NOHA Master Thesis

“The growing importance of the impact of humanitarian aid on local communities and the need for more predictability”

An analysis of the successfulness of non governmental organisations (NGOs) in the process of increasing the capacity of local communities based upon the example of community based housing projects of Aceh in Indonesia after the tsunami of 2004

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List of content

Abbreviations ....................................................................................................................... 5
Definitions............................................................................................................................... 6

1. Background and Rationale ............................................................................................... 8
   Problem statement ............................................................................................................ 8
   1.1. Background information .......................................................................................... 8
   1.2. Non governmental organisations (NGOs) ............................................................... 8
   1.3. Concepts of Relevance, Appropriateness and Impact ............................................. 9
   1.4. Housing sector .......................................................................................................... 10
   1.5. Case study ............................................................................................................... 11
   1.6. Research Question .................................................................................................. 12
   1.7. Methodology; SMART objectives .......................................................................... 13
      1.7.1. Overall objective ............................................................................................... 15
      1.7.2. Internal and external indicators ......................................................................... 16
      1.7.3 Qualitative research .......................................................................................... 17
   1.8. Structure of the thesis .............................................................................................. 18

2. Impact assessment of humanitarian aid and natural disasters................................. 20
   2.1. Impact ...................................................................................................................... 20
   2.2. Role of the different actors in needs assessment .................................................... 20
   2.3. Aid effectiveness on different levels ....................................................................... 21
      2.3.1. Global level ...................................................................................................... 22
      2.3.2. Regional level .................................................................................................. 23
      2.3.3. Country level .................................................................................................. 23
      2.3.4. Implementing aid effectiveness ........................................................................ 23
      2.3.5. Challenges ....................................................................................................... 24
   2.4. Characteristics of natural disasters ........................................................................ 26
2.4.1. Response to a natural disaster ................................................................. 27
2.4.2. Recovery of livelihoods .................................................................................. 28
2.4.3. Goal of recovery programs ............................................................................. 28
2.5. Housing reconstruction after natural disasters .................................................. 29
2.5.1. Community based approach ........................................................................... 30
2.5.2. Purpose of participation .................................................................................. 31
2.5.3. Capacity building, ownership and empowerment ............................................. 31
2.6. Global framework on natural disasters ............................................................. 33
2.6.1. Hyogo Framework .......................................................................................... 33
2.7. Different conceptual frameworks and concepts on natural disasters ............... 34
2.7.1. The Disaster Resilience of Place Model ......................................................... 35
2.7.3. Vulnerability Framework ............................................................................... 36
2.7.4. Vulnerability in the global environmental change community ...................... 37
2.7.5. Bogardi Brinkmann and Cardona (BCC) framework ...................................... 37
2.7.6. Environmental vulnerability .......................................................................... 38
2.7.7. Vulnerability, sustainable development and risk reduction ........................... 39
2.8. Conclusion ......................................................................................................... 40
3. The impact of the tsunami on Aceh ........................................................................ 42
3.0.1. Aceh before the tsunami ............................................................................... 42
3.0.2. GAM Fighters ............................................................................................... 43
3.1. National strategies and the real impact of the tsunami ....................................... 44
3.1.1. The Master plan .......................................................................................... 45
3.1.2. Establishment of the BRR ............................................................................ 46
3.1.3. Aid volatility .................................................................................................. 47
3.2. Impact of the tsunami ....................................................................................... 48
3.3. The impact of the tsunami on the livelihoods and the housing sector ............... 49
3.4. The rebuilding process of houses ...................................................................... 50
3.4.1. Challenges to the reconstruction process ...................................................... 51
3.4.2. The rebuilding process of houses ................................................................... 52
3.4.3. Demand for hard wood and timber .............................................................. 53
3.5. The role of women within the community ................................................................. 54
3.6. Coping strategies ....................................................................................................... 54
3.7. The role of social capital ......................................................................................... 55
3.8. Conclusion ................................................................................................................ 56

4. Analysis of the impact of the humanitarian aid ............................................................... 58
4.1 Impact of the NGOs on the housing sector ................................................................ 59
   4.1.1. ADB Report ........................................................................................................ 60
   4.1.2. TEC report ........................................................................................................ 62
   4.1.3. ACARP .............................................................................................................. 64
4.2. Analysis of the impact of NGOs on the housing sector ............................................. 65
   4.2.1. Oxfam International .......................................................................................... 66
   4.2.2. World Vision Indonesia .................................................................................... 72
   4.2.3. Catholic Relief Services .................................................................................... 73
   4.2.4. Muslim Aid ....................................................................................................... 76
4.3 Conclusion .................................................................................................................. 78

5. Conclusion ..................................................................................................................... 83
5.1 Background ................................................................................................................ 83
5.2. Impact assessment concepts of relevance and appropriateness ............................... 84
    5.2.1. SMART objectives ........................................................................................... 84
    5.2.2. Baseline ........................................................................................................... 85
    5.2.3 Characteristics of a tsunami ............................................................................... 85
5.3. The housing sector in Aceh ...................................................................................... 85
    5.3.1 Internal indicators influencing the housing sector .............................................. 86
    5.3.2. External indicators influencing the housing sector ......................................... 87
5.4 Case study of the housing sector in Aceh ................................................................. 88
    5.4.1. Findings of non-governmental organisations (NGOs) .................................... 88
    5.4.2. The real impact of NGOs on the housing sector ............................................. 89
5.5 Overall conclusion ..................................................................................................... 91

References ....................................................................................................................... 92
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>ACAP</td>
<td>Assessing Local Capacity and Reconstruction Assistance in Post tsunami Reconstruction</td>
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<td>BRR</td>
<td>Agency of Rehabilitation and Reconstruction</td>
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<td>GAM</td>
<td>Aceh Freedom Fighters</td>
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<td>GOI</td>
<td>Government of Indonesia</td>
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<td>IDP</td>
<td>Internally Displaced People</td>
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<td>ISDR</td>
<td>International Strategy for Disaster Reduction</td>
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<td>NGO</td>
<td>Non Governmental Organisations</td>
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<tr>
<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
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<tr>
<td>OECD – DAC</td>
<td>Organisation for Economic Co-operation - Development Assistance Committee</td>
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<tr>
<td>SMART</td>
<td>Specific Measurable Achievable Relevant and Time-bound</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UN – ESCAP</td>
<td>United Nations Economic and Social Committee for Asia and the Pacific</td>
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<tr>
<td>UN-HABITAT</td>
<td>United Nations Human Settlement Programmes</td>
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<td>UNHCR</td>
<td>United Nations High Commission for Refugees</td>
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<tr>
<td>UN/ISDR</td>
<td>United Nations International Strategy for Disaster Reduction</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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# Definitions

| Accountability | “Organisations are being held responsible to a particular group for the effects of their actions, for instance to the affected governments, to donors and to the public. The targeted group for whom accountability is assured, has accurate information about policies and actions of the organisation and their impact. This term is thereby closely linked with transparency (ALNAP, Edwards and Hume, 1995)” |
| Assessment | “A set of activities that are necessary to understand a certain situation. This includes the collection, analysis and interpretation of data of a region, group or community, providing a wider understanding of their needs, capacities and resources, as well as the micro environment” (UNHCR). |
| Capacity building | “A process in which individuals, institutions and societies develop abilities, individually and collectively, to perform functions, solve problems and set and achieve goals” (UNHCR). |
| Coping capacity | “A combination of all strengths and resources available within a community or organisation that can reduce the level of risk, or the effects of a disaster” (UN/ISDR, 2002) |
| Civil Society | “A structure outside of the government, for example NGOs and Human Rights groups, religious organisations, charities, universities, families and clans. It is one of the most critical sources of humanitarian assistance and civilian protection during recovery” (OCHA). |
| Disaster | “A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceeds the ability of the affected communities or the society at large to cope with their own resources”. |
| Affected population | “People who are directly affected by the tsunami” (Telford et al. 2006, p.3). |
| Empowerment | “A process or a phenomenon that allows people to take greater control over the decisions, choices, policies, and administrative institutions that make decisions for them” (UNHCR). |
| Humanitarian aid agencies | “Humanitarian actors for instance the Red Cross, United Nations agencies, international non-government organisations” (Telford et al. 2006, p.3). |
| Local capacities | “Local capacities are made up of a mixture of the resources, strength, skills and knowledge of the local community, and the ability to set and influence policies, all of which can reduce the
risk or effects of a disaster. The capacities could be measured in physical means, administrative, local leadership, management, education et al. (Telford et al. 2006, p.3)ISDR.

| Livelihood | “The capabilities, assets and activities required for a means of living linked with now and the future well-being, which makes it sustainable” (Sphere standards). |
| Livelihood strategies | “Are the activities to obtain food, shelter and income, while coping strategies are temporary responses to food security” (Sphere standards). |
| Local capacities | “Are a mixture of the resources, strength, skills and knowledge of the local community, and the ability to set and influence policies, all of which can reduce the risk or effects of a disaster. The capacities could be measured in physical means, as administrative, local leadership, management or education” (Telford et al. 2006, p.3). |
| Ownership | “Control over the response, to ability to make decisions about policies priorities and the nature of the response. Those who own a process control it; they decide which priorities and policies apply, ranging from central government to local government”(Telford et al. 2006, p.33). |
| Period of transition | “A transition period is a defined period of indeterminate duration, which constitutes the prolongation of armed conflict or a situation in which armed confrontation or a natural disaster has ended or entered a period of remission”(Harroff-Tavel 2003, p.465-466). |
| Risk | “The product of the interaction between hazard and vulnerability, thus the probability and the amount of harmful consequences from interactions between nature, human and vulnerable conditions” (UN/ISDR, 2002). |
| Sustainability | “Taking the long term needs into account in the implementation of programmes and or projects” (DAC Evaluation Criteria). (..)” the needs of the present needs to be met without compromising the ability of the future generations to meet their need” (ISDR) (Brundtland Commission 1987). |
| Vulnerability | I. “Physical features as the elderly, the wounded the sick, the children and women, or social, economical and environmental factors or processes, that increases the impact of hazards on a community” (ISDR). II.”A human condition or process resulting from physical, social, economic and environmental factors, which determine the likelihood and scale of damage from the impact of a given hazard”.(UNDP, 2004:11). |
1. Background and Rationale

Problem statement

This thesis questions the humanitarian aid’s impact provided by non governmental organisations (NGOs) on local communities with a special focus on the process of rebuilding the housing sector, in Aceh after the tsunami in 2004. The official tsunami recovery tasks of the Government of Indonesia (GOI) through the Agency of Rehabilitation and Reconstruction - Badan Rehabilitasi dan Rekonstruksi (BRR) ended after four years in 2009. By that, time the majority of international NGOs had moved towards new challenges (Nazara and Resosudarmo 2007, p.21). NGOs that are still present in Aceh are Muslim Aid Indonesia, Oxfam, Caritas and Mercy Corps.

1.1. Background information

The debate on aid effectiveness is not new. Nevertheless, a gap in literature exists because there is much written on the impact of development aid, but not in connotation with humanitarian aid in complex settings such as a tsunami. Furthermore, practitioners do not always share this literature, nor provide feedback on good practise. The overall direction of the debates has been under constant influence from external circumstances, diverse and new actors in humanitarian assistance and multiple approaches at various levels of analysis. The focus of this discussion has shifted towards the impact of aid on local communities. In the aftermath of the tsunami of 2004 in Asia, this topic has been debated on a regional level rather than nationally or globally. Major players within this context that have shaped this debate are the neighbouring states, the GOI, the Asian Development Bank (ADB), United Nations Economic and Social Committee of Asia and the Pacific (UN-ESCAP), United Nations Human Settlements Programme (UN-HABITAT) International and the World Bank (WB), and lastly the NGOs themselves. The Asian states themselves have contributed to the aid effectiveness debate, which is often linked with corruption and duplication of aid efforts (Beloe 2005, p.3-5).

1.2. Non governmental organisations (NGOs)

In general, the role of humanitarian actors, such as NGOs and foreign companies has changed in scope, scale, mission, vision and importance since the end of the Cold War (Barnett 2005, p.732; Reimann 2006, p.45). In particular, the role played by NGOs has increased. Not only
are they distributors of governmental and private funds, but also they act as contractors and executors of organisations including the World Bank (WB), United States Agency for International Development (US AID) or the ADB (McCoskey 2009) in order to implement programmes and projects. NGOs are more and more being regarded as specialists in fulfilling the specific needs of local communities in such as health care or education (McCoskey 2009). In the reconstruction period, of the post tsunami period in total US$6.8 billion was spent by the government and the international community to rebuild Indonesia; of this large sum US$1.6 billion comes from NGOs (Indonesia: Aceh and Nias Rehabilitation and Reconstruction Report 2009, p.1). Thus, NGOs have indeed played a major role in the reconstruction and rehabilitation of Indonesia.

Consequently, the growth of actors in general within the field of humanitarian action creates different interests and agendas of the various stakeholders (Barnett 2005, p.732). In theory, the reallocation of the increasing amount of aid should be given to the most deprived and vulnerable communities. However, scholars dispute whether improvement has taken place on the delivery of humanitarian aid (World Bank, 1998; Burnside and Dollar 2000, p.781). The question that arises is: Under what conditions can aid providers such as NGOs deliver the most effective and efficient sustainable aid to local communities?

1.3. Concepts of Relevance, Appropriateness and Impact

Researchers investigated the impact of humanitarian aid provided for by NGOs. They primarily focused the research on the role NGOs played; the quality of aid delivered and outcomes of programmes and projects. Researchers have often concluded that the regime in the country has influenced the work of NGOs (Reimann 2006, p.45; P. Guillaumont and L. Chauvet 2001, p.66). What is missing is the location of NGOs in relation to other internal and external factors and actors, which would provide a broader scope to analyse the impact of humanitarian aid. Therefore, this thesis does not analyse the policies but rather the relevance and appropriateness of foreign aid (Mavrotas 2005, p.1019). The wider impact of these humanitarian assistance projects on local communities post natural disasters thus needs further evaluation after the end of a project in order to improve the relevance and appropriateness of the aid provided (IAIA 2009).
The term “relevance” is used to reflect whether the executed (housing) projects were in line with the local needs and priorities of the affected population. This term is also used to express execution of the housing projects in accordance to the donor policy of the BRR (OECD-DAC 2008, p.6). Therefore, it is closely connected with the term “appropriateness”. The term “Appropriateness” is used to discuss the adaptation of humanitarian activities to fulfil local needs, for instance increasing local ownership, accountability and/or cost-effectiveness, which ensure the sustainability of aid (ECHO, 1999, p.21). “Appropriateness” does not only entail the extent of provided aid, but also the way international aid is disbursed and distributed. In this context, the term is used to reveal the extent of delivered aid to the different communities in Aceh after the Boxing Day Tsunami in December 2004.

Measurement of the impact of humanitarian aid is a challenge because all the NGOs target various specific areas in fulfilling the basic needs following a natural disaster. Their actions sometimes overlap and this may cause duplication of aid, or in contrast, their actions may have been conducted in cooperation with other actors. Another factor that causes difficulty in measuring impact is that the aid is provided in environments that are under complex and changing conditions, diverse contexts, often executed without consideration of a coherent plan and programmes and projects being run in the same area (Mavrotas 2005, p.1020). Additionally, the word “impact” is often interchangeably used with “evidence” and/or “evidence-based practise” (Forss and Bandstein 2008, p.4). The term “impact” is also used to describe the effect of aid in respect to time, region and often on a nation level. This term is used in this thesis with regards to different levels of assessments, for example local, district, national and regional impact, since different methods are used to measure impact of aid in correspondence to the level of analysis. In sum, the most important criteria for measuring the successfulness of aid is the “impact” thus the change or difference between what would happen with the action undertaken. If the above-mentioned change is positive over a longer period, the impact is called sustainable (OECD-DAC 2008, p.5; ECHO 1999, p. 35).

1.4. Housing sector

The term sustainable impact of humanitarian aid in this context means the possibility to make local communities more resilient against future natural hazards. In this thesis, the increasing resilience is illustrated by providing/rebuilding safer houses to the affected communities in Aceh. An often-used buzzword in the context of building resilience after a natural disaster is
the disaster risk reduction (DRR). DRR entails the capacity building of communities to reduce the impact of natural hazards, as prevention method, which did not exist in the Indian Ocean region. Scholars agree that different levels of governance should have worked together on this issue, and cooperate with each other to limit the impact of the tsunami and natural hazards in the region more generally and should have avoided the high death toll and damage on houses and infrastructure, especially in Banda Aceh (Telford et al. 2006, p.12).

The total damage of the tsunami is estimated at a US$6.2 billion. Of the total destruction, the greatest damage was measured on the housing sector and is estimated on a US$4.5 billion alone. A priority based on needs assessment under the effected population revealed the immense need to provide quickly shelters and the reconstruction of houses, for at least half a million people. An initial assessment stated that between 80,000 and over 100,000 houses needed to be build. An estimated 67,000 families lacked basic shelter and about 300,000 had become internally displaced. A year later only 7,000 families had received new permanent houses. As a result, the housing sector has attracted the most funding. An initial assessment stated that between 80,000 and over 100,000 houses needed to be build (Nazara and Resosudarmo 2007, p.23). The housing sector has, therefore, become the central part of this analysis (Indonesia: Aceh and Nias; Rehabilitation and Reconstruction Report 2009, p.2).

1.5. Case study

On the 26th of December in 2004 an earthquake of 8.9 on the Richter scale struck the coast line of Banda Aceh, followed by the tsunami killing at least 166,000 people immediately. Furthermore, the coastal villages were destroyed by the tsunami. Within 48 hours after the devastating natural disaster, the first foreign aid workers to arrive came from the American Army. The incentive for the international community to cooperate and interfere so fast was also political. The international community feared that the Aceh Freedom Fighters (GAM) would take advantage of this opportunity to take control over the area violently (Schulze 2005, p.2). This violence may have caused further unrest and destabilisation in the region and delays in the emergency and reconstruction period (Alvarado and Mendis 2007, p.185).

