had already discussed coordination in Bogale Town. If humanitarian agency X gave water-related aid, no other humanitarian agency offered water-related assistance. The same for rice (food), fertiliser etc. They must have already coordinated in town. Thus, they did not discuss with the villagers...

Thus, if humanitarian agency X came, we got A, if humanitarian agency Y came, we got B. They did not consult with the village in advance.

-(FGD #1, A-1)

Some key stakeholders were left out of the coordination process

In terms of involvement of relevant stakeholders in humanitarian coordination, this study noted two scenarios which reflected humanitarian coordination at the operational level.

Private sector was left out

One scenario was in Village A-0 where a key actor which contributed to the recovery of the village was identified as a private donor (a business company). The community leaders perceived that the company had not been involved in any humanitarian coordination efforts⁷⁶ (FGD #2).

Government sector was avoided

The second scenario was in Village B-1 where the key humanitarian agency was perceived to have purposefully avoided the local authorities⁷⁷ (FGD #3) despite efforts of the local

⁷⁶ Coordination effort is hereby referred to as a meeting or any arrangement between relevant actors (the government service providers, humanitarian agencies and private donors) to discuss how to coordinate (work together) humanitarian activities in study villages.

⁷⁷ According to the government structure of Myanmar government, village authorities in Village B-1, a village tract village, can be regarded as part of the government structure.

authorities to coordinate with the agency (see the following section, Section 4.4.1 for more information).

Although there was initial blockage of humanitarian aid flow by the government in immediate post-cyclone days (R. Cohen, 2009; Honda & Daigaku, 2009), which was a possible contributing factor for the delay of humanitarian aid to study communities, this study revealed that local authorities in the study villages indeed welcomed humanitarian aid and that they were instructed to help or to work closely with aid agencies in the recovery days. However, this thesis did not investigate the possible effects of the government's action on the relationship between local humanitarian aid workers and the local community leaders.

4.2.3. Timeframe

Humanitarian relief aid during emergencies was mainly perceived as coming from private or national actors (FGD #1, #2, #3, #4). During emergencies, many groups came to the village and randomly distributed relief aids.

Table 4.5 below shows the time of engagement of the humanitarian aid agencies to study communities as reported by community leaders (FGD #1, #2, #3, #4). *Time of engagement* hereby refers to regular provision of humanitarian aid. It is shown that food distribution was the first regular distribution by humanitarian agencies in the study villages (with the exception of Village B-1 where the first support to malnourished children was with food and nutritional powder) (FGD #3, #7).

As food aid is the first regular provision of humanitarian aid,

Table 4.5 is presented in terms of food distribution. Possible reasons for starting regular provision of humanitarian aid after 3-6 months are discussed in Chapter 5, Section 5.1.1.

Table 4.5: Time of arrival for humanitarian agencies in study villages

Village	Area of devastation	Start of regular (food) distribution (months after the cyclone)
Village A-1	Band One	3 months
Village A-0	Band Zero	3 months
Village B-1	Band One	6 months ⁷⁸ (4 months, support to malnourished child)
Village B-0	Band Zero	5 months

Source: FGD #1, #2, #3, #4

Nutritional assistance was seen as a coordinated effort between basic health staff (regular government service) and humanitarian agencies; the starting time for nutritional programs was difficult to determine. Nutritional anthropometric measurements accompanied with support for nutrition powder might have started soon after the cyclone (FGD #1, #2, #3, #4) and been implemented by the health staff (the government sector). Other support for nutrition, food/cash support for example, was reported to have started with food distribution. Indeed, the same agencies who attended to nutrition needs were also the

⁷⁸According to semi-structured interviews (Interview #10, #11).

distributors of food in the study villages with the exception of Village B-1. Distribution of non-food item packages and water/sanitation aid took place about the same time as food distribution. These non-food items were generally one-off distributions (FGD #1, #2, #3, #4). Economic recovery packages involved many packages and reportedly came at different time intervals (FDG #1, #2, #3, #4).

Some aid packages were distributed more than a year after the cyclone. For instance, support to net fishers in Village A-0 was said to have been distributed after one year (FGD #6). Some participants who received proper⁷⁹ and timely economic recovery aid (Interview #9, #10), for example during food distribution, said that they were able to save some money and recover slowly. Many others, i.e., those who received recovery aid after food distribution was over, were reported as at a state far from recovery. Details on economic recovery aid are discussed in Section 4.3.3, Economic Security.

4.2.4. Summary of humanitarian response

The findings reported above, based on responses from community leaders, clearly indicated that humanitarian aid packages were *not consistent* across Bands and villages. Beyond the inconsistencies in terms of amount and type of humanitarian aid items, there is evidence that the humanitarian response was not based on any meaningful needs

⁷⁹Many of economic recovery aid were not suitable, please see section on economic recovery.

assessment. This is reflected by poor aid prioritisation to severely affected areas (Band Zero) and other ineffective distributions. Another example of this lack of response is reflected by the fact that humanitarian aid agencies did not bring enough aid packages to two villages with high populations. This study also revealed poor coordination including restricted or non-existent local coordination efforts and little or no involvement of relevant stakeholders.

4.3. Aid coverage and gaps

This section discusses humanitarian aid coverage and gaps. This is presented in response to the research question⁸⁰: *What were the gaps in support and assistance and what factors contributed to these gaps?*

Gaps were identified and described here under the headings of health security, food security, economic security, personal security, and community security.⁸¹

⁸⁰ Chapter 5 discusses the second part of the question: *What factors contributed to these gaps?*

⁸¹ Of the identified seven aspects of human security, political security is undoubtedly one major aspect that should be looked at, especially in post conflict settings. With political sensitivity in Myanmar at the time of the study, however, I have opted not to report on it in this thesis. I believe that reporting on the other six aspects can provide sufficient evidence to address my research questions – but would hope that others will find the opportunity to investigate how to address political security issues as an element of post disaster relief and recovery strategies.

4.3.1. Health security

In this section, health service coverage in the study communities are discussed, focusing on health security for affected children. Key service providers and service gaps are highlighted. Findings are based on semi-structured interviews with caretakers,⁸² complemented and triangulated by focus group discussions with caretakers⁸³ and community leaders.⁸⁴ Key findings in terms of coverage and gaps on health security aspect are summarised as below (see Table 4.6):

- Health services were accessible to communities in the post cyclone stage
- Mental health services were not available
- Some health risks (increased vector population and shortage of personal commodities) were identified.

⁸² Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30

⁸³ FGD #5, #6, #7, #8

⁸⁴ FGD #1, #2, #3, #4.

Coverage

Health services recovered quickly

This study investigated the availability of health services at different timeframes to identify the availability of appropriate health services during the relief and recovery stages. Caretakers⁸⁵ reported that, except for a short period of time immediately after the cyclone, health services were available from basic health staff (see Section 4.1.2). This is supported by what caretakers reported: they all said that their children were immunised and checked for malnutrition (anthropometric measurement).

Key providers were existing service providers

Caretakers identified basic health staff (the government services) as the key service provider in all study communities. The reported health services provided included:

- immunisation and disease prevention
- nutritional measurements and distribution of nutrition powders
- primary care (basic curative services) and

⁸⁵ Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30.

- health education services.

Focus group discussions with community leaders and caretakers⁸⁶ supported this and further revealed that the government also provided curative care at nearby township or station hospitals, free of charge⁸⁷ for a period of time.⁸⁸ Apart from a pocket of dengue outbreak in Village A-1 (FGD #1, #5), no disease outbreak was reported.

Table 4.6: Health service accessibility in the study villages

Health	Village A-1	Village A-0	Village B-1	Village B-0
Immunisation and prevention	Yes	Yes	Yes	Yes
Basic health care	Yes	Yes	Yes	Yes
Water and sanitation	Yes	Yes	Yes	Yes
Nutrition	Yes	Yes	Yes	Yes
Mental health	No	No	No	No

Source: Semi-structured interviews with caretakers⁸⁹

⁸⁶ FGD #1, #2, #3, #4, #5, #6, #7, #8.

⁸⁷ Myanmar practices a cost-sharing scheme.

⁸⁸ That is during the post cyclone period. This free service was no longer available at the time of the study.

⁸⁹ Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30.

Gaps

Mental health services were not available

Mental health services were identified as a significant gap in health service security. Caretakers⁹⁰ reported that mental health services were unavailable or that they were unaware of such services in all of the study villages.

Vector populations remained the same or increased

Caretakers reported that the population of vectors (e.g., mosquitos, flies, and rats) remained the same or increased during the post cyclone period (FGD #5, #6, #7, #8). Also, hazards caused by animals (snakes and crocodiles in particular) were identified as a cause of fatal incidences (in Village A-1 and Village B-0, as per FGD #5 and #8).

⁹⁰ Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30.

Commodities consumed

Some caretakers responded that consumable commodities (e.g., soap) distributed during the post-cyclone stage were in a state of shortage at the time of the study (Interview #5, #9, #19, #23, #24, #29). In response to follow up questions to those who reported shortage of commodities, the caretakers said that shortages were associated with current economic hardship.

4.3.2. Food security

This section reports on food aid and food security conditions of the affected populations. Food security questions were included in the semi-structured interviews with caretakers.⁹¹ Key findings in terms of coverage and gaps on food security aspect can be summarised as follows:

- Food was adequately supported by humanitarian agencies.
- Nutritional services were also provided.
- Food insecurity⁹² was an issue at the time of study.

⁹¹ Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30.

⁹² Food insecurity hereby refers to a condition when some participants knew some families in a state of food inadequacy, as reflected by missed meals.

Coverage

According to community leaders, the villagers experienced a short period of food inadequacy and/or had to live on wet rice⁹³ during the relief period (FGD #1, #2, #3, #4).⁹⁴ Nearby communities and private⁹⁵ donations provided survival needs until humanitarian aid came to the affected villages. The timeframe for the arrival of food aid by humanitarian agencies is shown in Table 4.7 below.

Food aid was adequate

None of the caretakers⁹⁶ who received food aid said that food aid had been inadequate⁹⁷ or inappropriate. According to them, they received rice, cooking oil, and pulses (chickpea). However, Village B-0 did not get pulses as part of food distribution⁹⁸ (Interview #23, #24, #27, #31, FGD #4). Some additional items were reported, especially for families with

⁹³ Rice contaminated with floodwater. Taste was mentioned as salty, smelly, and terrible.

⁹⁴ This is described in Section 4.1.2.

⁹⁵ Donations from individuals or groups from different parts of Myanmar.

⁹⁶ Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30.

⁹⁷ There were individuals who did not get food aid (Village B-1). They showed some concerns for not getting food aid and reported they had to struggle to find something to eat.

⁹⁸ They did get pulse for a short period of time but did not get it once the responsible humanitarian agency distributed food.

malnourished children in the early post cyclone period. These items included canned fish, nutritional powder, instant noodles, and the other foodstuff. The following table (Table 4.7) shows the timeframe of food distribution⁹⁹ in the study communities.

Table 4.7: Duration of food distributions in study villages

Village	Universal distribution (duration) from date of distribution ¹⁰⁰	Targeted distribution (duration) ¹⁰¹
Village A-1	6 months	6 months
Village A-0	16 months ¹⁰²	NA
Village B-1	NA	4 months
Village B-0	11 months	NA

Source: FGD #1, #2, #3, #4

⁹⁹ Food distribution hereby refers to regular provision of food aid (food ration), usually provided according to the number of family members. Food distribution was usually arranged by community leaders (CBOs).

¹⁰⁰

Table 4.5 shows date of first regular distribution.

¹⁰¹ Targeted distribution hereby refers to aid distribution targeted to a specific portion of a community (usually the poorest or most vulnerable groups). Targeted distribution started when universal distribution stopped. For Village B-1, there was no universal distribution.

¹⁰² Source: interview with community leader (49:00).

Nutritional services were available

Caretakers in study communities confirmed that anthropometric measurements to children were taken after the cyclone. Measurement services were reported as regular and accompanied with distribution of nutritional powder to undernourished children (Interview #11, #12, #23, #24, #27).¹⁰³

Semi-structured interviews with caretakers identified basic health staff as key service providers for nutritional services. Other players (community volunteers) were also identified. For instance, in Village B-1 and Village A-0, mothers' self-help groups (FGD #6, #7) undertook anthropometric measurements for children.¹⁰⁴

Gaps

Despite the positive reports about coverage of security items above, a number of gaps were also reported. These are described below.

¹⁰³ The study noted that nutritional powders were also distributed to some of the children who were not regarded as undernourished.

¹⁰⁴ This service was still functioning state at the time of this study.

Long-term food insecurity

Food inadequacy refers to a situation in the community when some families in the community were reported to have no food or to have missed meals due to a lack of access to food. Ironically, it appears that food security was better in the pre-cyclone and post cyclone periods, rather than at the time of the study (two years hence). See comment below.

Before Nargis, food was adequate¹⁰⁵... Immediate post-Nargis, there were food distributions and hence food was secured ...it was adequate for 1-2 years. In the recent years. ... I know some families who had no food to cook... There were also families who needed to skip meals¹⁰⁶.

Interview #16, B-0

Other findings confirmed that some families in study communities were experiencing food inadequacy at the time of the study (FGD #5, Interview #10, #18, #24, #25).¹⁰⁷ Food inadequacy was reported by caretakers as the knowledge of someone in the neighbourhood being in a food crisis. Indeed, some participants (n=2, 6.7%) reported food inadequacy in

¹⁰⁵Some participants reported food shortage before the cyclone but they explained it was not as bad as the state at the time of study.

¹⁰⁶ Reported as *to combine two meals in one*

¹⁰⁷ This study identified presence of food insecurity when some participants in a study community could identify one family or more in a state of food inadequacy.

their own families (Interview #10, #24, #25). In assessing why food security was irregular at this time, caretakers linked food inadequacy with irregular or inadequate income (Interview #10, #24, #25). This appears to be connected to post cyclone activity on economic security (see below).

4.3.3. Economic security

This section reports on the livelihood recovery status in study communities and the role of humanitarian aid in the recovery of affected populations.

Economy was better before the cyclone

Findings (based on responses from semi-structured interviews with caretakers) revealed that the economy in all villages had been in a better state before the cyclone,¹⁰⁸ reflecting economic depression across cyclone-affected areas. Focus group discussions with community leaders (FGD #1, #2, #3, #4) generally support this fact. All study villages experienced reduced farm productivity and decline in fish populations (Village A-0, A-1, B-0) impacting the most important livelihoods in the study areas, farming and fishing (see Section 4.3.5 for more details).

¹⁰⁸ These caretakers (#1, #2, #3, #5, #7, #10, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #26, #28) reported that the state of the economy was better before Nargis. Other caretakers did not provide conclusive answers.

The statements by community leaders (FGD #2) presented below reflect typical responses about the pre-cyclone economic security.

(Before the cyclone, people) had regular employment.

People were okay.

Businesses were run well¹⁰⁹.

(We were) not in trouble although we were not rich.

- FGD #2, A-0

Key findings¹¹⁰ in terms of coverage and gaps on economic security aspect can be summarised as follows:

- A variety of economic recovery aid was provided by humanitarian agencies.
- Some recovery aid items (commodities) were inadequate or unsuitable.
- Some aid items were delivered to inappropriate (wrong) beneficiaries.
- Microfinance programs were a burden to program beneficiaries.

¹⁰⁹Mentioned as *circulate*

¹¹⁰ FGD #1, #2, #3, #4, confirmed by semi-structured interviews with caretakers.

- One community which received a cash grant did not report unsuitability of recovery aid.

Coverage

According to community leaders, the beneficiaries of economic aid were generally grouped into two categories by humanitarian agencies¹¹¹: farmers and non-farmers. (FGD #1, #2, #3, #4)

Farmers were those who ‘owned’¹¹² some farmland. Community leaders explained that farmers who owned farmland of more than five acres were categorised as big farmers and those who owned less than five acres were categorised as small (small-scale) farmers.

Individuals who did not own farmland were categorised as non-farmers. The non-farmer population¹¹³ included fishermen, casual workers, farm labourers, and individuals undertaking other business activities such as trade and services (as defined by the

¹¹¹ According to the cluster system, farmers are believed to be beneficiaries of agriculture cluster and non-farmers might be beneficiaries of early recovery cluster. That might be the reason why humanitarian agencies categorise farmers and non-farmers.

¹¹²In Myanmar, nobody actually owns farmland. Farmland is granted by the government to individuals for farming.

¹¹³This information was given by local people and data collectors, not through the formal interview process.

community leaders). General labourers (direct translation of Myanmar term ‘baut’) also fell within this category.

The community leaders, in this study, explained however that this categorisation was not clear cut. For instance, farm labourers worked in agricultural sector seasonally and did casual work in the non-agricultural season, engaging in small-scale fishing. Meanwhile, those whose main area of work was fishing also became casual farm labourers when they lost their fishing gear, boat, and fishing nets during the cyclone.

Commodity aid was most prevalent recovery aid

According to community leaders (FGD #1, #2, #3, #4), recovery aid for non-farmers came in many forms under the categories of commodity supplies, cash grants, infrastructures/ cash-for-work, and loans. Farmers received cash grants, commodity supplies, and communal power tillers as economic recovery aid supplies. Table A-1 in the Appendix 1 summarises the number and types of humanitarian activities as reported by community leaders. Commodity supplies were the most prevalent (reported) humanitarian aid for economic recovery.¹¹⁴ The humanitarian agencies brought commodities¹¹⁵ such as boats,

¹¹⁴ Other than cash grants (two in village A-1, one in A-0, one in B-0) and two microfinance activities, economic security distributions were reported to be in the form of commodity supplies (see Appendix I).

¹¹⁵ In focus group discussions, community leaders listed (by memory) the items distributed by humanitarian agencies.

fishing nets, cast nets, other fishing gears, engine-powered boats, vegetable seeds, livestock, and other items used in local business. For farmers, rice seeds, fertilisers, farm animals (Village B-1 only), and power tillers were among those provided.

Cash grants and loans were available

Findings showed that cash grants, cash-for-work, and loan projects were distributed to support livelihood recovery in villages.¹¹⁶

Gaps

Inadequacy and unsuitability of recovery aid items (commodities) were key gaps reported by both community leaders and caretakers during data collection.

Economic recovery commodities did not suit local context

Community leaders from Village A-1, Village B-1, and Village B-0 reported that many economic aid supplies (commodity supplies) were not suitable to the local context (FGD #1, #3, #4). Rice seeds, fishing nets, boats, farm animals, livestock, and power tillers are

¹¹⁶ Cash grants were reported in Village A-1, Village A-0 (general labourers), and selectively in Village B-0 (FGD #1, #2, #4). None of the respondents in Village B-1 reported receiving cash grants (Interview #16, #17, #18, #19, #20, #21, #22, #23, #24).

examples of commodity distributions which did not assist the villagers. Respondents in Village A-0, however, did not report this problem. This is because, except for the commodities provided by the government, the humanitarian agency which oversaw distributions to Village A-0 provided cash grants for villagers to purchase essential items for livelihood recovery(FGD #2).¹¹⁷

The following statements, extracted from the focus group discussions with community leaders, reveal the perceptions about the unsuitability of the aid items for local context (from FGD #1, #2, #3, #4).

We have always used cast nets with narrow mesh but humanitarian agencies distributed wide mesh ones. People here did not know how to throw (use) these.

We could not use distributed nets but ... if (we) re-knit ourselves, (we) could get a pite¹¹⁸ (smaller net), not a cast net anymore.

They (humanitarian workers) admitted that they didn't understand the fishing business well.

- FGD #1, A-1

¹¹⁷ In fact, in contrast to the other study villages, Village A-0 did not get any commodity distribution at all from humanitarian agencies.

¹¹⁸ Myanmar word for small type of fishing net.

... Since distributed cast nets were not functional, we just put them aside (did not use them).

These (cast nets) became baby swings.

- FGD #3, B-1

Village A-0 did receive some commodities from government sources, according to community leaders (FGD #2). These distributions (of rice seeds and sets for crab fishing) were inappropriate:

The rice seed they (the government) gave us did not suit this area... they had not made any assessment.

... (at the other villages) they could make a living by catching¹¹⁹ crabs.. but in our area crab catching cannot provide us with ¹²⁰ an adequate income.

¹¹⁹The word used was translated to be catching with traps.

¹²⁰Exact words: *we cannot eat with crab catching.*

Some organisations gave equipment¹²¹ for crab-catching (gananhtaung)... but we cannot make a living from this.

- FGD #2, A-0

Commodities distributed to inappropriate (wrong) persons

Another gap in terms of commodity distribution was that, even when humanitarian aid items were locally suitable, the items were reportedly handed out to inappropriate recipients (FGD #4).

A humanitarian agency first gave (some) pigs to cast fishers. Thus, (some) cast fishers got pigs in the first round of distributions. Then, when other agencies came, the farmers got boats but cast fishers did not (get a boat) because they had (already) received pigs. Things got wrong in this way.¹²²

- FGD #4, B-0

¹²¹Said small boats and equipment.

¹²² Exact words: *like that*.

According to community leaders from Village B-1 and Village B-0, humanitarian aid distribution was not adequate for the village population.¹²³ This was addressed by holding a ‘lucky draw system’ for aid items in these villages (FGD #3, #4). The lucky draw system could result in aid items going to individuals whose livelihood skill did not match the item.

Another instance of inappropriate distribution was reported by respondents in Village B-0. Here, small farmers—those with small tracts of land—were given power tillers (FGD #4). However, power tillers are more suitable for large-scale farmers. The following statements describe this issue and the result (from FGD#4).

Although a power tiller was provided, (I) didn’t have a buffalo. Power tiller needed labour (a driver).

Many of those who got (power tillers) had farmland size averaged 2 acres. They did not use (them) for ploughing but sold them ...

Thus, small farmers sold them back.

They sold them to those who could work (with this). They had no ability to work (with this).

- FGD #4, B-0

¹²³ Issues of not bringing adequate items to villages with high population is described in Section 4.2.

Microfinance programs not adapted to local context

Some humanitarian agencies provided microfinance. However, microfinance programs were reported to be unfeasible in the study villages. Two communities (half of the study villages) reported that they had rejected microfinance programs (FGD #2, #3). Participants from two other villages (Village A-1 and Village B-0) which accepted microfinance programs described poor experiences with the program (FGD #1, #4). Mostly the goals of the ‘business’ financed under this scheme were not met. Comments on this include (FGD #1) the following:

Ducks would not lay eggs everyday.

I breed a pig...the pig is not grown yet.

We had a tight budget to repay every 14 days.

It would be convenient to pay back after 10 months (in one payback) - instead of more frequently – We borrowed (for) 10 months (duration).

(The microfinance humanitarian agency) needed to get return money every 14 days.

We had to sell out what we had (including aid items) to pay back.

- FGD #5, A-1

In focus group discussion with community leaders (FGD #4), the participants shared their difficulties with the microfinance program:

Individuals who borrowed from this humanitarian agency (had to pay back a portion of loan) every 15 days... if you don't have (money to payback loan) at that days, there would be no excuses.

It was not easy to engage in (this microfinance loan) scheme... One time, an individual (who borrowed from the agency) could not pay back and hence ran away... Villagers who were members (who borrowed from the agency) were asked to capture him. The whole village looked for him till dark... He was possibly in a crisis with no money to pay back so he run away and hid from the agency. The rest of us were in trouble. If we could not find him, they (the guarantors) needed to pay back (on behalf to his loan). It became very dark to look for him... We (finally) found him. The whole group (about 40 people) were covered in mud.

- FGD #4, B-0

Inadequate economic recovery aid

Recovery aid was reported to be inadequate, as reported in the comments below;

Humanitarian aid for farmers did not get to the stage (of adequacy)... It was not a total loss but only partly helpful... We would say half-helpful...

Humanitarian agencies gave fishing gears, but these were not useful (not locally suitable).

- FGD #1, A-1

Before the cyclone, I had own house and my own job ... I received no recovery aid ... There were some cash-for-work programs after the cyclone ...but not now.... I had nothing to sell more thus I went into debt with high interest. (Interview # 16, Village B-1)

I did not get any assistance. (Interview #17, B-1)

I didn't get any financial assistance but I did get a house provided by (national) agency. (Interview #24, B-0)

I got a boat and a net of 70 lan¹²⁴ but we needed 140-150 lan... Finally, I sold these items for food. (Interview #25, B-0)

Respondents reported negative consequence of aid inadequacy, especially in comparison with conditions before the cyclone (FGD #2).

¹²⁴ Local measure

(Aid) for fishermen was inadequate. Some got aid for boats (only) but both boats and fishing nets are needed for fishing.¹²⁵ Since they did not have adequate (means for fishing), they borrowed ¹²⁶(money) from the traders. Those who did not do well¹²⁷ lost their assets¹²⁸ and were never able to rehabilitate.

(They) did not recover.¹²⁹

They got only about 80%¹³⁰ (of product value¹³¹ from traders). (Traders, money lenders) took interest and also (paid less) for the products. After one or two years in this situation, fishermen lost all of their capital.

(Now) 9 out of 10 (fishermen) are poor.

- FGD #2, A-0

¹²⁵ Mentioned as *(they) could not work as (both) boat or the net was not there*

¹²⁶Borrowed with high interest

¹²⁷Could not have enough income to pay back

¹²⁸Means lost what he had for the business

¹²⁹Mentioned as *rehabilitate*

¹³⁰Mentioned as *4 kyats for 5 kyats*

¹³¹As the fishermen borrowed money from the trader, they had to sell their products to him, according to the interview, at lower price than the market price.

4.3.4. Personal Security

This section discusses the personal security and protection status of the study communities, with a particular focus on disaster risk reduction measures for future disasters. It should be noted that no respondent reported personal violence, crimes, or armed conflict taking place within the study communities, despite being asked direct questions about these during the semi-structured interviews with caretakers.¹³²

Key findings in terms of coverage and gaps relating to personal security can be summarised as follows:

- Disaster risk reduction programs were integrated into recovery programs.
- Housing assistance was provided to Band Zero study villages.
- Two study villages reportedly lack (and continue to lack) safe places for evacuation.
- Communities express concerns about the disaster risk reduction teams.