The impact of the tsunami in all countries together is estimated to be at US$10 billion. While there are many consequences of the losses, the real impact on the community level are harder to measure. For instance people who are injured and lose their jobs are not addressed in the
measuring the monetary loss, even though the main sector to suffer was the fishing industry where there was a loss of fishermen’s livelihoods close to the coastline of Aceh. Half of the total losses in lives and income fell on Indonesia. The overall impact in Aceh was estimated as high as one year’s economic income (Telford et al. 2006, p.7; Alvarado and Mendis 2007, p.10).

1.6. Research Question

The aid sector as mentioned above has been transformed drastically throughout the last decades due to new challenges and risks such as, globalisation, terrorism, and new players, such as the private sector, grassroots organisations and especially NGOs. In general, more attention has been drawn towards the wider impact of the delivery of humanitarian aid. Despite the greater interest on the delivery of humanitarian aid by different actors there exists a gap in literature, since most researchers focuses on development aid, but not so much on humanitarian aid in emergencies such as tsunami, let alone the transitional period between emergency, recovery- and development phase. Additionally, the impact of humanitarian aid delivered by NGOs in the transitional phase has not been researched in-depth.

The humanitarian aid delivered by NGOs in the transitional phase aims to meet the needs of local communities. The question arises if these needs are met, and if the local communities are able to sustain future threats (Alvarado and Mendis 2007, p.183-184; Bernard et al. 2006, p.1992). In Asia especially, increasing coping capacities are necessary, since reoccurrence of an earthquake or tsunami is likely to happen (ECHO 1999, p.56). In particular, the case study of Aceh, is prone to be affected in the future by natural hazards, therefore communities must recover from the tsunami in 2004 and even become less vulnerable by building better coping capacities.

Considering the above listed challenge, this paper addresses the appropriateness, relevance and impact of humanitarian assistance over a longer period delivered by NGOs at different level of analysis. The topic of impact assessment of humanitarian aid provided for by NGOs is narrowed down by analysing the houses sector. This is justified by the fact that the outcome of the primary needs assessment of the communities in Aceh revealed the immense immediate need for shelter/houses and the huge amount of allocated funds by the international community to this sector. The assessment of the case study of the Boxing Day Tsunami is a very interesting topic, because the huge amount of available funding and humanitarian aid
workers are the factors, which could have contributed to the rehabilitation and reconstruction on the affected communities ((Indonesia: Aceh and Nias; Rehabilitation and Reconstruction Report 2009, p.3). In this thesis, the housing building process is used as an example for the analysis of the impact of foreign aid by NGOs. This leads to the following research question:

_to what extent are foreign aid programmes of NGOs that target the housing recovery process accountable for the impact on local communities after the tsunami in Aceh, Indonesia in 2004?

This research provides a chance to gain a greater knowledge in livelihood changes at both household and institutional level. Moreover, the driving factors of the transitional/recovery phase are explored. The overall idea is to provide a contribution on how to improve methodologies for measuring impact of humanitarian aid at a community level in natural disasters and to encourage the exchange of research results between academia, humanitarian organizations, and communities. This thesis aims at indentifying and refining methods and tools of impact assessment in a humanitarian setting (Maxwell and Coates 2008).

Making the concept of impact of foreign aid operationally will pose a challenge and is of importance for the findings of this research. However, the impact is, always influenced by many independent elements such as the economic outlook of the future, long-term initiatives of NGOs and the vision and capacities of Foreign Companies to provide aid. NGOs who have withdrawn from the region will also influences the overall impact of international aid as well as the exit strategy of the housing project to hand over the responsibilities to the local authorities (ECHO 1999, p.55).

1.7. Methodology: SMART objectives

Although, the effects of foreign aid projects of various actors (NGOs and foreign companies) has been discussed, as previously stated for decades, this thesis contributes to the elaboration of this discussion on the process of measurement of sustainability of humanitarian aid in a complex environment in the transitional phase. The communities of the case study in Aceh did not only suffer from the tsunami, but also from three decades of internal violence (ECHO 1999, p. 60; Reimann 2006, p.45). Moreover, years of post - disaster settlement studies suggested that the successful sustainable reconstruction should also include addressing the underlying root causes of poverty. The root causes are said to have lead to an outrageous high
level of casualties in Aceh (Kennedy et al. 2008, p.25). The pre-conditions influence the effectiveness of humanitarian aid and thereby, making the impact assessment of NGOs a challenge. This research is based on the ECHO Manual, which defines five Specific Measurable Achievable Relevant and Time-bound (SMART) objectives to measure the impact of humanitarian aid. These indicators explain that aid must:

“(..) “contribute to the reduction of human suffering, effect the local economy, effects the incomes of the local population, influences the health, have an impact on local capacity-building, sustainability and on livelihood”(..) (ECHO 1999, p. 35-36).

More specifically these SMART objectives can be interpreted as follows; humanitarian assistance needs to have an effect on (..)”the local economy, credit, loans, cash for work projects, employment rates, reconstruction, and housing building projects”(..)(ECHO 1999, p. 35-36). The SMART indicators, thus, cover wide-ranging policy areas from only public health related issues as waiting lists in hospitals, performance of primary school, attendance lists, infrastructure lists and suicide rates in prisons. These indicators measure quality based effectiveness of the performances of humanitarian aid. Additionally, the International Federation of the Red Cross (IFRC) defines a capacity-building framework (2001) measuring and learning from effectiveness, which leads to sustainability and the long-term impact (Hailey et al. 2003, p.3).

The enlisted SMART objectives all contribute to the impact of humanitarian aid. However, to narrow down the analysis of aid effectiveness, this thesis focuses on the rebuilding and reconstruction of houses. The reconstruction and rebuilding of houses will in the long term influence the various indicators such as the income, health, economy and more importantly addresses the question whether the local community benefits or not from the capacity building.

Additionally, the theoretical framework of this thesis is based on both the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action (AAA) as the main global frameworks on aid effectiveness (OECD DCD-DAC. 2005, p. 3). These two global frameworks, stresses the importance of “ownership”, “alignment”, “harmonisation”, “managing results” and “mutual accountability”, which are crucial in order to increase the overall performance of humanitarian aid (OECD DCD-DAC. 2008, p.1). Furthermore, the Hyogo Framework for
Action (HFA) addresses the increasing global acknowledgement of challenges posed by disasters and thus the need to increase the resilience of nations and communities prior to a disaster. The HFA serves as a global framework that sets out guidelines for implementation of legislation and policies on different levels of analysis. These guidelines HFA are the starting point for making the concept of impact of humanitarian aid operational in a complex setting (ISDR, 2005, p.3). Furthermore, the HFA has lead to many useful published frameworks by accredited scholars, which all address the concept of impact of aid in a natural disaster setting and are linked with the concepts of relevance, appropriateness, resilience and/or capacity building. The listed frameworks underline that when crosscutting concepts are defined differently, this will consequently lead to various outcomes. The most relevant frameworks are mentioned in order to acknowledge/understand the different definitions and methods used to measure the impact, relevance and appropriateness of humanitarian aid on different level of analysis.

In this thesis, various indicators are used to provide information on the achievements of the overall SMART objective. The impact is assessed after establishing the pre-conditions in Aceh, which serves as a baseline for the analysis; several internal and external indicators influence the successfulness of the aid. All the indicators will contribute to the overall conclusion.

Additionally, especially the success of the housing reconstruction and rebuilding process is investigated based on the here after listed indicators. These objectives measures whether the extent of foreign aid of NGOs covers the needs in terms of the amount of houses provided for to the affected population. This research makes a distinction between the general objective, indicating the effects of humanitarian assistance and operational indicators, which focuses on the achievements. The operational indicators assess the effect of provision of foreign aid in terms of results on local communities in the housing sector. Thus, the indicators combined assess the successes of the housing projects (ECHO 1999, p. 61).

1.7.1. Overall objective
As listed above several internal and external indicators influences the successfulness of humanitarian aid on the housing sector. Housing sector as the objective in this thesis is an important element in the overall rebuilding process of societies after a natural disaster and conflict. Housing influences directly the basic living elements as (…)”shelter, dignity, security, increases the living conditions and the health (…)”(Jha 2009, p.14; Barakat 2003,
p.2) of the communities and thereby becomes a humanitarian issue. Housing reflects also a sense of ownership, pride, cultural identity, and social coherence, which can positively influence the process or rebuilding and construction of houses. The huge impact of housing is vital since especially natural disasters have a greater impact of an average many times more on developing countries than industrialised ones. This highlights the important role housing plays in the emergency and recovery phase in the aftermath of a natural disaster and thus should be reflected in the recovery programmes and attract attention of major NGOs in terms of planning and implementation (Barakat 2003, p.1; Jha 2009, p.17). The concept of housing can be also narrowed down to a distinction between the provision of shelter, semi-permanent and permanent housing. However, not so much experience of NGOs in the housing sector is shared and thereby, the challenge is to implement houses projects according to the beneficiaries needs and wishes, and influence the reliability, relevance and accessibility of the sources.

1.7.2. Internal and external indicators

The achievements of the various indicators that contribute to the overall effectiveness are for instance good leadership, good coordination, coherence between the NGOs and the GOI which all target different villages/communities. The foreseen challenge of reconstruction and recovery of Indonesia and in particular Aceh started with the huge amount allocated aid by the International Community that needed to be coordinated. In the area of reconstruction of houses, alone 107 NGOs were registered (Beloe 2005, p.21). Furthermore, the local authorities were already weakened by the internal violence, and understaffed by the tsunami let alone the already existing corruption contributed to an administration burden for the GOI. These preconditions made it a challenge to channel all the funding for the recovery phase. According to the Corruption Perceptions Index (CPI), Indonesia ranked in 2003 at the 122 place out of 133 countries with the same rank as Kenya. Corruption is measured via surveys and defined as:

(…) “The degree to which corruption is perceived to exist among public officials and politicians” the abuse of entrusted power for private gain (Transparency International Index 2006)”.

Apart from corruption, lack of resources an additional negative indicator for impact of aid is that policy makers do not often address the issue of housing as a basic need nor prioritise and address the needs of communities without shelter and homes within the transitional phase. An often-illustrated problem is the lack of property certificates, making it a challenge or NGOs to
provide the homeowners new houses. Moreover, conflicting interest such as the costs of rebuilding or reconstructing houses are many times their year income, communities however expect to see quick results. The houses need to be built fast, and, donors want to see results in the short term to report to the funders, and, therefore, do not take into account the multi sector impact of the reconstruction of houses (Barakat 2003, p.1).

The indicators for impact assessment are multi-dimensional and aim at improving the economic, social and public needs in the housing sector. Moreover, different NGOs have all their own mandates, targeting various basic needs. The collection of impact data on the performance of these NGOs is difficult to obtain, let alone analyse them (Hailey et al. 2003, p.3). In reality, though, even some indicators are not measured at all such as inflation rate of construction material in the planning or implementations phase by neither NGOs nor the GOI, but influence the degree of successfullness of aid. These external influences make the results to an extent already biased from the beginning. For instance, the interpretation of data will reveal a conclusion on one of the most used indicators and precondition of foreign aid for capacity building, which is good leadership. Good leadership will positively influence other key players in governance and the private sector attract more foreign aid and is able to adopt changes and motivate the communities to act in a certain way.

1.7.3 Qualitative research

In this thesis, a mixed method is used based on secondary data. Individual interpretations of the secondary data, the perceptions of the NGOs, and the interpretations of the data itself however influence the findings of the successfullness of aid on local communities (Hailey et al. 2003, p.3-4)

The method(s) fits best to measure the impact of humanitarian aid is to use methods that acquire qualitative data, since quantitative data only reflects a correlation between two indicators. Quantitative date does not identify power relations within communities and does not take into account that some phenomena cannot be measured at all and, therefore, this method does not provide nuances in change overtime. On the contrary, qualitative indicators of change include:

(...)”case studies, unstructured in depth interviews, reflective commentaries provide characteristics and draw narratives for change, using participatory approaches(...)”(Hailey et al. 2003, p.10).
Triangulation is the favoured research approach. Above all, there is a great need for globally accepted indicators that measure the impact of humanitarian aid, which can be adjusted to local cultures/circumstances (Hailey e.a. 2003, p.10). The Oxford based International NGO Training and Research Centre (INTRAC) New Practise Programme (NP) describes the experiences of NGOs how to implement and adapt impact assessments indicators to local circumstances in the field. The NP explains the structures of power division, or where, relation between partnerships of NGOs results in various forms of implementation of for instance capacity building projects. However, what capacity building means is still doubtful, depending on language, customs, and the community interpretation of this concept. On the other hand, the need for capacity building is universally accepted; it is supposed to tackle poverty, health, the environment (Hailey et al. 2003, p.2)

1.8. Structure of the thesis

The overall goal of this thesis is to determine whether there is a link between the amount of foreign aid, on one hand, and the impact of the aid on the capacity building of local communities on the other. Moreover, this thesis addresses the extent to which foreign companies are accountable for this impact. This first chapter provided the background and the problem statement, outlined the concepts, the research question including methods. Above all, this chapter provided the academic and practical relevance of this research.

In order to understand the meaning and usage of terminology of aid effectiveness, impact of foreign aid in a humanitarian setting, a literature review on what has been written on a global, regional, international and local level so far is reflected in the second chapter. This literature review comprises the background of what has been published on this topic by accredited scholars, writers and researchers including core concepts, and frameworks of impact assessment as community based recovery approaches and the particularities of natural disasters. Included are the external factors which in theory pose challenges to the impact assessment in Aceh. In summary, chapter 2 together with the chapter 1 forms the theoretical framework of the thesis and outlines key concepts explaining how the humanitarian aid is assessed, according to which accepted international concepts including ownership and good leadership.

The third chapter investigates the impact of the natural disaster on Indonesia; moreover reveals in detail how the tsunami affected Aceh. Above all, this chapter comprises data on the
impact of the natural disaster on the housing sector and thereby provides an in depth analysis of the impact to the local and complex circumstances of Aceh. The effects of the most important actors for instance the GOI and the BRR that can speed up the recovery phase are described as well. This chapter will focuses in depth on the characteristics of the community based housing projects as a key indicator for impact assessment.

The fourth chapter forms the empirical part of the thesis and analyses how much of the committed foreign aid has been disbursed and to what extent the humanitarian aid is trickled down to the communities. This chapter will take the indicators and conclusions of chapter two and three into account as a basis for the study on the progress being made in the community based housing sector by NGOs, which are instructed by foreign contractors and financers in the housing sector. The data of the actual impact of the foreign aid is derived from secondary data, reports and impact assessments. This chapter reflects the discrepancy between the reality of the measurement of impact assessments and the challenges or obstacles of these measurements. Oxfam International (IO), World Vision (WV) Indonesia, Christian Relief Services (CRS), Muslim Aid Indonesia, The Tsunami Evaluation Commission (TEC), Asian Development Bank (ADB) the Aceh Community Assistance Research Project (ACARP) will provide insight information on the progress made in the housing sector on an international level, country level and local level of analysis. Moreover, the difference between two faith-based NGOs in a predominately-Muslim province is assessed, to uncover the successfulness and acceptance of an NGO with an opposite identity/religious background. This is vital since religion can determine the role played by men/women in society and in the recovery phase, influencing the social cohesion within a community. In summary, chapter four presents empirical data comprised of the findings of NGOs key players on the impact assessment of the aid provided for in Aceh.

The fifth chapter draws conclusions based on the previous chapters; supported by the findings of chapter three and four. This chapter includes information on the current local economy, employment and reconstruction of the houses in detail. The answer to the research question, which implies and argues a presumption that more foreign aid by NGOs results in also an equivalent of more capacity building of the local community in Aceh, leads to the overall conclusion and answering of the research question.
2. Impact assessment of humanitarian aid and natural disasters

This chapter starts with defining the concept of impact and uncovering the debate of aid effectiveness. This is followed by both a detailed description of the characteristics of natural disasters and the different theoretical frameworks on natural disasters. These frameworks are developed to provide possible indicators to measure the impact of natural disasters. Furthermore, the different approaches of recovery and development are investigated, such as differences between community-based approach and community-driven approach. Factors, which influence the recovery and reconstruction of houses, are also discussed. The chapter ends with a description of key natural disaster frameworks which incorporates important terms including vulnerability, resilience and sustainable. This chapter will bring together the previous chapter form the theoretical framework of analysis. These Chapters (Chapter 1 and 2) provide the theoretical baseline that should result in the understanding of the context specific implications and circumstances of the tsunami in Aceh.

2.1. Impact

“Impact” as a concept is defined as: (…) “the long-term sustainable changes due to humanitarian assistance” (Hailey et al. 2003, p.7). There is a major difference between the concepts “output”, “outcome” and “impact”. “Output” refers to the question of how the activities, or policies of humanitarian actors are implemented. The “outcome” of humanitarian aid measures the direct short-term influences of humanitarian assistance. Only “impact” as a concept measures how the current situation has changed from the baseline or yardstick (Hailey et al. 2003, p.7). A good balance of different measuring methods of evaluations on the impact of humanitarian assistance is needed both externally and internally by the agencies themselves. These evaluations should give local communities ownership over the executed programmes (Hailey et al. 2003, p.10). Humanitarian assistance can be at best one out of all indicators, which brings sustainable change in the long-term.

2.2. Role of the different actors in needs assessment

The methods applied measuring aid effectiveness of humanitarian assistance, depends on the amount of knowledge of the pre-existing social, economic and environmental conditions in context of which aid is programmed. In this instance, pre-existing data of the Aceh province was used. These pre-existing data will form the baseline, against which the effects of certain
programmes can be measured. However, other factors determine the effects of humanitarian aid. Therefore, it is important to find out what the other external and internal factors are that might influence the outcome of an impact assessment.