These findings are elaborated in the coverage and gaps sections as below.

¹³² Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30

Coverage

Participants, both community leaders and caretakers, generally responded that they were totally unprepared when the cyclone came.

DRR programs were part of response

Findings revealed that following the cyclone, committees on disaster risk reduction were established in the study communities (FGD #1, #2, #3, #4). As part of the DRR strategy, humanitarian agencies facilitated the construction of strong buildings to be used as safe havens/cyclone shelters (in two of the study villages). In two of the study villages, no safe building for evacuation plan was identified.

Assistance for permanent housing

In two villages, housing assistance was provided (FGD #2, #4). In Village A-0, new houses were donated by a private business company. Houses were made of wood and roofed with corrugated zinc sheets (FGD #2). In Village B-0, two separate humanitarian agencies (national humanitarian agencies) provided different assistance packages for housing (FGD #4). One agency built the new houses made of wood with zinc-sheet roofing at a new village location. The second agency provided building materials (to those who had not received new houses). In these cases, villagers needed to rebuild their own houses using the donated building materials.

Gaps

Capacity of DRR teams questionable

Focus group discussions with caretakers (which included some villagers who were members of the village disaster risk reduction team), described their doubts about the competency of the members of the disaster risk reduction team (FGD #5, #6, #7, #8). The following statements were made concerning the perceived capacity of DRR committee members and perceived gaps in early warning and disaster response plans.

(The appointed) DRR committee is not competent yet.

The training (of the DRR committee members) was just a short one.

Training was only 4 days. It consisted only of verbal instruction. There was no activity or practical part.

- FGD #5, A-1

Some of the committee members are skilled; some are not.

Of course, not all committee members could be competent.

- FGD #6, A-0

If a cyclone came, they (DRR committee members) would run first¹³³.

They would know first; pack first and run first. They would inform others later.

- FGD #8, B-0

DRR committee members are not skilful yet...

... There was a tornado. At that time, we ran ... One side of the village ran to the other side; the other side ran to this side. We didn't get to the school (the evacuation point). Villagers met at the middle of the village...The tornados came from both directions...We could see the tornados coming. ..The alarm was not activated. The leader himself was in shock.

- FGD #7, B-1

¹³³ This is a custom of Myanmar people. They answered with some sense of humour.

Absence of evacuation places

Another issue raised by the participants (FGD #5, #8) in half of the communities (Village A-1 and Village B-0) was the absence of evacuation places in case of future disasters (see

Table 4.8). It was a special concern for Village B-0, a Band Zero village which experienced loss of more than half of their population (FGD #4). The sense of insecurity was narrated by community leaders of Village A-1 below (FGD #5) in response to a question on the evacuation (in case of future disasters):

If we run (evacuate) up the mountain, I don't think water will be that high but there is danger of trees falling on us; if trees fell on us, we would die anyway...Although we were told to run, it was not easy. We ran a small distance (at the time of cyclone Nargis). The wind was very strong ...

Now, we know to run in case of storm, but we don't know where to run to! We don't know which house is good (strong enough), which house is secure. We would probably run up the mountain.

Interview #1, A-1

One cyclone shelter was reported in a Band Zero Village and one in a Band One village as shown in

Table 4.8.

Table 4.8: Cyclone shelter distribution in study villages

Extent of devastation	Village	Cyclone shelter
Band Zero (extreme level)	Village A-0	Yes
Band Zero(extreme level)	Village B-0	No
Band One (high level)	Village A-1	No
Band One (high level)	Village B-1	Yes

Houses with weak structures

All caretakers¹³⁴ said that their current houses were not strong enough to resist major disasters. As noted above, Villages A-0 and B-0 received housing assistance (typically wooden frame houses). Villages A-1 and B-1 did not receive support for a permanent housing. As one caretaker stated

Current house! My current house was rebuilt from remnants of three collapsed houses; We got a small house only and things (building materials) were broken ... (The houses) before the cyclone were better and stronger.

- Interview #16, B-1

¹³⁴ Interview #1 - #30

4.3.5. Environmental security

This section discusses the state of environmental security and environmental conservation activities. Gaps are also reported. Key findings in terms of coverage and gaps on environmental security aspect are summarised below:

- The environment was perceived to be in a state of severe deterioration.
- Environmental issues influenced livelihood and hence recovery.
- There were no services to solve environmental problems which affected livelihood.
- Government initiated environmental conservation efforts but respondents reported that the efforts were not successful.
- Certain individuals showed interest and action on environmental conservation.
- These findings are discussed in the sections below.

Flora has deteriorated

Caretakers reported that the environment significantly deteriorated in three of the study villages (FGD #5, #7, #8). Natural forests were reported as depleting, especially mangroves. Comment such as the one below was frequent in the focus group discussions:

Mangrove forests are deteriorating...(Years ago) if (we) went to the bank, the trees could block (the way), now (some trees) still exist but very few of them.....Mangrove forests do not exist anymore.

- FGD #5, A-1

Changes in soil fertility

According to the caretakers, farmers experienced problems of soil infertility after the cyclone (FGD #5, #6, #7, #8). This finding was consistent across study villages; all reported some changes in soil quality in the post-cyclone period. Some caretakers believed that the cyclone brought floodwater, most probably storm surge (seawater). This likely caused increased salinity of their farmland. Some caretakers hypothesised that the cyclone-induced floods eroded the upper fertile layer of the farmland. Despite different points of view on the causes of soil infertility, all respondents agreed (FGD #5, #6, #7, #8) that the fertility of their farmland had changed. Comments such as those below were typical:

*(In the) immediate year after Nargis we had zero yield (from the farms).
In my own experience; I sowed 2-3 times, with no result.*

Cultivation was impossible.

Soil was infertile.

It was not natural anymore.

Now, (farms) yield rice only if (we) use fertilisers.

*Those who could not afford (fertiliser) would get nothing – and those
who could afford fertiliser would get (a good yield).*

Rat infestation

Rat infestation in farmlands was reported as a usual problem in the study villages. However, the population of rats¹³⁵ increased exponentially in Village B-0 and B-1 in the post-cyclone period (FGD #7, #8). Rat infestation caused significant economic losses in these villages.

Deterioration of the environment has affected livelihood

The caretakers (FGD 5#, #6, #8) also reported a decline in the population of aquatic animals (fish, prawns, and crabs). Although the reason for the decline was inconclusive or unknown¹³⁶ to them, caretakers from Village A-1, A-0, and B-0 agreed that fishermen could not make a good /adequate living on fishing after the cyclone (FGD #5, #6, #8).

¹³⁵ Villagers proposed many hypotheses; some said that flowering of bamboo flowers in other regions caused the increase in the rat population which then migrated to their farmlands. Some believed it was because the natural enemies of rats were killed during the cyclone. Others claimed that unused farmlands (because those who owned the farmland were killed during the cyclone) provided a place for rats to breed. This thesis will not discuss possible causes of high rat infestation.

¹³⁶Some participants mentioned the decline in the number of aquatic populations was due to the deforestation of mangrove forest, the natural habitat for aquatic life. One respondent thought chemicals used in agriculture may be the cause but farmers said they used chemicals according to the instruction

Surprisingly respondents in one village (FGD #7) reported an increase in some fish species population, and a decrease in the other species. In any case, the environmental context for fishing had changed. The comments below are typical of those generated by respondents when asked about the effects of environmental insecurity on their livelihood and productivity.

It is very different now (from pre-cyclone time); before, the fishing business was okay, now it is not good anymore.

Farming business was good before; now productivity is very poor.

Before, it took a short time to catch fish, frogs and prawns¹³⁷. Now, (we do not catch adequate aquatic animals, even when fishing for the whole day.

We do not even get enough for household consumption.

- FGD #5, A-1

¹³⁷Usual term to reflect the number of varieties of aquatic animals

Whole villages moved due to environmental deterioration

Respondents in Village A-0 reported that the whole village needed to be moved after the cyclone. The reason was reported to be related to environmental deterioration, as described below:

Before Nargis, the village was near the bank (of creek) ...(Afterwards) there was no more (safe) place to build (a house). If we built our houses this year, the bank would collapse next year.

(If) we built a house there this year, we would have no house to live next year, for sure ...

.. .We think the bank collapsed because there are no trees.. Waves, rain and wind are eroding (the bank).

If there were trees, the bank won't collapse, now waves always come.

If trees were present, there won't be that much destruction as the trees would prevent¹³⁸ destruction by wind and water.

- FDG #6, A-0

¹³⁸Mentioned as *destruction barrier to wind and water*

Environmental issues reported in the study villages

Table 4.9 summarises the reported environmental problems in the study villages after the cyclone. As shown in the table, deforestation, land fertility, a reduced aquatic population, and insect and pest infestations were reported as common problems in the study villages (FGD #5, #6, #7, #8). Caretakers (FGD #6) in Village A-0, however, also reported that while deforestation was observed in the surrounding villages, some remote areas actually experienced a growth of forest area. Thus, lacking empirical evidence, this study is not able to determine the extent and impact of deforestation—only that long-term environmental changes did occur in the study villages (see Table 4.9).

Responses to my inquiry to identify animals which were harmful to village people included snakes. In fact, snakebite is one of the leading causes of death of rural people in Myanmar, with a high morbidity (10,000 cases a year) and high mortality (more than 10% or more than 1,000 deaths each year) (Myo-Khin, Theingi-Nyunt, Nyan-Tun-Oo, & Ye-Hla, 2012). Ayeyarwaddy Division is identified as a high prevalence area. Village A-1 caretakers told of snake hazards in the villages below:

There were about 10 people bitten by snakes... in 8 years.

Average is 1-2 persons per year.

- FGD #5, A-1

Table 4.9: Environmental issues reported in the study villages

Village	Deforestation	Land fertility	Aquatic life	Insect problem	Other problems
Village A-1	Yes	Reduced	Reduced	Yes	Snakes
Village A-0	?	Reduced	Reduced	Yes	River bank collapse
Village B-1	Yes	Reduced	?	Yes	Rats, snakes
Village B-0	Yes	Reduced	Reduced	Yes	Rats, snakes, crocodiles

Source: FGD #5, #6, #7, #8

Coverage

Government action on environmental issues

The national government was reported as an active stakeholder in environmental conservation, rehabilitation and control efforts after the cyclone (FGD #5, #6, #7, #8). The government initiated regrowing of trees in Village A-1 (FGD #5) and law enforcement to conserve the environment in Village B-0 (FGD #8). In fact, some enforcement policies were highly unpopular. For example, villagers were banned from endangering crocodiles

¹³⁹ See the following section on the reported crocodile and rat problems.

present in reserved natural forests,¹⁴⁰ even though these animals had caused loss of many human lives (five lives after the cyclone) in Village B-0 (FGD #8). In Village B-1 and B-0, the government told the villagers to hunt rats. Villagers needed to present 20 rat-tails per household to the authorities as a proof of this activity (FGD #7, #8).

Local actions were reported

In Village A-0 and B-0, cash-for-work activities¹⁴¹ were undertaken by national humanitarian agencies to regrow mangrove forests along river banks, but only sometime after the cyclone. (At the time of the study, the program was in the planning stage and had not commenced in Village B-0.)¹⁴²

Table 4.10: Action for environmental conservation in the study villages

Village	Government action	Humanitarian agency action
Village A-1	Eucalyptus cultivation, mosquito control	None
Village A-0	none	Mangrove cultivation
Village B-1	Rat control	None
Village B-0	Natural forest protection	Cultivation of trees

¹⁴⁰ Village B-0 is situated near a natural forest reserve. Villagers reported that crocodiles reached their villages and caused loss of human lives.

¹⁴¹ These cannot be specifically related to Cyclone Nargis because they were only introduced three years post-cyclone (just before the timeline of this study).

¹⁴² In Village B-0 where three houses were protected by the trees during the cyclone, the participants said that they themselves had been growing trees in their premises after the cyclone.

Source: FGD #5, #6, #7, #8

Gaps

Environmental deterioration may have been exacerbated by the villagers themselves. For example, they resource local trees for rebuilding, thus causing further damage to forests.

Nipa and bamboo were given to us; but we had to cut trees from the forest (to get) posts.

- FGD #2, A-0

Government conservation actions were not effective

Despite some efforts by the government to conserve the environment (see section above), participants reported that the efforts were top-town and ineffective. For instance, in Village A-1, the government forced the villagers to grow Eucalyptus trees – but this was not a success.

(We were) asked to grow Eucalyptus trees (by the government).

2 trees (were sold to each household) for 250 kyats¹⁴³.

We can count the trees which survived (with ten fingers).

- FGD #5, A-1

No programs for vector control

While the government instigated programs for controlling the rat infestation to the farmland (FGD #7, #8), no programs were implemented at national or municipal levels to control insects and pests. In the study villages, respondents commented that insects (mosquitos, flies) and pest (rats) population remained high or increased after the cyclone (FGD #5, #6, #7, #8).

No services to solve environmental problems which affected livelihood

Respondents (FGD #5, #6, #7, #8) claimed that humanitarian agencies had no program or technical assistance which targeted post-cyclone environmental issues which have a long-term impact on their livelihood (see above section). The agencies did not investigate nor

¹⁴³Each household had to buy two trees for 250 kyats each to grow in their compound.

address deteriorating soil fertility, increased pest infestation to crops, or reduced aquatic life population.

4.3.6. Community security

This section describes the reported gaps or threats to community security following the cyclone. These include issues related to community cohesion and community capacity.

Coverage

While some exclusion took place due to the lucky draw system in Village B-1 and Village B-0, and from the broad categorisation of the population into farmers and non-farmers (reported above), no respondent (FGD #5, #6, #7, #8) reported exclusion from aid programs of minority groups on religious or ethnic basis.

The community members reported that universal distribution practices (providing humanitarian assistance to all) in Village A-1 and Village A-0 was a successful means to avoid divisions in the communities (FGD #2, #4). (Some humanitarian agencies also followed this practice in Village B-0.)

Gaps

Tension in the community was reported in Village B-1 and Village B-0 where targeted distribution was practised (FGD #3, #4). In Village B-1 where aid was inadequate, the

policy was to target aid to the general labourer population. However, some portion of aid did eventually get channelled to farmers¹⁴⁴ because of the rise in community tension (dissatisfaction from farmers) (FGD #7). Similarly, tensions were noted in Village B-0 for alleged aid abuse. (see Section 4.4.3.)

4.4. Interaction between humanitarian agencies and communities

This section explores the interactions between humanitarian agencies and the affected communities in the post-cyclone days as a way to respond the study question: *To what extent did the nature of the interactions between humanitarian agencies and communities impact upon the effectiveness of the humanitarian programs?* The section describes the reported interactions between external humanitarian organisations and local community-based organisations under the headings of community participation and use of local capacity.¹⁴⁵ Hence, this section is presented in terms of

- community participation
- utilisation of local resources and capacity
- aid abuses¹⁴⁶ and

¹⁴⁴ Under arrangements from community leaders

¹⁴⁵ Literature recommends humanitarian aid to be participatory and based on local resources.

¹⁴⁶ Literature identifies elite capture as a risk of community-based and participatory programs and recommends to check elite capture (humanitarian aid abuses in this case) in such programs.

- representation of community leaders.¹⁴⁷

4.4.1. Community participation

This section reports on how humanitarian agencies interacted with the communities (community-based organisations or community leaders) under the scope of community participation.

Different style of engagement used by humanitarian agencies

The findings show that the style of engagement with communities varied amongst different humanitarian agencies. For example, community leaders in Village B-1 explained how a humanitarian agency seemed to actively *avoid* community leaders,¹⁴⁸ as below.

As we were encouraged by the government to invite humanitarian agency members and to work together (coordinate), we invited them ... however, they did not (come and) meet us.... We went to the local committee and (asked) 'what do you do, who are your targets' ... at that time, the local committee said they would try to coordinate with us. Despite this, however, humanitarian agency staff appeared to avoid us.

¹⁴⁷ The issue of representation of community leadership was raised from study findings.

¹⁴⁸ To my knowledge, some humanitarian agencies did not trust the government; the government blocked humanitarian aid in immediate post-cyclone days.

Humanitarian agency staff¹⁴⁹ did not even meet us.

Humanitarian agency staff did not even want to talk to us. For us since we would like our villagers to get aid, we invited (the agency staff) them ... the organisation however appeared to be hostile ... (they said) they would help villagers themselves, they would stop helping the village if we were involved¹⁵⁰ in their project. Thus, we didn't have a say.

- FGD #3, B-1

On the other hand, respondents reported that one humanitarian agency gave total delegation of distribution tasks to a village authority, despite reports of aid abuse (see Section 4.4.3 for more details on aid abuses):

(The humanitarian agency) didn't have gathered any information. They just distributed aid according to a list provided by the village (leader);
...

- FGD #8, B-0

¹⁴⁹ Mentioned as *the responsible team*.

¹⁵⁰ Mentioned as *did not like*.

It was shown that there was no common style of engagement between humanitarian agencies and the community leaders. The style of distribution ranged from purposeful avoidance in one extreme to total reliance at another. The level of interactions varied amongst different humanitarian agencies, even within the same village as reflected by the quote below:

When humanitarian agencies came, they met the village authorities and the navy and asked if they agree with aid distribution. With the agreement, they informed the village authorities¹⁵¹ and asked for (the statistics on) village population and households.... Sometimes, the agency took responsibility for distributions.. Sometimes, they simply allowed village authorities¹⁵² (to make distributions as they felt appropriate).

- FGD #2, A-0

Humanitarian agencies shaped the engagement

Responses from community leaders (FGD #1, #2, #3, #4) revealed that many CBOs were organised by humanitarian agencies after they arrived in the villages.¹⁵³ In response to

¹⁵¹ Mentioned as *administration*.

¹⁵² Exact word was *the organisation*, which was clarified to refer to village administration.

¹⁵³ Some UNDP programs were there before the cyclone.

questions about CBOs, including the extent to which they were initiated by humanitarian agencies, community leaders from Village A-0¹⁵⁴ were adamant that CBOs were organised by humanitarian agencies (FGD #2).

In this village, committees were organised by humanitarian agencies – for example there was a mangrove maintenance committee – but this was organised only after they came... There were also an information¹⁵⁵ committee and a rescue committee ... the information (committee) was organised by (a UN agency). (The UN agency) provided rescue materials to the committee...; (The committees) were organised after a training on how to react when a disaster comes.

- FGD #2, A-0

No meaningful participation

Despite reporting a range of engagement styles, community leaders from all study villages (FGD #1, #2, #3, #4) agreed that humanitarian agencies came with predefined packages or project targets—thus, the communities did not feel that they had any influence on humanitarian activities.

¹⁵⁴ This is an example quote; quotes from other villages can be seen in the interview transcripts.

¹⁵⁵ May refer to Early warning.

In focus group discussion with caretakers, a caretaker (FGD #5) who was also a member of a CBO in Village A-1 explained with the example below:

(We) repaired a well, Humanitarian Agency bought and brought bricks... They gave us bricks according their calculation. Villagers had to repair the well with the amount of bricks the agency provided: We had to work with their calculation.

Meanwhile they had paid more for the bricks... Let's say the bricks which cost 1000 (kyats per brick paid by the agency t), we could have got them at 500/800 (kyats through our contacts). We could have done more for the same cost.

- FGD #5, A-1

Similarly, community leaders reported that when they presented ideas which could enhance the effectiveness and efficacy of humanitarian aid, rules and regulations from the humanitarian agencies were not flexible and thus could not implement such ideas. The following comments reflect the feelings about the community promoting their involvement (FGD #6):

They told us that this was all they could provide. We could not complain; we accepted what was given as a free gift.

(We) accepted items because we were worried. We did not want to seem too complaintive in case they took (the aid) back.

- FGD #5, A-1

4.4.2. Utilisation of local resources and capacity

This section reports on how humanitarian agencies interacted with communities to implement aid programs based on local resources and capacities. The section is reported under three categories¹⁵⁶:

- aid supplies
- employment capacity and
- services

Aid supplies

Findings reveal that humanitarian aid items were imported to affected areas (FDG #1, #2, #3, #4). Imported items included both food and non-food item packages, materials for

¹⁵⁶ Local capacity is reported in terms of material (aid supplies), human capacity (services), structural (here emphasised more on employment capacity because livelihood recovery was much concerned issue by participants).

building shelters, equipment for livelihood recovery, and animals for farming and breeding.

Did not use local suppliers

There were local producers of some distributed items (building materials, boats, fishing and farming tools including fishing nets) in the affected communities (FDG #1, #2, #3, #4). For instance, fishing nets were among the reported distributed items to the affected communities (FDG #3, #4). At the same time, community leaders reported that there were local producers (FDG #3, #4).¹⁵⁷

Similarly, nipa thatches were reported as a humanitarian aid item for roofing of local houses in Village B-1 (FGD #3). Community leaders from Village B-1 believed that these thatches were bought from M—a town situated far from the affected area. A narrative on nipa thatches extracted from the focus group discussion with Village B-1 community leaders (FGD #3) is below.

¹⁵⁷ In fact, some local fishing net producers (n=2, 6.67%) were among the participants of the study (Interview #18, #27).

... Nipa was produced in our area. To my knowledge, nipa¹⁵⁸ distributed was carried from M¹⁵⁹ ... You can estimate the transport cost

Humanitarian agency brought nipa (thatches) and piled up (stored) somewhere before distribution. Being piled (for some times), once we got them only the bamboo frame was left (the leaves were gone).

Just the frame was left.

The cost of transport must have been added – this seems wasted.

If the cost of nipa here (would cost) 2 kyats, the transport only (would cost) 2.5 kyats ... Instead of buying from faraway area, it would be more economical to give (us) corrugated zinc sheets.

- FGD #3, B-1

Nipa production was reported as a major business in the affected areas; community leaders claimed that material of such quality was locally available¹⁶⁰ at that time, although nipa farms in the village were seriously destroyed during the cyclone. Other aid items which

¹⁵⁸Thatch made of nipa leaves. The tree was also called Nipa.

¹⁵⁹The area in Thanintharyi Division, very far from affected area.

¹⁶⁰May mean in Ayeyarwaddy Division or may be in the same area.

were reported to have been brought in to the study villages included pigs and piglets for breeding, and buffaloes as farming support (FGD #1, #2, #3, #4).

Local capacity for services

Health and nutrition services were based on local systems

Caretakers in semi-structured interviews¹⁶¹ consistently identified basic health staff (existing service providers) as health service providers for their family. Services also included immunisation. By the time of study, all children of caretaker participants (100%) were reported as immunised.¹⁶²

During focus group discussions with caretakers in villages A-1 and B-1 (FGD #5, #7), caretakers reported that local health staff were supported by humanitarian agencies in terms of equipment and supplies (for example, nutrition powder and anthropometric measures). Caretakers in Village A-1 identified the following preventative health services available to them (and their children) (FGD #5):

¹⁶¹ (Interview #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30).

¹⁶² Caretakers said that their children were given immunisations many times. It is worth noting that interviewers did not check evidence of immunisation (immunisation records for example).

Abate (a larvicide), was used to control mosquitos.....The government health service did it ...the chemical was not easily available –the supply of abate came from the NGO sector.¹⁶³ We didn't get (the chemical)in this rainy season (because NGO stopped supporting the health staff)

- FGD #5, A-1

In villages A-1 and A-0 (FGD #5, #6), caretakers reported that CBOs or self-help groups were supported by humanitarian agencies by means of financial aid (in terms of revolving funds) and material support in addition to training for CBO members, as reflected in the excerpts below.

... Humanitarian agency gave equipment to us before they left. They also made some financial arrangement to support under-five children who met their criteria¹⁶⁴ for transportation fees to go to the hospital/clinic. We continued our services. We also measured weight and MAC¹⁶⁵ to children every month.

They gave us weight measures.

¹⁶³Got only from humanitarian agency as supply.

¹⁶⁴Mentioned as *the needy*

¹⁶⁵Mentioned as hand measurement

The humanitarian agency gave us weight measure. They also gave us cooking utensils ¹⁶⁶ for nutritional feeding. We were able to continue (our service).

- FGD #6¹⁶⁷, A-0

Employment capacity

This section reports on how humanitarian agencies interacted with local communities in creating job opportunities for economic recovery.

In response to a question asking respondents to compare pre-cyclone and post-cyclone economic issues (FGD #1, #2, #3, #4), community leaders revealed there had been a self-sufficient pre-cyclone economic system. They reported that livelihood opportunities (employment) and income levels had been better before the cyclone.

¹⁶⁶Mentioned as aluminum pot

¹⁶⁷ This was focus group discussion with caretakers but many of them were committee member of health and nutrition CBO

Traditional employment systems present

According to responses, traditional businesses had employed people—including farming, fishing, salt production,¹⁶⁸ and production of fishing nets.

Non-recovery of local businesses and the consequences of non-recovery were reported, as reflected in this sharing by community leaders (FGD #2) in Village B-1 during the focus group discussion:

Four communities¹⁶⁹ lived in salt farms; they later migrated into Village A-0. When salt production stopped, these people (four communities) who immigrated¹⁷⁰ here had no job ... In 2009, the salt price was very low. In 2010, rain (weather) destroyed (the salt)... thus the salt industry was difficult to re-establish ... The industry suffered a crisis for (another) two consecutive years (in addition to destruction during the cyclone); Owners could not (continue to) run their business. As a consequence, workers were unemployed. There is no other big businesses (for employment) and hence (the workers had to) wait for work on farms¹⁷¹ ... In this village, an owner (farmer) can employ just about five workers;

¹⁶⁸In Village B-1

¹⁶⁹Mentioned as *four groups of people*. it means four communities employed in four salt production farms.

¹⁷⁰Gathered into this (village).

¹⁷¹Mentioned as *harvest and plough*.

many others (unemployed) do not know what to do; (they had) no capacity to run own business¹⁷².

Before the cyclone, there were about four salt production farms in this area ... at that time ... people were employed¹⁷³ and lived well¹⁷⁴.

(They) had something to eat.