First, good coordination, alignment, is needed between the staff of NGOs, stakeholders and donors to allow them to communicate with each other to adopt humanitarian aid policies accordingly, leading to more harmonisation of aid. An effective government can increases the coordination between all the actors. Secondly, good governance will influence the extent of local authorities facilitating-, or encouraging change. Effective governance is also reflected in the level of accountability and transparency. Additionally, the authorities play a major role in monitoring the investments made by foreign aid agencies in projects and programmes. The third step towards more effective delivery of aid is to make local authorities responsible for setting up or providing guidelines to the NGOs, thereby increasing the appropriateness of aid. Local authorities should channel the humanitarian aid to the affected communities. Finally, a good functioning government is able to adjust plans according to new information or assessments, thereby increasing the relevance of the provided aid. Good governments have the ability to change the perspectives of various stakeholders to take over the adjusted recovery plans and guidelines (Hailey et al. 2003, p.7).

Aid effectiveness is also influenced by external factors, which can be neither predicted nor prepared for. These include the wider macro environment of the natural disaster; this factor plays a major role in strengthening the coping capacity of the local communities. The inflation rate, corruption, bureaucracy, competitiveness of aid, lack of coordination and late disbursement of funds are all indicators, which reduces the effectiveness of humanitarian aid. Inflation can increase the budget of a programme suddenly, and therefore makes the implementation of the programme unsure. This causes delays in the execution of programmes and projects or in the worst case that he NGO becomes unable to finance the whole programme (Hailey et al. 2003, p.7).

2.3 Aid effectiveness on different levels

Scholars and practitioners use the concept of “aid effectiveness” in many different ways. The general meaning of this concept is discussed below, as well as the interpretation of “aid effectiveness” on a global-, regional- and country level. This reveals the challenges to come up with universally accepted indicators that can measure the real impact of humanitarian aid.
2.3.1. Global level

Influential political figures of developed countries drew up the Paris Declaration on Aid Effectiveness in 2005, which is followed by the Accra Agenda for Action (AAA) in 2008. Both mentions the concepts of “ownership”, “harmonisation”, “alignment”, and are regarded as the key words, both fostering joint progress towards Aid Effectiveness by donors. The AAA builds upon the commitments made in the Paris Declaration (OECD DCD-DAC 2008, p.1). These terms should manage and influence the results of the delivery of aid, and should consequently ensure mutual accountability between the providers and receivers of humanitarian aid. The Paris Declaration mentions a three folded approach to increase aid effectiveness. It focuses on ownership, national administration systems and better coordination, fragmentation and predictability of aid. The concept of ownership is reflected in community-based projects that foster more participation of communities in the whole project cycle of NGOs. The opinion of these is that humanitarian aid can only be delivered more effectively if the affected countries administration and institutions are working properly together. Thus, humanitarian aid needs to be developed and implemented in coherence with existing national policy. Additionally, commitment of countries to provide aid should lead to the creation of more predictable outcomes of humanitarian aid. More predictability of aid is only possible when global programmes and initiatives are integrated. Enhancing aid effectiveness is in theory already complex let alone the challenging real circumstances of Aceh. The Paris Declaration on aid effectiveness emphasises the need to harmonise humanitarian aid. Donors must align and above all provide tailored humanitarian aid, without duplication. Tailored humanitarian aid is context specific aid (OECD DCD-DAC 2005, p.1-3). The Paris declaration on Aid Effectiveness and AAA both addresses the issue of aid effectiveness for donors on a national level in an international/regional setting. These frameworks stresses indirectly the importance of community-based programmes/projects that increases the ownership of communities over the humanitarian assistance as well as the vital role played by the national authorities in channelling the aid and the coordination of the provided aid.

What further influences the debate on aid effectiveness on a global level are the issues of climate change, economic slowdown, global rise of terrorism implications for security, democracy, human rights, and trade.
2.3.2. Regional level
The tsunami affected many countries in Asia. In the Asian region, the provision of sustainable aid provision is not currently a hot topic. However, at an inter-governmental level the issues of foreign aid and the likely reoccurrence of natural disasters in the region are being discussed. The voice of NGOs or civil society movements is unfortunately not yet being heard in this region (OECD DCD-DAC 2005, p.11).

2.3.3. Country level
Both the Indonesia Government and aid agencies have actively engaged and participated in the drafting of the Paris declaration and the AAA. The DAC (working party on Aid Effectiveness) provides definitions, scope of application of aid, criteria and methodologies to assure better results of the delivered foreign aid. Progress of the aid delivery is documented via annual reports on a country level. On an international level, these reports are used to broaden the partner participation in case of emergencies (De Renzio et al. 2005, p.1). It is more important to understand the way in which countries implement these aid effectiveness guidelines. It is essential to acquire the knowledge over the affected countries and develop tools to evaluate the vast influx of humanitarian aid. The interpretation of the guidelines and definitions differs not only between NGOs, because of different backgrounds, identity, mission and vision, but also between individuals within a NGO. The interpretations of local authorities and community leaders are very valuable, because they are the ones implementing the policy (Beloe 2005, p.3).

2.3.4. Implementing aid effectiveness
The interpretation of the Paris Declaration and AAA is difficult let alone the challenges of implementation the commitments of the declaration. The main body of the Paris Declaration consists of 12 indicators, which do not provide strong empirical data on the output and outcome of the overall aid effectiveness. Within a country more focus must be placed on an inter-agency collaboration by supporting government authorities in drawing up aid coherence and coordination policies, such as the Multi-donor trust fund for the tsunami in Indonesia. The concept of aid effectiveness can be made operational via a complex set of relationships between donors, recipients and governance at different levels of analysis. Coordination for instance in the recovery phase could be very difficult due to the vast amount of agencies arriving at the same time, particularly in the case of Aceh. The huge amount of agencies working in the housing sector makes coordination costly, which could create coordination fatigue.
At a country level Indonesia while being on track with most of the MDGs appears to be at the same time one of the most corrupted countries in Asia, as indicated by the website Transparency International. Corruption can influence the impact of aid because it can postpone the implementation of programmes or cause less finished number housing than originally planned. Another indicator influencing the impact of aid is a decentralised administration, which is measured by the OECD DAC and reveals the performance of NGOs. The outcome however is not published or available. A very plausible reason for not making the outcomes of OECD DAC report public is that governments compete to get the best aid deals and for that reason remains classified (Beloe 2005, p.18-20; da Silva 2010, p.62).

In current literature there is no clear correlation between the amount of development aid provided for after a (natural) disaster and the amount of foreign aid that flows into a country. The difficulty is that aid is often labelled for the use in the emergency, relief or recovery phase. There cannot be made, however, a clear separation between these phases. In Aceh, some of the consequences of the tsunami actually stem from the decades of fights for independence of this province, such as the underinvestment in public services by the local and national government causing weak local authorities. The consequences of the internal independence conflicts are said to be the underlying root causes of the underdevelopment. Despite the fact of these insecurities of the independency conflicts, due to the abundant natural resources, Aceh had a high GPD in comparison of the rest of the country (da Silva 2010, p.62). Thus, victims of the tsunami might as well been victims of the GAM. Humanitarian aid con not make a distinction.

2.3.5 Challenges
The beneficiaries of humanitarian aid are never a homogeneous group of victims. This consequently questions if there is a clear existing correlation between the amount of humanitarian aid and development. Will more aid provision contribute to better outcomes? Could it possibly lead to less poverty and increase local resilience and hence better local coping capacities? Research on the impact of aid on economic growth has shown that the local economy grows especially in the direct aftermath of the disaster because of the high foreign investment and employment in the recovery phase but the influences in the long-run are more unpredictable (Kennedy et al. 2008, p.28).

Foreign aid can be less effective because of external factors such as corruption, instability and conflict, badly coordinated/implemented projects, duplication of aid and strong competition
between NGOs. Projects within bigger programmes face challenges if they try to simultaneously target the infrastructure, poverty, health care and/or education dimension of recovery. Measurable indicators such as good governance, technical knowledge, sustainable development and ownership are regarded as important for the long-term success of foreign aid. Implementation of ownership by external agencies can be introduced, especially by using a participatory development approach (Bourguignon and Sundberg 2007, p.318-322).

Another important link between foreign aid and the impact of it for policy makers is if and how well the various levels of governance authorities work together. Factors that link national policies with local policies and a system of checks and balances in place play a major role in increasing the effectiveness of aid. Additionally, the relationship between foreign aid agencies and policy makers is another key factor. All above-mentioned factors influence the national recovery policies (Bourguignon and Sundberg 2007, p.317).

Actually, the impact of humanitarian aid is predominately influenced by the macro stability and the investment climate. Liberalization of trade within the region might influence the effectiveness also. For example, in the case of Aceh, the macro stability and investment climate is reflected by the amount of corruption and trade barriers for resources used for the recovery phase such as timber and wood. Furthermore, the impact of humanitarian aid depends on the kind of assessments that are used, which form starting point of the recovery policies. These policies can be based data on prior to tsunami conditions and evaluations or solemnly on experience and economic impact assessment afterwards. The success of policy makers in providing the appropriate aid in a specific context depends largely on the administration and prior tsunami data in place. The many NGOs working at the same time in the housing sector could result in the fragmentation of aid, which contributes to higher compliance costs, less predictability and greater aid volatilities, thereby, risking the decrease of aid effectiveness (Masyrafah and McKeon 2008, p.39-40; Kuru 2005, p.20,28).

Better aid provision can be reached in theory by including national ownership and alignment after equal allocation of aid based upon on good performance leading to better functioning local governance and the equal distribution of power. However, NGOs are usually unable to monitor the commitment of the local villages to implement changes or reforms, which will increase the aid effectiveness as well as the impact of aid. Thus, observation and monitoring of all the performances of NGOs at a local level are important for increased insights in the impact of the delivered humanitarian aid. These methods of NGOs towards the villages makes
the foreign aid more predictable and could even lead to flexibility in their budget, which will provide more leverage for successful implementation of programmes (Bourguignon & Sundberg 2007, p.318). However, each natural disaster is context-specific and a greater understanding of the specific characteristics of a natural disaster is necessary to be able to address the needs of local communities afterwards.

2.4. Characteristics of natural disasters

The response towards a natural disaster of the local community, the local government and in general on a country level will determine the impact of the disaster afterwards and thereby influences the recovery process of livelihoods. This part of the thesis explains these aspects and addresses the purpose of recovery programmes.

There are “four types” of natural disasters, which occur the most frequently, and which have the most impact on local communities; “floods, earthquakes which can cause a tsunami, cyclones and droughts”. The main characteristics can be explained by heir (...) “predictability, scope, onset, and mortality rate”(...) (Sapir and Lechat 1986, p.118). However, the mortality rate out of these factors is variable and depends as well on pre-existing economic and social conditions. The response toward a natural disaster can be described best in the following phases: “the warning-, impact-, emergency-, rehabilitation- and recovery phase”. Statistics show that a natural disaster tends to strike more often in less developed countries, and is therefore closely linked with concepts as such as “vulnerability” (Sapir and Lechat 1986, p.118). Earthquakes and tsunamis are characterised by (...) “sudden onset, large scope of impact, high mortality rate and low predictability”(...) (Sapir and Lechat 1986, p.119). These natural disasters occur with little warning or time between earthquake and tsunami. A tsunami is unpredictable, and usually damages more sectors than other natural disasters, for example, the flooding of seawater causes huge damages to agriculture land, next to collapsing of houses. Usually when the development stage of a country is higher, the adjustment capacity after a natural disaster is also better (Sapir and Lechat 1986, p.119-120).

Data suggests that the mortality rate per disaster has become higher especially in the case of earthquakes and tsunamis. Population growth, greater socio- economical and health differences, timing, coping capacities of communities and the amount of seismic activity might be factors, which increases the mortality rate. The data on morbidity is often not registered, only the direct death toll. This makes the comparison between different countries
difficult. Furthermore, different categories of injuries seem to exist, and a high number of affected people are even not registered since they did not visit an official hospital. In the case of earthquakes and tsunamis, the most injuries occur directly after or during the event. These injuries are directly correlated with the construction of houses and infrastructure, and secondly the socio and economic conditions of the communities influences the amount of injuries (Sapir and Lechat 1986, pp.119-221).

The long-term impacts of natural disasters are besides the loss of life, the loss of income, such as the fisherman in Aceh. The loss of income has a great impact on whole families, since often no financial safety net is in place. With floods the salt of the seawater will destroy a couple of harvests at best; consequently, this leads to second wave of deaths destroying livelihoods for many affected people. There should internationally be more emphasis on a distinction between direct consequences of the natural disaster and the human implications. Moreover, even within a country there might be huge differences between poor rural areas and urban areas in terms of impact of a natural disaster (Sapir & Lechat 1986, p.123-124).

2.4.1. Response to a natural disaster

In general, an investigation on the impact of a natural disaster starts similar as any other disaster, with an assessment of what has happened. This investigation includes an assessment of the total damages loss of life in order to understand the magnitude of the disaster. However, not only damages and loss of life needs to be determined, also the loss of property, houses, infrastructure and the impact on the economy. In order to understand the context and scope of the disaster, as many stakeholders need to be involved in the data collection process and data analysis of the disaster as possible. It is important to include the needs and wishes of the beneficiaries in order to make the response to the disaster context specific, culturally appropriate and more relevant. The next step is to investigate a reasonable timeframe for the recovery phase including an assessment of available resources and skills, thus the amount of wood and timber needed for instance to rebuild the houses. This assessment is necessary to set the prices of the needed resources to calculate the budgets (da Silva 2010, p.28-30).

The reconstruction phase, after a natural disaster strikes, provides a window of opportunity to rebuild a safer environment in which a disaster has a less destructive impact in the future by reducing the vulnerability of the communities. A tsunami is an extreme event which can best be prepared by means of an (..)“early warning system and a well functioning evacuation plan”(..)(da Silva 2010, p.14). The reduction towards risks of hazards on a community level is
needed to increase the coping capacities of the community living in high risks of coastal areas. The planning, implementation of building guidelines and restrictions, as well as escape routes results in increased preparedness of the local communities. Good infrastructure must also be incorporated in the reconstruction plans next to the recovery of houses. Governmental reconstruction plans need to include the types of hazards, which are likely to occur and the risks they bring with them (da Silva 2010, p.13).

2.4.2. Recovery of livelihoods
Principles which are required in the recovery programmes of NGOs after a natural disaster are the need to rebuild the houses back safer and ensure equity in development in the recovery of livelihoods. The wider environmental context of the region must be included in the national recovery plan. People need to recover not only from the loss of lives or injuries and damages but often have to find a new way to earn an income as well, diversification of income sources is important. Local communities are heterogeneous, consisting of different generations and gender with all specific needs that need to be adhered to in order for the whole community to regain their livelihood (Kapadia 2005, p.1). Livelihood recovery can be encouraged by cash-for-work programmes, cash-grants, advocacy or microcredit. These methods are mainly focused on the socio-economic strengthening of communities.

2.4.3. Goal of recovery programs
The aim of recovery programmes used to rebuild the damages of houses and infrastructure, thus to encompass various programmes aiming to assess, reduce and manage the impact of disasters at different levels of analysis. However, recovery programmes of humanitarian response require also an appropriate and context specific approach. The response tackles root causes of vulnerability such as livelihood, institutions and power relations of local governance. The humanitarian programmes, which address the impact of the natural disaster, must acknowledge that, the impact and the response has often different results at local communities. In addition, humanitarian agencies need to know the institutional drivers, which increase local coping capacities. The problem in Aceh was that the tsunami also damaged local legal/social institutions. These institutions used to have information on property ownership and gathered information on areas often damaged by floods or storms (Maxwell & Coates 2008).

What needs to become apparent in the assessments of “natural disaster” impact is the not only the physical occurrences of the disaster but the result of interaction between floods,
earthquakes, storms, tsunamis, and vulnerabilities of a community. The lack of resilience of a community can be caused by a lack of good infrastructure, economy and the environment these communities live in (Birkmann 2006, p.2). Hence, natural disasters influence the livelihood of communities, in the case of a tsunami, infrastructure and the housing sector is one of the most visible sectors which is affected by this.

2.5. Housing reconstruction after natural disasters

There already exist guidelines for rebuilding houses after natural disasters. For a nation recovering the most prominent challenges are the questions of the amount of houses needed, lists of people that are entitled to a house and identifying possibilities to resettle communities. Additionally, the impact of resettlement for the planning of land needs to be examined. In the implementation phase, the newly constructed infrastructure should also consider the wider environmental constrains in order to make the reconstruction sustainable. The rebuilding of houses needs to adhere to the wishes of the beneficiaries by using the appropriate cultural values of the communities (Jha 2009, p.5)

All these questions must be addressed in the planning, designing and implementing stages of the (re)building process of houses. The construction of permanent houses should take into consideration the wider context of impact assessment and will lead towards an increase in the capacity building of local communities. A participatory approach, where the owners are in charge of the rebuilding process of their buildings makes them also more responsible and accountable for the maintenance of the houses, will increase the appropriateness and relevance of humanitarian aid. The key to a successful construction of houses is to work with the communities instead of letting them solely participate in the rebuilding process. If throughout the recovery process monitoring remains possible then there is space for adjustments and improvements of the construction of houses. The relocation of settlements should only be used as a last resort. In summary, needs assessments should in theory lead to a proper design and planning of the reconstruction of the implementation phases (Jha 2009, p.6,7). The usage of the concepts of “community based approach”, the purpose of the term “participation” as well as the importance of “capacity building” of the local community, including “ownership” and “empowerment” is given below.
2.5.1. Community based approach

With the term, “community participation” is meant more than just the community giving their consent to the execution of plans and programmes of NGOs. “Participation” is seen as the key to the success of many programmes. If participation of the communities is ensured it is expected to provide long-term economic and environmental success. Participation is reflected in the usage of people’s ideas and knowledge, as well as the power that is given to the communities over the programmes and projects of external agencies as NGOs. However, the concept of “participation” has various meanings to different people and NGOs. The main purpose of participation is to increase the local coping capacities, which consequently builds their self-reliance and indirectly their income and even their livelihood. Generally, participation results in a decreasing power of external agencies over their programmes but will result in the consent of the local communities over programmes and will also justify the external decisions made for the implementation of the programmes of NGOs, thereby increasing the effectiveness of the provided aid to local communities (Pretty et al. 1995, p.60).