Before the cyclone, there were four salt production farms. Each farm could employ at least 20 people. Four farms times 20 workers means about 80 families could make living. Thus, (they had) no trouble with living. Now, the owners themselves were in trouble in salt production business, these 80¹⁷⁵ people were unemployed.

- FGD #2, A-0

Humanitarian agencies created livelihood opportunities

This study revealed that humanitarian agencies distributed livelihood-related items to people (FGD #1, #2, #3, #4). For instance, piglets and chickens were reportedly distributed

¹⁷²Mentioned as *cannot work in own business*.

¹⁷³Mentioned as *lifting salt bags* or worked in the salt production farm.

¹⁷⁴ Mentioned as *circulate*.

¹⁷⁵Mentioned as *4-5-80*, the traditional way of referring to about 80 people

to beneficiaries to breed. On further inquiry, many of these livelihoods were reported as unsustainable. For instance, only one pig survived out of all the pigs distributed for breeding in Village B-0 (FGD #4). Likewise, community leaders from Village B-1 reported that distributed buffaloes died a few days after distribution (FGD #3). The reasons given for such unsustainable livelihood included unskilled tasks, livestock distributed being reportedly injured or locally unfit, and limited resources (food) for breeding animals.

4.4.3. Aid abuses

Aid abuse reported

While some abuse was reported, this was not shown to be endemic. Respondents in one village experienced aid abuse by community leaders (also referred to as elite capture¹⁷⁶). Caretakers (n=4, 57%) reported the abuse of a village leader (Interview #25, #27, #29, #30) who was seen to have misused humanitarian aid for personal purposes and/or to divert aid items to his family and friends over more needy community members. This claim was

¹⁷⁶ Elite capture hereby refers to a situation where the resources (here, humanitarian aid) were used for the interest of a few people of superior status (elites, community leaders) rather than the interest or benefit of the respective communities (see discussion for more details).

confirmed in the focus group discussions (FGD #8).¹⁷⁷ In other villages (Village A-1, Village A-0 and Village B-1), no such abuse was reported.

Humanitarian agencies did not take action

It was revealed that the humanitarian agency did not take any action on such aid abuse, as seen below (FGD #8):

I asked (the humanitarian agency staff) why I was not on the list for distribution since I met the four criteria),(The agency staff replied) ‘Sister, we didn’t gather any information. We just distributed aid according to the list provided by the village (leader); ...)

- FGD #8, B-0

New leadership in post-cyclone days

On further inquiry if the alleged village authority was elected by the village, the focus group discussion with Village B-0 caretakers revealed a possible effect of the disaster on

¹⁷⁷ The community leader allegedly abused aid was not re-elected in the recent election, according to caretakers

community leadership changes¹⁷⁸ (FGD #8). According to them, the former village leaders were killed during the cyclone; this resulted in the election of new community leaders (FGD #8). They said that population displacement after the cyclone (see Section 4.1.2) influenced the election process, that is, to elect the new leader.

Suddenly, after the cyclone, people were displaced. Only a few were left in the village. When rescue teams came, (one of) people left the village was elected to be village leader (authority). He was clever. From this position, he distributed rescue items. We could not dismiss him in later days.

- FGD #8, B-0

4.4.4. Representation of community leaders

A humanitarian agency in Village B-1 did not work with or through local representatives

Findings show that community leaders and other representatives were not consistently included in humanitarian decision-making. For example, caretakers in one focus group (FGD #7), when asked about the relationship of international humanitarian agencies and local committees or CBOs, responded as follows.

¹⁷⁸ When half of the community died, community leaders were not exempted. Death of community leaders resulted in leadership changes.

There was no (local) committee which worked with (that humanitarian agency).

We don't know of any interactions.

Some respondents did recall that a local committee was seen to be working with humanitarian organisations, but the representative nature of the committee was deemed to be questionable.

(The committee existed) only while (the humanitarian agency) was here....After that the committee was not active anymore.

- FGD#7, B-1

Further inquiry revealed that the humanitarian agency reportedly organised the committee without consultation with existing community leadership nor the community. In fact, the agency and the committee reportedly avoided local authorities (see Section 4.4.1 above).

Humanitarian agencies played a key role in determining community leadership

Since many CBOs were newly organised with the influx of humanitarian aid agencies, the selection or election of newly-established committee members were reported in all four

study villages (FGD #5, #6, #7, #8). Other focus group discussions¹⁷⁹ (FGD #5, #6, #8) showed that communities had a chance to elect the CBO members. For example, comments included:

(Members of community based organisations were) elected according to village decisions; who was suitable for which place.

- FGD #5, A-1

(The election was)... based on village (choice). We elected leaders by reviewing what that person did (before) in this village and if that person would be suitable for the position or not.

Village leaders, village authorities proposed¹⁸⁰ a list of candidates.

Leaders were elected by village; if we liked we voted.

I should raise my hand¹⁸¹ if I vote for the person. (The person who won) the highest number of hands (votes) got elected.

- FGD #6, A-0

¹⁷⁹ Village B-1 villagers (shown above) did not have a chance to elect CBO members

¹⁸⁰ Mentioned as *elect* but can be understood as the village leaders proposed a suitable list and the villages elect

¹⁸¹ Mentioned as *index finger*.

We elected leaders. ... We raise our hand to vote. If you liked this person, you raised your hand¹⁸²; number of vote was decided by counting hands, and then made decision on who the leaders were; who would be in what (position).

- FGD #8, B-0

4.4.5. Summary of interaction between humanitarian agencies and communities

The study's findings revealed that humanitarian agencies tended to interact with communities through community leaders (community-based approaches). The following was shown:

1. The interaction (engagement style) of humanitarian aid agencies varied, ranging from avoidance of participation of community leaders to total reliance for specific tasks (such as distribution of aid).
2. Despite this, neither community leaders nor villagers reported that they had had an effective influence on the humanitarian aid response.

¹⁸²Mentioned as *index finger*.

3. Goods were imported by humanitarian agencies to affected communities, despite the potential for local suppliers to provide (some) goods at cheaper prices.
4. In terms of services, humanitarian agencies utilised and enhanced local capacity, particularly in health services.
5. For employment or creating livelihood opportunities, programs by humanitarian agencies created new livelihoods; however, most of the new livelihoods were reported as unsustainable. Consequently, local employers (businesses) did not recover and high unemployment was reported.
6. Humanitarian agencies facilitated community people to elect the respected people in the community as village leaders or community leaders.
7. Aid abuse took place. In at least one case, humanitarian agencies played a role in the selection of an unrepresentative community leader. In another case, a village leader was shown to be corrupt and humanitarian agencies were criticised for not taking action on such abuse. There are indications however that aid abuse emerged in the context of an unstable community which experienced changes in community leadership during post-emergency, and with circumstances which undermined proper election of new leadership.

4.5. Summary of findings

This chapter describes the findings from an investigation of the recovery process in four cyclone-affected communities in Myanmar, including the role of humanitarian aid in the

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process. The investigation is based on focus group discussions with community leaders (n=31), focus group discussions with caretakers (n=27), and semi-structured interviews with caretakers (n=30).

In summary, the findings of this chapter revealed the following:

What were the effects of Cyclone Nargis on four study communities in terms of humanitarian needs as reflected by damage and losses, post-cyclone risks and coping capacity?

- Cyclone Nargis was highly destructive. The coastal villages (Band Zero) in particular experienced serious devastation from the cyclone. The villages in Band Zero experienced high casualties and high post-cyclone risks, such as inaccessible health services, food insecurity, and displacement. The cyclone also undermined the coping capacity of these villages, reflecting a need for humanitarian aid.

How did the humanitarian agencies assist the communities in terms of relief and recovery?

- Findings reported a focus on humanitarian response in terms of needs assessment and coordination. Humanitarian aid response did not prioritise the most needy coastal areas and did not adjust to local needs and context. Humanitarian agencies brought in predefined packages of aid without conducting prior proper needs

assessment. In some instances, neither the government nor private sectors were part of coordination efforts in relation to aid distribution and recovery activities. Local coordination effort was lacking.

What were the gaps in support and assistance and what factors contributed to these gaps?

- Humanitarian aid supports had a good coverage in health security and food security but gaps in service were identified in many other aspects of human security.

To what extent did the nature of the interactions between humanitarian agencies and communities impact upon the effectiveness of the humanitarian programs?

- Humanitarian agencies were reported to have engaged with communities through CBOs and community leaders and to have supported existing services, especially health services. On the other hand, in many cases, community leaders reported that they had no genuine influence on humanitarian aid programs. In terms of utilisation of local resources, humanitarian aid was reportedly imported to affected communities with limited or no consultation with the community. While humanitarian agencies distributed livelihood items to beneficiaries, unemployment remained a major issue, since existing employment systems failed to recover.

The next chapter discusses the implications of these findings, comparing the findings with the prevailing literature on humanitarian response issues, and addresses the overarching research questions:

- How do assessment processes impact the humanitarian strategy in post disaster contexts?
- What factors need to be considered to enhance the effectiveness of humanitarian aid processes in post disaster contexts?

Chapter 5. Discussion

This chapter interprets the findings of this study and compares to existing literature. The implications of the findings in terms of the overarching research questions will also be presented. The research questions are as follows:

- How do assessment processes impact the humanitarian strategy in post disaster contexts?
- What factors need to be considered to enhance the effectiveness of humanitarian aid processes in post disaster contexts?

This chapter is organised into three parts:

Part one: Humanitarian assessment in Cyclone Nargis response addresses the question: How did assessment processes impact the humanitarian strategy in post disaster contexts?

This part discusses humanitarian needs versus humanitarian response—with a focus on how assessment processes impacted the formulation of the humanitarian aid response plan in Nargis-affected villages.

Part two: Factors influencing the effectiveness of humanitarian aid processes addresses the question: What factors needed to be considered to enhance the effectiveness of humanitarian aid processes in post disaster contexts? The discussion includes a review of good practices and gaps in humanitarian aid processes.

Part three: Interrelationship of human security aspects discusses the interrelationship of human security aspects and recovery processes, including how the interrelationships of human security can contribute to the humanitarian aid sector.

The previous chapter, Findings, reported the recovery process of Cyclone Nargis. These are summarised below:

- Band Zero study villages (coastal areas) had been seriously affected by the cyclone. Aside from devastating damages and losses, the affected communities were at high risk, post-cyclone, for increasing morbidity and mortality rates. The coping capacity of communities was also severely undermined by the cyclone (see Section 4.1 for more details).
- Humanitarian aid was *not* disseminated on needs-based criteria: coastal areas were not prioritised for humanitarian aid. No effective needs assessment was conducted. Humanitarian agencies reportedly brought in predefined packages of aid, many of which were said to be wasted and/or ineffective in addressing the communities' needs (see Section 4.2 for more details).
- While many humanitarian agencies worked with community-based organisations, the study showed that humanitarian aid was not effective in the facilitation of community participation and in utilising local capacity (see Section 4.4.1 for more details).

- Coverage and gaps were checked under the lens of seven aspects of human security. While humanitarian aid was appreciated by beneficiaries, this study revealed that there were critical gaps in addressing needs, including the following:
- No mental health services were reported (see Section 4.3.1 for more details)
- Despite adequate food aid during post-cyclone period, food shortages were reported to have continued (including right up to the time of the study, 3.5 years later) (see Section 4.3.2 for more details)
- Economic aid was said to be inappropriate, inadequate, hence, wasted (see Section 4.3.3 for more details)
- The study communities were shown to be inadequately prepared for similar disasters in the future (see Section 4.3.4 for more details)
- Few programs had been developed to address environmental issues. The physical environment was in a state of severe deterioration (see Section 4.3.5 for more details)

5.1. Part one: Humanitarian assessment in Cyclone Nargis response

The first part of this chapter discusses how humanitarian assessment contributed to the humanitarian strategy in post-Nargis response. It answers the overarching question: *How do assessment processes impact the humanitarian strategy in post disaster contexts, for young children and their families?*

Part one of this chapter is organised into two sections:

- Humanitarian needs versus humanitarian response
- Humanitarian coordination and aid governance

5.1.1. Humanitarian needs versus humanitarian response

This section compares the humanitarian needs and humanitarian responses which I investigated with reports and documents from other sources. This section also discusses how humanitarian needs were met by the response. The discussion is aimed to explore how humanitarian assessment contributed or might have contributed in responding to the humanitarian needs of affected communities.

Study findings versus literature

The findings on humanitarian needs and post-cyclone risks from this study generally agreed with the literature and previous reports about the area.

I found that more than half of the population in Band Zero villages were killed. Conversely, there were no reported casualties in Band One villages. With an exception of a small number of houses, almost all of the dwellings in Band Zero were destroyed. My findings match the casualty rate and residential destruction reported by Fritz et al. (2009). According to Fritz, the fatality rate in the map area (Figure 5.1) corresponding to Band

Zero villages in Labutta and Bogale Townships was about 40-80% with 100% residential destruction (Fritz et al., 2009).

In addition to casualties and damages, this study showed that affected populations, especially children, continued to be at high risk in immediate post disaster days. It is well known that the risk of infectious diseases increase dramatically in disasters (Baqir et al., 2012; Depoortere & Brown, 2006; MSF, 1997; Waltzman & Fleegler, 2009). In this study, the availability of clean food and water was shown to be scarce. Participants also reported that they experienced primitive living conditions in the immediate aftermath of the cyclone and were living on wet rice that was frequently contaminated by flood and salty water (Details are reported in Chapter 4, Section 4.1.2). Increased risk after the cyclone is supported in a study by Myint et al. (2011). The study reports on the increase in communicable diseases in post-cyclone days (Myint et al., 2011).

The children's mortality rate due to malnutrition also tend to be particularly high in emergency contexts, largely due to the combination of a higher prevalence of malnutrition and increased incidence of communicable diseases. In general, the younger the child is, the more vulnerable they are to malnutrition (Khanna & Gupta, 2005). Official reports on the prevalence of malnutrition in the study communities at the time of this study were not available; however, a rapid nutritional survey undertaken by UNICEF at the time suggests a moderate malnutrition rate in Ayeyarwaddy Division (6.5% of the population compared to Yangon Division with a malnutrition rate of 3.9%)(Tripartite Core Group, 2008a; United Nations System Standing Committee on Nutrition, 2008). This is also evident in

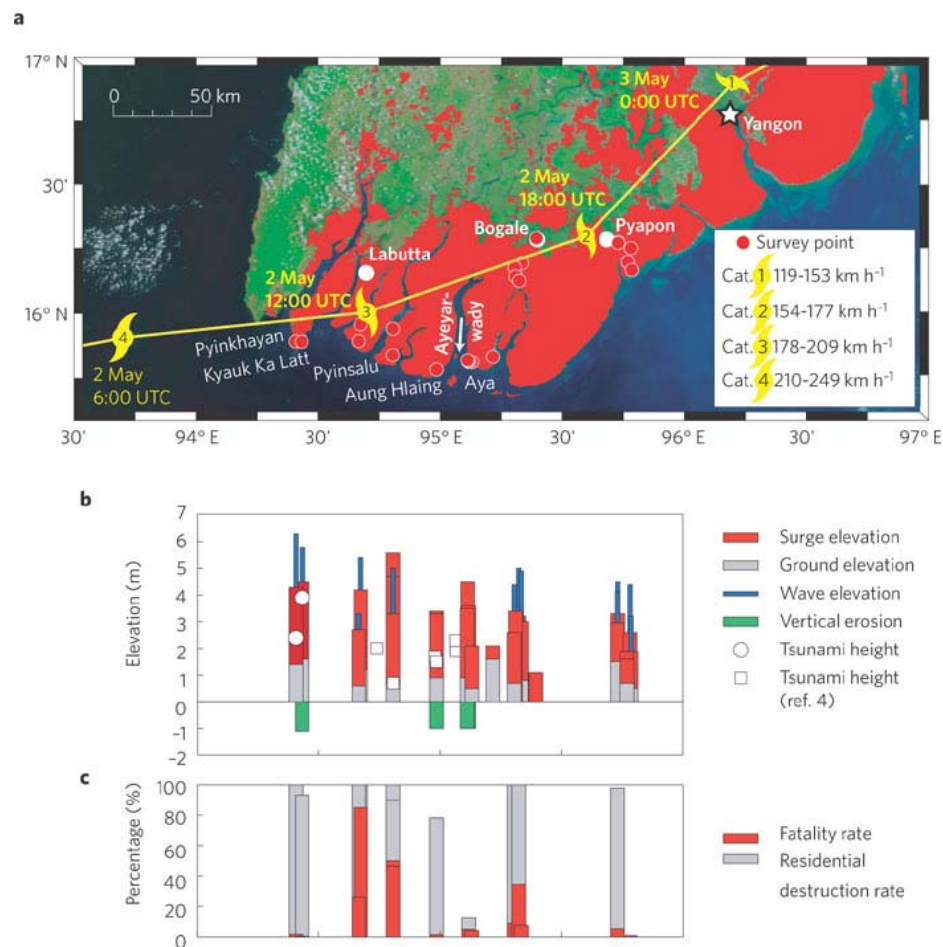


Figure 5.1: Estimated casualty rate and destruction rate (Fritz et al., 2009)

this study; participants reported that their communities did not have adequate food in the immediate post-cyclone stage.

Higher risks and humanitarian needs in Band Zero Villages

It is well recognised that displacement can expose the affected populations to overcrowding and poor access to basic survival needs and services (Allotey & Markovic, 2008; Ambrosioni et al., 2010). Displacements or forced migrations are especially threatening to the survival, health, and wellbeing of children (Allotey & Markovic, 2008). My analysis revealed that the coastal communities (Band Zero) experienced higher post disaster risks. Band Zero communities had no capacity to help each other and to cope with basic survival needs that they opted for displacement and were exposed to a camp-like setting (FGD #2, #4).¹⁸³ Such displacement exposed them to further risks. According to responses from participants, Band Zero villages suffered food shortage, inaccessible health services, and lived in primitive, camp-like setting in the immediate days (FGD #2, #4) after the cyclone.

Mismatch between needs and response: Poor prioritisation

Analysis has shown that Band Zero villages which experienced high devastation and high risks were not prioritised for humanitarian aid over Band One villages. Severely affected villages in coastal areas (Band Zero) did not receive more aid than the relatively less

¹⁸³ Details were reported in Chapter 4, Section 4.1.2

severely affected areas (Band One).¹⁸⁴ Findings identified that two of the study villages which had high populations did not receive adequate humanitarian assistance.

As reported by participants, early relief aid came from private donors. Regular aid from humanitarian agencies began to flow around 3-6 months post disaster in the study villages. One possible reason was that the government controlled the flow of humanitarian aid immediately after the cyclone (R. Cohen, 2009; Honda & Daigaku, 2009). However, a review of reports from the UN and other humanitarian agencies suggest that the lack of needs assessment information and poor prioritisation of humanitarian aid to severely affected areas exacerbated the delays. Early OCHA reports suggest relief aid in early cyclone days (food items, non-food items, health services, and provision of Child Friendly Spaces) went to less seriously affected areas, especially in the Yangon Division. For instance, Situation Report #15 on 19 May 2008 reported that

There are 51 functioning Child Friendly Spaces, with 75 additional being set up..., while in Ayeyarwaddy Division, four Child Friendly Spaces are functioning and 17 additional [ones] are being set up.

¹⁸⁴ This is described in Chapter 4, Section 4.2

Lack of information in response

A review of a key assessment report (Post-Nargis Joint Assessment) and Periodic Reviews revealed that needs assessments were in fact conducted in post-cyclone days. However, the villages which are included in this study were not included in these assessments (see Section 4.2.1 for more details).

In any case, this analysis suggests that the needs assessments which did take place did not reflect the extent of devastation in severely affected areas (see Chapter 2, Section 2.5). Instead, these reports described overall damage and destruction. PONJA, for example, reported an estimated death toll of 140,000 (84,537 casualties with 53,836 missing) from the reported 7.35 million people living in the affected area (Tripartite Core Group, 2008a, 2010c). (That is a casualty rate of 0.019 deaths per population, or 1.9%.¹⁸⁵) This is severely misleading. The casualty rate was closer to 50% in severely affected areas (Band Zero) of study townships.

One possible reason for this poor reporting is the centralised nature of analysis and interpretation of the reports. The PONJA report identified 37 townships in Ayeyarwaddy and Yangon Division as areas significantly affected by the cyclone. Hence, data from 30

¹⁸⁵ In contrast, this study revealed that the study villages in coastal areas (Band Zero) had a casualty of more than 50% of the population. This study was conducted in the two most affected townships.

sample townships¹⁸⁶ were collected, analysed, and reported (Tripartite Core Group, 2008a) – and the denominator (number of population affected) became 7.35 million. Such centralised nature of analysis and reporting might have misled humanitarian actors about the extent of devastation. Meanwhile, the rich information acquired through extensive effort¹⁸⁷ was lost.

As the literature review revealed (see Section 2.4), response plans were made without the information from the needs assessments. This was confirmed by an evaluation report of the cluster system which identified improper prioritisations of aid because of poor availability of appropriate information (Kauffmann & Krüger, 2010).

All findings from this thesis point to the fact that proper assessment is a critical component of an effective humanitarian response (see Section 4.2.1 for more details).

¹⁸⁶Page 5, Primary Data

¹⁸⁷Assessment was conducted between 10 to 19 June 2008, deploying 250 staff. Some 70 staff were involved in data processing and reporting (Tripartite Core Group, 2008a)

5.1.2. Humanitarian Coordination and aid governance

Humanitarian coordination includes data collection, information management, identification of overall humanitarian needs, development of a realistic plan of action and strategic plan, resource mobilisation, orchestrating a functional division of labour, monitoring and ensuring accountability (Minear & Watson Jr, 1992; Reindorp & Wiles, 2001; ReliefWeb Project, 2008). Coordination can give rise to predictability of humanitarian aid and bring in partnership (OCHA, 2013b).

According to the Humanitarian Response Review, the key recommendation to improve humanitarian aid coordination and aid effectiveness is to adopt the cluster approach (see Section 2.2.2 for more details).

Humanitarian coordination in the Cyclone Nargis response adopted the cluster coordination system (cluster approach). It grouped all relevant stakeholders in clusters at both the national and township levels (see Section 2.2.2). Each cluster was led by an agency which acted as the focal point in working with the relevant government counterparts. Humanitarian aid provision and governance at the local level (field level), including interrelationship with the local government, is discussed in the first section, *Issues in Local Coordination*, while coordination issues at the national level is discussed in the second section, *Issues in Humanitarian Coordination*.

Issues in local coordination

Local coordination effort

This study's findings revealed that no coordination (coordination meetings between humanitarian agencies or communication for coordination purposes) took place at the village level (FGD #1, #2, #3, #4) (see Section 4.2.2 for more details). Humanitarian agencies came with predefined packages. Local authorities and communities perceived that they were not effectively consulted on humanitarian aid activities in their villages (see Section 4.4.1).

Consistency

In terms of consistency of humanitarian aid, the study also showed that aid packages were not consistent across study communities¹⁸⁸.

Based on their local knowledge and experience, the data collectors who were recruited for this study¹⁸⁹ suggested that the inconsistency of aid supplies was related to a possible gap

¹⁸⁸ This is described in Chapter 4, Section 4.2

¹⁸⁹ Data collectors were experienced humanitarian workers and had first-hand knowledge and experience of Cyclone Nargis response in the respective study townships, including coordination at township level.

of cluster coordination.¹⁹⁰ According to them, the cluster coordination used a Who What Where (3W) matrix. Literature confirmed that 3W matrix was used at both field level (township) and central level (Kauffmann & Krüger, 2010; Myanmar Information Management Unit, 2014). The matrix included information on the agency (who), sector and subsector (what), and area of project (where) but not on details of the services they provided, nor the package items they distributed (OCHA, 2014a).

The data collectors involved in this study claimed that the matrix was not user-friendly and lacked the power to ensure consistency of aid response. They explained that one agency was assigned for one sector or sub-sector in an area; the agency packages, coverage, and activities might be different according to their project proposals and funding availability. Literature supports the data collectors' statement that the 3W matrix was not user-friendly and had limitations (Bhattacharjee & Lossio, 2011). Such variation might have contradicted the objective of the cluster system "to strive for a needs-based rather than capacity-driven response" (OCHA, 2013a) and to improve predictability of aid (OCHA, 2013b; Stoddard et al., 2007).

¹⁹⁰ Data collectors explained this in review workshops. Data collectors, including myself, held review workshops after the data collection in each township. Data collectors contributed additional information and clarification to collected data. Please refer to the Chapter 3: Methodology for details.

Participation of all stakeholders

Participation of all relevant stakeholders in humanitarian coordination is a global concern. Ironically, some evaluations of the key humanitarian coordination mechanism (the cluster system) have claimed that the mechanism itself could discourage participation of government and local counterparts and undermine ownership of the problem and the solution (Steets et al., 2010; Stoddard et al., 2007). This study reflects this concern; it showed that some private and government sectors (for example, a private business company which was a key humanitarian actor in Village A-0 and authorities from Village B-1) were not part of humanitarian coordination efforts.¹⁹¹

The study findings also showed that the role of the local government¹⁹² in aid governance was limited. Humanitarian coordination was not led by the government and humanitarian agencies did not reinforce the government capacity. Instead, some agencies discouraged government participation and control of humanitarian aid (see Section 4.2.2). Overseas

¹⁹¹ Details are reported in Chapter 4: Findings.

¹⁹² Humanitarian governance is defined as the increasingly organized and internationalized attempt to save the lives, enhance the welfare, and reduce the suffering of the world's most vulnerable populations (M. N. Barnett, 2013).

Development Institute considers the role of the state in ‘humanitarian governance’ (Lautze, Raven-Roberts, & Erkinch, 2009, p. 6) as:

- *Governmental legislation and registration of humanitarian organisations*
- *State-led coordination vis a vis international arrangements*
- *Donor efforts to strengthen state capacities*
- *Assessments of state capacities and organisations’ related strategies to supplant state responsibilities and role*
- *NGO advocacy with states for protection and assistance in times of disasters*
- *Government perceptions of international humanitarian actors, and vice versa*

Issues in humanitarian coordination: Imbalance between relief and recovery aid

Coordination at the village level was not reported in the study communities. Community leaders said that they had limited knowledge of a coordination process at levels other than at their village level (see Section 4.2.2). The Cyclone Nargis response actually incorporated a coordination process including a cluster approach at the national level, as shown in

This study did not explore the role of the government in humanitarian aid governance. However, evaluation reports of the cluster approach as part of the Cyclone Nargis response

(Kauffmann & Krüger, 2010, p. 8) described that the role of the government at the national level was as follows:

Despite an initial implementation run in an isolationist manner vis-à-vis the local actors, the cluster approach managed after one year both to better involve the Government of the Union of Myanmar (GoUM) and local actors in the response and strengthen the capacity to respond to further disasters at national and regional levels.

The report continued that performance of the cluster approach varied from cluster to cluster, that there was weak communication between Yangon (where most head offices of humanitarian agencies are situated) and townships, and that cluster coordination did not eliminate poor coordination at the community level.

Table 5.1.

This study did not explore the role of the government in humanitarian aid governance. However, evaluation reports of the cluster approach as part of the Cyclone Nargis response (Kauffmann & Krüger, 2010, p. 8) described that the role of the government at the national level was as follows:

Despite an initial implementation run in an isolationist manner vis-à-vis the local actors, the cluster approach managed after one year both to better involve the Government of the Union of Myanmar (GoUM) and local actors in the response and strengthen the capacity to respond to further disasters at national and regional levels.

The report continued that performance of the cluster approach varied from cluster to cluster, that there was weak communication between Yangon (where most head offices of humanitarian agencies are situated) and townships, and that cluster coordination did not eliminate poor coordination at the community level.

Table 5.1: Clusters activated in Myanmar Cyclone Nargis Response (Kauffmann & Krüger, 2010)

Cluster	Lead agency
Agriculture	FAO
Early Recovery	UNDP
Education	UNICEF / Save the Children
Emergency Shelter	IFRC
Emergency Telecommunication Cluster	WFP / UNICEF
Logistics	WFP
Protection	UNHCR
Health	WHO / MERLIN
Nutrition	UNICEF / GOM
WASH	UNICEF
Food	WFP

This study confirms that relief aid was more favoured than recovery and rehabilitation.¹⁹³ Humanitarian agencies were reported to have favoured health and food aid, for example, and to have limited programs in other sectors. Identified sectors which received inadequate

¹⁹³ See Chapter 4: Findings for more information.

support included livelihood recovery, shelter, and mitigation of environmental impacts as explained below.

Inadequate support to livelihood recovery

Livelihood recovery or economic recovery was reportedly inadequately supported. In addition, even when supported, it was not matched to local needs and hence was wasted (see Chapter 4, Section 4.3.3). This was validated by the literature ¹⁹⁴ which revealed that the agriculture sector received only 5.5% and early recovery received only 8.1% of the total revised Flash Appeal budget (Financial Tracking Service, 2013).

Inadequate shelter support

Findings from this study showed that shelter was inadequately supported (see Section 4.3.4). No shelter assistance (for permanent shelters) was received in Band One villages although Band Zero villages had shelter provision (support for permanent housing). According to the data collectors in this study, ¹⁹⁵ who also shared information they gathered

¹⁹⁴ See Chapter 2, Table 2-4: Budget availability for agriculture and early recovery clusters.

¹⁹⁵ Data collectors were experienced humanitarian workers and had first-hand knowledge and experience of Cyclone Nargis response in the respective study townships. The researcher and data collectors held review workshops after the data collection in each township. Data collectors contributed additional information and clarification to collected data. Please see Chapter 3: Methodology for details.

informally from community leaders,¹⁹⁶ the availability of shelter provision in Band Zero villages could not be generalised. They said that many villages in the coastal areas did not receive shelter-related support (although both of the study villages in Band Zero did receive shelter assistance from local agencies). It appears that international agencies gave limited support for permanent housing, other than distributing tarpaulins from international agencies as part of non-food items. Other assessment reports confirm the limitation of shelter support. Periodic Review IV (Tripartite Core Group, 2010c) stated that by 2010 (almost two years after the cyclone) about 69% of survey participants whose houses were severely destroyed or completely damaged had not received any shelter assistance apart from tarpaulins, and that the shelter assistance received by the remaining 31% was inadequate.¹⁹⁷ The report describes shelter assistance as below:

According to information provided by the Shelter Working Group, fully destroyed dwellings are eligible for a full shelter (including materials, labour and transport costs amounting to US\$600). Severely destroyed dwellings are eligible for materials and transport costs, estimated at US\$200, and partially destroyed dwellings, US\$85. (Periodic Review IV, (Tripartite Core Group, 2010c), p. 69)

¹⁹⁶ Community leaders provided this information during casual conversation, not as part of the semi-structured interview or focus group discussion.

¹⁹⁷ The given amount was too small to construct a house; for instance, a basic (not cyclone resistant) house provided to Village A-0 and half of Village B-0 cost 2,400,000 kyats (approximately \$3,000); the structure is a simple wooden house and wood was subsidized by the government.

Inadequate support to environmental issues

My analysis showed that humanitarian agencies had limited programs addressing environmental related issues. Aside from inadequate cash or material support, there was also inadequate technical support given to deal with environmental issues (see Section 5.2.5 for more details).

5.1.3. Summary of Part One

This study confirms the literature and the findings of other reports showing that the humanitarian aid response to Cyclone Nargis in the study areas (Labutta and Bogale townships) did not address many of the most prevalent needs in any systematic way. Relief aid was also shown to outweigh recovery aid and that the humanitarian response for the affected communities was neither comprehensive nor balanced.

A review of the timeframe shows that the humanitarian assessment report (PONJA¹⁹⁸) was published *after* the response plan and the appeal for humanitarian aid were developed. Thus the humanitarian response plans were developed without the needs assessment

¹⁹⁸ PONJA was a Multi Cluster/Sector Initial Rapid Assessment

information. Other studies have also pointed out that this lack of information resulted in poor prioritisation. Once available, PONJA did not also reflect the true devastation of severely affected communities. This is likely due to the centralised nature of the report.

In terms of coordination, it has been suggested in the literature that important stakeholders are commonly left out from coordination efforts. This study confirms this; some actors, the government and the private sectors in particular, were not included in the coordination efforts at the local level.

According to reflections by the data collectors in this study (all of whom are former humanitarian workers), the Who-What-Where (3W) matrix deployed as part of the cluster coordination was not user friendly and did not offer detailed information on humanitarian aid packages, content, and amount. This shows that there were gaps in humanitarian aid to recovery, although services to health and food security were reported as fairly adequate.

Thus, in response to study question: *How do assessment processes impact the humanitarian strategy in post disaster contexts, for young children and their families?* findings about the villages in this study reveal that

- The humanitarian assessment report was not available on time.
- Information acquired from the humanitarian needs assessment was not utilised to facilitate a needs-based and a balanced humanitarian aid response.

- Despite the use of the 3W tool, there was information gap in the coordination mechanism.

In conclusion, findings from this case study showed that the humanitarian assessment process was not effective in guiding the humanitarian response strategy.

5.2. Part two: Factors influencing the effectiveness of humanitarian aid processes

This section addresses the overarching question: What factors needed to be considered to enhance the effectiveness of humanitarian aid processes to young children and families in post disaster contexts?

Included in this section is a discussion of the practices which could enhance humanitarian aid effectiveness along with the factors which constitute gaps and issues, according to the seven aspects of human security (see Section 1.6.1 and Section 2.3.4). These seven aspects are

1. health security
2. food security
3. economic security
4. personal security

5. environmental security
6. community security and
7. political security.

This section reviews how each of the seven aspects in the post disaster study villages were addressed according to (1) reported practices which could enhance effectiveness, and (2) reported issues and the gaps.

5.2.1. Aspect #1: Health security

Cyclone Nargis has been shown in this study to have increased the health vulnerability of affected populations, especially the children.¹⁹⁹ The cyclone resulted in injuries while health services were temporarily inaccessible in some villages (FGD #7, #8). Shortage in food and clean water, which are risk factors for diarrhoeal diseases and malnutrition, were experienced in study communities (FGD #2, #4, #6). Destruction of shelters and the resulting displacement of communities brought further health risks.

¹⁹⁹ This is described in Chapter 4, Section 4.1.2.

Practices which could enhance effectiveness

Humanitarian aid based on local services

According to study participants, affected communities were provided with health services except for a short period of time immediately after the cyclone. Despite increased health risks, no known catastrophic disease outbreak was reported (FGD #1, #2, #3, #4). A dengue outbreak was observed in a study village but it was well controlled (FGD #1, #5). Health services, the basic health staff being the key actors, provided preventive and curative services that mitigated post-cyclone health risks. The finding was supported by Myint et al. (2011) who concluded that the health services mitigated health risks (Myint et al., 2011). This study showed that health services *recovered quickly*, with only a temporary service disruption.

Participants said that basic health staff, the existing service providers, were supported by external agencies (FGD #1, #2, #3, #4). The flash appeal documents (OCHA, 2008a, 2008b) and OCHA situation reports²⁰⁰ agreed with this study's findings; they stated that basic health staff were supported with emergency kits and essential drugs supported by humanitarian agencies especially by the UN system, WHO and UNICEF in particular.

²⁰⁰ Appendix 2

Support to existing service, a recommended strategy in humanitarian operations, might have contributed to such quick recovery and effective services.

Issues and the gaps reported about health security aspect

Mental health: A gap in health services

This study identified a lack of mental health services in all study communities. Participants reported that they did not have access²⁰¹ to psychological services in the immediate post-cyclone days nor in the later period.²⁰² Psychological services represent a critical program for reducing long-term psychological consequences (Bisson, Brayne, Ochberg, & Everly, 2007; Ruzek et al., 2007). Psychological consequences such as post-traumatic stress disorder (PTSD) are common to post emergency populations and have been observed even decades after the event (Aghayan et al., 2005; AiZhong et al., 2007; Baddam John et al., 2007; Chandra et al., 2006; Dolan & Krug, 2006; Gaffney, 2006; Jones, 2008; Man Cheung et al., 2004; Sahin et al., 2007; Williams, 2007; Williams et al., 2008).

²⁰¹Village B-0 was reported to have child friendly spaces and probably provided psychosocial programs.

²⁰² This is described in Chapter 4, Section 4.3.1

5.2.2. Aspect #2: Food security

This study shows that humanitarian agencies provided adequate food to beneficiaries during distribution period (see Table 4.7). According to community leaders, life-saving food support in immediate post-cyclone days was identified mainly as private.²⁰³ After a period of time, ranging from 3 months to 6 months, international humanitarian agencies started distributing food rations (FGD #1, #2, #3, #4).

Practices which could enhance effectiveness

Grounds for early recovery

Linking Relief, Recovery, and Development concepts advocate early recovery aid in order to reduce relief aid requirement (Buchanan-Smith, 2005; Christoplos, 2006). This study showed that food aid had benefits beyond food security. It allowed people to focus on reconstruction efforts and re-establish livelihood. Some of the participants who received recovery aid early (that is, while receiving food distribution at the same time) reported that they were able to save money since they did not have to spend their income on food. Their savings helped them to re-establish their economy and recover slowly even though the

²⁰³ Individuals or groups from different parts of Myanmar came and helped people affected by the cyclone. The government initially blocked international humanitarian aid immediately post-cyclone but the lack of needs information might have contributed to some delay (see Section 5.1.1).

recovery aid to them was claimed as inadequate. This fact confirmed the importance of early recovery and the theory of linking relief, recovery and development (Buchanan-Smith, 2005; Christoplos, 2006).

Issues and the gaps reported about this aspect in terms of the study villages

Lack of long-term food security measures

The interview data identifies food security at the time of the study as being in a state of insecurity²⁰⁴ in all study villages.²⁰⁵ Participants reported food insecurity to be associated with limited livelihood recovery. Literature has also shown that food security is related to access to food, which in turn is associated with poverty and economic insecurity (Barrett, 2010; Carter, Little, Mogues, & Negatu, 2007; Vermeulen et al., 2012).

5.2.3. Aspect #3: Economic security

A disaster can have a significant impact on the economic security of an affected community and beyond. Impact includes effects on livelihood, assets, capital, and support structures (Padli & Habibullah, 2009). This study confirmed that Cyclone Nargis resulted in a similar

²⁰⁴ Insecurity refers to a condition where families who are experiencing food shortage reduce food intake by skipping meals.

²⁰⁵ This is described in Chapter 4, Section 4.3.2.

impact. The cyclone, accompanied by a storm surge, destroyed houses, family properties, and assets, including cash/capital. Food crops from the latest harvest were destroyed. Many people were unemployed after the cyclone. Farming and fishing tools were destroyed along with farm animals, especially in Band Zero villages (FGD #1, #2, #3, #4).²⁰⁶ The above scenarios reflected the economic vulnerability of study villages to disasters.

This study showed that agriculture, a major livelihood in the study villages, was vulnerable not only to cyclones but also to other environmental conditions. For example, the post-cyclone soil fertility deterioration in the villages affected the livelihood of farmers (FGD #5, #6, #7, #8), and meteorological irregularity was a contributing factor to the bankruptcy of salt production, a former major employer in a study village (FGD #3).

Practices which could enhance effectiveness

Cash-based response could enhance local suitability of aid items

Some analysts have identified drawbacks of cash-based emergency responses. Harvey (2007), for example, warns of security risks, corruption and diversion risks, anti-social use of cash-based aid, and possible impact of cash-based response to markets (Harvey, 2007). He also points out that cost-effectiveness, skill, and capacity of the agencies and targeting

²⁰⁶ See Chapter 4, Section 4.1.1

should be considered in planning cash-based responses. He added that presentation in terms of advantage and disadvantages of a cash-based response versus commodity distributions is not helpful because “it tends to suggest that advantages and disadvantages are fixed, rather than context-specific” (Harvey, 2007, p. 1).

Despite the identified disadvantages and possible risks, many benefits have also been noted with regards to cash-based responses. In this study, it is one of the least criticised forms of aid. Fishermen, for example, were provided with two types of aid: cash-based and commodities. Fishermen from one study village received cash to purchase needed items (FGD #2) while fishermen from other villages received fishing nets and/or boats (FGD #1, #3). The fishermen with the commodities complained of the unsuitability of the items they received (see Chapter 4, Section 4.3.3) while the recipients of cash were satisfied (see Chapter 4, Section 4.3.3).

Thus, it was shown that the cash-based response is an effective approach and might be the most effective way to overcome concerns about the suitability of humanitarian aid to the local context.

Issues and the gaps reported about this aspect in terms of the study villages

Locally unsuitable commodity supplies

Humanitarian aid agencies reportedly brought predefined aid packages, possibly according to their project proposal and plans (FGD #1, #2, #3, #4). Much of the recovery aid was said to be unusable, being unsuitable for local context, and were thus wasted. For example, reports from this study describe how most of the livestock which was distributed to one of the study villages died soon after they reached the village (FGD #3, #4). Community leaders (FGD #1, #2, #3, #4) blamed this on a lack of consultation and claimed that humanitarian assessment and consulting with the community could have avoided such poor distribution (see Chapter 4, Section 4.2.1).

Lack of consultation with community

Community leaders reported that humanitarian aid for economic recovery often went to the wrong party(ies) (FGD #3, #4). Inadequate aid items, luck draw system, poor consultation with local communities, and poor coordination were identified as reasons for this mismatch (see Chapter 4, Section 4.3.3). For instance, community leaders said that since they were not informed and did not have an understanding of the overall humanitarian aid plans to their villages, when asked to identify beneficiaries for various commodities, they prioritised according to the most needy, not according to the most appropriate party for the specific commodity (FGD #3, #4). This resulted in distribution of aid items to

erroneous beneficiaries. Piglets, for example, were given to fishermen and boats were given to farmers (see Chapter 4, Section 4.3.3).

Recovery of traditional employment systems

The issue of limited employment opportunities was raised during the data collection process. A focus group discussion with caretakers (FGD #6) revealed that a health and nutrition CBO established a community revolving fund and lent money to private businesses with some interests to generate income for their activities.²⁰⁷ However, many businesses which had offered employment, such as salt farms and farming sectors, did not recover (see Chapter 4, Section 4.4.2). Respondents said that the recovery of private businesses was not seen as a priority by humanitarian agencies, despite the fact that the role of such businesses on the livelihood recovery of the community is substantial (Chang & Rose, 2012; De Mel, McKenzie, & Woodruff, 2012).

I believe that such community-managed creative activity could be a solution for sustainability of CBOs as well as a possible way to help the recovery of local businesses. Studies show that capital demand is usually increased post disaster (Berg & Schrader, 2012).

²⁰⁷ See Section 5.2.6 for more details.

Programs not adapted to local context

Microfinance loans were available in the study communities (FGD #1, #2, #3, #4). However, the microfinance scheme by humanitarian actors was reported as locally not feasible (see Chapter 4, Section 4.3.3). Participants explained that most business activities in the study villages were seasonal. For example, animal breeding is profitable only when animals are grown enough to sell, and agriculture yields products only at time of harvest. However, the microfinance loans had to be paid back fortnightly, and this sometimes forced beneficiaries to sell assets just to pay back loans (see Section 4.3.3).

5.2.4. Aspect #4: Personal security

Personal security, by definition, focuses on crime and violence (Bajpai, 2000). In this study, however, it will focus on personal security from disasters (disaster risk reductions). This section will then discuss disaster risks to affected communities in addition to good practices and gaps on risk reduction activities.

Possible causes of high casualties during the cyclone

It has been reported that the frequency of severe cyclone occurrences in Myanmar has increased significantly. In comparison to eight major storms over the past 25 years in Myanmar, there were four major storms already in a two-year period between 2006-2008 (Webster, 2008).

During Cyclone Nargis, wind intensity reached over 200 km per hour which was similar to that of Hurricane Katrina when it struck the US Gulf Coast in August 2005 (Lateef, 2009; Webster, 2008). However, while 1,500 deaths²⁰⁸ were reported from Katrina (Beven et al., 2008), the estimated death toll from Cyclone Nargis was over 140,000 (Tripartite Core Group, 2010c). This section discusses the possible causes of high casualties during the cyclone.

Honda and Daigaku (2009) proposed five main causes that contributed to the high casualty rate of Nargis (Honda & Daigaku, 2009, p. 2). These are

- movement and pathway of the cyclone
- depletion of mangrove forests
- prevention infrastructure and shelters, banks, and alert systems are underdeveloped
- simple frame houses and
- delayed rescue activities.

My findings confirmed these but I have also identified some of the underlying issues which contributed to the high casualty rate. These are discussed below.

²⁰⁸ 1833 if direct and indirect deaths are combined (Beven et al., 2008)

Non-functional early warning system

Meteorological services, including the Indian Meteorological Department and Asian Disaster Preparedness Centre, were able to estimate the track and intensity of the cyclone two to three days prior to landfall. They showed that the cyclone was approaching the low-lying regions of Ayeyarwaddy Delta (Kikuchi, Wang, & Fudeyasu, 2009). Thus, there was enough time for issuing a warning to the people in the area, as well as to facilitate evacuation or emergency preparedness. However, this information was not properly disseminated in Myanmar media. The information given to the public was inconsistent, incorrect, and difficult to understand. For instance, the state media, the *New Light of Myanmar*, reported on 01 May 2008:

Bay inference: According to the observations at (10:30) hrs MST today, the severe cyclonic storm (NARGIS) over Southwest Bay and adjoining West Central Bay has moved Northeast direction and lay centered at about (520) miles Westsouthwest of Pathein, remain stationary as a severe cyclonic storm. It is forecast to move Northeastwards. Weather is partly cloudy to cloudy in the Andaman Sea and Bay of Bengal.

Forecast valid until evening of 1-5-2008: Rain or thundershowers will be widespread in Rakhine, Mon and Kayin States, Bago, Yangon, Ayeyawady, Taninthayi Divisions, fairly widespread in Chin and Shan States, upper Sagaing and isolated in the remaining areas. Degree of certainty is (80%). State of the sea: Squalls with rough seas are likely at times off and along Myanmar Coast. Surface wind speed in squalls may reach (45) mph. (*New Light of Myanmar*, 2008b, p. 15)

The Myanmar (Burmese) version of *New Light of Myanmar* provided contrasting information²⁰⁹ on 02 May 2008. During an interview, the director general of the Department of Meteorology and Hydrology said that the cyclone was heading to Ayeyarwaddy Division²¹⁰ with a wind speed of about 100 miles per hour and could bring about a storm surge²¹¹ of 2-3 meters. The top right corner of the same page had a column of weather news which, citing the internet as its source, reported that the cyclone could have a maximum wind speed of 130 miles per hour to reach a state of strong cyclone and that the cyclone had, from its original northeast direction, deviated towards the eastern direction. It continued to report that the possible countries which could be affected by Cyclone Nargis are west of Thailand, southeast of Bangladesh, India, and Myanmar, and that a wave height of 20 feet is reported in Bay of Bengal.

In the English version of the *New Light of Myanmar* on 02 May 2008, the day when the cyclone passed Ayeyarwaddy Delta, the storm was reported as below.

“Storm News”

²⁰⁹ Many people, including data collectors involved in this study, believed that the government had withheld the weather warnings for political purposes but it was out of scope of this thesis.

²¹⁰ Reported to be moving towards ChaungTha and NgweSaung Beaches which did not suffer much from the cyclone.

²¹¹ In Myanmar direct translation, it was a storm tide – this word might have confused the audience.

(Issued at 19:00 hours MST on 1-5-2008)

According to the observations at (18:00) hrs MST today, the severe cyclonic storm (NARGIS) over the Bay of Bengal is centred at about (310) miles Southwest of Gwa. During the past (12) hrs, it is intensified and moved Eastnortheast wards. It is forecast to cross the Coast between the Southern Rakhine State and Northern Ayeyawady Division during the next (36) hrs commencing noon today.

Under the influence of this storm, rain or thundershowers will be widespread in Rakhine, Mon, Kayin, Shan and Kayah States, Ayeyawady, Yangon, Bago and Taninthayi Divisions, isolated to scattered in Chin and Kachin States, Mandalay Division. Frequent squalls with rough seas will be experienced off and along Myanmar Coasts. Surface wind speed in squalls may reach (50) mph. (New Light of Myanmar, 2008a)

Despite these reports, the study communities were unaware of the potential danger of Nargis. Participants reported that they were completely unaware of the fact that the destructive cyclone was heading towards them (see Chapter 4, Section 4.3.4).

At the village level, participants said that no warning or evacuation alert was issued. In fact, 97% of the caretaker respondents shared that they had received no local warning. One respondent who had travelled to a nearby town reported that she did hear a cyclone warning

from a loudspeaker on that day (May 2, 2008). None of the participants received a message to evacuate.²¹²

Lack of knowledge and awareness

Although some (inconsistent) warning messages were passed in the state media (see above section), villagers reported in focus group discussions that they had not understood these messages and did not realise that they needed to evacuate. None of the participants in this study thought that a cyclone meant that their lives were in danger (FGD #5, #6, #7, #8).²¹³ Indeed, Cyclone Nargis was the first recorded tropical cyclone which passed through the Ayeyarwaddy Delta (Fritz et al., 2009).

Lack of disaster preparedness and evacuation place

Lack of preparedness has been identified as a significant determinant of the high casualty rate during the Cyclone Nargis (Feagin et al., 2010; Honda & Daigaku, 2009; Rodriguez, Vos, Below, & Guha-Sapir, 2009). The study participants affirmed this. They said that

²¹² Semi-structured interviews with caretakers (Interview #1-#30)

²¹³ Semi-structured interviews: Interview #1 - #30

there was no disaster preparedness system for cyclones or other disasters. The study villages did not have a safe place for shelter / evacuation.

Weak infrastructure

Another identified cause of the high casualty rate was the state of structures which were not resistant to cyclones (Honda & Daigaku, 2009). This study supports this claim. Participants reported that most of their houses were not strong (built with wood, bamboo, and nipa structure²¹⁴) and thus were easily destroyed by the cyclone.²¹⁵

Environment and geographical vulnerability

The affected area, Ayeyarwaddy Delta, was a continuous, low-lying, flat plain of more than 200km (Webster, 2008). It shows that the study areas, especially Band Zero villages, are highly vulnerable, geographically, to storm surges. During the cyclone, a storm surge peaked at 5 meters²¹⁶ while a superimposed 2-meter high storm wave was recorded by a study by Fritz et al. (Fritz et al., 2009).

²¹⁴ Semi-structured interviews with caretakers (Interview #1-#30)

²¹⁵ This is described in Chapter 4, Section 4.1.1

²¹⁶ PONJA reported 12 feet

During focus group discussions with caretakers (FGD #5, #6, #7, #8), participants in all four study villages said that they experienced frequent tremors (minor earthquakes). Thus, these villages, especially in Band Zero, can be regarded as geographically vulnerable also to tsunamis, which sometimes accompany earthquakes.

Practices which could enhance effectiveness

Integration of disaster risk reduction in humanitarian response

The integration of disaster risk reduction is a recommended component of humanitarian response (Clinton, 2006). Focus group discussions confirmed disaster risk reduction activities in study villages (FGD #5, #6, #7, #8). Also, caretakers reported that as a consequence of their firsthand experience as well as subsequent disaster-communication messages, their knowledge and awareness about cyclones and associated storm surges had increased, compared to their pre-cyclone state (FGD #5, #6, #7, #8).

Both the caretakers²¹⁷ and community leaders²¹⁸ confirmed that communities had received support and training on disaster awareness and disaster management from humanitarian agencies after the cyclone. In addition, organised systems (disaster management

²¹⁷ Semi-structured interviews with caretakers (Interview #1-#30), FGD #5, #6, #7, #8

²¹⁸ FGD #1, #2, #3, #4

committees) had also been formed and early warning systems were established. Equipment for early warning and disaster preparedness were provided by humanitarian agencies. A cyclone shelter was also built by a private company in Village A-0 and by a humanitarian agency in Village B-1 (50% of the study villages) after the cyclone.