There are seven main types of “participation”, that agencies use and each type reveals the amount of actual participation of the communities in the projects. Participation can be done on different levels, at various stages of a project cycle ranging from “passive participation to self-mobilization”: From “passive participation”, which is participation where the people are being told how the project is about to be implemented to “self-mobilization”. “Self-mobilization” means that in this stage of participation the initiative comes from the local communities, which in practise is rare. They develop contracts, are asking for funding, resources and knowledge on how to implement the programmes together with external agencies, however they keep the overall control over the programmes and projects (Pretty et al. 1995, p.61). In the housing sector, participation is an often-used phrase in impact assessment; however, what type of participation is meant remains unclear. The empirical part of this thesis reveals that the assessed NGOs all use different participatory methods in the housing sector, which indirectly influences the appropriateness and relevance of the provided humanitarian aid.

However, in times of urgency such as in an emergency or recovery phase, the usage of full community participation will lead to delays of the implementation of the projects of programmes of NGOs. Community participation is introduced as a concept to ensure
sustainable development, and aims to develop an appropriate response to a disaster at a community level. The overall purpose of using community based approaches is to cope, prevent and decreases the impact of natural disasters on local communities (Victoria 2005, p.270-271).

2.5.2. Purpose of participation
The benefits of using a participatory approach is that the community is addressed with dignity, their needs and wishes are heard and it enhances the coping capacities of communities and thereby increasing the relevance of the provided aid. Community participation aims to create ownership of the communities over the disaster mitigation programmes which are in the end also more cost effective and appropriate. The process of using participation means the inclusion of the voice of local disaster committees and volunteers that are asked to help with the implementation of the “community based” projects. The “community based approach” is bottom-up and, therefore, includes the needs of the local communities, and acknowledges the importance of traditional coping capacities. The “community based approach” includes the wider context in programmes by using a multi-sector approaches, targeting the housing sector, public health, and infrastructure. Thus “community based” recovery programmes incorporates a broad range of issues in projects, programmes in order to reduce the effects of disasters.

Natural disasters are often still viewed as isolated events/incidents and in case of a tsunami even rare events. In the recovery phase, this results in a lack of linking the damage assessments with the prior conditions and future threats. The response towards tsunamis was often top-down ruled, inflexible, and perceived the beneficiaries as victims. The response to the consequences of the natural disaster was often technical; the implementing agencies were only accountable towards the donors instead of towards the beneficiaries making the process of recovery less transparent (Victoria 2005, p.274).

2.5.3. Capacity building, ownership and empowerment
The GOI had the overall ownership over the national recovery policies and programmes, which the BRR was leading. At the local governance level, the local authorities possessed ownership and responsibility over the implementation of the programmes of the BRR. What is acknowledged, and described above is that local communities have a voice and should be themselves responsible for the way the programmes are implemented in accordance to their needs, making the aid more appropriate. The concept of ownership is best reflected in a
community-driven approach towards development. However, the downside of this approach is that if the expectations of the needs of local communities are not implemented in accordance with the timeframe, it does not serve the needs of the local communities properly, making the aid less relevant. In Aceh, delays in the implementation of programmes made the local communities fear the consequences of for instance the coming rainy season. Thus, people needed sooner rather than later permanent housing facilities, the short term output of aid was preferred instead of sustainable and earthquake/tsunami resilient houses.

The concept of ownership is closely connected with responsibility and accountability. Local ownership cannot be achieved, if the implementing agencies are not transparent or if the authorities are corrupt. This consequently leads to imposing programmes and projects of humanitarian agencies and governmental authorities without the consent of the communities (Telford et al. 2006, pp.9-11). The World Bank defines a community driven development approach as:

(...)“an approach that empowers local community groups, including local government, by giving direct control to the community over planning decisions and investment resources through a process that emphasizes participatory planning and accountability” (...). (Cliffe et al. 2003, p.6)

Nevertheless, “CDD” is not an integrated approach yet in most recovery programmes. Moreover, the broader topic of the measurement of concepts such as “empowerment”, “building capacity”, increasing local “resilience” against natural disaster and sustainable development exist considerable research interest. The assessment of resilience of local communities towards a disaster is still a major challenge at every level of analysis. The next paragraph presents models reflecting on a country, district or even local level methods to reduce vulnerabilities towards natural disasters. Taking into account that models are a simplification of the reality (Cutter et al. 2008, p.5).
2.6. Global framework on natural disasters

Cross-cutting issues on the formulation of guidelines and indicators of the impact of natural disasters on a global level are mentioned in the Hyogo Framework for Action. This framework on natural disasters is a recent and most often referred to by researchers.

2.6.1. Hyogo Framework

The Hyogo framework is the outcome of a “World Conference on Disaster Reduction” which not only describes the challenges of natural disasters, but goes further by giving objectives, expected outcomes and strategic goals, and even priorities of actions to come to an international strategy of disaster reduction (Schipper & Pelling 2006, pp.19-20).

The Hyogo Conference was held in 2005, and adopted the framework For Action; Building the Resilience of Nations and Communities to Disasters. It provided a strategic approach towards the reduction of vulnerabilities, risks, and hazards. It was the first platform to include on the global level of analysis the need to formulate a strategy for communities to cope with natural disasters, thereby reducing the impact of natural disasters. A general understanding of the need to act globally exists to implement disaster risk policies. To manage the impact of disasters, above all, those needs must be translated into policies, plans, programmes that foster sustainable development. The identified challenges are the lack of effective cooperation between different governments. Besides there is also a lack of coherent legal and policy frameworks, which identifies risk and assesses ways to reduce the underlying risks, hence, reveals vulnerabilities of communities. Therefore, drawing up guidelines to prepare for an effective response in future events is a major challenge (Schipper and Pelling 2006, p.20).

The above mentioned effective objectives of “The Framework for Action” includes: updating the existing guiding frameworks, share the lessons learnt, share also the challenges and increase awareness of these policies concerning disaster risk reduction on a community level on both a national and regional level (2005, p.5). On a community level, the community authorities must be empowered to manage the implementation of resilience building programmes, which are introduced by district or national authorities, thus a strong institutional basis is necessary to increase the preparedness. The major challenge, however, remains for developing countries to implement these programmes, when the risks exceed the capacity to respond to natural disasters. Thus, the (financial) partnership with other actors must lead to positive impact of recovery programmes (Hyogo Framework for Action 2005, p.7).
The starting point for action addressed in “The Hyogo Framework” is to obtain accurate knowledge over the characteristics and dynamics of hazards and the physical, social, economic and environmental vulnerabilities of communities towards natural disasters. This will lead to action taken upon this knowledge (Hyogo Framework for Action 2005, p.7-9). The Hyogo illustrates the desired implementation of a global framework, though; it does not reflect what indicators are used to measure vulnerabilities, in order to increase the resilience of societies towards natural disasters. Hazards only become disasters if human coping capacities are destroyed (Birkmann 2006, p.9). Indicators must be developed, instead of international guidelines over developing indicators. In short, the Hyogo framework for action reveals the link between “vulnerability” and “sustainable development”. These indicators can be used to design policies and thus might increase the aid effectiveness, when communities are more empowered and capable to address future threats to hazards (Birkmann 2006, p.10-11). This framework underlines the challenges faced on a global level to implement universal binding guidelines on disaster risk reduction on local communities. Additionally, this framework underlines the importance of increasing community’s resilience and stresses the root causes influencing the aid effectiveness.

2.7. Different conceptual frameworks and concepts on natural disasters

Many concepts exist within the field of natural disasters and risk reduction. The four most relevant for the aftermath of the tsunami in Aceh are “hazards”, “disasters”, “vulnerability” and “resilience”. These concepts can all contribute to the explanation of the impact of a natural disaster, as well as the root causes which influences the aid effectiveness, and are projected in various conceptual frameworks, which all try to explain and simplify the reality. The frameworks themselves provide possible indicators that can be used both to measure and reduce the impact of natural disasters. These frameworks on natural disasters include next to the above listed concepts also other terms that directly or indirectly influence the impact of natural disasters, which are, “mitigation”, “preparedness”, and “social vulnerability”.

“Mitigation” is defined as decreasing the effects of hazards on the vulnerable communities; via for example creating dykes or earthquake proof buildings. “Preparedness” is understood as actions undertaken before and after a disaster strikes, to ensure a context specific and culturally appropriate response, consequently indirectly reflecting the relevance and appropriateness of humanitarian assistance. Examples are the for instance the coordinating of the evacuation of communities, increasing public awareness about the risks of natural
disasters, and introduction of early warning systems. (Victoria 2005, p.270-273). “Social vulnerability” is a dynamic concept that addresses more than just rebuilding the damaged infrastructure and livelihoods. This concept includes the following elements as well being, livelihoods and resilience, self-protection, social protection and political networks and institutions (Birkmann 2006, p.13). It takes into account the wider social and environmental circumstances and macro indicators that influence the aid effectiveness (Birkmann 2006, p.14-15). “Resilience” is a dynamic concept, and is defined as the capacity to absorb or adapt disturbance or shocks, to cope with a disaster to decrease the impact, damage (Cutter et al. 2008, p.600).

In this thesis the pre-existing political, social and economical conditions are used as baseline and the changes over time in the recovery phase as the impact of provided humanitarian aid. (Birkmann 2006, p.15). Of all concepts and existing models on natural disasters, the ones focussing on reducing society’s vulnerability are the most relevant for this analysis and are therefore discussed below:

- “Disaster Resilience of Place Model”
- “Sustainable Livelihood Framework” by DFID, 1999
- “Vulnerability Framework” by Turner et al.’s et al., 2003
- “Vulnerability in the Global Environmental Change Community” by Cardona and Barbat, 2000
- “Pressure and Release Model PAR” by Wisner et al., 2004: 51.
- “BBC” (Bogardi, Brinkmann and Cardona) Framework, based on Bogardi/Birkmann (2004) and Cardona (1999/2001)

2.7.1. The Disaster Resilience of Place Model
This model addresses the impact of natural hazards and takes the community level of analysis into account by focusing on the social resilience of local circumstances. It presumes that the natural system, social system and the environment are all interlinked and all influences the impact, these are the pre-conditions in this thesis apart from the environment. “Resilience” is a dynamic concept that can foster change. The community level indicators are the indigenous factors, and the wider context is the exogenous factors. The exogenous factors influence the indigenous ones, though their impact such as global economic slowdown or climate change is not directly measurable. The event characteristics of natural hazard, frequency, duration, magnitude and slow or sudden onset, differs according to the disaster type and the local circumstances.
The immediate effects of natural hazards can increase or decrease depending of the coping capacities of communities such as evacuation plans, shelter or the availability of emergency recovery funds. In the case of the housing sector in Aceh after the tsunami, the BRR ensured the coordination, implementation of the emergency plans. Then the real impact can be revealed. The impact of a natural disaster is the sum of the pre-existing political, social and economical conditions, type of hazard (tsunami) and the coping capacities of the communities. The impact of the disaster can be decreased by the effective use of humanitarian aid, which increases the absorption capacity of local communities and affecting the level of recovery. In the case of the tsunami that affected Aceh, the sudden onset of the disaster coupled with the magnitude made any response being overwhelmed by the event itself. The impact can also be decreased by ad-hoc innovative improvisation mechanism such as the first aid delivered because of strong social cohesion, which was the case in Aceh. This is called social learning, the diversification of the coping capacities which must result in effective recovery policy making for instance by the BRR (Cutter et al. 2008, pp.602,603). There are several dimensions influencing “resilience” of communities ranging from ecological, social, economic, institutional, infrastructure and community competences. Most indicators for “resilience” are not operational yet to monitor the impact at a community level (Cutter et al. 2008, pp.603-604).

2.7.2. Sustainable livelihood framework
This framework focuses on two concepts; “sustainability” and “livelihood”. “Livelihood” is directly linked with the housing sector in the case study of Aceh. “Sustainability”, refers to the ability to cope, react, recover from risks, and maintain natural resources for the future. The wider context of this framework is determined by the changing structures of the governance, private sector, culture, and laws, which all might influence the aid effectiveness. The deeper understanding is that by empowering the poor and most vulnerable groups within a society will lead to an overall decrease of vulnerability, increasing the accountability of local communities, and thereby increasing the appropriateness of aid (Birkmann 2006, p.21-22).

2.7.3. Vulnerability Framework
A risk to a natural disaster can preserved as incorporating the concepts of hazard, exposure, vulnerability and capacity. A hazard in this context means the probability to the exposure of disasters, which is in the case of Indonesia as history reveals on page 41 high. The amount of exposure of a community towards a natural disaster is determined by its wider context.
including, the structures, population and economy, these conditions serve as the baseline of analysis in this thesis. The third element “vulnerability” is reflected by the existing physical, social, economical and environmental factors of a community. The outcome of risks of disasters can be reduced by increasing the coping capacity of a community, as well as by physical planning, social capacity and economic capacity. The great difference with the latter approach is that the concept of “vulnerability” is here just one out of four elements that can reduce the risk of disasters (Birkmann 2006, p.23). However, no real distinction explanation of exposure is given, moreover this framework does not determine where vulnerability starts or ends (Cutter et al. 2008, p.601). When the vulnerability of a community is decreased the effectiveness if humanitarian aid should increase, and result in this case in more appropriate delivered aid.

2.7.4. Vulnerability in the global environmental change community

Another research approach towards “vulnerability” is the global environmental change approach, which takes the concept of “vulnerability” in a broader context, including factors such as “exposure”, “sensitivity” and “resilience”. This framework links the human- with the environmental dimension (Birkmann 2006, p.26). This approach takes into account the environment and the usage of resources as in Aceh after the tsunami the sudden high demand for hard wood and timber for the housing reconstruction sector, which decreased the aid effectiveness. Another consequence of the sudden high demand of wood is deforestation, making the environment more vulnerable to future natural hazards. The total scale of natural disasters is growing globally, however the unit of analysis in this paper is on a household and community level, which influences the livelihood instead of looking at the average GDP of the country or district as indicator of coping capacity of communities against natural hazards. The impact of the disaster is however always event specific and the impact differs locally (Cutter et al. 2008, p.602).

2.7.5. Bogardi Brinkmann and Cardona (BCC) framework.

Three dimensions, which in the BBC framework are interlinked; “vulnerability”, “human security” and “sustainable development”. This framework addresses the need for a holistic approach towards disaster risk assessment instead of only providing methods that measures the loss of lives and economic damages. “Vulnerability” is perceived as a dynamic concept, which can also serve as an intervention tool. This framework explains that vulnerability assessments needs to consider different types of hazard; external events, which exposes the vulnerability of communities, and consequently influences social and environmental
dimensions of vulnerability. The aim of the BBC approach is to link vulnerability with sustainable development by reducing vulnerability and increasing the resilience of local communities. This analysis focuses on elements, which can make a society vulnerable.

Methods used to measure vulnerability need to take into account the economic, social and environmental elements of a community, which form the baseline of analysis within this thesis. This theoretical framework focuses on responses of communities of both before a disaster and after a disaster takes place. This approach is important since it takes into account the impact of natural disasters, which is the external event and provides the link between human and society factor. Social and economic indicators are given to assess the vulnerability as a means to reduce the frequency and magnitude of the impact of a natural disaster (Birkmann 2006, p.34-36).

2.7.6. Environmental vulnerability

The concept of “environmental vulnerability” is influenced by and can be caused by over exploitation of the environment in rural areas or rapid economic growth. This is the opposite in small remote areas where the availability of disaster reduction plans are often not in place resulting in limited the coping capacities, which was the case in Aceh, that was largely inaccessible due to the proclaimed state of emergency, which is further discussed in chapter 3 on page 43.

The coping capacities in combination with the timeframe between when a disaster strikes and how well the coping mechanisms work are important parameters for impact assessment. The impact can be reduced before a disaster strikes by preventive measures to increase the preparedness or after the disaster by emergency response. The exposure of communities towards natural disaster is mentioned as one component that influences “vulnerability”, the “location” where the natural disaster strikes such as coastal communities as the most important factor that creates the hazard. The number of facilities such as schools, mosques situated in the affected area is defined as the “spatial element” of “vulnerability”. Climate change may result in a higher frequency of natural disaster especially in coastal areas affecting both the rich and poor nations. Although the coping capacity of communities differs, coastal areas are high-risk areas towards hazards, such as floods. In summary all dimensions of vulnerability must be reduced, economic (insurance) and social, for example in this thesis by building better risk flood/earthquake resistant houses, or imposing regulations that pursue
communities to move to lower risk areas, to come to a real reduction of vulnerability instead of a reduction shift from one dimension to the other (Birkmann 2006, p.34-38).

2.7.7. Vulnerability, sustainable development and risk reduction

The Hyogo Framework for Action stresses the need to view “risks” and “vulnerability” as parts of sustainable development and must be reflected in policy, plans and programmes of impact reduction. The focus so far is on purely socio economic, global and national dimensions rather than risk reduction of natural disasters implemented on a local level. The UN ISDR acknowledges the need to integrate socio-economic dimensions with the risk and hazard analysis and this leaves it open to formulate guidelines or indicators. The first draft includes six main dimensions of sustainable development: economic, environmental, social, quality of life, disaster resilience. The Brundland Commission adds a dimension, on the quality of life which stresses the importance to link the needs of the communities without compromising the needs and resources of future generations and thereby explaining the sustainable part of development. This sustainable dimension of development is reflected in guidelines for building back safer houses instead of just rebuilding houses in the case study of Aceh after the tsunami (Birkmann 2006, p.41-43). Sustainable development focuses also on deep-rooted problems that can cause challenges for future generations such as social, cultural, economic, environmental and institutional differences, all indicators that influence the aid effectiveness. The political, social and economical pre-existing conditions in this thesis are used as yardstick. The sustainability aspect of building back better is incorporated in many programmes/projects of NGOs. Sustainable development increases also the appropriateness of aid, since it stresses the empowerment of local communities, increasing the accountability of local governance and adheres to local costumes and traditions. The latter fosters relevance of aid.