Issues and the gaps reported about this aspect in terms of the study villages

Inadequate community capacity building

Despite provision of disaster management and response trainings, the participants in the study communities, including the disaster risk reduction team members themselves, reported that they were not confident of the capacity of disaster risk reduction teams in terms of early warning, preparedness, and response for future disasters (see Chapter 4, Section 4.3.4). Participants said that the training failed to enhance their confidence or capacity to deal with disaster (FGD #5, #6, #7, #8). They reported the following gaps in their training and preparation:

- Short course trainings were perceived as being inadequate (FGD #5).
- No practical training or simulation exercise was included (FGD #5).
- Some materials provided, e.g., loud speakers and radios, were broken at the time of study (FGD #5, #8).

- Disaster reduction team members did not perform their tasks in a real event; the team could not activate the early warning mechanism nor organise an evacuation and was anxious themselves in a real event²¹⁹ (FGD #7).
- Despite trainings on disaster risk reduction, no evacuation place had been defined in half of the villages²²⁰ (FGD #5, #8).
- There were concerns about the abilities of some members of the community (elderly and women) who had been selected for training on disaster risk management (FGD #8).

A need for localised and reliable early warning system

A tornado in one study village²²¹ illuminated the gaps in the early warning systems in the study communities. Semi-structured interviews with caretakers²²² revealed that—to this day—the radio (the state media) was the main source of disaster warning messages rather than the local early warning system. The state media did not offer localised early warning

²¹⁹ See Chapter 4, Section 4.3.4

²²⁰ See A need for evacuation places in Section 5.2.4 on page 251

²²¹ See Chapter 4, Section 4.3.4 for more detail

²²² Semi-structured interviews with caretakers (Interview #1-#30)

messages; for instance, it did not announce which villages might need to evacuate in a disaster.

A narrative from a caretaker portrayed the importance of localised messages (Interview #25). The caretaker reported that some villagers, including their family, evacuated to a nearby forest for a few days after listening to a cyclone warning from the state radio weather report (a year before the study); the cyclone warning was for other areas and hence did not affect the caretaker's area.

It is clear that a localised early warning system which is reliable, credible, and well understood by rural communities is a critical disaster risk reduction strategy.

A need for evacuation places

This study revealed that half of the study communities (Village A-1 and Village B-0) did not have access to a safe evacuation place.²²³ The participants from these communities showed concerns for evacuation in future disasters. Meanwhile, for communities which did have access to cyclone shelters (Village A-0 and B-1), it was argued²²⁴ that the shelters (approximately 1,800 square feet each) were inadequate. They could not provide enough

²²³ This is described in Chapter 4, Section 4.3.4

²²⁴ By community leaders (informal talks) and data collectors (in review workshops)

space for whole communities in the event of a full evacuation (the populations of communities was 467 and 2,400+ respectively). In fact, information retrieved informally²²⁵ revealed that the cyclone shelter can accommodate less than 50% of the population.²²⁶ In other words, only a few villages in the cyclone-affected areas would be able to access a cyclone shelter. The information was confirmed by a report from UNHABITAT which described that only 356 cyclone/multi-purpose shelters had been built or were being built at the time of this study. This was reported to be totally inadequate in light of the population affected by the cyclone (2.4 million) (Tripartite Core Group, 2008a; UN-HABITAT, 2011).

Disaster risk reduction activities include, amongst other processes, identification of a safe evacuation place and development of evacuation protocol (Abarquez & Murshed, 2004; IFRC, 2011). If there is no safe evacuation point, communities would seek shelter from places of unknown strength. According to UNHABITAT (2011):

In five townships, 58% of the people reported that monasteries are the safe places to take refuge during cyclone. The school comes next to that. However, the structural safety of these buildings is not known. (UN-HABITAT, 2011, p. 42)

²²⁵ From community leaders (informal talks) and data collectors (in review workshops)

²²⁶ This study findings (Village A-0 and B-1 had evacuation place)

Evacuation to a place of unknown strength could be potentially dangerous. Respondents reported that this happened in Village A-1 during Cyclone Nargis (FGD #1, #5). Some villagers ran to the school because they thought it was the strongest building in the village. Fortunately, the school was locked so they had to seek shelter elsewhere. Later on, the school totally collapsed during the cyclone. There was no doubt that the villagers would have been killed if they had stayed in the school. As it happened, there were no casualties there during the cyclone (see

Table 4.3).

Inadequate support for permanent housings

This study revealed that the incidence of weak infrastructure did not improve after the cyclone (see Section 4.3.4). Post cyclone support for permanent housing from international humanitarian agencies was limited (see Section 5.1.2 on page 230) despite the fact that weak infrastructure was identified as a cause of high casualty during the disaster (Honda & Daigaku, 2009).

5.2.5. Aspect #5: Environmental security

The cyclone reportedly knocked down many trees and injured mangrove forests (see Chapter 4, Section 4.3.5). Years later, the environment was still shown to be deteriorating in all the study villages.

Practices which could enhance effectiveness

Locally initiated systems

This study noted the government's initiative on environmental conservation in the study villages. These included the plantation of Eucalyptus trees in Village A-1 and the legislation for conservation of natural forest and the animals in Village B-0 (see Chapter 4, Section 4.3.5). At the time of the study, two agencies had engaged in environmental

issues, one in Village A-0 and one in Village B-0 (Band Zero villages). Both agencies were national NGOs. Village A-0 activity was reported to have started about three years after the cyclone and Village B-0 was just at the planning stage at the time of study; consequently, this study did not regard these programs as part of the Cyclone Nargis response.

Issues and the gaps reported about this aspect in terms of the study villages

Lack of support from international communities

My analysis revealed that those who implemented programs on environmental-related issues are national agencies, reflecting limited support from international agencies on environmental issues. Likewise, my literature review did not find any funding request or allocation for environment-related issues as part of the Cyclone Nargis response plan (see Table 2-3).

Soil erosion and declining fish population were important environmental issues which reportedly influenced the recovery of the affected communities (see Section 5.3.5 for more details), reflecting a need for assistance. However, this study showed that there was no support or technical assistance available to solve these issues.

5.2.6. Aspect #6: Community security

Findings from this study revealed that humanitarian agencies worked with community-based organisations in the study villages, channelling financial and material support to respective communities through community-based organisations.²²⁷ This represents good practice in terms of community-based approaches to support and development (Dongier et al., 2001; Slaymaker, Christiansen, & Hemming, 2005).

Community-based response: Advantages and benefits

From my findings, it was seen that community-based approaches are likely to be more appropriate and sustainable than centralised or top-down approaches, supporting literature on community-based approaches.

²²⁷ This is described in Section 4.4.

Practices which could enhance effectiveness

Building local capacity and following community-based approaches

At the time of the data collection, all humanitarian aid projects and most local community-based organisations (committees) had been terminated or become inactive.²²⁸ However, village committees for health and nutrition activities remained active in Village A-0 and A-1.²²⁹ This study showed that the humanitarian agencies which supported these activities followed the community-based approach²³⁰; they built or strengthened local capacity and allowed them to decide on their resources (a community revolving fund which was

²²⁸Some projects related to health, environment, and microfinance activities were reported but these projects just started when the study was conducted. These projects were not attributed as part of the humanitarian response for Cyclone Nargis relief and recovery.

²²⁹ This is described in Chapter 4, section 4.4.2

²³⁰ According to UNHCR Technical Glossary, a community-based approach motivates women, girls, boys, and men in the community to participate in a process which allows them to express their needs and to decide their own future with a view to their empowerment. It requires recognition that they are active participants in decision-making. It also seeks to understand the community's concerns and priorities, mobilising community members and engaging them in protection and programming. The focus is on helping (beneficiaries)²³⁰ organise themselves to solve their own problems. The role of (agencies)²³⁰ is to support the building, rebuilding, and strengthening of communities' capacities to respond to protection risks and to make decisions over access to and use of resources. Participatory assessment is carried out in the spirit of shared responsibility for enhancing protection of all members of the community and is an essential component of community-based work (ReliefWeb Project, 2008, p. 18)

established through contributions by community members and the humanitarian agency).²³¹

Humanitarian agencies could influence representation of community leaders

Cyclone Nargis affected community structure in villages, especially those in Band Zero: casualties and displacements resulted in a need for re-election of new community leaders. Many community-based organisations (committees) were newly organised after international humanitarian agencies arrived.²³² These findings suggest that changes in community leaderships should be expected in communities affected by serious disasters. In fact, humanitarian agencies were reported as the primers in organising community-based organisations to work with them (see Section 4.4.1).

In the meantime, the study showed that villagers were given a chance to elect community leaders or members of CBOs and to vote for people whom the community could respect and trust, with the exception of a committee in Village B-1 (see Chapter 4, Section 4.4.4). This finding suggests that humanitarian agencies could influence representation of

²³¹ Section 5.2.3, page 170 describes how the community used the revolving fund.

²³² This is described in Chapter 4, Section 4.4.4

community leaders to their communities by facilitating, or avoiding in the case of Village B-1, community elections.

Issues and the gaps reported about this aspect in terms of the study villages

There was no meaningful participation

While good community-based approaches (above) were reported for health and nutrition programs, this study revealed the community's (the participants) perception that they had no real voice in influencing the actions of humanitarian agencies. To them, humanitarian agencies came with predefined targets and humanitarian aid packages (see Chapter 4, Section 4.4.1).²³³ The reasons for this perception included humanitarian workers not communicating to or listening to the community; and the community perception that the humanitarian workers did not have any decision-making power to influence the predefined aid packages and project plans.

²³³ In terms of community participation as Hart's ladder of participation, it may mean that the community was not even consulted.

No action on elite capture

Elite capture, the use of social status by influential people to pursue their interest rather than the community interest, has been identified as a potential concern when outside agencies target community-based programs (Dutta, 2009; Fritzen, 2007; Platteau, 2004; Wong, 2010).

This issue was reported in a study village (FGD #8). Caretakers identified that many supports and favours rested with a small clique who had immediate access to humanitarian aid distributions. Indeed, a participant claimed that she reported this issue to the relevant humanitarian agency in a community meeting but the agency ignored the issue.²³⁴

Lack of a system to reduce economic vulnerability to future disasters

Respondents revealed that there was no known arrangement (insurance system or seed bank for example) for reducing economic vulnerability to disasters and meteorological conditions (FGD #5, #6, #7, #8).

²³⁴ See Chapter 4, Section 4.4.3

5.2.7. Aspect #7: Political security

This study reported the government blockage of the flow of humanitarian aid immediately after the cyclone (R. Cohen, 2009; Honda & Daigaku, 2009) as one possible contributing factor for the delay of humanitarian aid flow (see Section 5.1.1). Although this thesis recognises the importance of political security²³⁵ in the delay and on other components of human security, this issues is not the focus of the thesis and hence, this component was not analysed.

5.2.8. Summary of part two

Part Two of this chapter presents the factors which impact the effectiveness of humanitarian aid processes in post disaster contexts. The factors are assessed according to the seven aspects of human security.

This study findings confirmed many of the *practices for enhancing effectiveness* which have been outlined in the literature. These findings are listed below

²³⁵ Of the identified seven aspects of human security, political security is undoubtedly one major aspect that should be looked at, especially in post conflict settings. With political sensitivity in Myanmar at the time of the study, however, I have opted not to report on it in this thesis. I believe that reporting on the other six aspects can provide sufficient evidence to address my research questions – but would hope that others will find the opportunity to investigate how to address political security issues as an element of post disaster relief and recovery strategies.

- *Humanitarian aid based on local services*, e.g., support to existing health staff, facilitates quick recovery of services and enhances effectiveness of services.
- Food aid could provide benefits beyond food security and could become *a ground for early recovery* when suitable recovery aid is also given. This supports the Linking Relief, Recovery and Development concepts identified in the literature.
- A cash-based response *could be a solution for local suitability of aid items* in situations when suitability of humanitarian aid to the local context is a concern.
- *Disaster risk reduction programs* were part of humanitarian response in study communities. Humanitarian guidelines including *Build Back Better* recommend disaster risk reduction programs to be part of humanitarian response.
- Humanitarian agencies which focus on building capacity (for example, through local NGOs) contribute to sustained outcomes.
- Meanwhile, this study was also used to identify issues and gaps as a way to improve humanitarian aid practices. The findings about the issues and gaps which arose from the study villages are summarised below:
 - *Mental health services were unavailable* to the study communities. Thus there is a need to identify gaps (by coordination mechanism) in the availability of a range of needed services.
 - Short-term food aid alone could not assure long-term food security. Thus there is a need for more comprehensive *long-term food security measures*.
 - Importing predefined aid items without proper assessment and community consultations could result in *locally unsuitable commodity supplies*. Thus there is *a need to tie assessment to distribution*.

- Employment opportunity (economic security) of affected communities was limited *unless traditional employment systems were recovered* even when humanitarian agencies distributed many livelihood items. Thus there is a need to ensure that employment-related aid programs address traditional employment systems.
- Programs *not adapted to local context*, e.g., a microfinance program in this case, could result in negative effects (hardship) to beneficiary populations. Thus there is a need to ensure local input/awareness of the local context in developing microfinance programs.
- Communities had limited confidence of disaster risk reduction mechanisms. The reasons for this included *inadequate community capacity building* and *lack of evacuation space*. Thus there is a need to improve disaster risk reduction mechanisms and a need to ensure that evaluation venues are in place as part of a disaster risk reduction plan.
- *Inadequate support for permanent housings* resulted in weak buildings which were not resistant to disasters. Thus there is a need to ensure appropriate housing in post disaster contexts.
- There was a reported gap in the delivery of environmental programs which influenced livelihood and protection. Thus there is a need to focus on programs on sustainable outcomes for livelihood and protection.
- Despite the adoption of community-based approaches, this study showed there was no meaningful participation by key stakeholders. Predefined packages of aid overrode the input and influence of communities.

Participation was also limited by working with unrepresentative community leaders, reflecting the concept of “elite capture.” (see (Hayden & Wai, 2013), attached in Appendix 5) Thus there is a need to focus on meaningful participation by appropriate representatives of all sections of the community.

5.3. How do aspects of human security interrelate

According to the human security theory, the seven aspects of human security are interdependent. Insecurity on one aspect can affect the other aspects and subsequently contribute to overall vulnerability (i.e., a domino effect) (Acharya & Singhdeo, 2010; UNDP, 1994). This concept suggests a need to address all aspects of human security comprehensively during a humanitarian response. This section reviews how a gap in one aspect of human security can affect the other aspects in terms of recovery from the disaster.

5.3.1. Interrelationship between economic security and health security

Reports indicated that the Myanmar government budget for the health sector was \$2 per head, far below the WHO recommended minimum of \$60 per head for low-income

countries (WHO, 2013). Total expenditure on health per capita²³⁶ in Myanmar stood at \$17 per head in 2010, ranking 189 out of 192 countries (WHO, 2013).

In the midst of limited government spending on health services, field study findings showed that health security is ultimately interrelated with economic security. For instance, semi-structured interviews with caretakers revealed that poverty or unaffordability (economic insecurity) was a major hindrance in accessing curative health services at the time of the data collection. Caretakers commented that they would fall into a debt cycle and a family crisis if ever a serious health event were to occur in their family, thus reflecting interdependence between health and economic securities. It was reported that the risk of a health-related family crisis existed even before the cyclone and had worsened at the time of study because of widespread post-cyclone poverty (economic insecurity). This study revealed that no health insurance system existed in the study villages (as per the semi-structured interviews with caretakers).

In addition, caretakers associated a shortage of health and hygiene-associated items (e.g., soaps, mosquito nets) with unaffordability (see Chapter 4, Section 4.3.1). While analyses of what constitutes an effective health system and/or the issue of healthcare financing is

²³⁶ Total health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. Data are in current U.S. dollars (World Bank, 2014).

out of scope of this study, the study does highlight the fact that health security is influenced by other aspects of human security, specifically economic security.

5.3.2. Interrelationship between food security and health security

The literature has shown that food security is associated with nutrition (health security), especially when it comes to children.²³⁷ This study revealed food insecurity in participating villages at the time of data collection (see Chapter 4, Section 4.3.2); hence, it can be assumed that the nutrition of children in study communities were at risk as well at the time this study was conducted. However, the study findings did not confer enough evidence to conclude interrelationship between health security and food security.

5.3.3. Interrelationship between environmental security and health security

During focus group discussions with caretakers (FGD#5, #6, #7, #8), the responses to environmental security questions on vector population (disease-carrying animals) showed that the population increased or remained high (see Chapter 4, Section 5.2.5) despite decent health services, e.g., the use of chemicals (abate) to control mosquitoes were available to study villages (see Chapter 4, Section 4.3.1). This finding supports literatures that vector control measures might need services from other human security aspects, e.g.,

²³⁷ It is described in Chapter 2, Section 2.1.2

environmental modification, services on housing, drainage improvement, and town planning. According to literature, mosquito control (larval control) measures included environmental control (elimination of breeding sites), chemical control, and biological control, in addition to adult control measures and personal protection from mosquito bites (Park, 2011).

Another health threat reported was loss of lives due to crocodiles. Despite the presence of such dangerous species in the neighbourhood, the villagers were barred from killing these animals by law. It suggests that systematic environmental management and policy can affect the health security and personal security of the people in these villages.

5.3.4. Interrelationship between environmental security and personal security

This study revealed that deforestation was evident in the study communities (see Chapter 4, Section 4.3.5). Perceptions on environmental deterioration and effects of environmental deterioration in the case of Cyclone Nargis were reported in focus group discussions with caretakers during data collection. Some respondents also claimed that their lives were saved by trees (Village Four); with appreciation of such environmental benefits, they grew trees in the compounds after the cyclone (see Section 5.2.5). This study's findings are supported by literature in which environmental degradation and depletion of mangrove forests were claimed to be one of the factors of high casualties during the cyclone (Feagin et al., 2010; Honda & Daigaku, 2009). Thus, both study findings and literature support the

interrelationship between environmental security and personal security; in this case, it affected the number of casualties and the extent of destruction in the affected areas due to the cyclone.

5.3.5. Interrelationship between environmental security, food security, and economic security

Study findings showed that key livelihoods in villages were farming or fishing (see Chapter 4, Section 4.3.3 for more details). The farming business was reported to be under severe threat by soil erosion, an environment-related problem. Likewise, a noticeable decline in fish population was reported; the caretakers (FGD #5, #8) hypothesised that this decline might be linked with loss of aquatic habitat due to mangrove devastation. These responses suggest that environmental security had a significant relationship to economic security in the study villages.

At the same time, some families in study communities were experiencing food inadequacy at the time of the study (FGD #5, Interview #10, #16, #18, #24, #25). To further questions on the cause of food inadequacy (food insecurity), participants explained that poverty or insufficient income (economic insecurity) was a key reason for food insecurity in the communities (see Chapter 4, Section 4.3.2), thus reflecting the influence of economic security on food security.

5.3.6. Interrelationship between economic security and personal security

In addition to interrelationship with health security and food security discussed in above sections, the study revealed that participants from two villages which did not receive assistance for shelter reconstruction reported that they rebuilt their houses from any available materials, for instance, from remnants of the house that collapsed during the cyclone. Further inquiry revealed that their new houses were weaker than their former ones, and that economic security (lack of money) was reported to have influenced the building or rebuilding of such shelters. Most caretakers reported that after the cyclone, they wanted to rebuild strong houses but their economic situations did not allow them to do so. This finding reflects that economic security had influenced strong and safe houses, and hence influenced personal security.

5.3.7. Summary of Part Three

This study shows patterns of the interdependency of human security aspects. It also reveals that in the case study, some aspects—economic and environmental security aspects in particular—had a significant influence on overall recovery. Thus, the study findings support the notion that humanitarian response needs to comprehensively address all areas of human security.

Chapter 6. Conclusion and Recommendations

Chapters 4 and 5 describe and discuss findings from the researcher's investigation of affected villages in Myanmar from Cyclone Nargis. This chapter draws on the preceding chapters and presents recommendations arising from the study. The recommendations focus on a proposed assessment framework to complement current humanitarian assessment practices. It is anticipated that the proposed framework will contribute to enhanced effectiveness in humanitarian aid response and relief.

The findings from this case study of Myanmar pointed out gaps in the humanitarian response system in that context. The gaps identified reflect much of the literature on this topic. In this chapter the findings from the case study are used, combined with current literature, to address the prevailing gaps in the knowledge base about humanitarian response practice and policy. This chapter is organised into three sections:

1. Recommendations
2. Recommendations for future research
3. Conclusion

6.1. Recommendations

6.1.1. Recommendations for enhancing needs assessment processes

The majority of the findings from the researcher's investigation of humanitarian needs assessment undertaken during Cyclone Nargis reflected the issues which have been identified in the current literature (see Chapter 2, Section 2.4.1). Formalised and widely used assessment processes have been reviewed, critiqued, and tried out over the past decades (ACE Project, 2009; Garfield & Blake, 2011; IASC, 2011b; Wisner et al., 2003). It is clear that needs assessments are of primary importance to humanitarian response programs.

Recent developments around assessment processes include multi-cluster initial rapid assessment (MIRA) and transformative agenda (IASC, 2012a, 2012c, 2013). The findings and recommendations from this thesis are presented as a further step towards the evolution of an effective and efficient humanitarian aid process for diverse contexts.

This case study shows that the official Cyclone Nargis assessment report (PONJA)²³⁸ was not available to humanitarian actors in a timely manner. This resulted in humanitarian aid processes which did not address the specific humanitarian needs in the context. The fact

²³⁸ PONJA is regarded as MIRA (Garfield & Blake, 2011)

that the MIRA process often offers information late in humanitarian emergency contexts has been discussed in the literature ²³⁹(Garfield & Blake, 2011). Thus, this study confirms that *humanitarian need assessment processes need to be rapid enough to offer timely information.*

This case study investigation which included a review of the humanitarian assessment and monitoring reports regarding the post Nargis response in Myanmar (PONJA and Periodic Reviews) shows that the official reporting did not disaggregate the humanitarian situation and humanitarian needs according to different geographic areas, and did not distinguish between lesser affected and seriously affected areas.²⁴⁰ As a result, prioritisations were incorrectly identified. Thus it is shown that *reporting of humanitarian needs need to be disaggregated according to the diversity of the humanitarian situation in different geographic areas.*

The researcher's investigation of Nargis shows that the post Nargis response was severely constrained by the fact that the humanitarian response plans were developed in a vacuum

²³⁹ Details are described in Chapter 2

²⁴⁰ This is described in Chapter 5, Section 5.1.1

of needs assessment information.²⁴¹ Thus it was shown that *humanitarian response plans need to be strategically based on appropriate need assessments.*

Further, the investigation of Nargis shows that the assessment process did not include the type of comprehensive information which could be used to drive recovery planning. This case study also showed that need assessment reports did not offer localised information to appropriate parties in a way that could inform operations at several levels.²⁴² Thus it was shown that *need assessment reports need to offer information at both central and operational levels (field level) in order to inform response activities.*

This case study also showed that some villages did not receive adequate humanitarian aid for targeted populations. On the other hand, some aid items were also wasted. Inadequacy led to the deployment of the ‘luck draw system’²⁴³ which resulted in aid items being distributed to the wrong beneficiaries. Thus it was shown that *need assessment documents have to include information about the population profile, the damage and losses, and the type of humanitarian need for the specific area.*²⁴⁴

²⁴¹ This is described in Chapter 2, Section 2.5

²⁴² This is discussed in Chapter 5, Section 5.1.1

²⁴³ This has been described in Chapter 4, Section 4.3.3

²⁴⁴ Recommendation for assessment documents at field level

6.1.2. Recommendations for humanitarian coordination

This case study shows that important stakeholders, including representatives from the government and private sector, were left out of the coordination efforts.²⁴⁵ This reflects the literature which reports that the cluster coordination system tends to leave out local stakeholders and the government.²⁴⁶ Thus it was shown that *all stakeholders should be mapped, analysed, and invited to participate in humanitarian coordination mechanisms.*

The literature identifies that OCHA collects 3W data²⁴⁷ on humanitarian activities of agencies for the purpose of humanitarian coordination. This study, as well as some literature, suggests limitations in the use of 3W.²⁴⁸ Thus it was shown that *coordination tools need to be more user-friendly and more informative.*

This case study also showed that coordination did not happen at the local level and that the community leaders had not been effectively consulted.²⁴⁹ Community leaders reported that the communities became passive recipients of humanitarian aid with decision-making

²⁴⁵ This is described in Chapter 4, Section 4.2.2

²⁴⁶ This is described in Chapter 2, Section 2.2.2

²⁴⁷ Humanitarian dashboard is also introduced

²⁴⁸ This is described in Chapter 5, Section 5.1.2

²⁴⁹ This is described in Chapter 5, Section 5.1.2

taking place at town / central levels. Thus it was shown that *there is a need for coordination mechanisms at the community level.*

6.1.3. Recommendation to community-based response

Humanitarian agencies in this study were found to work with community-based organisations, reflecting adoption of community-based approaches. Despite the adoption, findings from the study show that the response did not achieve full potential of community-based approaches in terms of community participation.²⁵⁰

Findings from this study also show that humanitarian aid items were wasted because the items did not meet local needs or were unsuitable for local context. Further inquiry suggested lack of consultation with affected communities (lack of community participation) might be the reason. Thus, it was shown that *need assessment should be participatory in nature including meaningful consultation at the community level.*

This study shows that recovery from disasters (‘disaster resilience’) is highly impacted by changes in community response capacity, population movements, and leadership changes,²⁵¹ and that these processes are highly vulnerable within the most seriously

²⁵⁰ This is described in Chapter 4, Section 4.4

²⁵¹ This is described in Chapter 5, Section 5.2.6

affected areas. Indeed, the definition of ‘disaster’ refers to the level of community capacity, and the concomitant level of need for external assistance (ReliefWeb Project, 2008). Thus it was shown that *it is important to assess changes in community capacity (and leadership), especially in the most severely affected areas.*

This study shows that community leaders could abuse their power or privilege to divert humanitarian aid for personal purposes (elite capture). Literature shows that elite capture can result when community-based practices are not undertaken in a participatory way.²⁵² Thus, it was shown that *humanitarian agencies need to be aware of the potential for elite capture and take appropriate measures to prevent it.*

This study shows that external aid has the potential to enhance the effectiveness of community-based services and that humanitarian aid provision which is based on existing services have a higher likelihood of being effective.²⁵³ The literature confirms that humanitarian aid is enhanced when based on existing services (Clinton, 2006; Sphere Project, 2011; UNICEF, 2005). Thus it was shown that *humanitarian actors need to become aware of, incorporate, and/or build on existing systems and services.*

²⁵² This is described in Sections 4.4.3 and 5.2.6

²⁵³ This is described in Chapter 5, Section 5.2.6

6.1.4. Recommendations for a strategic response

This study reveals that there had been an effort to develop a coordinated response towards recovery, guided by planning documents (Flash Appeal, revised Flash Appeal). However, it was shown that coordination broke down in several areas. Response plans towards the cyclone were developed before PONJA was available²⁵⁴ and humanitarian aid response did not prioritise the most affected areas.²⁵⁵ Thus it was shown that *a timely response based on humanitarian need assessment is needed. Prioritisations for aid need to identify and address critical needs of affected populations, and to mitigate short and long-term consequences.*

Perhaps the most critical comments which were revealed in this study were those which identified the inadequate support for economic recovery and environmental impact mitigation. The study shows that the response was skewed towards relief aid with limited support for recovery aid. This reflects the literature which similarly identifies that humanitarian aid plan emphasised relief over recovery.²⁵⁶ Thus it was shown that

²⁵⁴ This is described in Chapter 2, Section 2.5

²⁵⁵ This is described in Chapter 5, Section 5.1.1

²⁵⁶ This is described in Chapter 2, Section 2.5

humanitarian responses need to be strategic, comprehensive and balanced – and to take into consideration longer term recovery – beyond the relief stage.