The first well known research on the impact on natural disasters concluded that the global trend reveals an increasing amount casualties. This is caused by humans conditions, such as more people living in hazardous environments, as for instance unprotected flood lines, seismic zones, people moving to live in areas of where they do not know the risks and business move more to risk full areas since they can cover the risks and the losses. The second generation of research on the impact on natural disasters stressed the link between nature and human behaviour. On a global level, also the human dimension was emphasized. As discussed previously the most recent disaster risk reduction framework came from the Hyogo framework stressing the need for and focussing on ways to build more resilient communities,
by integration reduction perspectives with sustainable development policies, thus increasing local coping capacities (Cutter et al. 2008, p.599).

2.8. Conclusion

In this thesis, a connection between exposure and hazard events will influence the communities differently according to their vulnerability. However, more likely is it the social circumstances coupled with the risks towards hazards that will reflect to what extent it affects the local communities and aid effectiveness. The presumption is that resilient communities are less vulnerable, will cope better with natural hazards. This will lead to a potential more relevant and effectiveness of foreign aid (Cutter et al. 2008, p.601).

The assessment of a natural disaster is conducted via a combination of the natural hazard, vulnerability of a community or region and the lack of coping capacities. It might be a slow unset disaster; the combination of the above described symptoms of natural disaster over time can create a disaster. For the case study, it is important to examine how the disaster management process went. What has been done to reduce the impact of the tsunami in Aceh? What measures were used as a disaster response? What kind of decisions and actions are taken by the GOI, the BRR implementing coordination agency and the International Community after the disaster; were there particular communities at risk? How is the impact of the tsunami reflected in the damages on the housing sector in Aceh?

Bearing in mind, that while on a global level the Hyogo Framework for Action provides guidelines as well as the models, there, still remains a gap in analysis in practise. The discussed debate on aid effectiveness in particular the guidelines of the Paris Declaration create a better insight in coherence of the aid distribution, flexible budget commitments, provides possibilities to scale up, but, must be regarded as an starting point for further research on the topic in relation to the reduction of impact of natural disasters. The concepts and frameworks, at best, points out the different indicators that can be used to measure the impact of natural disasters. All these indicators influence the impact of a natural disaster both internal or externally. In the case of Aceh, this would be the differences between the aid that is provided for by the international community and the reality of how much aid poses to have an impact on the construction of houses and infrastructure (UNHCR technical Glossary).
The next chapter describes in detail what happened in Aceh, and will be followed by an examination of political, social and economic indicators that caused the high mortality rate and impact. The presumption is that the international community, especially the NGOs can reduce the impact of the tsunami by offering effective, relevant and appropriate humanitarian aid.
3. The impact of the tsunami on Aceh

This chapter analyses the impact of the tsunami of 26 December on the province of Aceh in 2004 and focuses specifically on the effects it had on the housing sector. Furthermore, the challenges faced in the housing sector in the construction process are examined. This chapter begins with revealing the pre-existing social, political and economic conditions of Aceh, consequently showing the root challenges posed by the violent history of the GAM fighters as well as the window of opportunities in the recovery phase. Then an examination of the response of both the GOI and the international community to the huge impact of the natural disaster in Aceh will be carried out. This is followed by a conclusion based on the assessment of the tsunami. The characteristics of a tsunami that are hereby taking into account are the particularities of this natural hazard, the vulnerability of the province as well as the coping capacities of the local communities. The coping capacities of the community, the role of women and local authorities all seem to influence the social capital and the speed of recovery.

However, it is necessary to address in-depth the factual scale and impact of the natural disaster by assessing the amount of social and economic damages, the mortality rate, the amount of wounded or sick, the destruction of houses and the amount of IDPs.

3.0.1. Aceh before the tsunami

In the period between 1907 and 2006, more than three hundred natural disasters took place in Indonesia. Indonesia is one of the five countries worldwide where natural disasters tend to occur the most. These disasters are caused by their geographical location, for instance Indonesia is situated on the Pacific Basin, between the Indo Australian and Eurasian plate and is prone to natural disasters, such as, volcanoes and earthquakes. Although, the tsunami that devastated the coast of Aceh in 2004 is by far the most deadly in recent history (Nazara and Resosudarmo 2007, p.7).

To understand the impact of the nature of the disaster that stroke Aceh in 2004 the social and economic conditions prior to the tsunami need to be outlined. Economically, the main source of income of the province of Aceh came from the revenues of oil and gas; however, most people are and were working in the agriculture sector, services or even to a lesser extent in trade. These revenues which in 1998 amounted for US$1.2 Billion which is 9% of the government income that year contributed to Aceh experiencing approximately twenty six years of internal warfare (Collier et al. 2005, p.47). Aceh exported more goods abroad than
within Indonesia. The Acehnese population were largely self sustainable. Aceh prior to the tsunami had an estimated 4.1 million inhabitants. Aceh also had the highest proportion of Muslims of Indonesia, they had the highest GDP income of Indonesia because of the revenues of the natural resources though in reality many areas were underdeveloped. An average of 30% of the people in Aceh lived under the poverty line compared to the national average of 17%. The inequality of income increased since the policy of President Suharto encouraged people from overcrowded cities in Java to resettle in Aceh. This lead to more competition in the jobs market and created tension between the local and newcomer (Collier et al. 2005, p.41-43; Nazara and Resosudarmo 2007, p.4).

3.0.2. GAM Fighters
The social political conditions caused by the internal conflict had deteriorated five years before the tsunami stroke damaging 900 schools and causing the displacement of an estimated 100,000 people. The mounting hostilities influenced the economic prosperity and infrastructure development. Meanwhile the Free Aceh Movement (GAM) was fighting for independence of the central government in Java. Foreign companies were granted access to the region to generate natural resources without the consent of the Acehnese either, the revenues being made benefited the central government more than the local population. This is said to be the main reason for the GAM fighters to take up an armed struggle to regain their independence they were even funded for their cause from abroad (Nazara and Resosudarmo 2007, p.4).

The conflict has had a detrimental impact on the population. The total amount of ex- GAM fighters is estimated at 14,300 people, half of them are living in the most devastated areas of Aceh, including Aceh Timor and Aceh Timur with almost 40% of the population having felt affected by the GAM fighters. The fears of the GAM fighters lead to displacement, destruction of houses and property and disruption of the local economy. Fortunately half of the population is benefiting economically from the end of the fighting’s, especially agriculture and small business (Nazara and Resosudarmo 2007, p.1-3).

In 2002, the peace agreement was signed between the GAM fighter and the GOI, providing the province partial autonomy and free elections. In May 2003, this agreement collapsed and the army did not withdraw its troops from the province nor did the GAM fighters disarm. Consequently, the GOI declared “martial law”, meaning the military of Indonesia moved with
troops in Aceh to control the coastal areas of the province. A year later “martial law” was followed by the exclamation of the GOI of the “state of emergency”. This entailed that most NGOs were not granted access to the region with only local based and mostly faith based NGOs remaining in the area (Collier et al. 2005, p.52-54). Finally, in august of 2005 both parties signed the peace agreement. The GAM fighter did not gain total independence but settled for local self-governance, the right to establish political parties and many GAM prisoners were released. The momentum for the peace agreements talks was created by the huge impact of the tsunami, which resulted in unity amongst the Acehnese. They whole province had to work towards reintegration and community development. This reflects to “Build Aceh back Better or Safer” slogan used by the GOI (Masyrafah and McKeon 2008, p.1). In the first phase of recovery predominately-local government agencies were involved, which lead to more input of local circumstances in development programmes (Masyrafah and McKeon 2008, p.2).

3.1. National strategies and the real impact of the tsunami

The natural disaster had a significant impact on the province of Aceh. The official death toll of the province of Aceh is 167,000 according to the Department of Social Affairs in March 2005. The amount of people displaced was estimated at 811,000 of which 477,000 people were living in camps for IDPs. Furthermore, two third of the affected people were children, elderly and women who were not able to climb in trees or to get to higher ground or climb onto roofs of houses which had a huge impact as well demographically (Nazara and Resosudarmo 2007, p.10). 5% approximately of the population had perished and even 20% of the total population became homeless. 100 communities have been washed away completely, let alone the dire consequences for local authorities trying to cope with consequences that were already short of workers prior to the tsunami. A year after the tsunami stroke the impact in Aceh of the tsunami was that 94,682 were still missing, around 400,000 people were displaced and 90,000 people were still living in temporary houses (Nazara and Resosudarmo 2007, p.10-11).

Besides the human death toll a large number of homes were damaged. An estimation was that close to 110,000 houses were destroyed completely and 365,000 houses damaged, 3,000 kilometres of roads had been vanished as well as 14 seaports and 11 airports. Not only was the infrastructure was affected, so was telecommunication, water and electricity, fishery industry and agricultural sector (Nazara and Resosudarmo 2007, p.1). This resulted in an estimated 265,000 people losing in an instant their means of earning a living.
Within the province of Aceh, Aceh Java, Aceh Barat, Aceh Besar and the city of Banda Aceh were the most affected by the tsunami (Nazara and Resosudarmo 2007, p.5). The immediate need in the recovery phase for rebuilding of houses resulted in a sudden high demand for timber and wood. The wood for the recovery phase came from the province of Aceh itself and other parts of the country or was imported from other countries (Indrawati and Steer 2005, p.10; Kuru 2005, p.4). Indonesia is known for being one of the largest producers of wood in the world, with an average production of 60 million cubic meters yearly. There should have been enough wood for the reconstruction of the houses and infrastructure in Aceh, however, the legal annual cut is less the amount needed for the reconstruction. The international agencies have to comply with the rules and laws of the GOI concerning the supply of local wood and wood related products. Nonetheless, illegal lodging occurs frequently for the export and can cause a problem for the provision of enough timber in future. Unfortunately, also the infrastructure was heavily damaged which poses problems in the delivery of the wood and wood related projects for the reconstruction of houses especially in remote areas were access to the communities is already difficult (Kuru 2005, p.6).

Economically the World Bank report estimated the damage as high as a year’s income or the GDP of Aceh in 2003, 60% of this amount was caused by physical damage and 40% indirectly by the loss of income due to the economical situation. The oil and gas industry were almost not damaged, only the fishery and the agriculture sector suffered visibly. 55,000 anglers and fish related workers did not survive the tsunami another 14,000 people were still missing. In the agricultural sector 10% of the rice and cultivated grounds were damaged. Fortunately, the planting of rice was resumed already in March 2005 since the rainfall helped the salt water to dissolve and this made the soil fertile again. The increased level of poverty because of damaged houses and the agriculture and fishery sector poses the biggest challenge towards full reconstruction and livelihood recovery of people’s livelihood (Nazara & Resosudarmo 2007c, p.8). To reduce the economic-, political- and social challenges of the tsunami, the GOI established a Master Plan for Reconstruction and Recovery and created this a new authority the BRR to manage and coordinate the whole recovery phase of especially the province of Aceh.

3.1.1. The Master plan

The government gave the access to Aceh for foreign aid at the 28 December and the
emergency phase lasted until March 2005. In the first couple of days, not much information was provided to the outside world and the national army were the ones offering assistance. Fortunately, soon after already regional and international aid agencies gained access to the province they started to provide assistance in the form of emergency relief operations. The media played a crucial role in obtaining funds for the victims of the tsunami. The private sector together with NGOs provided US$2.5 Billion of the total of US$ 9 billion in the reconstruction and rehabilitation period until 2009 under the authority of the BRR. At the end of its mandate over 80% of the recovery and reconstruction programme was finished. After April 2009, the mandate of the BRR will be handed over at a national level to the National Development Planning Agency (BAPENAS), and at regional level by the Aceh Sustainable Reconstruction Agency (BKRA) and Nias Sustainable Reconstruction Agency (BKRN) (ADB Progress Report 2009, p.20).

3.1.2. Establishment of the BRR
The initial emergency phase took longer than expected and therefore also prolonged the process of rehabilitation and rebuilding of houses. In the first instance, two institutions were responsible for the housing and shelter section, the National Development Planning Agency (BAPENAS) and the ministry of public works (MPW). In May 2005 the Aceh and Nice Rehabilitation and Reconstruction Agency (BRR) was established to take over these roles and run the recovery and coordination of aid for Aceh and Nice (Steinberg 2007, p.153). The approach of the BRR was that the community should be actively involved and informed in the reintegration process but also contribute to the recovery of the settlement or housing process (Kennedy et al. 2008, p.25). The members of communities needed to be informed of every stage of a project cycle including the orientation or planning, implementation and eventually in the evaluation process in order to make the development of the communities sustainable. Sustainability can be reached by active community involvement, strengthening the local institutions and providing technically sound and basic accommodations.

The GOI established the BRR, a legislative and administrative body with the task of coordinating all stakeholders involved according to the needs of the beneficiaries identified in the early assessments. Another task of the BRR was to mainstream and coordinate the aid flow in all future reconstruction activities, plans, projects and programmes. The mandate of the BRR ended in March 2009. In 2008, already the exit strategy was written to orderly coordinate all NGOs.
The initial reconstruction plan of the government estimated the damage of the tsunami at US$ 5.2 after the midterm evaluation in 2007. This amount reached however in effect the US$7.2 billion. The focus of the recovery phase needed to shift after an evaluation towards more community based recovery and rehabilitation (ADB Progress Report 2009, p.5). The local and district governments were empowered to implement these programmes making sure capacity building of local communities was done in a sustainable manner (ADB Progress Report 2009, p.6).

The BRR has achieved both major results and faced challenges consisting of the lack of enough staff to plan the programmes and projects of the government and the other stakeholders as well as the lack of experienced implementing agencies for the recovery phase. The original needs assessment of the GOI directly after the tsunami predicted the amount of houses needed at 80,000. This amount is an underestimation also caused by the difficulty to access certain remote regions in Aceh (ADB Progress Report, 2009, p1).

Additionally, another consequence was that the BRR no sooner than 2005 set up guidelines for the houses, which came into effect a year later. This lead to great variety in quality of houses constructed. These different housing units also derived from the type of material used, bricks or wood and if the community approach was used or not. The communities competed over what agency should build their houses thus making the houses demand driven (Masyrafah and McKeon 2008, p.10-13). In summary, the BRR while being considered as successful, was under constant political pressure to perform. This made it impossible to meet deadlines and incorporate the indigenous and/or local building knowledge and using local materials with the consent of the communities of the designed houses. The guidelines of sustainable houses which are to construct safer houses was not often accomplished (Steinberg 2007, p.164-165)

3.1.3. Aid volatility
High volatility of humanitarian aid influences the output of aid in general. In Aceh, the huge inflation rate made it impossible for humanitarian agencies to fulfil their obligations in the case of the housing sector. However, less houses were build or they were not finished by the end of a project (Masyrafah & McKeon 2008, p.2). The rising amount of NGOs providing humanitarian aid lead also to a higher costs of delivering aid and a marginal revenue of the
provided aid because of difficulties with coordination, planning and implementation at a local level for the BRR and local governance.

Rapid price level increase in construction materials such as wood and timber made the projects become more expensive. The overall high inflation rate, which is reflected in the Consumer Price Index (CPI) in Aceh was the highest in the whole of Indonesia. The inflation made outputs rates of houses unreachable. The gap in funding because of the inflation became apparent and was almost US$ 500 million. The inflation reached a record high of 41.5% in 2005. The wages in construction additionally increased due to the scarcity of available labourers after the tsunami. The poverty rate declined in 2006 as a consequence of the peace agreement and the received recovery in livelihood by the international community (Masyrafah and McKeon 2008, p.2-4).

When there are more donors working in the area, such as in Aceh, the aid seems to become less volatile, loans and grants are distributed via the BRR and the communities seem to benefit from the aid and because the projects and programmes were monitored and evaluated. These evaluations were published on a database of the BRR website, making the aid more transparent and as well less volatile. Volatility of aid increases when the commitments of aid provision falls short of the actual disbursement of funds. In Aceh, the main facture for aid volatility is the sudden increase in inflation, especially in the resources of the housing sector but also due to a lack of basic goods, which were normally locally produced. For instance agriculture and fish products made the CPI increase drastically. In 2005, the fuel subsidy was reduced creating higher prices for the transport of commodities. However, in 2006 inflation was already less than 15%. The re-building of infrastructure, and the set up of local markets contributed to the decrease in inflation in 2006 and 2007 (Masyrafah and McKeon 2008, p.13-16)

3.2. Impact of the tsunami

A tsunami or volcano is a rare extreme natural disaster with a sudden unset. This makes the response time to react towards such events short and at best, warning systems and evacuation plans must be in place. In Aceh, the earthquake, which causes ground tremors, triggered the tsunami and only approximately a period of fifteen minutes lay between the earthquake and the tsunami. Moreover, the inhabitants of local communities did not react to it and this did not result in an early warning since its epicentre was not onshore. If immediately an alarm system
would had warned the coastal settlements to evacuation to higher ground this would have been a possibility to a large extent and could have safe lives (da Silva 2010, p.41).

A typical characteristic of an earthquake is that it causes ground shakings, damaging houses, and infrastructure and causes landslides. A tsunami causes gigantic series of water waves. Early warning systems and building houses that are seismic resilience are measures that reduce the impact of the natural disaster. However in Aceh, mainly anglers and even some tourist resorts were planned and placed in the so called “fault line” in high-risk prone areas along the coastline. The people of Aceh, who wanted to return to their settlements had to put pressure on the government to rebuild quick earthquake prove houses often near the “fault line” or even in the “fault line” (da Silva 2010, p.41).

Buildings are more resiliently if concrete and masonry structures are used. However, this can conflict with the wishes or cultural traditions of the beneficiaries. For instance, a seismic sound house must also be build in accordance with the guidelines of the GOI and the BRR. Seismic buildings are also more expensive and were therefore eventually not obligatory for newly constructed houses in Aceh. In Aceh because of the exploitation and illegal cutting of the forest for timber and hardwood new settlements might result in landslides. No accurate assessment in Aceh was conducted to map the flood risk areas of nearby settlements. Therefore the need for resettlement after the tsunami was even greater than first thought, since areas near mountains could also be prone to disasters including floods from heavy storms. Most victims were eager to rebuild their settlements on the original sites (da Silva 2010, p.42-43).