This study reveals that those families which received recovery aid while they were on relief (food aid) could save some income and recover quickly. However, communities which received prolonged periods of food aid but inadequate amounts of recovery aid did not recover. Thus the study confirms the importance of LRRD and the benefits of an early introduction of recovery aid.²⁵⁷ Thus it was shown that *an early introduction of recovery aid (such as providing an economic recovery package while relief aid is still in distribution) can enhance the long-term recovery of communities.*²⁵⁸

The case study shows that traditional employment systems offered employment and livelihood opportunities while newly introduced livelihood programs did not provide sustained employment opportunities. Thus it was shown that *economic recovery efforts should give attention to, and strengthen, traditional employment opportunities.*

²⁵⁷ This is described in Chapter 2, Section 2.3.1

²⁵⁸ This is in agreement with the Contiguity Model of LRRD (see Chapter 2)

6.1.5. A framework for addressing the recommendations: VAC to VACS

The ultimate aim of this thesis is to propose a humanitarian assessment framework which will complement current assessment tools and assist humanitarian communities in designing humanitarian programs in a comprehensive and coordinated way, hence improving the lives of children and families affected by disasters or emergency situations. This chapter proposes a framework which has been developed from the study findings and recommendations. The following sections describe why study tools of this study, namely VAC²⁵⁹, was deployed as a foundation of the proposed framework, VACS²⁶⁰.

Proposed framework based on the study tools, VAC

As a component of the researcher's data analysis, the study tools used, that is VAC,²⁶¹ were compared with the assessment tools currently in use. The comparison is summarised in and is elaborated below.

²⁵⁹ VAC is an acronym for Vulnerability Assessment, Stakeholder (AGRI) Assessment and Community Assessment

²⁶⁰ The proposed framework has four components Vulnerability Assessment, Stakeholder (AGRI) Assessment, Community Assessment and Strategy Formulation Framework: It was based on VAC

²⁶¹ VAC stands for Vulnerability Assessment, Stakeholder Assessment and Community Assessment

Operational level: VAC complements current tools

My analysis shows that both VAC[©] and current assessment tools (PONJA²⁶²) collected information on the losses, damages, and humanitarian needs. However, PONJA only reported an *overview* of cyclone Nargis-related damages, losses, and needs. The report did not describe the humanitarian situation at operational levels (township or village levels).²⁶³

Table 6-1: Comparison between current assessment tools and VAC

	Current assessment tools ²⁶⁴	VAC (this study tools)
Damage, losses, and humanitarian needs	Information on overall cyclone Nargis	Information on village level
Needs assessment collected	Basic survival needs	Comprehensive needs ²⁶⁵
Local context	Needs and vulnerability determined by predefined tools	Needs, vulnerability and local capacity from community perspectives

²⁶² Here I will compare specifically with PONJA (which is MIRA) because Periodic Reviews are the follow-up assessments to PONJA and used the same methodology as PONJA

²⁶³ This is described in Chapter 5, Section 5.1.1

²⁶⁴ Current assessment tools hereby refer to need assessment processes guided by OCHA, Multi-Cluster/Sector Initial Rapid Assessment in particular

²⁶⁵ Under the scope of seven aspects of human security, in terms of health security, food security, personal security, economic security, community security, environmental security, and political security

In contrast, the VAC process includes analysis at the village levels (see Section 6.1.5 for more details) and consequently provides key humanitarian information for operational levels.²⁶⁶ Thus, the VAC tool can be a valuable complement to current assessment tools.

Comprehensive picture: VAC complements current tools

Rapid assessment tools currently in use²⁶⁷ collect information on immediate basic survival needs, e.g., health, water, sanitation, and food needs (Tripartite Core Group, 2008a, 2008b, 2009a, 2010a, 2010c). VAC collected information related to the seven aspects of human security which are regarded as a minimal need for human survival and dignity (UNDP, 1994). In other words, the study tools can provide an overall picture of recovery needs.

Local perspective and local context: VAC complements current tools

This study reveals that assessment reports which were generated through the use of current tools did not include vital information on local context and local needs. VAC was designed to collect needs assessment from the community perspective and thus to reflect local needs

²⁶⁶ In this case study, the use of VAC provided two prongs of analyses. It collected and analysed information at the village level and thus was able to provide a snapshot of humanitarian needs at this operational level. In addition, VAC analyses provided an overall picture based on the situation of four villages within two townships

²⁶⁷ MIRA/PONJA. This is described in Chapter 2, Section 2.4.1

and local priorities. The current assessment tools and the study tools can then complement each other to produce a comprehensive overview.

Reasons for choosing VAC as a foundation

It has been shown that VAC can offer information which is not reported by current practices. Thus, based on VAC, the researcher has developed a new assessment framework called VACS,²⁶⁸ adding one component—the Strategy Formulation Framework. Following are the reasons for choosing VAC as the foundation for VACS:

- VAC is based on human security theory which incorporates aspects not included in other assessment tools. Findings of this study reveal that lack of aid provision to some aspects of human security, e.g., environment, can eventually lead to the failure of recovery.
- VAC is able to capture community voice and community context through community perspectives. This has been shown to be vital for sustained recovery.
- VAC incorporates a stakeholder assessment. Stakeholder assessments are not integrated within current humanitarian assessment practices.

²⁶⁸ VACS Framework is described in detail in the following section

Components of the VACS framework

The VACS Framework is inspired by the fact that the literature and this case study showed that a comprehensive assessment tool for assessing and designing a humanitarian situation, especially in post-disaster periods, is not readily available. As discussed, the lack of a holistic assessment tool can hinder aid effectiveness to facilitate the recovery process and can reduce the vulnerability of affected populations.

This framework addresses the recommendations made in the above section. The VACS framework²⁶⁹ consists of four components.²⁷⁰

1. **Vulnerability Assessment**
2. **Stakeholder assessment (AGRI)**
3. **Community assessment**
4. **Strategy formulation**

²⁶⁹ VACS Framework is described in detail in the following section

²⁷⁰ Study tools used in this study have three components: Vulnerability Assessment, Stakeholder Assessment (AGRI), and Community Assessment.

Vulnerability assessment

In response to study recommendations that humanitarian assessment should be a quick²⁷¹ but comprehensive²⁷² process which can provide information at operational level, vulnerability assessment is designed for quick and easy analysis so that information can be analysed at the village level.²⁷³ The vulnerability assessment component²⁷⁴ of this study's tools was formulated to be analysed at the community level in terms of simple ranking.²⁷⁵ Inquiry should also involve identification of service providers or sources (who is providing services or employment for example) whenever relevant.

The aim of vulnerability assessment is to acquire an overall and comprehensive picture of needs and vulnerabilities of affected populations and communities. This study has shown that the framework of human security is an appropriate guide for a comprehensive assessment of needs and vulnerabilities. The vulnerability assessment, after all, is based on the seven aspects of human security.

²⁷¹ This study showed that current assessments are too slow to provide timely humanitarian information

²⁷² The study recommends to collect comprehensive information (relief and recovery)

²⁷³ Information collected at village level can be compiled to reflect overall picture at higher (central) level.

²⁷⁴ Examples are shown in each section. The study questions are attached in the Appendix 3

²⁷⁵ Scoring of secure/need attention/gaps

The sample inquiries (

Table 6-2 to Table 6-8) are presented under each aspect of Vulnerability Assessment; the inquiries presented are for indication only. The users are encouraged to modify inquiries to suit the context of diverse disasters or humanitarian situation. In addition, *example questions used in this case study data collection*²⁷⁶ are attached in the Appendix 3. These questions also are for indications only and users are encouraged to modify to suit local context.

Health security

Health security refers to an individual's freedom from various diseases and debilitating illnesses and his or her access to health care. (Bajpai, 2000, p. 15)

In this study, health security is translated as access to services to protect or prevent from diseases or unhealthy life styles. Access to health services is a fundamental human right (Backman et al., 2008; Braveman & Gruskin, 2003).

²⁷⁶ Questions used for semi-structured interviews with caretakers and those used for focus group discussions with caretakers and community leaders in the study villages

WHO identifies primary health care as essential health care which should be made universally accessible to all (WHO, 1978, 2008). The essential components of primary health care as declared in Alma Ata Declaration 1978 (section VII) includes promotive, preventive, curative, and rehabilitative health services, health education, provision of nutrition and water and sanitation, immunisation, maternal and child health, disease control, appropriate treatment, and provision of essential medicines (WHO, 1978). Since the definition of health by WHO includes mental health (WHO, 2003) and mental health problems are especially common in disasters, mental health services are regarded as intrinsic to health service delivery to affected populations and communities.

Access to health services become critical under humanitarian conditions (Kouadio, Aljunid, Kamigaki, Hammad, & Oshitani, 2012). Communicable diseases are common in post-disasters (Baqir et al., 2012; Depoortere & Brown, 2006; MSF, 1997; Waltzman & Fleegler, 2009). Thus, preventive as well as curative health services, accompanied by health education / health promotion services are a vital need in these circumstances.

WHO has highlighted that sexual and reproductive health services are important for all communities, including those affected by disasters (WHO, 2012). Disasters also frequently affect counties which have a high HIV prevalence rate. Thus, it is important to ensure that health services in humanitarian settings be inclusive of sexual and reproductive health, along with services for HIV affected people.

The following table (

Table 6-2) lists the above mentioned essential health services²⁷⁷ for a health security inquiry.²⁷⁸ The suggested inquiry may be modified to suit the context of diverse disasters or humanitarian situation.

Table 6-2: The VACS assessment for health security

1. Access to basic health care services
2. Access to preventive services including immunization and deworming
3. Access to nutritional services
4. Access to health education services
5. Access to reproductive health and HIV/STD services
6. Access to first aid, ambulance or rescue services
7. Access to curative, referral and rehabilitative services
8. Well known or perceived health threat
9. Access to clean water and sanitation facilities
10. Access to mental health and psychosocial support services

Source: Modified from VAC

Recommended analysis of health security

When a community has access to all the services, the health status of the community is regarded as secured. Lack of access to a certain health service (or a number of services) by a community (denoted as “insecurity”) or a portion of a community (denoted as

²⁷⁷ This inquiry is modified from Vulnerability Assessment used for data collection (study tools)

²⁷⁸ Study questions (Questions 1 to 10 in semi-structured interviews with caretakers) to reflect health security inquiries are attached in the Appendix

“attention”) should be noted to review how the gap can be filled during the response (see Strategy formulation framework on page 310).

Food security

Food security refers to an individual's access to food via his or her assets, employment, or income. (Bajpai, 2000, p. 15).

Food security is a link to malnutrition which is the most prevalent killer in disasters, especially for affected children (Campbell, 1991; Chappell & LaValle, 2011; Thorne-Lyman et al., 2010).

While it is expected that access to food is likely to be difficult in the immediate post disaster stages, food insecurity can be at risk during the recovery period or even beyond recovery in the normalised period in some communities. Food insecurity was prevalent in the communities in this study (3.5 years following the disaster).

Food security does not only refer to access to adequate food. The World Food Summit 1996 defined food security as a condition

when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life. (WHO, 2014b)

Indeed, food insecurity can be expressed in terms of limited access to balanced (nutritious) food or safe (clean) food. Access of these elements is a key factor in determining the severity of the disaster since deaths due to malnutrition tend to be particularly high in emergency contexts (Khanna & Gupta, 2005).

Table 6-3: The VACS assessment for food security

1. Access to adequate food during relief/crisis/lean period ²⁷⁹
2. Access to adequate food in rehabilitation/normal period
3. Access to healthy and balanced diet (normal food) during relief/crisis/lean period
4. Access to healthy and balanced diet (normal food) in rehabilitation/normal period
5. Resilience for food if income or support is not available (food stock)
6. Exclusive breast feeding for infants less than 6 months/complementary feeding practices
7. Presence of malnutrition or measurement service
8. Access to feeding programs and health care in the time of malnutrition
9. Ability to prepare traditional or culturally acceptable food
10. Perceived threat to or established food insecurity

Source: Modified from VAC

²⁷⁹ Some communities, especially the agricultural ones, have a lean period, usually just before harvest when stocks run out and there is limited opportunity for livelihood.

The above table (Table 6-3) summarizes the above mentioned state of food security (access to clean, safe, balanced, and sufficient food at all time)²⁸⁰ for food security inquiry.²⁸¹

Recommended analysis of food security

When a community has access to adequate, balanced, and culturally acceptable food, the community can be regarded as secured in food. This can be checked through the appropriate items in the checklist. Lack of access to one or more items by a community (denoted as “insecurity”) or any portion of a community (denoted as “attention”) needs immediate attention and calls for a review to determine how to resolve this gap during the response stage (see Strategy formulation framework on page 310).

Economic security

Economic security refers to an individual’s ability to access a basic income, either through gainful employment or from a social safety net. (Bajpai, 2000, p. 15).

²⁸⁰ This inquiry is modified from Vulnerability Assessment used for data collection (study tools)

²⁸¹ Study questions (Questions 11 to 20 in semi-structured interviews with caretakers) to reflect food security inquiries are attached in the Appendix

The livelihood of affected communities (income) is very likely to be affected by disasters and conflicts.²⁸² This study reveals that the employment opportunities in the affected communities were severely reduced by the fact that employers had been affected and businesses had been shut down. Damages and loss to capital, infrastructure, equipment, and the market also had a debilitating effect on employment.

Natural or man-made disasters, by definition, exceed the capacity of indigenous communities to cope with the situation. This means that external assistance is required for recovery, including economic recovery. Relevant and adequate assistance for economic recovery is correlated with community recovery. Thus, assessment processes need to include items which refer to the availability of support for economic recovery.

The vulnerability of properties and assets in relation to potential disasters is another item which needs to be assessed in order to measure economic security and the potential for economic recovery.

²⁸² This is described in Chapter 5, Section 5.2.3

The following table (Table 6-4) lists the items²⁸³ which should be included for assessing economic security.²⁸⁴

Table 6-4: The VACS assessment for economic security

1. Regular employment and adequate income (if not clear, % of income use for food)
2. Effect of a disaster to economy, and economic recovery
3. Access to support services for economic recovery or economic security
4. Vulnerability of family properties and assets (insurance system)
5. Economic resilience (business market vulnerability to shock and development aid)
6. A need for aid (presence of aid dependency)
7. Economy or income to fulfil basic needs (health, education, food etc.)
8. Selling of productive assets: a need for negative coping mechanism to fulfil basic needs
9. Perceived or known threat to economic security
10. Presence of Safety nets or social support/security

Source: Modified from VAC

Recommended analysis of economic security

The community can be regarded as economically secure when there is access to adequate income (livelihood opportunities) and low risk of disasters / conflicts. This would be reflected by positive responses to the appropriate items in the table. A negative response

²⁸³ Study questions (Questions 21 to 30 in the semi-structured interviews with caretakers) to reflect economic security inquiries are attached in the Appendix

²⁸⁴ The inquiry may be modified to suit context of some disasters or humanitarian situation

to one or more of the items by a community (denoted as “insecurity”) or a portion of a community (denoted as “attention”) would be noted and plans developed to fill the gap during the response stage (see Strategy formulation framework on page 310).

Environmental security

Environmental security refers to the integrity of land, air, and water, which make human habitation possible. (Bajpai, 2000, p. 15).

Environmental security and disasters have an interrelationship (Shaw, 2006b; Tran & Shaw, 2007). Degradation of environmental conditions such as soil, land, and river erosion are known to exacerbate disaster risks (Shaw, 2006a). Indeed, deforestation, pollution, and the destruction of mangroves have been identified as the most prominent issues known to have adverse impact on the human vulnerability (Tran & Shaw, 2007).

Meanwhile, the disaster itself will exacerbate damage to environments (Shaw, 2006a; Tran & Shaw, 2007). Disasters damage the environment directly and/or have an indirect impact such as loss and damage to assets and properties. This leaves affected populations in poverty traps which in turn can lead to harmful practices to the environment (Tran & Shaw, 2007). Soil erosion is a common outcome of disasters. This, and other destructive forces, often results in deforestation as a way to make up for destroyed farmlands.

The study's findings revealed the interaction between environment security and economic security. Beyond the destruction of assets and properties, the study also revealed that the environmental effects *after* Nargis included soil erosion and a marked decline in natural habitat of aquatic populations. These losses were identified as significant hindrances for recovery.

Thus, assessment processes need to address environmental security, including the identification of potential risks to the environment such as deforestation, soil erosion, and reduced biodiversity.²⁸⁵

A sustainable environmental care system is of crucial importance for environmental conservation. While it is common for external actors (e.g., NGOs) to be the initiators of such systems, researchers have shown that government and community ownership is of utmost importance for long-term sustainability (Shaw, 2006a).

²⁸⁵ Biodiversity, according to the Oxford Dictionary, refers to "the variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable." Risk to biodiversity thus represents environmental degradation of a habitat.

The following table (Table 6-5) summarises environmental security issues in the form of a checklist.²⁸⁶ As with all checklists presented here, this provides a guideline only, and would need to be modified to suit diverse contexts.

Table 6-5: The VACS assessment for environmental security

1. Risk of a serious natural hazard (history or geographical vulnerability)
2. Likelihood of natural hazards (presence, intensity, frequency)
3. Presence of biological hazards including vector borne diseases
4. Absence of deforestation
5. Presence of a system, organization or community movement for environmental protection
6. Absence of soil erosion
7. Absence of water/air pollutions
8. Access to productive environment for normal life
9. Danger to biodiversity
10. Presence of perceived or known threat to environmental security

Source: Modified from VAC

Recommended analysis of environmental security

A negative answer to one or more of the checklist by a community (denoted as “insecurity”) or a portion of a community (denoted as “attention”) should be noted to

²⁸⁶ This inquiry is modified from the Vulnerability Assessment used for data collection (study tools)

review how the gap can be filled during the response (see Strategy formulation framework on page 310).

Personal security

Personal security refers to an individual's freedom from crime and violence, especially women and children who are more vulnerable. (Bajpai, 2000, p. 15)

Since personal security—from crime and violence—is at increased risk in disaster and emergency situations, this issue needs to be included in assessment exercises. Hence, the suggested assessment includes items which refer to the level of security from domestic violence and road-traffic accidents to conflicts and assault as well as security from nature and man-made disasters.

While there could be ethical constraints in asking direct questions about domestic violence, the researcher was able to generate information about the capacity of individuals to survive and/or to protect themselves from physical violence.

The questions addressed respondents' knowledge and skills related to disaster risks, access to evacuation or safe havens, the presence of early warning and disaster management systems within the community, access to protection from weather and environment, and

the perceived likelihood of the hazards, either natural (e.g., cyclone, earthquake) or man-made (e.g., armed conflicts and violence).

The following table (Table 6-6) summarises the above mentioned personal security measures²⁸⁷ and suggested to be acquired under personal security inquiry. The inquiry²⁸⁸ may be modified to suit context of some disasters or humanitarian situation.

Table 6-6: The VACS assessment for personal security²⁸⁹

1. Ability to protect or to survive in case of disasters or crises (presence of any casualty in recent disasters)
2. Access to a safe haven or shelter before or during a crisis
3. Access to personal protections ²⁹⁰ (clothes, blankets, mosquito nets, privacy, etc.)
4. Access to early warning information
5. Knowledge on disaster preparedness and capacity to secure life in terms of crises
6. Capacity to mitigate or reduce effects of hazards on personal assets
7. Absence of physical or chemical or other hazards (factory, etc.)
8. Absence of armed conflicts / violence
9. Perceived or known threat to physical security (others)
10. Accident prevention at home, at work or in public (road traffic accident)

²⁸⁷ This inquiry is modified from the Vulnerability Assessment used for data collection (study tools)

²⁸⁸ Study questions (Questions 31 to 38 in semi-structured interviews with caretakers) to reflect personal security inquiries are attached in the Appendix

²⁸⁹ There is no questions inquired for 9 and 10 in this study

²⁹⁰ Did not inquire this as a separate question; commodity supplies for personal protection and hygiene (Question 6 in semi-structured interviews with caretakers) can provide required data

Source: Modified from VAC

A negative answer to one or more of the checklist by a community (denoted as “insecurity”) or a portion of a community (denoted as “attention”) should be noted to review how the gap can be filled during the response (see Strategy formulation framework on page 310).

Community security

Community security refers to cultural dignity and to inter-community peace within which an individual lives and grows. (Bajpai, 2000, p. 15)

Assessment of community security differs from other aspects of community assessment. In this case, community security refers to a feeling of belonging and inclusiveness. Assessing this component of human security would focus on indicators such as the extent of social network, the comfort level in accessing available services, the extent to which identified community leaders represented all groups, and the presence of social security scheme (or similar support). Table 6-7 shows inquiries²⁹¹ on personal security measures suggested to be acquired under community security inquiry.

²⁹¹ Study questions (Questions 11 to 20 in focus group discussions with caretakers) to reflect community security inquiries are attached in the Appendix

Table 6-7: The VACS assessment for community security

1. Presence of a social network or community network to support during a crisis
2. Capacity of community network to resist influence or hindrances from external forces
3. Community network (organization) with true representation of community and its interest (formation, selection)
4. Independence of or capacity of community network to fulfil community interest, sustainability
5. Influence on community network or organizations from outsiders (e.g., funding agencies)
6. Absence of conflicts or divisions in the community
7. Absence of discrimination or exclusion (to a minority group)
8. Capacity of community to maintain traditional or cultural identity
9. Knowledge, capacity, coping mechanism towards disasters (disaster risk reduction)
10. Known or perceived threat to community security

Source: Modified from VAC

Political security

*Political security refers to protection against human rights violations.
(Bajpai, 2000)*

According to Carpenter et al. (2014), the absence of the rule of law as well as denial of human rights can be regarded as the core threat to human security (Carpenter, Duygulu, Montgomery, & Rapp, 2014). Barnett and Ager (2007) said that mitigation of violent conflicts (personal security) includes

the provision of health care and education, the protection of human rights, establishment and maintenance of a strong and independent judiciary, accountable and transparent police services and armed forces, and the protection of democratic processes.(J. Barnett & Adger, 2007)

Assessing political security thus includes an investigation the extent to which citizens have activated their right to humanitarian assistance, right to citizenship, right to protection (especially trafficking and violence in case of disasters or conflicts), and right to education.

The following table (Table 6-8) summarises these political security issues.²⁹² It was derived from human right documents²⁹³ including the Convention on the Rights of the Child.²⁹⁴ The inquiries²⁹⁵ should be modified to suit the context of some disasters or humanitarian situation.

²⁹² This inquiry is modified from Vulnerability Assessment used for data collection (study tools)

²⁹³ The Universal Declaration of Human Rights; the International Covenant on Economic, Social and Cultural Rights; and the International Covenant on Civil and Political Rights and its two Optional Protocols.

²⁹⁴ The Convention on the Rights of the Child is a widely ratified international human rights treaty with 140 signatories and 194 parties; that is, these countries have ratified, accepted, or acceded to it as signatories (UN, 2014).

²⁹⁵ Study questions (Questions 21 to 30 in focus group discussions with caretakers) to reflect political security inquiries are attached in the Appendix.

Table 6-8: The VACS assessment for political security

1. Right to freedom of expression
2. Right to life with dignity (right to life and freedom from fear)
3. Right to humanitarian assistance
4. Right to protection and security (trafficking, violence etc.) – freedom from slavery
5. Right of the child to freedom of thought, conscience and religion
6. Right of the child to education
7. Right of the child to rest and leisure, to engage in play and recreational activities
8. Capacity to elect leaders /Right to social security
9. Absence of fear from unlawful actions
10. Type of government or political system ²⁹⁶

Source: Modified from VAC

Recommended analysis of political security

A negative answer to one or more of the checklists by a community (denoted as “insecure”) or a portion of a community (denoted as “attention”) should be noted to review how the gap can be filled during the response (see Strategy formulation framework on page 310).