The case study of Aceh has a history of earthquakes, tsunamis, floods and heavy storms as described above. However, this has not resulted in the government taking action in raising awareness and creating evacuation plans of coastal communities. The reaction towards the impact of the tsunami was only focused on the reduction of this tsunami, instead towards other natural hazards leading to high amount of causalities (da Silva 2010, p.42). Since 2006, the newly constructed houses after the tsunami are tested, without the wider context of the impact of the disaster being addressed (Steinberg 2007, p.162)

3.3. The impact of the tsunami on the livelihoods and the housing sector
In the initial emergency relief phase, shelter and semi permanent barracks, tents and houses were constructed. The NGOs were not the ones to be the first to respond to the natural disaster nor the GOI, but, other individuals and the local police, army and Red Cross rescued individuals. The second stage of rescue and emergency relief came from the humanitarian agencies (Telford et al. 2006, p.11).

The tsunami influenced almost every sector, in contrast to other natural disasters. The housing sector alone required the amount of US$ 1 Billion to recover. The ADB Progress Report revealed facts and figures of the recovery phase of the tsunami in 2009. The report reveals that next to the houses, 330,000 land parcels needed to be cleaned, almost 19,000 land certificates for house owners been given and over 14,000 people left their temporary shelter. Moreover, almost 20,000 semi-permanent houses were constructed including the victims of the tsunami as well as conflict victims. Within the livelihood sector, the damage will have a longer impact. The estimated damage is approximately US$1.2 billion on agriculture and the fish industry. In addition, damage of related businesses and fishing equipment including boats and agricultural land added to this loss of income. By 2009, the ADB report mentioned that in total 100,000 businesses were compensated and supported as well as markets being re-established. A considerable part of the agricultural land was cleaned from a silt layer. However, the full recovery of the rural areas of Aceh will take more time since the local capacity has not returned to pre-tsunami figures.

3.4. The rebuilding process of houses

Every natural disaster needs a specific approach because each context varies. The reconstruction of houses in this case must meet the needs of the people in Aceh in the end of the process. The communities must be rebuild in a way that gives them back dignity, ownership and power over their own houses. The permanent houses are often build following new seismic techniques and are build in consent with the beneficiaries, which enables them to maintain their own houses (Kennedy et al. 2008, p.26). In reality, the strengthening of coping capacities of communities against future threats was difficult since many challenges; such as planning a large-scale recovery programme in short period with under staffed government resources, absence of taking into consideration the greater impact of the building of houses such as the sustainability, lead to a weak enforcement of the recovery programmes and projects. The large amount of funding available for the recovery process resulted in the
engagement of more humanitarian agencies. These NGOs started without skills or experiences in the housing sector (Kennedy et al. 2008, p.30).

The requirements for local labour in the reconstruction and building of houses after the initial period diminished as a result of the increases in demand for external contractors. The lack of experience of some of the NGOs made it impossible to meet the quality and technical standards set out by the BRR. The BRR did not have the capacity to read all proposals due to a large volume of requests. The knowledge on how to build houses more earthquake and tsunami resilient was not wide spread with the implementing organisations. Meanwhile local labours established their own means of income and regarded the reconstruction work as temporary. The Acehnese traditionally imported labour for reconstruction and were less motivated to participate in reconstruction programmes themselves (Kennedy et al. 2008, p.27).

The wish of the beneficiaries to speed up the process of rebuilding the houses lead to a trade-off of between the quality of the houses being rebuild and the considering of the upcoming rainy season. This lead to their disappointment in reality because the building of the plots took much longer than expected and were less sustainable. Besides this, religious NGOs and/or local NGOs worked with more consent with the population and even had better access to the beneficiaries without having better knowledge how to build safer houses. The temporary houses intended as a means for the population to stay together instead of living in tents camps elsewhere were wrongly used as sheds for equipment used to make an income. While this provided aid, it did not always deliver the intended outputs of rebuilding sustainable houses for the affected population.

3.4.1. Challenges to the reconstruction process
The reality on the ground was that decades of internal warfare had lead to a lack of access for international NGOs to enter Aceh in the initial emergency phase. Consequently, local communities were not used to having foreign aid workers in their communities. Moreover, the foreign agencies worked often with other methods, principles and different traditions let alone that in a short period approximately 500 agencies reached the province (Masyrafah & McKeon 2008, p.7). Furthermore, the local government was and did not have enough community workers and means to attract and guide all the provided aid. This made the communication between beneficiaries and NGOs even more complicated and lead to delays in the implementation of the projects. An additional problem was that the projects were funded
for a fixed period. Whenever a project for whatever reason was postponed, the flow of money became insecure which could mean the end of/or unfinished project (Kennedy et al. 2008, p.29).

Another challenge was that the GOI changed the conditions of building safer houses as mentioned earlier in this chapter. This resulted eventually in the implementation by the BRR of the standard size of a house of 36 square meters (Masyrafah & McKeon 2008, p.18). All housing programmes should integrate multiple sectors such as infrastructure, electricity and clean water facilities; otherwise, the newly constructed houses are undesirable for habitation. ADB a Mercy Corps are one of the NGOs making an exception and incorporating these needs in the construction of houses (Steinberg 2007, p.161-162).

3.4.2. The rebuilding process of houses
The process of rebuilding or reconstruction of houses starts with drawing a map of the area, making visible what has been destroyed, and who lived where. After the tsunami, landowners often lacked the certificates of their land. These administrative papers were mostly destroyed by the tsunami. This posed a problem to people, since they lost their rebuilding rights. The issuing of these certificates was important and part of the responsibility of the reconstruction of Aceh Land Administration System (RALAS), which helped the National Land Agency (BPN), in the meantime, temporary certificates were provided (Steinberg 2007, p.154). The GOI promised every house owner who lost their property a basic house of 36 square metres free. However, for people who rented houses and squatters to gain a new place to live it was not so simple and their status was difficult to establish.

Because of the necessity to rebuild or build new houses the international community asked permission to send pre-fabricated houses so that the natural resources of timber and wood would not run out and reduce the illegal logging. Pre-fabricated houses have the disadvantage of not using local resources, labour or technology, and therefore not contributing to the participation of local communities. In a time of great need of basic housing facilities, the Government of Indonesia chose for a community based reconstruction process instead of the prefabricated houses. Until 2006, not enough houses were built and thus prefabricated houses were allowed and constructed. The advantage is that these houses are more earthquake prove. The use of pre-fabricated houses undermined the consequences of rising demand for building materials. This also led to a decrease of the usage of local craftsmen, builders and other
contractors (Steinberg 2007, p.155). Another impact on the quality of newly constructed houses was the lack of building permits to check the seismic resilience against future threats. The BRR send inspectors since 2006 to investigate how well the houses are constructed (Steinberg 2007, p.155).

3.4.3. Demand for hard wood and timber
The material used for the houses differed from timber, wood or bricks as mentioned above. The local population regarded masonry as modern and requested the use of bricks over wood and timber. Due to the peace agreement, the struggle for independence was by and largely over. This meant that in particular timber was easily available again. However, environmentally unfriendly timber is often used as traditional building methods and the local skilled labours knows how to work with this material. Houses made of bricks had the disadvantage that wood was used to produce the bricks in the first place. Esthetical and social values proved to be for beneficiaries more important than building an earthquake resistant house.

The destroyed buildings were often built of hardwood, which was a local product, and due to prior to the tsunami low density of the population this construction technique did not damage the environment. In the reconstruction phase this was however, different, the demand of hardwood was much higher than in previous years, and by most NGOs not morally accepted, as illegal logging was not encouraged. The middle class houses were often build of hardwood, and could in certain instances be constructed out of residues of the damaged houses. Pine wood or soft wood was used for the poor, however the quality of this type of wood was less. Some NGOs chose to rebuild in the same fashion as before and used therefore a lot of pinewood (Kennedy et al. 2008, p.27).

The sudden high demand of building materials increased the costs of building resources such as wood and timber, as well as the transport costs to get to the local communities increased. This made it difficult to achieve the number of agreed upon houses to build since the unit price of it doubled in within a year. The financial gap causing unfinished houses had to be made up by the BRR. Initially the costs of labour and resources were because of the sudden increase in demand in a short period becoming scare and thus high as well. Furthermore, the energy prices were rising at the same time hence augmenting the budget for the construction process. Wood has also been imported but this was not a risk free process. The migration of people delayed the delivery of aid via the road. Resources were often stolen or had to be
flown in via the BRR directly which made the manufacturing of houses costly (Kennedy et al. 2008, p.27-28).

3.5. The role of women within the community

More women than men passed away in the tsunami, which is the opposite in natural disasters such as floods because men tend to take more risks and thereby overestimate their swimming abilities to rescue others (Telford et al. 2006, p.6). However, the participation of woman is important in the success of the reconstruction process. Their role can differ with their approval of the programmes seems to give the “head of the community” more confidence and providing a basis for social cohesion within the community. The disturbance of man/ woman ratio could be negative for the recovery process altogether. In Aceh the role played by women in the recovery phase is based upon the Muslim values.

Many NGOs have incorporated the role of women into their policies and their village development committee. Women’s participation has increased after the tsunami due to active government and aid agencies efforts. Though the role of women must not be overstated, mostly they still perform religious roles instead of being consulted in the planning and implementation phase of aid provision (Thorburn 2008, p.14-16). Therefore, the link between women participation and swift recovery is not visible. Women’s participation does enhance good governance and social cohesion within communities (ACARP 2007, p.11).

3.6. Coping strategies

The local communities used the following coping capacities, firstly they asked aid of their family and friends, secondly, households decided to sell assets, and thirdly they asked the government and NGOs for grants and loans. In the initial recovery phase a lot of work in construction and relief projects provided an income mostly for unskilled labour but not to the most vulnerable of the population such as single mothers, the elderly, injured people, they often sold the received aid especially livelihood goods. Village meetings are often mentioned as the best way to deal with these challenges within a community although sometimes not everyone was asked to participate in meetings, or they were held to late at night and thus not suitable for women to attend since they needed to take care of the children. Within these meetings questions regarding (…)” transparency of aid, the distribution of the money, the
progress of reconstruction programmes and accountability of donors was discussed”(..) (Thorburn 2008, p.8-10).

All villages received training and skills in village administration by Australian Aid and Local Governance and Infrastructure for Communities in Aceh (LOGICA), to encourage and strengthen local authorities to deal with the challenges of the aftermath of the tsunami and the previous GAM struggles.

3.7. The role of social capital

The reconstruction process of houses should have been done quicker, especially the temporary constructed barracks so that the community could have stayed as much as possible together, and using their community social cohesion to rebuild their village. In reality, the weather caused damage to the tents, and as fast as possible temporary houses were needed, however, the resources spend on these temporary settlements could have been spend to create more sustainable houses. The difficulty was that not only did people lost their own land or their rented houses complete villages needed to be resettled elsewhere taking into account that fisherman could not be automatically be relocated in agricultural areas. Infrastructure needed to rebuilt and connected to the newly allocated communities (Steinberg 2007, p.153).

Within the recovery phase also religious leaders, community leaders, local government employees, social workers, nurses, teachers have passed away and this affected the whole social structure and cohesion, even more so since some villages were vanished completely others were partly affected, or the inhabitants had fled to other family in host communities or were divided among different temporary shelter camps. Fortunately, the traditionally strong community cohesion based upon Muslim religion was not lost but only weakened. On the emergency phase most people received at least emergency shelter and basic health care within their community. Water born diseases have not occurred on a large scale (Thorburn 2008, p.16)

Community leaders were often in the first place orthodox religious leaders and had little to no experience in performing the role of information gathering or facilitator of foreign aid. These leaders of communities were the ones helping in the emergency stages by providing information, shelter and reuniting families. For the recovery phase of housing projects community participation at every level of the project cycle poses a problem for both the
communities and NGOs. The NGOs often did not have enough resources to lead the communities participate and the communities were still grieving. Community based housing was not always the best solution. For example, one of the WB programmes even introduced self-mobilization. The community was responsible for the construction and implementation. While the progress was fast, the community leader did not have enough technical skills and supervision over the building process leading to poorly constructed housing units. The local media reported also the negative stories of NGOs not being able to finish their projects. This led sometimes to a mistrust under the local population which is not a good starting point for consultation and empowering the local communities by NGOs. However, research has shown that there exists a correlation between good leadership and fast recovery of the tsunami in Aceh (ACARP 2007, p.10). Another relationship between the amount of village meetings held and the trust in the local leader in Aceh is apparent (ACARP 2007, p.11).

The transition phase is in theory better suited for community based recovery. However, personal loss and grievance prevailed the community cohesion and the lack of enough community and/or religious leaders and community held gatherings did not encourage community participation in every community let alone community-driven programmes. Social capital has traditionally played an important role within the Aceh community. The fear was that by providing cash-for-work projects the incentive for the youth to participate in social community based favours would vanish. The social structures are nevertheless still in place, neighbours help each other out. The head of a village can foster more cohesion as well as certain donor approaches. Since people tend to help each other out, mutual trust in each other and the local governance is necessary and can be facilitated by community leaders. An important role in the increasing coherence and social capital is the activities, which brings people together such as religious activities. The communities which had temporary housing, shelter or other facilitates as Mosques to use for occasions which brings people together, such as marriage, are important for the cohesion of the community (Thorburn 2010, p.17-18).

3.8. Conclusion

This chapter assessed the real impact of the tsunami on the province of Aceh. Indonesia is especially, due to its geographical situation risk prone for earthquakes. The tsunami of 2004 was by far the most deadly, causing 167.000 casualties, made one-fifth of the population homeless and damaged many houses, roads and other infrastructure. The pre-existing social, political and economic conditions have lead to the exceptional high rate of casualties, poor
evacuation plans and almost absent early warning mechanism. This chapter further examined the role of the GAM fighters. These prior tensions already made the local authorities weak but also resulted in a lack of on the ground NGOs for the immediate emergency phase. Thus, mostly remote local communities were not accustomed to aid delivered by foreign agencies.

To meet the needs of the communities the government had set up the BRR agency. The BRR was responsible for the coordination of aid and provision of access to the beneficiaries to the implementing agencies. However, due to an overload of work, no guidelines were provided for the building of permanent housing until 2005. Consequently various standards, traditions, materials are used in the housing sector. Another side effects were the underestimation of the amount of housing units needed and the lack of oversight of the 120 agencies of which 107 NGOs working in the housing sector was inexperienced NGOs could not fulfil the promised obligations to the beneficiaries. Additional challenges for NGOs were the high inflation rate caused by sudden rise in price of wood, timber and other resources, lacking infrastructure, importation of fish and agricultural products and rising energy prices. Delays in the housing sector caused by the absence of the BRR guidelines on houses, difficulties in introducing the community based housing approaches on communities, difficulties in getting access to remote areas, shortage of local labour, lack of coordination causing duplication of aid delivering or housing units without electricity or water facilities. On the other hand, the influence of women in society, the coping capacities of local communities and social cohesion, made the reconstruction phase shorter. These listed factors influenced the effectiveness of the delivery of aid to the local communities. The next chapter will start with an assessment of amount of houses being constructed by NGOs and analyses further the impact of the delivered aid of specific NGOs.
4. Analysis of the impact of the humanitarian aid

This chapter examines the real impact of the delivered humanitarian aid by NGOs in the housing sector on local communities in the province of Aceh after the Boxing Day Tsunami, and interlinks the theoretical methodology and frameworks with the practise of post-disaster housing reconstruction projects/programmes. The analysis goes beyond measuring the quality of the delivered aid, by analysing also the distribution and disbursement of the delivered humanitarian aid. The relevance and appropriateness of the housing reconstruction projects/programmes are central in this chapter. These concepts are introduced in chapter 1 on page 9. In summary, the concept of relevance investigates whether the delivered aid is in line with the needs/wishes of the beneficiaries, which is reflected in the satisfaction level with the results. The concept of appropriateness, analyses whether the delivered aid leads to the fulfilment of local needs, such as increasing local ownership, participation and accountability. Furthermore, this thesis is based on the frameworks of the Paris Declaration on Aid Effectiveness and AAA; both indentifying the importance of alignment, harmonisation of aid, mutual accountability and managing the outcomes of humanitarian assistance, in order to increase the overall effectiveness of aid. Indirectly these concepts are reflected in the aid provided by NGOs. Additionally the HFA ensures that the building resilience of local communities in disaster prone areas becomes a priority, which is illustrated in the participatory approach used by NGOs.

The examination of the impact of the NGOs is divided in two sections. The first part addresses the general assessment of aid effectiveness, which is provided by the ADB Progress Report, the Tsunami Evaluation Coalition (TEC) Report and the Report of the Aceh Community Assistance Research Project (ACARP).

The second part examines in depth the housing projects of Oxfam International (OI), World Vision Indonesia (WV), Catholic Relief Services (CRS) and Muslim Aid Indonesia. This part illustrates the difference in methods used by NGOs to measure impact. In practise, this concept is often interchanged by the concepts output and outcome. The outcome as a concept, as listed on page 20, refers to the short-term effectiveness of the delivered humanitarian assistance and the output reveals how the policies/projects/programmes are executed. Only
impact measures the long-term effectiveness of humanitarian aid. The effectiveness of the housing projects/programmes is analysed through NGOs working at different levels; international (OI), country level (WV and CRS) and local level (Muslim Aid). Additionally, the differences between a Christian and Muslim faith based NGO are examined, in order to assess whether this influences the acceptance and impact of the aid on local communities.

4.1 Impact of the NGOs on the housing sector

In 2005, around 107 NGOs were working on the housing reconstruction process in Aceh. All NGOs who wished to work in this sector were granted access to the provinces by the BRR (Steinberg 2007, p.156-157). As already mentioned the overload of funding made it for NGOs easy to expand their activities in the emergency phase and well into the transitional phase regardless of their expertise. Examples are Red Cross, Oxfam International, Oxfam UK, Care and Muslim Aid Indonesia. Of this mentioned NGOs Muslim aid and a German agricultural NGO proved to be successful in the housing reconstruction. They provided “off-budget” housing projects. “Off-budget” is the term used for projects of the WB and ADB, who contracted experienced agencies and NGOs to implement projects. The NGO Care is accused of only being able to build half-completed houses. While some of the houses constructed by Safe the Children needed to be destroyed completely afterwards due to poor quality in their construction. Thus, NGOs, who just emerged in the housing sector, are best off focusing on their own capacities and expertise instead of spending the influx of funds on the construction of housing units. Alternatively, they should work closely together with experienced NGOs in the field of housing constructions (Kennedy et al. 2008, p.24).