Stakeholder assessment (AGRI)

The study recommendations include a stakeholder assessment for inclusive and effective humanitarian coordination. Stakeholder assessment is an easy but mostly overlooked

²⁹⁶ This inquiry is not asked in the questions since political system of a country or a region is usually obvious

assessment process. The purpose is to identify key stakeholders. This list will then be incorporated into the strategy formulation exercise (see Strategy formulation framework on page 310). The proposed stakeholder analysis is based on classic stakeholder analysis²⁹⁷ and on the *Comprehensive Security Framework* (Zwitter et al., In press). The stakeholder assessment exercise should be a continuous process and hence should be repeated at regular intervals. AGRI²⁹⁸ is the acronym for stakeholder assessment (agent, goals, resources, interactions), as described below.

Agent: The first exercise in stakeholder assessment is to list various stakeholders concerned in humanitarian assistance. The list should include but should not be limited to the UN, international NGOs, the government sector, relevant actors from the private sector, and community-based groups. It is anticipated that the active listing of key stakeholders will prevent the coordination mechanism from overlooking important stakeholders from humanitarian coordination and response mechanisms. It has been reported that important actors, especially national actors (the government, private sector, and local agencies) are often excluded from coordination (Harvey et al., 2010). This was reflected in this study whereby excluding private and government sectors from coordination efforts was shown

²⁹⁷ Stakeholder analysis is used in various disciplines, ranging from strategic management of business companies to national strategic planning process of health ministries. For sample guidelines, see (Schmeer, 1999). For an example of the process, see (Chapleo & Simms, 2010; Elgin & Weible, 2013).

²⁹⁸ AGRI is based on and modified from AGIRI analysis of comprehensive security framework (Zwitter et al., In press)

to have a negative impact at all levels. Thus, a recommendation from this study is to ensure that all stakeholders are ‘mapped’ and are invited to participate in humanitarian coordination mechanisms.

Goals: Government agencies as well as humanitarian actors have their own mandates, objectives, and goals. In current humanitarian practice, humanitarian actors are grouped in relevant clusters according to their objectives (IASC, 2006; OCHA, 2013a). The cluster system coordinates and facilitates information sharing. Hence, the cluster system’s 3W matrix is a valuable source for identifying goals, mandate, and activities of agencies.²⁹⁹ This exercise is aimed to ensure participation of identified agents in relevant sectors and coordination mechanism. Sometimes, the goal of a key stakeholder may have significant impact on the aid process and may need to give special attention to. For instance, the Myanmar government posed restrictions to the humanitarian aid in early cyclone days (Suwanvanichkij et al., 2010).

Resources: Another purpose of stakeholder analysis is to match the capacity of humanitarian actors with humanitarian needs. This study shows that some humanitarian agencies could not provide adequate aid to highly populated villages. Also, it was shown that a village received only two food items (rice and cooking oil) while other communities

²⁹⁹ Active data collection may be required if additional information is needed at both local and national levels

received three (rice, cooking oil, and chickpeas). These findings suggest that humanitarian agencies may be assigned to areas without a check on their capacity to deal with the prevailing situation. Thus, it is crucial to assess whether agencies have adequate resources to provide uniform and consistent³⁰⁰ humanitarian aid.³⁰¹

Interactions: The purpose of this assessment exercise is to enhance coordination which is fundamental to the effectiveness of a humanitarian response. As identified in the literature and reflected by study findings, humanitarian coordination and effectiveness of the response is highly dependent upon the interdependency and interaction among humanitarian actors.³⁰² For instance, this study shows that the government sector and private sectors were left out of coordination efforts, reportedly due to ineffective communication processes and/or real or perceived hostility. This reflects the literature which reports that communication and language barriers are often significant hindrances for humanitarian coordination (Balcik et al., 2010; Dolinskaya, Shi, Smilowitz, & Ross, 2011; Walle & Dugdale, 2012).

³⁰⁰ Different agencies working for different areas should provide uniform (standard) aid packages.

³⁰¹ Coordination mechanism should take necessary measures if an agency does not have adequate resource to provide standard aid package; consistency and predictability of humanitarian aid is an objective of coordination (see Chapter 2, Section 2.2.2).

³⁰² This is described in Section 4.4.

Community assessment

One of the most prevalent findings of this study is that the predefined activities and aid packages, for the most part, were unsuited to local needs. This had devastating effects on the affected villagers. It was recommended that participatory assessment could avoid this kind of mismatch.

Participatory assessment is not a new concept in the humanitarian sector. Participatory exercises and community development approaches have been proven to be effective and well documented with guidance notes widely available (Calba et al., 2014; Robert Chambers, 1994a; Chambers, 2012, 2013; Kindon, Pain, & Kesby, 2007; Loader & Amartya, 1999; Mackenzie, Tan, Hoverman, & Baldwin, 2012; Morters et al., 2014; A. Mukherjee, 2004; N. Mukherjee, 1997, 2002; Narayanasamy, 2009; Webber & Ison, 1995).

Despite the prevalence of participatory assessment guidelines, however, this study revealed that there were significant gaps in the participation of communities within the humanitarian aid programming.

This study recommends that the reporting of humanitarian needs need to be disaggregated according to the diversity of the humanitarian situation in different geographic areas.

Damage and losses are common aspects of humanitarian need assessments; thus, damage and losses from the *community perspective* should be included in a community assessment.

Community development and humanitarian literature, including the *Sphere Minimal Standards*, recommend that humanitarian response be based on *local capacity and local coping mechanisms* (Jabeen, Johnson, & Allen, 2010). This study also shows that humanitarian aid programs based on local systems were more likely to be effective. A recommendation from this study is to become aware of, incorporate, and/or build on existing systems and services. This calls for inquiry to include assessment of local capacity. Local capacity hereby refers to existing systems or services for human security components (column one of Table 6-9: Strategy formulation framework), with special emphasis on insecure components or components which need attention. The use of local capacity will enhance humanitarian aid to suit the local context and ensure that the aid is relevant to the context as well.

Because local priorities may be different from the priorities of the humanitarian agencies, this study recommends that *local priorities and their perspectives of assistance required from humanitarian agencies be taken into account*. For instance, this study showed that soil erosion was of major concern to affected population and had a long-term negative impact on their livelihood recovery. However, humanitarian agencies did not address this issue and did not provide assistance for this problem.

Thus, it is recommended that the following items be assessed in consultation with community informants in addition to standard community assessment guidelines widely available.

1. *Damage and losses* to a community of interest due to a disaster
2. How *local capacity* can respond to effects of disasters, especially in areas which were identified by vulnerability assessment as unsecured or need attention.
3. *Local priorities and assistance required from external agencies*, especially in areas which were identified by vulnerability assessment as unsecured or need attention.

Strategy formulation framework

The purpose of the strategy formulation exercise is to ultimately combine the information collected in the vulnerability assessment, stakeholder assessment, and community assessment and to formulate a framework matrix which will help humanitarian actors plan a strategic humanitarian response. The framework presented here had some conceptual influence from OCHA's human security externalities framework (OCHA, 2009).

Strategy formulation framework is based on and aimed at the following humanitarian principles and recommendations.

1. This study recommends for humanitarian responses to be strategic, comprehensive, and balanced—and to take into consideration longer term recovery—beyond the relief. The framework (Table 6-9) will identify both humanitarian relief and recovery needs, in terms of the seven aspects of human security (vulnerability assessment). Also, it will match needs against response community capacity (community assessment) and humanitarian agencies (stakeholder assessment).

2. Humanitarian aid should be based on local capacity. Local capacity (column 3 of Table 6-9) will help humanitarian actors to identify local capacity and to enable designing their programs based on local capacity.
3. This study recommends humanitarian aid prioritisations to identify and address critical needs of affected populations. Column 5 will highlight service gaps not covered by both humanitarian aid programs as well as by local capacity.

Table 6-9: Strategy formulation framework

1.Security Component	2. Needs and vulnerabilities ³⁰³	3. Community capacity and coping mechanisms ³⁰⁴	4. Possible interventions and agencies ³⁰⁵	5. Service gaps

³⁰³ Vulnerability assessment

³⁰⁴ Community assessment

³⁰⁵ Stakeholder assessment

How to fill the framework

The framework includes—in column one—the security components as per the checklist examples given above.

The information from the vulnerability assessment (secure/ needing attention/ insecure) will be placed in the second column.³⁰⁶ Thus, the column will indicate the level of security vs. vulnerabilities (secure/ needing attention/ insecure) for each community or geographic area. This will highlight the sectors which need attention (through local or external humanitarian assistance). Each table will be completed for a specific geographical area, thus showing the diverse needs and vulnerabilities at the operational level for different bands and communities. By comparing tables, priority geographical areas (the areas which show most prevailing needs and vulnerabilities) can be highlighted.

The situation analyses of each community assessment—that is, information on local services and existing services in response to needs and vulnerabilities—can be put into column three. This will show where external aid is needed to supplement the community resources and capacity.

³⁰⁶ An example of VAC analysis done on Village A-1 is attached in Appendix 4

Information collected during the stakeholder assessment exercise³⁰⁷ should be filled in at column four. Thus, the goals and activities of the actors can be matched to the needs and vulnerabilities listed in previous columns. This way, service gaps which cannot be covered by local capacity will be filled by external agencies.³⁰⁸

6.2. Recommendations for future research

While it is hoped that this study will generate future research on a number of issues around enhanced effectiveness of disaster risk reduction relief and recovery, I am suggesting four areas as priorities for investigation.

1. This study is unique in its application of human security concepts to the field of disasters and humanitarian assistance. However, findings of the study are not intended to be generalisable in any direct sense.³⁰⁹ Thus the first recommendation from the study is to investigate the efficacy of using a human security framework (VACS) for assessing and developing humanitarian aid programs in diverse contexts.

³⁰⁷ The stakeholder assessment tool should be used with the 3W tool

³⁰⁸ It is important to note that humanitarian aid has been deemed to be more effective and sustainable when external aid incorporates local capacity

³⁰⁹ This study is aimed at “fuzzy generalisation.” See the Methodology chapter for more details.

2. The study was conducted 3.5 years after Cyclone Nargis. The assessment framework (VACS) which was developed from the findings is recommended for use in a shorter post disaster timeframe. A second recommendation arising from this study is to investigate the applicability of VACS in a field event in order to further refine and develop the tool and to identify strategies for adapting it to diverse disaster contexts.
3. Six of the seven aspects of human security were included in this study. Investigation of the assessment process for ‘political security’ was beyond the parameters of this thesis and thus was not included in the analysis. It is recommended that future research should include analysis of the political security aspect of humanitarian recovery processes (if conditions allow).
4. This study did not include an investigation of the impact of disaster on social concerns such as domestic and family violence, criminal violence, road traffic accidents, or active conflicts. Investigating these areas—especially in urban contexts and under conditions of complex emergencies and conflict—is an important focus for future research.

6.3. Conclusion

The incidence of disasters is on the increase. Children are one of the most vulnerable populations during disaster. The importance of holistic care for children, as the means for reducing mortality and for mitigating short and long-term consequences of disasters, is highlighted in literature. However, reports indicate that holistic approaches to disaster

relief and recovery are not prominent. The review of the literature further identified gaps in humanitarian aid processes, particularly humanitarian assessment processes.

Under the theoretical framework of human security, this thesis offers solutions to bridge the knowledge gap in humanitarian aid process. The thesis was developed around a case study of a disaster which affected the Ayeyarwaddy Division of Myanmar, recovering from Cyclone Nargis which hit on May 2, 2008. The case study investigation was based on study tools developed under the conceptual guidance of a Human Security framework. I called the study tools VAC (Vulnerability, Stakeholder and Community Assessment tools).

This investigation identified factors that enhanced or hindered the effectiveness of the humanitarian aid response towards the population affected by Cyclone Nargis, and confirmed gaps in the humanitarian assessment process, especially in terms of comprehensiveness, timeliness, and provision of information at the operational level.

The findings showed several gaps. Most prominent was the fact that in the case of Cyclone Nargis, the humanitarian assessment process did *not* inform the response plan. It was revealed that humanitarian needs and vulnerabilities (reviewed according to the seven aspects of human security) were interrelated and that gaps in humanitarian aid to some aspects would impact failure of the recovery process in many or all other aspects.

The study findings culminated in the development of 16 recommendations for humanitarian aid response processes. The recommendations are listed below:

1. Humanitarian needs assessment processes need to be rapid enough to offer timely information.
2. Reporting of humanitarian needs to be disaggregated according to the diversity of the humanitarian situation in different geographic areas.
3. Humanitarian response plans need to be strategically based on appropriate needs assessments.
4. Needs assessment reports need to offer information at both central and operational levels (field level) in order to inform response activities.
5. Needs assessment documents need to include information about the population profile, the damage and losses, and the type of humanitarian need for the specific area.
6. All stakeholders should be mapped, analysed, and included in the humanitarian coordination mechanism.
7. Coordination tools need to be user-friendly and informative.
8. There is a need for a coordination mechanism at the community level.
9. Needs assessment has to include consultation with the affected community and to be participatory in nature.
10. Humanitarian actors need to be aware of possible changes in community capacity, especially in areas severely affected by a disaster.
11. Humanitarian agencies should be aware of elite capture and take appropriate measures to prevent this.

12. Humanitarian actors should be aware of existing systems and services and make every effort to make use of and build on existing systems and services.
13. A timely response based on humanitarian needs assessment is needed. Prioritisations for aid need to identify and address critical needs of affected populations and to mitigate short and long-term consequences.
14. Humanitarian responses need to be strategic, comprehensive, and balanced.
15. An early introduction of recovery aid (such as providing an economic recovery package while relief aid is still in distribution) enhances long-term recovery of communities.
16. Economic recovery efforts should give attention to, and strengthen, traditional employment opportunities.

I have proposed a humanitarian needs assessment framework, namely the VACS Framework, which offers a means to address key recommendations.

Contribution of this thesis

This thesis contributes to the knowledge base on humanitarian response in three ways.

1. It presents the voices of people directly affected by a disaster and post disaster processes. The findings of an intensive investigation on the post disaster recovery process in four highly affected villages following Cyclone Nargis are presented as well. This investigation is unique in that it has incorporated the voices of villagers and community leaders who were directly affected by the disaster.

2. It provides recommendations for humanitarian aid processes from the perspective of the affected population.
3. It offers the VACS Framework as a way to address key recommendations which resulted from the study and as a general guide for enhancing the sustained and effective outcomes of humanitarian aid. The recommendations from the thesis incorporating the VACS Framework (as a complement to other assessment tools currently in use) will benefit humanitarian actors and scholars in investigating humanitarian needs and in coordinating and designing a strategic humanitarian response to meet needs and vulnerabilities of affected populations. The final outcome of improved humanitarian assessment and enhanced humanitarian response is improved health and wellbeing of children and families who are affected by disasters.

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Appendix 1 – Table showing number and type of agencies in study villages

Village	Humanitarian agency ³¹⁰	Action
Village A-1	HA 1/1 HA 1/2 HA 1/3 HA 1/4 HA 1/5 HA 1/6 HA 1/7 HA 1/8	Food and non-food (once) Food and non-food, CFW[2], nutrition Eco recovery, farm recovery WASH and non-food WASH, Eco recovery, t shelter[3] Farm recovery non-food items Child protection
Village A-0	HA 2/1 HA 2/2 HA 2/3 HA 2/4 HA 2/5 HA 2/6 Private business	Food, nutrition Economic recovery Water and sanitation Once, food and non-food items Environment Disaster management Housing, health
Village B-1	HA 3/1 HA 3/2	Nutrition, health Food, water and sanitation, economic recovery
Village B-0	HA 4/1 HA 4/2 HA 4/3 HA 4/4 HA 4/5 HA 4/6 HA 4/7 HA 4/8 HA 4/9 HA 4/10 HA 4/11	Food, non-food, Ec recovery, housing Housing Non-food items Economic recovery Non-food items Food Farm recovery Microfinance Child protection Economic and farm recovery Cash grant

³¹⁰ Names of humanitarian agencies are given codes for confidentiality

Appendix 2 - List of document reviewed

Document name	Number	Date	Agency
Myanmar: Cyclone Nargis OCHA Situation Report	No. 1	4-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 2	5-May-08	
Myanmar: Cyclone Nargis OCHA Situation Report	No. 3	6-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 4	7-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 5	8-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 6	9-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 7	10-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 8	12-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 9	13-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 10	14-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 11	15-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 12	16-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 13	17-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 14	18-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 15	19-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 16	20-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 17	21-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 18	22-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 19	23-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 20	24-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 21	26-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 22	27-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 23	28-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 24	29-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 25	30-May-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 26	2-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 27	4-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 28	6-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 29	9-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 30	11-Jun-08	OCHA

Document name	Number	Date	Agency
Myanmar: Cyclone Nargis OCHA Situation Report	No. 31	13-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 32	16-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 33	19-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 34	23-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 35	26-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 36	30-Jun-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 37	3-Jul-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 38	7-Jul-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 39	14-Jul-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 40	17-Jul-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 41	21-Jul-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 42	24-Jul-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 43	31-Jul-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 44	7-Aug-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 45	14-Aug-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 46	21-Aug-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 47	28-Aug-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 48	12-Sep-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 49	26-Sep-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 50	9-Oct-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 51	24-Oct-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 52	14-Nov-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 53	28-Nov-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report	No. 54	12-Dec-08	OCHA
Myanmar: Cyclone Nargis OCHA Situation Report		6-May-08	WHO
Burma: Cyclone Fact Sheet	#1 (FY) 2008	5-May-08	USAID
Myanmar: Cyclone Nargis Emergency Appeal	MDRMM002	6-May-08	IFRC
Flash Appeal		9-May-08	OCHA
Revised Flash Appeal		10-Jul-08	OCHA
PONJA		21-Jul-08	TCG
Periodic Review	I	Dec-08	TCG
Periodic Review	II	Jul-09	TCG
Periodic Review	III	Jan-10	TCG
Periodic Review	IV	Jul-10	TCG
Social Impact Monitoring Report	I	Jan-09	TCG
Social Impact Monitoring Report	II	Dec-09	TCG
Social Impact Monitoring Report	III	Jul-10	TCG

Appendix 3 – Study questions

Questions for semi-structured interviews with caretakers

Whenever relevant, please ask for situation before the cyclone, after the cyclone and the current situation.

1. Where do you go when you feel unwell? (If somebody answers that they never feel unwell, ask 'Can you or your children access health care services if you feel unwell?') Please explain.
.....
2. Do you have a safe water supply and sanitation system (perceived)?
.....
3. Do your children get preventive health services (ask about immunization and deworming)?
.....
4. Do you have any program in the village for malnourished children?
.....
5. Have you or your children received health education messages or attended health education sessions?
.....
6. Can you access adequate commodity supplies for personal hygiene and protection (example: soap, mosquito nets)?
.....
7. In case of emergencies, can you get access to first aid and ambulance services?
.....

8. If you are referred to a hospital for health care, is there any support for the costs? Has the cost prevented you – or your family members - from going to hospital?
.....
9. Do you have health insurance or free medical care entitlement?
.....
10. Did your child show any abnormal behavior after the cyclone? Can you access mental health services?
.....
11. Did you experience food shortages in the post-cyclone period or other lean periods?
.....
12. Can you access adequate food?
.....
13. Please tell me about your daily food intake (meat, vegetables, carbohydrates).
(Interviewers, you can ask about today's meal to discern this information)
.....
14. Do you know how to access and maintain clean and healthy food? Do you think that the food you consume is always clean and healthy?
.....
15. How old is your child? At what aged did you start supplementary feeding (to breast feeding)?
.....
16. Did your child ever identity as malnourished? (Has your child had nutritional measurements?
.....
17. Have you ever received support for food (or cash-for-food)? If yes, for how long? Was the support adequate?
.....
18. Are there any feeding programs for children? Any other nutritional program? (for example vitamin supplements)

.....
19. Have you always been able to cook your traditional meals/ culturally appropriate meals?
When relying on distributed food, was this food culturally appropriate?
.....

20. Is there any organization or system which monitors accessibility to food? How would you
know if there was a food shortage in your community?
.....

21. What do you do for living (for family)? Is your daily income adequate?
.....

22. Did the cyclone affect your business or employment? Are you back to the normal situation
now?
.....

23. What assistance did you need for livelihood recovery (if any)? Did you get it?
.....

24. Did the cyclone affect your house and assets? How is the current situation? Is there any
insurance or similar system in the village to reduce the impact of a disaster on your assets?
.....

25. How is your livelihood after the cyclone? Is this different from before the cyclone?
.....

26. Do you think humanitarian aid is still needed for you? Are you getting it?
.....

27. Do your children go to school?
.....

28. Have you ever needed to sell or pawn your critical assets (the means for your business)
such as boat, farm animals, etc because of a hardship?
.....

29. Is there any alternative employment opportunity for you (and your family members) if
current employment ceased?

.....
30. Do you have friends, relatives and neighbours whom you can rely on (in case of a crisis)?

.....
31. Did you lose any neighbour or relative (from this village) during the cyclone?

.....
32. Where would you go if a cyclone was heading to your area right now? (Do you know of any evacuation place?)

.....
33. Tell me about (re building) your house? Do you think it is safe and private?

.....
34. Did you know that deadly cyclone Nargis was heading to your area? In the future, will you know if a similar cyclone is coming towards you?

.....
35. Do you know how to prepare for a cyclone?

.....
36. How will you protect your home, business and assets from a cyclone?

.....
37. In addition to cyclones, is there any other disaster which places this village at risk?

.....
38. Have you even known armed conflict and violence in this area?

Questions for focus group discussion with caretakers

1. Did this village experience disasters? Please explain effects or impacts.
.....
2. Please elaborate on frequency and severity of disasters.
.....
3. Are there any animals or vectors that can cause diseases? (example: snakes, rats, mosquitos)
.....
4. Is there any risk of chemical toxins or pollution?
.....
5. Has your environment changed in the past one or two decades? (example: deforestation)
What do you see as future trends?
.....
6. Is there any organization or system which takes responsibility for environmental conservation?
.....
7. Have there been any changes to soil fertility?
.....
8. Is there any water pollution?
.....
9. Is your environment supportive of socio-economic development? (Interviewer may need to explain further if the question is not easily understood)
.....
10. Is there any risk of extinction of animals, flora and fauna?
.....
11. Do villagers tend to help each other in disasters? How?
.....
12. Do villagers tend to help each other during crises or lean periods? How?
.....
13. Do you have CBO or welfare groups? How do they form? How do you choose village leaders and CBO members?
.....

14. Are there organizations which help CBOs? Do CBO have capacity to continue their activities when supports stop?
.....
15. Do external agencies influence CBOs? (Do they generate policies or rules> Do they determine what CBOs can do and what they cannot do?)
.....
16. Is there any conflict or violence r between groups or individuals in this village?
.....
17. Is there any discrimination towards one or more groups in this village? (example: based on ethnicity or religion)
.....
18. Are there any hindrances that have caused delays or stopped functions of CBOs?
.....
19. Has there been any situation which persuades (or) forces individuals to hide or to change their religious beliefs, culture or ethnic backgrounds?
.....
20. Do CBO possess capacity to reduce future disaster risks?
.....
21. Do you (as individuals) express your needs and ideas to your leaders or to external actors (humanitarian agencies)?
.....
22. Would you classify your life as being safe and dignified? (Interviewers may want to clarify this by asking 'has anyone (of the group) ever felt to be at risk of physical aggression or felt that their life was endangered?')
.....
23. Are you aware of any individuals or groups who were in obvious need for humanitarian assistance but did not access humanitarian aid?
.....
24. Is there any organization which targets the protection of children from violence, abuse and trafficking?
.....
25. Do children in this village have freedom of choice to opt for their religion? (Is there any organization which persuades children to change religion?)
.....
26. Do all eligible children go to school?

.....
27. Are there playgrounds or child friendly places? Do children play there?

.....
28. Is there any social security system for poor and/or unemployed?

.....
29. Have you ever been affected by an unlawful action (by some individual or groups) in your village?

Questions for focus group discussion with community leaders

1. Tell me about your village (name, village tract, township, population, households, economy, community leaders, school, health centers, NGOs, effect of cyclone to the village)
2. Village map
3. Which organizations undertook need assessments of your village after Nargis? How was the assessment done?
4. Please list relief and welfare organizations in your village.
Are there organizations which with focuses on children?
5. Please tell me the goal and activities of each organization.
6. Please score each organisation 1-5 for their capacity and humanitarian work. Please explain why you gave these scores. Which factors do you believe enhanced their humanitarian outcomes?
7. Do they coordinate with each other or with the community? Please give examples. If not, explain possible reasons for the lack of coordination.
8. Please explain how their humanitarian work helped the village. Did(or do) the humanitarian activities suit local context and customs? Please elaborate.
9. Can you identify any important gap in humanitarian aid? Did you feel that the humanitarian aid activities met your specific needs?
10. How can these humanitarian agencies improve their effectiveness in the event of a future disaster? (For example, in terms of needs assessment, identifying targets for aid and/or coverage)

Appendix 4 - An example of VAC analysis done on Village A-1

Security component	Needs and vulnerability (A-1)	Community capacity	Intervention by humanitarian agencies	Service gap
Health Security				
Access to basic health care services	OK	Basic health staff	Material support	
Access to preventive services (immunization)	OK	Basic health staff		
Access to curative services	OK	Basic health staff	Referral support	
Access to clean water and sanitation	OK		Material support	
Access to mental health and psychosocial support services	Gap (Communitywide)	None	None	
Food security				
Access to adequate food during relief period	OK	Private in relief phase	?	Temporary shortage
Access to adequate food in recovery period	OK		Food rations	
Access to adequate food at the time of study	Attention (Some)	Individual and relatives	NA	Some shortage
Access to nutritional services for malnourished children	OK	Basic health staff and CBOs	Material/ Financial	
Economic security				
Regular employment and adequate income	Attention (Some)	Individual, private business	cash for work	Some unemployed
Access to support services for economic recovery	Attention (Some)	No traditional system	Commodities, cash grants	Inadequacy reported
Physical security (shelter and personal)				
Access to a safe haven or shelter before or during a crisis	Gap (Communitywide)	Unknown strength or weak	NA	No access
Environmental security				
Presence of biological hazards including vector borne diseases	Gap (Communitywide)	NA	NA	
Absence of deforestation	Gap	Government	NA	

	(Communitywide)			
Absence of soil erosion	Gap (Communitywide)	NA	NA	

Legend

	Action inefficient
	Attention - affecting some
	Affecting communitywide

Appendix 5 - Final Approval: Ethics application reference-5201100679 (D)

Dear Professor Hayden

Re: "Post emergency recovery for young children: Assessing the needs and response" (Ethics Ref: 5201100679)

Thank you for your recent correspondence. Your response has addressed the issues raised by the Human Research Ethics Committee and you may now commence your research. This approval is subject to the below mentioned condition:

1. Please forward the names and contact details of the data collectors to the Ethics Secretariat when they are made available.