The ADB and the WB as major players in the housing sector could only provide finance for housing units if there was a government fund next to it. This construction is called “on-budget”. This resulted in bureaucracy constrains such as governance approval lead to a delay of the construction of houses. The ADB and WB used NGOs such as Muslim Aid and World Vision as contractors to implement their projects. These coordinated projects are planned to run until 2008. The expertise which the ADB and WB are using is coming from experienced contractors. Additionally they have to work together with local or district governance and ensure more sustainable housing facilities. The BRR as an implementing agency has attracted contractors to work on the reconstruction of houses. The BRR had many tasks to fulfil but lacked the skills and capacity to provide a good oversight in the delivered houses in terms of the quality and timeframe (Steinberg 2007, p.157).
The evaluation of the actually constructed houses of the various NGOs reveals that most of the houses were built in 2006 and 2007. In 2005 the majority of temporary houses were constructed. These houses were constructed primarily by NGOs instead of by the United Nations, or the ADB, WB or the GOI. There were in total 139,000 houses planned to be build. However, the fulfilment of the commitment of the NGOs to construct this amount of houses was not met. By June 2006, 40,000 houses were constructed, and the same amount was planned to be constructed in the next two years. The BRRs original plan was to accomplish the construction of all the required houses by the end of 2006. This target is however because not reached because of adjusted quantity of houses, the delays and challenges faced in the implementation of the housing projects (Steinberg 2007, p.158).

In order to include basic infrastructure and water and hygiene facilities, with the housing programmes the amount of money allocated to housing decreased. The reconstruction of partly destructed houses was another story. Not many NGOs were able to provide this kind of assistance (Steinberg 2007, p.158). The agencies still operating in Aceh are the “ADB, Muslim Aid, Mercy Corps and Caritas”, who provide livelihood programmes next to the housing projects. As a result of the weakened local authorities and governance the NGOs are called “the drivers” behind the recovery process of the housing sector in particular (Steinberg 2007, p.155-156).

The housing reconstruction was the biggest sector in the reconstruction plan of the BBR. Housing was included in the sector, which also comprised of infrastructure, transport and communication. In total, this sector received US$ 3.1 Billion. The core minimum for these sectors combined was estimated at US$ 2.26 Billion and housing sector alone attracted US$ 1.64 Billion. The average size of the projects of NGOs is smaller than government agencies. NGOs managed on average four projects per agency, and donors fifteen in comparison. The housing projects of NGOs are after transport the largest projects of almost US$ 7 million each project (Masyrafah and McKeon 2008, p.5-8). In 2008 nearly 114,000 houses were building of the 140,000 needed were built by December 2008 of that year.

4.1.1. ADB Report
The programme report of the ADB in 2009 highlighted the status of the reconstruction and rehabilitation efforts. Of the total amount of committed aid almost US$ 7 billion nearly three quarters was used by the end of 2008. 29% was disbursed by the NGOs (ADB Progress Report 2009, p.1). Of all the money spend by NGOs by far the largest sum was spend on
housing, followed by healthcare and education (ADB Progress Report 2009, p.3). As a result of the high number of NGOs working in this sector that implement various projects, it is difficult to show real progress in construction. This report reveals the progress made in the period from 2004 until the end of the mandate of the BRR. By March 2009, 139,282 units were completed, approximately 70,000 houses repaired, almost 20,000 temporary houses are provided, over 18,000 land certificates are issued and nearly 15,000 households could leave the temporary barracks (ADB Progress Report 2009, p.21).

With the construction and rebuilding of housing units, many temporary jobs were created providing a boost for the local economy. This initial boom of the economy slowed down in 2008, even far below the national average; the poverty index shows a decline in poverty since 2004. This figure is still higher than in urban areas. The needs for programmes supporting livelihood are necessary to reduce the income gap between urban and rural areas. The impact of the reconstruction employment on the local economy is temporarily and it is unknown whether other sectors such as trade can make up for the decline in income in the construction of houses (ADB Progress Report 2009, p.5).

Another factor that has an influence on the impact of aid on local communities is the weakness of the institutional system. This caused by a delay in the implementation of programmes and projects in the housing sector. The delays lead to a under use of the annual funds available for projects because of on-budget requirements, lack of good work delivered by contractors and infrastructural challenges of access to rural areas. Implementing agencies are not contracted the next year leaving projects unfinished (Indonesia: Aceh and Nias Rehabilitation and Reconstruction Report 2009, p.5). The challenges caused by the sudden major influx of aid were the supply and demand difficulties of resources and labour as mentioned in the previous chapter. This made the price for the reconstruction or rebuilding of houses more expensive creating a problem for the implementing agencies. The basic needs of the local communities also changed along with the growing expectations of the foreign aid agencies resulting in budget difficulties (ADB Progress Report 2009, p.7).

The response of the BRR was to adapt the programmes to the changing conditions. On average both, the community-driven and community based approach of the construction of houses was more successful than contractor development. The advantages are; more cost effective construction of houses, flexible budget and planning in the implementation phase,
usage of local design, making use of local employment, increasing women participation and sustainability (ADB Progress Report 2009, p.12).

The first prognoses of the ADB amount of houses needed was 14,000 new houses and 10,000 rebuild. After revision and evaluations of the ADB 6,000 houses still need to be build and 1,400 rebuild. This number includes the houses of which the ADB contracts NGOs off budget to build. By November 2009, all houses should have been completed (ADB Progress Report 2009, p.10). The communities were empowered in the housing construction process via community leaders and organisations, community facilitators and religious leaders in cooperation with the other NGOs working in these communities. Of all the housing contracts over 80% of the funds are used. The remaining 20% was due to late approval of the projects by the BRR. The BRR needed to approve the plans well before the end of its existence and disbursed the funds by the end of April 2010 in accordance with national building codes.

4.1.2 TEC report
The Tsunami Evaluation Coalition (TEC) published a report in April 2006 on the impact of the tsunami response on the local and national capacities in Indonesia. This report presents the findings of the capacity to respond by the local, district, national government, the capacity of the local communities to cope with the influences of the most deadly tsunami, addresses accountability and the quality of services delivered. The main stakeholders in this report are the international agencies, national and local governance, NGOs, community based organisations and the beneficiaries. The assessment of the impact of aid divided in an emergency analysis, early recovery and reconstruction phase. The data for this report is gathered in three weeks of field visits in Aceh in September 2005. The Aceh NGO Forum assisted the research team by providing detailed information on the progress made by NGOs (Scheper et al. 2006, p.16).

This report revealed that effective coordination with a holistic approach especially in remote areas leads to a better result of the provided aid. Key areas of improvement for the effectiveness of international aid are; getting access to isolated communities, address the needs of vulnerable groups such as elderly and women, war widows, affected communities of the internal conflicts. The vulnerable groups and communities located in remote areas must be targeted in all programmes and projects. In reality in the first eight months these groups were not reached. Additional vulnerable groups are renters and squatters, whose needs were not addressed in most housing construction programmes by NGOs or the BRR (Scheper et al.
The main problems resulted from the lack of awareness of these vulnerable groups. Main issues were that they had been neglected in the mapping of beneficiaries, were forced to relocate, became easy targets of corruption, and women still suffered from the strict traditional interpretation of the Sharia law in Aceh. Fortunately, overall the humanitarian aid had a positive effect on the peace agreement and the strengthening of local governance, leading to a trickle-down effect of accountability within communities. This is reflected in the decentralisation of the national governance authorities. However, the specific needs assessments of the vulnerable groups have not been translated in the adjustment of recovery and construction of housing projects. The gender-based approach was only tested as pilot. In general, there exist a greater need for “mutual accountable partnership” of international agencies with local actors, to increase the local knowledge of the local agencies and increase the capacity of these actors. This will lead to more accurate assessments based on which programmes of international agencies are designed. The housing sector revealed slow progress and a lack of participation of local communities especially in rural areas (Scheper et al. 2006, p.12).

The already mentioned problems and challenges in the housing sector also came up with the TEC assessment report, such as issues in land rights, unfair re-location of communities, the high unemployment rate leading to 600,000 people living below the poverty line in 2005 (Scheper et al. 2006, p.15). 25% of the people in Aceh became unemployed resulting in an overall unemployment rate in Aceh of 30% (Scheper et al. 2006, p.8).

Another shortcoming of the provided delivered humanitarian aid was that not enough detailed monitoring and evaluation reports of the projects and programmes were made, especially on those that target the most vulnerable groups. For example, completed semi-permanent houses of Oxfam International were not occupied out of fear by the beneficiaries that they would not to obtain a permanent house afterwards. Permanent houses started to be constructed only after on average eight months because of bureaucracy in the government system, remote areas being difficult to get access to and the fact that community based approach and land mapping were new concepts in Acehnese society and required time to implement. The NGOs did not use a coherent community based approach, but rather implemented ad-hoc community based measures leading to a poor policy and information flow to the community. The coordination and the duplication of aid posed other challenges. The lack of oversight by the BRR and INGOs themselves lead to bypassing community leaders in order to speed up the construction phase. Overall more flexibility is required by
NGOs providing aid in the housing sector. The BRR in the housing sector used the Hyogo Framework for Action as guiding principles (Scheper et al. 2006, p.40).

4.1.3. ACARP
The Report of the Aceh Community Assistance Research Project (ACARP) assessed the local capacity and reconstruction in post tsunami Aceh. The participating agencies were the Aus AID, the BRR, Oxfam, Muslim Aid Indonesia, Catholic Relief Services, World Bank, Aceh Research Training Institute and the Syiah Kuala University.

This document is summoned by the BRR, and gives a greater insight in the specific challenges and successful strategies used in capacity building process in the recovery phase in Aceh of the tsunami. The report displayed external factors that helped communities rebuilt and reconstruct their primary needs such as houses and livelihood. This study consists of a multi-donor social research project executed by 27 researchers. The researchers investigated 18 villages in 3 districts of Aceh; Aceh Barat, Aceh Java and Aceh Besar. These districts were monitored over a period of three months. The researchers conducted 533 household questionnaires, 54 focus groups discussions and 35 case studies. There was an emphasis on the findings with regard to governance, housing, and livelihood. In particular, the level of transparency of the aid provision, women’s participation, accountability and social capital are all examined, and have an influence in the overall effectiveness of aid (ACARP 2007, p.10-15).

For the overall effectiveness of humanitarian aid there seems to be a correlation between good local leadership and successful recovery of a community from the impact of a tsunami. The head of a village is traditionally very important, mutual trust in him leads to social cohesion within the community. However, his role and power has decreased. The local head of the village could rule in an authoritarian way or with consent of the community’s committee. One of the challenges faced by community leaders was keep unity within communities and to condemn rivalry over which person receives what kind of aid. Whenever communities reintegrated former GAM fighters, this created unity, incentive for the community to move forward and, thereby increasing the effectiveness of aid programmes. Village Facilitators were appointed by the government, their task was to strengthen local institutions, give trainings on legislative measures in the planning and implementing recovery programmes and reinforcing the rule of law, thus, assisted the local authorities. These factors increased the social capital and overall effectiveness of the aid programmes.
Factors such as establishing project management committees, training in rights of land certificates, mainstreaming women’s rights of village governance, creating community facilities such as Mosques, and a participatory approach of the aid delivered by NGOs all contributed to increasing aid effectiveness. Traditionally in Aceh, there exists strong social cohesion which helps even better to overcome the impact of the tsunami than cash-for-work projects. This correlates with the findings quicker recovery when communities move in an early stage together as a community to temporary housing facilities near their original plots, the urge to assist and help out involuntary services is high (ACARP 2007, p.11).

In the housing sector many already challenges and constrains are reported, including delays and frustrations over the design quality of the houses constructed, the lack of participation of the communities in the design and budget for each house, corruption of villages leaders selling land certificates to people outside the village is seen as well. Additionally, poor communication and coordination of the aid lead to individuals obtaining multiple houses. Although, there is not a single case reported on the negligence of the most vulnerable groups within communities. The “Timber for Aceh” act resulted in more delays of deliverance of construction materials, since INGOs and contractors are not allowed to use local products such as timber and wood. Above all, where the wider context was included in the construction of houses the “Village Spatial Planning”, the results were positive, and capacity building was successful via small grants to support basic infrastructure and public facilities, when guidance was provided (ACARP 2007, p.11).

In general the housing projects is most successful sector of aid, however proved to deliver false hopes and poses the most challenges (ACARP 2007, p.138-139). Following this report 116,000 houses were needed in Aceh, 150,000 houses were seriously damaged and will costs two third of total budget for the recovery. By the end of this research, 100,000 houses were completed. Nearly 25 % of all constructed houses needed to be adjusted because of lack of good quality standards or facilities such as electricity. Most problems stem from decisions made at a higher level of governance, making rules without the consent of the local communities and questionnaires and interviews not revealing the exact impact of the delivered aid, only the output and outcomes of programmes and projects(ACARP 2007, p.149-150).

4.2. Analysis of the impact of NGOs on the housing sector
In this section, four NGOs will be examined on their impact of their housing projects in Aceh. These NGOs differ in size, approach, mission, vision and prior expertise in the housing sector. As stated previously, these NGOs are working on a different level of analysis; consequently, their interpretation of the “community based” approach of construction of houses will differ. The methods used to measure the concept of “impact” differs as well, this influences the outcome of the assessment reports. Successively Oxfam International, World Vision Indonesia, Christian Relief Services and Muslim Aid Indonesia are addressed.

4.2.1. Oxfam International

Oxfam and particularly Oxfam International are one of the mayor NGOs working in the housing sector in Aceh. This agency published an impact evaluation in 2006, showing challenges towards successful implementation of the committed houses. The core issues addressed by Oxfam are not shelter or housing but rather public health, hygiene and livelihood. Oxfam International reached with its programmes 300.000 beneficiaries. Therefore, it is not surprising that Oxfam Great Britain (OGB) has been unsure about involving themselves in shelter altogether. Oxfam International was cautious to intervene too. A motivation for entering the housing sector was for them to create more awareness for the impact of the tsunami and motivation to provide assistance. The Regional Management Centre (RMC) of Oxfam GB on behalf of Oxfam International issued this report (Sandison et al. 2006, p.1).

This report reflects the results of Oxfam International programme in Aceh of 2005 and 2006, based on a mixed research methodology consisting of interviews of 146 staff members and 171 beneficiaries, focus group discussions and the revision of secondary data. The report acknowledges that despite the relative successful outputs, the impact of the programmes and projects must increase in the next years. The concept of “impact” used by Oxfam International relates more to, what is usually defined as “effectiveness”. The report uses the term “Impact” as: (...) “reveals the extent to which the activity achieves its purpose or whether this can be expected to happen on the basis of outputs(...) ” (Sandison et al. 2006, p.12).

The report does not only look at the achievements at an output level of the programmes, but also includes the potential impact of the programmes on the communities. £19 million is spent in 2006 on all programmes, thus also partly on the housing programmes, and the wide-
ranging outputs are achieved, which, enabled Oxfam International to achieve its objectives (Sandison et al. 2006, p.2).

By 2006, Oxfam International achieved the construction of 700 community based houses, of which approximately 70% are still in use. The most common delays of housing programmes are the result of late issuing of land rights, late delivery of building materials, or stolen materials such as timber, the tight building schedule and utilising of the community based approach. The community based housing construction gave the beneficiaries more control over the project and empowered the communities at all stages of the project cycle. However, the participatory approach lead to a lower quality output of houses. The major strength of Oxfam International is water and sanitation, thus, not surprisingly they ensured water, hygiene and other needed facilities for the housing units (Sandison et al. 2006, p.4). Within Oxfam International, there exists some confusion over the interpretation in practise of the word participation. In Lammno, the OI humanitarian department team established houses based upon community proposals, to increase Oxfam’s accountability and to give the community members ownership over the project. However, it resulted in a: (..) “Demand-driven situation, in which Oxfam has been responding to requests of beneficiaries to construct and install houses (..)” (Sandison et al. 2006, p.10).

The following conditions had made it difficult for the humanitarian department team to plan strategically due to logistics constraints and difficulties in reaching beneficiaries; while meeting both the Sphere-related standards and real needs of the beneficiaries for shelter in the housing sector (Sandison et al. 2006, pp.4-6).

Oxfam International (OI) gave the housing sector recovery programmes priority within their overall programmes. OI is an important player in terms of the issuing of land-rights. This entails also lobbying for policy guidelines and housing standards, creating awareness for the provision of land for re-settlement at various government levels, and assisting in addressing legal issues of beneficiaries.

Challenges
Challenges that OI as new coming agency in the housing sector faced were the following. Firstly, was the drafting of programmes. Indonesia is a wealthy country, which suffers from extensive damage in infrastructure amongst other problems, to find out what the beneficiaries needed and which standards these survivors expected from the NGOs in housing sector. Secondly, the Acehnese were not accustomed with the community based or community
driven approach of reconstruction, this needed to be introduced. Programmes must become more needs based, instead of, budget and time-driven. The needs assessments must be done in the field and changing needs must be reflected in a flexible programme that matched the budget, rather than ad-hoc adjustments. A revision of programmes because of re-assessment of needs and objectives, above all, a revision towards obtaining more impact of the provided aid is vital. Additionally, the limited availability of experienced Oxfam staff members meant that the Aceh advisors and coordinators needed training in the knowledge of Oxfam’s mission and vision in order to implement the right programme strategy at a community level. Most staff members are experienced in emergency or development context. The recovery and transitional period poses challenges and both approaches must be integrated between the various: “Oxfam agencies, externally and internally between the policy and advocacy team, and humanitarian department of Oxfam GB (Sandison et al. 2006, p.18)”.

Finally, more time spending in the field: half of the time spent in the field and the other half in the city Banda Aceh to obtain accurate information on the ground realities is necessary. Thus, OI was not able to recruit the required staff for the programmes, consequently suffered from an incredibly low proportion of staff with previous Oxfam experience, or even any NGO experience at all. Oxfam needed to recruit, and train more than 800 staff members (Sandison et al. 2006, p.5).