The following personnel are authorised to conduct this research:

Professor Jacqueline Deirdre Hayden- Chief Investigator/Supervisor
Dr Katey De Gioia & Mr Sithu Wai- Co-Investigators

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports. Your first progress report is due on 31 October 2012.

If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been

discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

<http://www.mq.edu.au/policy/>

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of

this email as soon as possible. Internal and External funding agencies will not be informed that you have final approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of Final Approval to an external organisation as evidence that you have Final Approval, please do not hesitate to contact the Ethics Secretariat at the address below.

Please retain a copy of this email as this is your official notification of final ethics approval.

Yours sincerely

Dr Karolyn White
Director of Research Ethics
Chair, Human Research Ethics Committee

Appendix 6 - Community based approaches to ECD: A matter of degree³¹¹

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Introduction

Despite a significant increase in the number of Early Childhood Development (ECD) National Policies, the plans and delivery systems which operationalize ECD are not well developed in many majority world nations. There is a sound reason for this; national operational systems need to be supported by infrastructure such as a legalized system for ensuring standards of delivery, qualified staff, monitoring mechanisms, appropriate settings and other costly supports. Most governments in under-resourced areas have difficulties prioritizing these expenditures.

In recent decades non government organizations (NGOs) have been filling the gaps in provision and access to ECD. NGO is an umbrella term for non government organizations which tends to encompass a myriad of terms including the independent sector, third sector, volunteer sector, civic society, grassroots organizations, private voluntary organizations, not- for profit sector, transnational social movement

³¹¹ This is a book chapter published in In P. R. Britto, P. L. Engle & C. M. Super (Eds.), *Handbook of Early Childhood Development Research and Its Impact on Global Policy* (pp. 275-290). Oxford: Oxford University Press (Hayden & Wai, 2013)

organizations, grassroots social change organizations, and non state actors (Hoffman & Zhao, 2008; Yanacopulos, 2008).

Programs which operate under the auspices of NGOs, such as philanthropic or religious organizations rather than through a government department, are referred to as *community based programs* (CBPs). Direct delivery of CBPs is often provided through *community based organizations* (CBOs). Community is usually defined as a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings (MacQueen et al., 2001). However there are no clearly defined parameters for CBPs and CBOs. The literature suggests that that programs in which providers and decision makers are from the same cultural, ethnic, geographical and/or socio economic population as the users of the program, are likely to fall under the rubric of community based. In some cases community based programs are affiliated with governments through a designated role. Local committees and forums for women and children are examples of this structure. These groups define local goals and may oversee local programs, with some devolved government funds and concomitant reporting responsibilities. However, despite the government ties, these groups generally have relative autonomy over program development and delivery and thus could be classified under the rubric of community based programs.

Many benefits are associated with community based programs. Over and beyond augmenting provision and access, CBPs and CBOs are associated with increased

participation by the target group in the development, management and delivery of services. Participation is related to empowerment and enhanced efficacy of individuals and communities - and concomitantly to mobilization, and influence on public and social policy making (Craig, 2002). However, some of the attributed benefits of CBPs could be negated through the mechanisms by which CBOs are developed and operate (Toomey, 2009).

This chapter discusses the issues related to community based services and describes the interconnection between CBPs and effective Early Childhood (EC) service delivery.

The rise of CBOs: From *rescuing* to community participation

In past decades the concepts of aid and development were associated with the notion of rescuing. The flow of assistance was seen to move in one direction - from richer nations to poorer nations. Implicit within assistance packages was the notion that the *rescuers* identified priorities and promoted the programs which they deemed to be in the best interest of the target populations and communities. Under-resourced populations and contexts were seen to be monolithic and needy in similar ways. Thus, similar tactics could be applied universally (Toomey, 2009).

With all good intentions, rescuers in the form of aid agencies tended to reflect a hierarchical concept of development - whereby the helpers inflict their own ideas and approaches and devolve aid packages, without much attention to context specifications (Daskon & Binns, 2010). Some analysts argue that aid, when distributed without an understanding of the

experiences of the target population and context, facilitates inequities. Issues such as an urban-rural divide, the disempowerment of women, the exclusion of indigenous groups from service provision, and the tendency to cast segments of the population into narrow roles - such as victims and perpetrators - have been seen to be caused by early aid and development processes (Briggs, 2005). Further, the importation of goods, services, and technical 'expertise' reduced the efficacy of communities and weakened local economies (Buxton, 2009; Yanacopulos, 2008).

Toomey provides an example of food security assistance to demonstrate some of the consequences of a *rescuing* approach to development:

By 'rescuing' a hungry nation with imported food aid (where the threat of famine is not extreme), the Rescuer can decrease demand for food produced in the region with detrimental impacts to local and national farmers. Where demand decreases, local supply will follow, as returns on production become too low to justify farmers' investment in terms of time or resources. Thus, when the next famine occurs, there will be even fewer local supplies to abate the crisis, and starving people will be in even greater need of a *Rescuer*. (Toomey, 2007, p. 497)

A similar story can be told for ECD or other services. Providing 'foreign' goods (such as foreign materials, resources, and philosophical approaches to child care and education) can do much to undermine local confidence, capacity and initiative (see Pence, this volume).

By mid 1970s, it was becoming apparent that well meaning processes and activities developed by foreign governments, international non government organizations and other *rescuers* were failing to produce the desired effects of sustainability and efficacy. Indeed

it was feared that aid interventions might actually be working towards an opposing end, the *creation of dependency*. Analysts and donors recognized that even the best designed intervention could not succeed in a cultural vacuum and that the target populations' ways of knowing and doing (including indigenous knowledge and practice) need to be incorporated if there is any chance for sustainable, meaningful community development (Daskon & Binns, 2010; Easterly, 2007; Kreuter, Lezin, & Young, 2000).

NGOs embrace community based programs

In recent years, NGOs have changed their strategy from top-down assistance programs to CBPs which encourage participation in all aspects of development and delivery (Mansuri & Rao, 2004). NGOs are major players in introducing CBPs to developing countries and are credited with the importation of new ideas, techniques and theories (Yanacopulos, 2008).

Participation is the hallmark of community based programs. Participation implies that the community (through representatives) has been involved in defining its own problems and needs. Indeed the process of community problem identification is seen to be an outcome in itself. It is widely held that community agents who take part in exercises aimed at awareness raising and local problem identification simultaneously tend to develop enhanced capacity for *solving* those problems (Botchway, 2001; Kreuter et al., 2000).

However, problem awareness and solution identification can be complex. Communities may have insufficient awareness about potentialities and thus be unable to envision that a

program gap exists. This is especially likely for programs which are unfamiliar or new, such as ECD interventions. Even when a program gap is identified, communities may not be sufficiently aware of options for filling the gap and/or may not be mobilized to initiate program development(s). For this reason, NGOs who are committed to community based activity will step in to form committees, self-help groups or local CBOs. These CBOs then become the vehicle for community representation and participation. Indeed, it is common practice for NGOs to take it upon themselves to organize groups which become the CBO with whom they partner (Dongier et al., 2001).

Community based ECD programs

Officially, community based ECD includes a range of holistic programs which respond to children's multiple developmental needs, build on and enhance traditional rearing practices, and empower community duty bearers such as parents, health workers and teachers in ways that promote their ownership of ECD decisions, processes and resources. Due to the holistic nature of ECD programs, they often overlap with health, nutrition, child rights, child protection and similar services. Common community based ECD programs address the needs of children from birth to school entry age and target caretakers' support and awareness for enhancing the health, well-being and development of young children, along with direct services to young children. Because community based programs do not rely on government authorization, the range of services do not need to adhere to the limitations of ministerial and bureaucratic divisions such as health, education and social welfare. Thus, community based ECD programs are seen to be more likely to respond to direction from local needs. While specifics of community based ECD programs vary

between contexts, the goals and delivery options have similar characteristics. Some of the most common ECD community based programs include caregiver education, support and awareness programs, home visiting, playgroups, child minding, preschools and child to child programs. These are described below.

Caregiver education, support and awareness programs

These programs provide an avenue through which information about children's development, including practical (context specific) suggestions for caretakers on how to encourage growth and learning are given. Programs are generally offered by trainers to small groups of caretakers and/or through the mass media such as newspapers, magazines, radio and television broadcasts. Health and hygiene messages are often included. Programs are frequently offered through health services or other community settings such as schools.

Home visiting programs

These incorporate regularly scheduled visits by a support person to the home of one or a gathering of caretakers. The home visits follow a program and address specific goals, but also build in time for dealing with issues raised by the caretakers themselves.

Playgroups

This program refers to informal gatherings for caretakers and children, often developed and run by a local organizer who has received some training on child development and other relevant topics. Usually participants play active roles in determining the operations of the play group and in meeting identified needs such as providing a communal meal for

attending children. Trained facilitators and/or health personnel visit the playgroups on a regular basis and may provide feeding supplements and/or other forms of support and advice.

Child minding programs

Child minding programs which are formalized involve an overarching agent or agency who provides training, monitoring and support to caretakers who care for small groups of village children in their homes.

Preschools

Preschools generally refer to formal programs for children over the age of three. Officially, preschools have a curriculum designed to enhance the readiness of children to transition into school settings. Thus, children in preschools are exposed to pre-literacy and pre-numeracy experiences, are taught communication and other skills for working in groups, and have opportunities to engage with school materials such as paper, pencils, books and other items. Preschool programs are usually held in a setting that can house equipment such as tables and chairs, toys, books and outside play areas.

Child to child programs

These programs provide training and support to older children who undertake action research projects related to local community issues. The older children engage in information dissemination and similar activities to enhance the health and well-being of younger children and peers within their communities.

Assessing effectiveness of CBPs

Effectiveness studies are more prevalent in the area of public health, whereby community based interventions are compared to a centralized clinical approach. The CBPs are found to be significantly more effective on several levels. Mbonye et al. for example, showed that community based intermittent preventive treatment (IPT) of malaria in pregnancy was more effective and efficient in reducing preventable diseases than similar clinical based programs. Besides significantly higher participation rates, the study also claimed that the community approach induced peer influence, which made the program more acceptable to users and thus more sustainable (Mbonye, Bygbjerg, & Magnussen, 2008). Other comparative studies have shown the superiority of community based IPTs over outreach services in terms of cure rate, reduced mortality and general efficiency (Schiffman, Darmstadt, Agarwal, & Baqui, 2010; Zvavamwe & Ehlers, 2009).

However, beyond comparisons with clinical delivery services, there are few studies which have evaluated the outcome of community based interventions versus non community based interventions in the early childhood sector. Schiffman et al. suggest that community based interventions face an evaluation barrier because CBPs are linked with community development outcomes, but the latter emanate over a long time period whereas programs are accountable and need to show results within shorter time frames (Schiffman, Darmstadt, Agarwal, & Baqui, 2010). Similarly, the benefit of ECD programs for children, families and communities can take years, decades or generations to become apparent.

Despite a lack of comparative evidence about CBPs in the EC sector, there are well documented studies from which implications about the strengths and weaknesses of community based programs can be drawn. These implications are described below.

Community based program approaches: the strengths

It is generally acknowledged that interventions and programs, which are initiated through community leadership, have higher success rates than government or other top down programs (Botchway, 2001; Simpson, 2008). Compared to governmental bodies, community based organizations are less bound by bureaucratic constraints and thus can be more fluid, flexible and responsive to local changing issues. Institutionally, CBOs are more open to experimentation without being bound by national political decision making (Yanacopulos, 2008). CBOs are deemed to be closer to grassroots and thus more likely to incorporate local values and traditions into service provision than are centralized systems (Datta, 2007; Reimann, 2005).

Perhaps the most commonly reported benefit of CBPs and CBOs is the implicit participation of the program recipients. There are multiple positive outcomes associated with meaningful participation and control of programs by the population and communities they serve.

While the situation and context of health services differs from ECD goals and program features, the overarching conclusions from health research are that the participatory nature of community approaches enhances satisfaction, confidence, self control, and encourages

personnel to commit themselves to high production goals (Schmid, Dolev, & Szabo-Lael, 2010).

Studies report that participation by the target population serves to increase feelings of moral attachment and ownership, which are associated with program sustainability (Labonne & Chase, 2009); Gruen et al., 2008; (Amazigo et al., 2007; Gruen et al., 2008)). Other benefits of participation include the likelihood of enhanced inclusion, effectiveness and efficiency, support for volunteerism which underlies community cohesion and social capital, strengthened governance, and increased sustainability (Dongier et al., 2001). Further, participatory mechanisms of community based programs are seen to build community capacity and result in improved targeting (Fritzen, 2007), performance, accountability and transparent monitoring mechanisms (Barrs, 2005; Fritzen, 2007).

Another benefit of CBPs is the widespread use of volunteers, not commonly found in government run programs. Volunteers tend to come from the same population as the service users. They generally have good networking capacities and an understanding of, and sensitivity to, the community. Moreover, volunteers are not likely to move on and thus contribute continuity to programs. For these reasons volunteers have been shown to make significant contributions to the effectiveness, efficiency and sustainability of CBPs. Perhaps most importantly, volunteers enhance the cost effectiveness of CBPs. Albeit in some cases, cost savings are related to low levels of training and other quality issues (Rao & Pearson, 2007).

Community based programs: the weaknesses

A number of analysts are concerned that beyond the positive goals of community based approaches, programs can be mismanaged in ways that actually cause harm. Some attributes of CBPs which seem beneficial could, in fact, weaken community capacity and functioning and/or be damaging in other ways. These concerns are outlined below.

Participation may not be representative

Participation is a right and a fundamental component of service delivery. Many scholars associate participation with empowerment as follows:

Participation is about power and particularly about an increase in the power of the disadvantaged.

It requires a capacity to identify those who are weaker and disenfranchised within a community and to empower them through shared knowledge and experience (Rivera & Thomas-Slayter, 2009)

However, participation, through representation, is fraught with difficulties, especially when that participation is solicited by an external agent or agency. Participation of locals in development and decision making could be tokenistic, could unwittingly enhance exclusion of some groups, could undermine local systems and/or reinforce neglect by the state and could reduce the efficacy of communities who become reliant on external resource allocations. For example, while volunteerism has been cited as a benefit associated with community based service delivery, in reality the use of community volunteers may bias participation towards a relatively elite population. Volunteer committees who advise and/or direct CBOs are often made up of local participants who have time for this endeavor, while the most burdened citizens are unlikely to spare potential

wage earnings to engage in these and related activities. Meanwhile, it is not uncommon for different NGOs to be working in the same region or project area - and seeking committee members from the same pool. In these cases a few key people from the community end up sitting on different committees and informing/ participating in projects as varied as health, water and sanitation, food security, education and children's services. This tendency to incorporate one segment of the population is known as *elite capture*. It refers to a situation whereby elites manipulate the decision-making arena and agenda and obtain most of the benefits of community based services (Fritzen, 2007; Platteau, 2004; Wong, 2010).

In some cases, diverse representation does occur but selected representatives are outnumbered by more highly educated or articulate members (frequently speaking in a language which is not well known). In these cases there is a risk that voices and ideas from minority representation will not be heard - especially when the ideas differ from the majority of the participants.

In other cases, while forming a representative group and/or a CBO, NGOs may unwittingly disregard existing power relationships or may redistribute power in ways which privilege some groups - and thus undermine social and cultural systems. The significance of indigenous, traditional culture can be neglected or negated by this type of development strategy (Daskon & Binns, 2010).

Briggs reports that even when there are explicit attempts to incorporate indigenous knowledge systems, this is full of risks because of

problems emanating from a focus on the (arte)factual; binary tensions between western science and indigenous knowledge systems; the problem of differentiation and power relations; the romanticisation of indigenous knowledge; and the all too frequent decontextualisation of indigenous knowledge.(Briggs, 2005).

Conversely, some programs misunderstand the social processes of participation and consequently label some groups as socially excluded when they are not. Shortall relates the experience of farm families who opted not to participate in rural development programmes: they do not see the point and see them as competing with the farming industry. However, this does not mean they are excluded (Shortall, 2008). Similarly, Hayden et al. found that Aboriginal families had several reasons for not participating in accessible early childhood programs. The non participation was more a feature of their empowerment than their exclusion. Despite some pressure, they chose not to take part in programs which were seen as foreign to their notions of child care and rearing (Hayden, De Gioia, & Dundas, 2005).

Being aware of potential pitfalls, INGOs commonly employ participatory techniques, such as participatory action research projects and/or social mapping. Participatory assessment methods (also known as participatory rural appraisal, participatory learning and action, participatory community assessment) are designed to help communities identify their own problems and to facilitate awareness and active involvement during the investigative process. This is seen to enhance the likelihood of participation or community ownership of the program (Kasaija & Nsabagasani, 2007; Pepall, Earnest, & James, 2007). However,

proper conduct of participatory assessments can be challenged by financial and time limitations, limitations in project scope, and/or lack of experience and technical knowledge of the community (Botchway, 2001; Mansuri & Rao, 2004) Indeed, some participatory assessments run by external facilitators who are unfamiliar with local customs and key players, have been accused of becoming short-cut legitimization exercises which in fact reinforce existing relations of power/knowledge through ‘*facipulation*’ exercises (Cornwall & Pratt, 2010).

Thus, participation of communities within CBOs or other structures which appear to be community based, could be illusionary at best, destructive at worst.

Limited ability to respond to community realities

Although the notion of community based implies enhanced sensitivity to contextual issues and realities, NGOs, INGOs and other agents who work through local CBOs can be bound by strict protocols, time frames, budget forecasts and other factors, which limit their ability to respond to community realities and adapt to changing contexts. NGOs are under pressure to develop project plans with set targets and objectives, including identifying project areas long before they start engaging with CBOs. Thus NGOs are caught in a dilemma between responsiveness to their target group and demands of boards and/or their donor agency. Donor agencies, however, need to be accountable for donations and adherence to policy and philosophical principles (Johansson, Elgström, Kimanzu, Nylund, & Persson, 2010).

Meanwhile, most NGOs and donor agencies are confined in terms of focus and indicators to one sector such as nutrition, health, education, child protection, water and sanitation, micro finance or others. The CBO's scope of work becomes shaped by these sectoral based needs for accountability. This is especially problematic for ECD programs which by their nature call for an integrated approach to the care, education and development of young children.

Capacity is not built: Technical assistance takes over

The stated goal associated for community based development programs is to equip communities with required knowledge and skills for self reliance (building capacity). Thus it is widely held that both technical and managerial or organizational capacity building are required to empower communities for effective and sustainable program development and management. However, it is not uncommon for external agents to assume that those community organizations do not have the capacity to manage an assistance program. Thus, technical assistance (TA) is provided. TA was initially associated with the importation of programs, tools and technologies into development situations. More recently TA represents attempts to empower local communities and citizens through training and other knowledge which is collaboratively generated. Walker et al. however, claim that TA

...remains susceptible to neoliberal styles of development that have proceeded apace with withdrawal of state institutions in the funding and operation of social and economic development programs, and with the concomitant rise of NGOs (Walker, Roberts, Jones Iii, & Fröhling, 2008)

This misapprehension, the authors claim, can lead to top-down program management from partner NGOs with limited decision making power by communities.

Community based approach may be reductionist

It is increasingly recognized that community based approaches involve more than enhancing the participation and ownership of representatives in the development and delivery of services, responding to community realities and being sensitive to local knowledge bases. Rather, there are ecological (multi-layered) influences on community based programming (Mansuri & Rao, 2004). Dongier et al. have argued that community based approaches incorporate a complex system of capacity development with at least four components. These are 1) the facilitation of strengthened and inclusive community groups; 2) the facilitation of financial support and accountability; 3) the facilitation of community access to information through a variety of media including information technology; and 4) the facilitation of an enabling environment through appropriate policy and institutional reform. This latter mechanism includes decentralization reform, promotion of a conducive legal and regulatory framework, development of sound sector policies, and fostering of responsive sector institutions and private service providers (Dongier et al., 2001). Thus program outcomes, including ECD outcomes, will be significantly influenced by the socio, political and economic context(s) which reside outside of the realm of CBPs and NGOs.

Devolution to community enables state roll back

CBPs and CBOs can undermine the need for government commitment by providing services which would otherwise be taken up by the state (Yanacopulos, 2008).

Roll back is a prevalent issue regarding ECD. The very success of community programs which bypass government support mechanisms detract from the vision of ECD as a state responsibility. This is problematic because state responsibility for early childhood service delivery incorporates benefits which are less likely to be associated with community based programs. These include 1) the potential for a systematic and integrated approach that is inclusive of all groups and geographical regions; 2) a unified approach to learning that coincides with the public system of schooling; 3) a universal approach to access with particular attention to children in need of special support; 4) adequate and consistent support, funding and infrastructure; 5) quality assurance including teacher training standards and appropriate working conditions for staff; 6) ability to undertake systemic data collection and monitoring; and 7) a long term agenda for research and evaluation (OECD, 2006).

Indeed some analysts believe that state systems of care and education of young children is the only strategy for ensuring equity and inclusive service delivery of early childhood services within any given context (Bennett, 2006).

From community participation to community centeredness: Policy questions

Fowler (2007) suggests that as long as the resources (including knowledge, skills and material resources) which are needed to implement a program or system, emanate externally, the level of community input will always be one of relativity. Thus, rather than labeling a program as community based or not community based, it is most practical to

look at the degree to which principles that underlie community based approaches are actually in play.

The principles which underlie community efficacy in terms of ECD programs include 1) programs are flexible enough to reflect community issues; 2) decision makers and others with power over program development and delivery have knowledge of ECD principles and issues; 3) decision making about ECD reflects all factions of the community (is inclusive of all groups); 4) there is trust and solidarity between the community and the agents under whom the program will be funded, developed and/or delivered; 5) ongoing monitoring and support are available, both horizontally and vertically; 6) there are trusted agents who can provide positive feedback and define program success; and finally 7) if programs take place in multi-linguistic contexts, the community has control over language choices (adapted from Fowler, 2007).

By focusing on the principles rather than the auspices, program developers may be able to advocate for and promote the positive aspects of government intervention in ECD, in order to overcome some of the pitfalls of community based interventions and to focus upon the items which are most likely to produce effective results in terms of child centered and community centered outcomes.

Conclusion

Over past decades, NGOs have changed their strategy from top-down assistance programs to community based programs which encourage participatory programming. These

community based/community-driven programs have become the most popular mechanism for development assistance (Mansuri & Rao, 2004).

In light of the difficulties in developing national systems of ECD for many majority world nations, community based programs have become a prevalent program strategy. Community based programs imply development and delivery by communities themselves. Sometimes external agents will initiate community assessments and then facilitate program developments according to identified needs, even going so far as to create CBOs. Programs are still deemed to be community based and can have high levels of meaningful community participation through these and other CBOs who partner with external agents or NGOs. Indeed there is a common belief that enhanced participation, effectiveness, efficiency, accountability and sustainability of programs prevail under CBO auspices, regardless of how the CBO was developed and operated.

However, beyond the philosophical benefits of CBPs and CBOs, it is now recognized that community based strategies are profoundly affected by how they are operationalized and by the socio political and economic context. It cannot be assumed that CBPs and CBOs are always representative, that they incorporate traditional culture and indigenous knowledge, or that they are inclusive of all community groups. Differentiation and power relations are not necessarily addressed through the use of CBOs. Moreover, there is concern that to the extent that CBOs effectively operate ECD and other programs, states have less cause to become involved and to ensure universal access, provision and consistency in quality delivery.

In light of these complexities, we suggest that it is community centeredness or empowerment which defines effective outcomes, rather than the auspice under which programs operate. Following Fowler's suggestion that a series of investigating questions may be applied to measure the extent to which any community based program is authentic, we have adapted his questions for application to an assessment of the degree of community-centeredness of an ECD program, regardless of the auspice or system under which it operates. The questions can assist communities and agents to capture the positive aspects of community based approaches while minimizing the potential pitfalls for CBP programs and services.

Measuring the degree of the community based orientation in ECD programs

1. To what degree can the application of an ECD system or program incorporate adaptations which reflect the community issues and context?
2. What forms of power are in play in terms of the development, delivery and accessibility of the ECD program? Where (in whom) is the power located? What capabilities in terms of knowledge and understanding of ECD principles lie with the agents of power?
3. How cohesive is the community in terms of ECD program development and delivery decision making?
4. What is the degree of trust and 'solidarities' between the community and other stakeholders such as trainers, funders, relevant policy makers who will be involved in ECD program development and delivery?
5. What (horizontal and vertical) connections, transmission mechanisms and networks for ongoing support and monitoring of ECD are in play?
6. Who can provide positive feedback and define ECD program success?
7. What is the degree of language control exerted by the community (for multi-linguistic contexts)?

Effectiveness studies of community based interventions are difficult. As an alternative, this chapter has reviewed the strengths and the potential pitfalls of community based service development and delivery, including ECD community based service development and delivery in majority world contexts.

Recommendations

Community based programs need to be situated within national structures and viewed in terms of state issues. Development efforts, in ECD or elsewhere, need to target systemic barriers as well as program deficiencies at the grassroots level. Thus we recommend that

- ECD and related programs be assessed according to principles which transcend governing structure, auspice and/or label.
- The investigating questions (listed above) be applied to guide the assessment process.

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