General challenges facing NGOs in the housing sector were the damage or loss of official documentation and staff of local authorities such land right certificates, led to a delay of the design of the housing programmes. Not always land right certificates were issues in the first place, but were rather considered by the owners of houses as customary law, which is acknowledged under national law. Another constraint to the construction of houses was the difficulty to obtain access to the beneficiaries. In addition, the BRR, did not provide clear guidelines for shelter, knowledge of the environment and materials traditionally used in the housing sector. OI lacks the expertise and time to execute “pilots” with new materials and knowledge to remain innovative in the competitive housing sector in Aceh. Oxfam has assisted for instance in the local brick manufactures; however, the lack of good quality brick manufactures lead to replace of materials from other areas (Sandison et al. 2006, pp.14-16).

Community- based approach
At the beginning, OI supported mostly the community-driven approach in the housing sector via distribution of shelter boxes, land clearance and the provision of tools to set up tents. OI
involved in housing recovery sector with high expectations and strategies in April of 2005 in Aceh Besar, and then in other locations which were not targeted by most other operating agencies. The idea was to deliver shelter tools and materials that were both needed for the semi-permanent housing units consisting of a timber construction and permanent houses which could be adjusted by the owners at a later stage of recovery. After one year, the strategy and inexperience of OI in this sector led to delays and design changes. These consequences have resulted in fewer houses completed than planned. Housing progress in general has been slow for all agencies in Aceh (Sandison et al. 2006, pp.12-13).

Although the participatory approach leads to delays, OI still uses the community based approach to fulfil the needs of the beneficiaries. The design and materials used by OI are determined by the wishes and needs of the beneficiaries leading to the construction of brick instead of semi-timber. This gave the beneficiaries a higher social status and was more useful in the hot and humid climate of Aceh. The Acehnese urged OI to build permanent houses instead of semi-permanent or shelter. The difficulty was to please the wealthy beneficiaries with the BRR standards of an average size of 36m². All housing units constructed by OI are using the same “community contractor model” that should create more ownership and ensures the same quality of all housing units constructed by OI. All beneficiaries are asked to help in the construction process, resulting in carpenters being hired as artisan, because of a high demand in contractors. However, the Acehnese were not consulted in the planning of the budget for the construction of the houses “the size, furnishing, construction type or services”, which would have lead to further delays in the implementation phase of the programmes (Sandison et al. 2006, pp.14-15).

The BRR set up guidelines for the housing sector, this includes the demand to target the whole community rather than only the most vulnerable groups, OI was asked to develop houses for an entire part of the community, which made the duplication of the aid in the end an unavoidable side effect. OI dedicated special care to single parent households; however, this was not based on community assessments of needs and wishes, the disabled were not especially targeted by OI at all. This lead to the most vulnerable obtaining the most poorly constructed houses as for instance in “Lamno”. On the other hand also single households are now living with relatives and are part of the “multi-households” obtaining luxurious items as all kind of electronic devises as a result of duplication of aid delivered by other agencies; IOM, Safe the Children (Sandison et al. 2006, p.15).
Achievements and characteristics of OI housing units

Despite the challenges facing OI in the housing sector, the BRR and the UN-HABITAT ranked OI as ninth in the housing sector out of 60 agencies. The average occupation rate of finished houses was rather low 45 percent; however, in the permanent houses build by OI 68 percent was occupied. The slow pace of building resulted in transferring staff from other sectors, and staff working overtime. The permanent housing units build by OI differed in quality, design and materials. Beneficiaries praised the construction in terms of water and sanitation materials of the houses of OI. OI has committed itself to build an additional 1,600 permanent seismic prove houses in 2006 and 2007, which is considerably less than the originally planned 4,000 housing units. Of the above-mentioned 700 housing units build in 2005, 360 are in use the rest is either not complete, lacks appropriate water and sanitation facilities, or might not fulfill the traditional and cultural needs of the beneficiaries (Sandison et al. 2006, p.13).

The designs of the OI houses are in accordance with the guidelines set up by the BRR, which are influenced by lobby activities of Oxfam International in the first place. The BRR did not include Sphere standards, or the universally accepted Guiding Principles on Internal Displacement on Shelter, however, generally these were included in the design of the OI houses. The design of the houses is constructed following the globally accepted seismic resistant standards and includes water and sanitation facilities. The beneficiaries praised the latter, as well as the possibility for “a kitchen, balcony and a communal area”. The provision of electricity and the inclusion of the wider infrastructure were not a priority for OI. Another critical shortage is that DRR issues are not specifically addressed, such as taking into account guidelines prohibiting building on risk prone areas. OI could not always adhere to the wishes of the beneficiaries for instance the request to build second story buildings go against the technical and quality guidelines set by the BRR. These questions did not come up with the community based designing of houses by OI. OI tries to lessen the demand for timber to find other methods of construction, such as local fabrication of materials this does not adhere always to quality standards. Overall, the delivered houses of OI are of average quality, design and costs (Sandison et al. 2006, p.14).

The building of houses in the recovery phase has a major impact on the lives of the beneficiaries; it provides safety, dignity, thus, “psychological, physical, social and
environmental”. The housing units build by OI are largely community-driven as described above. The importance of the construction of houses is also reflected in the important role it plays in the re-settlement of the communities. For re-settlement the wider basic facilities and services must be taken into account such as of schools, infrastructure, while additionally providing livelihood programmes. OI targeted these needs, by including in the housing projects also land-rights issues, ownership, these all target the capacity of the communities. “Impact” of the aid provided for by OI after a year includes the build of 700 housing units, positive in-direct changes in land-rights and the acquisition of land in Aceh Basar, in which Oxfam plays a major role, above all assisting communities to re-settle and provide affected community members with legal advice. These mentioned activities in various areas of recovery could have a potential influence in the future. The weakest part of all Oxfam International programmes are the housing programmes, caused by duplication, under-estimated budget and timeframe and lower than estimated usage of shelter facilities. The strength of OI housing projects are the water and sanitation facilities offered, this should become the major focus of OI in the housing sector, since not many other agencies are addressing these needs properly or have the experience and knowledge in this area (Sandison et al. 2006, p.13).

In summary, Oxfam is considered as a late comer in the housing sector since it completed its first housing project in 2005, providing average quality, costs and design of houses. The delays of the implementation of the humanitarian assistance programmes by Oxfam International and other actors caused frustrations for both the staff of OI and community members. Constraints are caused by different factors ranging from a high management and technical staff turnover, ad-hoc adjustments in design, difficulties with contracting new staff, too late delivery of materials especially timber, accessibility problems to the remote coastal areas, land-rights issues, and late decisions by the BRR relating the request for engagement in shelter. Experience suggests that permanent housing programmes take a couple of years to complete at least. The BRR did not take over theses lessons in their recovery plan in Aceh. The downscaling of the amount of committed houses by OI must lead to the delivering of better quality of houses, shared expertise of the construction and logistics with other agencies to become more transparent and efficient. OI must include DRR consideration for the building sites, address the special needs of the most vulnerable people within a community, and should focus on their main expertise in public health or work in cooperation with for instance Muslim Aid Indonesia, which is already the case. Reasons for delays must be clearly
communicated with local communities to create better understanding of the communities, which will alter their expectations (Sandison et al. 2006, pp.16-17).

4.2.2. World Vision Indonesia

The programme of World Vision Indonesia in Aceh targeted 150,000 beneficiaries in 2005. World Vision Indonesia had a recovery budget for their mission of US$ 97 million for 2005 until 2008. This budget is calculated and designed after an in-depth needs assessment conducted in December of 2004. This assessment is the yardstick for their mission that runs until April 2007. The evaluation in 2007 examined the “relevance”, “effectiveness” and “impact” of the implemented programmes of all WV Indonesia programmes. The assessment consisted of a mixed method of research; 1,284 interviews if households, 40 semi-structured interviews, focus groups discussions and 40 programme staff members were interviewed and asked their experience and “impact” of WV Indonesia’s programmes on local communities. The assessment revealed the urgent need for shelter and housing projects. WV Indonesia designed programmes to assist in the relocation of households to their community of origin. These IDPs were first offered shelter in temporary camps and later provided permanent housing. World Vision Indonesia faced also difficulties such as lost land certificates, and as above mentioned by Oxfam, WV Indonesia assisted people in obtaining their land certificates and supported inheritance rights for widows. The wider context of the housing sector is reflected in the programmes of World Vision Indonesia, advocating for better community facilities and basic infrastructure. World Vision Indonesia their three years programme targets the sectors; shelter and infrastructure, economic recovery, public health, water and sanitation, child protection and advocacy (World Vision Indonesia Tsunami Response Final Report 2007, p.3).

So far WV Indonesia has constructed 97 transitional shelter centres with water and sanitation facilities, 450 temporarily houses, which targets 8,100 people. WV Indonesia has committed itself to build 3,566 houses not only in Aceh but also in the whole of Indonesia both community based construction as via a contractor as ADB. 80% of the beneficiaries regarded the houses build by WV Indonesia as sufficient in terms of seismic prove and according to the wishes of their traditions and culture. However, the average satisfaction of beneficiaries of the permanent houses was 55%, and 30% was content with their relocation of their house. Households living prior to the tsunami in one-bedroom houses were especially the most satisfied. The permanent houses are made of brick with an iron roof and contain two
bedrooms. These standards follow the BRR guidelines for the housing sector, regardless of the size of their previous homes. Surveys conducted on beneficiaries’ satisfaction reveals these differences.

The landowner certificates posed to be a major cause of delays and difficulties, since less than one fifth of the inhabitants had land titles before, customary land ownership was the norm. The BRR, together with NGOs and the World Bank set up guidelines in order to provide land owners with certificates requiring signatures from neighbours official office of land titles because of sudden high demand a delay 12 months for everyone (World Vision Indonesia Tsunami Response Final Report 2007, p.9-10). To address the challenges of the wider context of the tsunami impact WV Indonesia assisted in infrastructure projects, building bridges, schools and community centres.

4.2.3. Catholic Relief Services
Catholic Relief Service conducted an impact assessment one year after the Boxing Day Tsunami. The field assessments for this report were conducted between January and February of 2006. The assessments follow the guidelines of the OECD’s DAC principles on aid effectiveness of delivered humanitarian aid, which looks at aspects as for example, “effectiveness”, “relevance”, “impact” and “sustainability” in Pulao Aceh, Meulaboh and Banda Aceh. A mixed research method was used, including quantitative and qualitative research methods. The programmes were analysed based on “outcomes” and “outputs”, above all this assessments measured the “impact of aid” across-sectors on a local level of analysis. (...)

The overall aim of the impact assessment of the delivered humanitarian aid was to collect data on current successfulness of the projects, collected data on the impact of the programmes on local communities and provide information on the strength and weaknesses of the programmes for better future implementation (Ferris-Morris 2006, p.9-11).

The CRS staff on the ground increased drastically from zero to 330 in 2005, without having a local Christian partner such as Caritas. However, after a year because of their expertise in technical and administrative knowledge CRS started collaboration with Caritas International Operations Appeal (SAO). CRS was assisting in many sectors ranging from; “shelter,
emergency relief services, livelihood recovery, water and sanitation, health care, protection and children”. After the emergency relief, the housing sector was the biggest of all sectors in which CRS is involved. Almost 40% was dedicated to the recovery and reconstruction of houses (Ferris-Morris 2006, p.5).

The impact assessment revealed that in the first year, CRS constructed 710 semi-permanent houses, and has committed itself to another 1,300. Besides, it has assisted the BRR in the drafting of the shelter and community based housing guidelines, and assisted in the build of “local community centres”. CRS adhered to the technical, cultural, and traditional wishes of the beneficiaries (Ferris-Morris 2006, p.6).

Although CRS worked in an Islamic region, it had operated for over forty years in other parts of Indonesia, and was soon accepted as partner in the reconstruction phase of Aceh by local government and other faith-based organisations. The biggest achievement of CRS has been in the provision of temporary shelter and the reconstruction of housing projects. CRS works based on norms of the international accepted Sphere standards. Additionally, CRS advocated for the very poor people in Aceh, by providing aid to the most vulnerable groups within the society such as renters, and assisted in the policies and guidelines for the relocations of communities (Ferris-Morris 2006, p.6-7).

The main difficulties CRS faced were common amongst other NGOs as well, and partly also mentioned by the assessment reports of IO and WV Indonesia such as; challenges to contract knowledgably staff, obeying the strict laws regarding the hiring of local labours, overcoming culture differences. In addition, no prior experiences in Aceh, language difficulties, difference in salary of local national and international staff posed tensions and competition of other NGOs working in the housing sector posed problems. All these mentioned factors slow down the reconstruction process considerably. However, local communities responded positively on the usage of local Acehnese staff for the construction of houses and shelter, this strategy targets the wider impact and increases the coping capacities. CRS in Indonesia is originally well known for their delivering humanitarian aid in peace building and mitigation instead of delivering aid in the housing sector. This assessment report will help CRS to set up a 5 years reconstruction plan. CRS acknowledged that by using local Acehnese unskilled labour the progress of the housing programmes slows down considerably. Their opinion is that consequently, agencies need to be satisfied with the “less impact of massive influx of aid and potential for corruption” (Ferris-Morris 2006, p.7).
Major challenges for CRS were using methods that enhances the communication with communities and informing the beneficiaries of the causes of the delays in programmes and projects which is a common custom in Acehnese cultural traditions and the delivering of enough shelter in a short period. In the emergency phase CRS delivered shelter boxes and tools, but later changed the composition of these boxes after new needs assessments, since the delivered tools and components for tents were not made for the hot and humid climate of Aceh. The tents were rotting and the raining season was coming up making the need for semi-permanent and permanent houses was enormous. Another problem was that communities wished to move in together, or waited for water, sanitation and electricity facilities before moving in to the newly constructed houses this resulted in the vacancy of newly constructed houses. CRS assisted other agencies to move 46,000 beneficiaries to semi-permanent and permanent houses (Ferris-Morris 2006, p.7-8).

The impact assessment report of CRS shows many achievements in all fields of expertise. In the housing sector, CRS played a major advisory role together with the BRR, WB and other NGOs in the drafting of guidelines for; renters, the very poor and disabled. CRS lobbied for giving communities a voice in the relocation of their communities, including them in process of choosing a new building site. CRS is particularly used the participatory approach in the construction process, by consulting local architects and committees for the design of the housing units and contracting Acehnese engineers, empower them by holding them accountable for the delivered quality over the constructed houses.

This lead to a better quality and cultural accepted housing projects. It gave CRS a good name and attracted more funding by the WB and ADB to continue with the building of housing units. They adhered and attended meetings of local governance and other local authorities. CRS provided local communities technical advice in the rebuilding of houses. CRS thus used local skilled and unskilled workers, monitored the progress of the housing projects informed the BRR regularly on the pace of the construction process and tried to raise the environmental concerns of using too much of the natural resources for the housing projects in general. CRS also revealed their weaknesses, these include the lack providing the local communities enough information on the progress of the housing projects, and both the staff and the communities themselves must monitor the process of the housing construction in order to adjust periods and budgets accordingly. The communication within the CRS staff, contractors and externally must increase, more awareness for the environmental aspects of the usage of wood and timber, lowering expectation of the amount of housing units being build,
the construction itself must be faster by using external contractors and hiring better skilled labours (Ferris-Morris 2006, p.15-16).

4.2.4. Muslim Aid
Muslim Aid Indonesia launched a joint project with Muslim Aid UK, Muslim Aid Germany and Muslim Aid Australia after the tsunami in Aceh. Muslim Aid Germany participated only in the emergency phase and Muslim Aid UK provided most of the funding for the projects. Their overall mission was to provide aid regardless of people’s religion, ethnicity, political vision or gender and adhered to the Code of Conduct of the ICRC focussing on “public accountability” (Scheper et al. 2006, p.69).

In the emergency phase Muslim Aid jointly provided aid in multiple sectors to decrease the acute poverty problems. Muslim Aid provided, education, training, clean water and health care at a community level while using the participatory development approach. Muslim Aid targeted communities with their “mobile humanitarian aid camps”, and used 1,500 volunteers from Aceh and Sumatra.

In the reconstruction and recovery phase, Muslim Aid dedicated their delivering of aid to housing, livelihood and capacity building sectors. In July 2005, Muslim Aid established a local office in the town Banda Aceh consisting of eight staff members of which one was International, though married with a Acehnese and speaking both Indonesian and Acehnese. All staff members are aware of the local customs and traditions and possess broad networks within the Acehnese society.

Until April 2006, Muslim Aid jointly achieved the construction of 170 permanent houses in Banda Aceh, and another 25 houses in a neighbouring village. The budget for each housing unit was US$5,000. The houses are designed by a local tsunami surviving architect, who took into account the seismic requirements to sustain future threats (Scheper et al. 2006, p.69).

Community driven approach
The community based and community-driven approach used by Muslim Aid is reflected and explained in this assessment report. Firstly, they used only local resources, produced speedy construction of housing unit a month and stressed that local traditions and customs are reflected in the design of the houses. The construction materials were tested to be suitable for
earthquake, tsunami prove and resistant to the humid and hot climate. The materials the contractors used were; (…)“rust resistant powder coated corrugated iron for the roofs isolated by foils that reflects almost all the radiant heat”(…).

The building process itself involved the cooperation between the; (…)“BRR, district, sub-district, village head and spiritual local leaders”(…).

Muslim Aid prior to the build, made a prototype house that can be adjusted by individual preferences and which had a complaint box. The complaints were mostly related delays of delivering of building materials and quality of the delivered materials. The next step was to hire local contractors. For the 170 houses, they hired five contractors, who had the mandate to hire skilled local workers for the water and sanitation facilities. Throughout the construction process, two community members were appointed to monitor the process, upcoming shortcomings or challenges were discussed in weekly community meetings between the contractors, community monitoring members and Muslim Aid. The possibility to adjust each housing unit within budget on specific needs and requirements, makes all houses unique in design, while all having a qualitative well designed and constructed house. The deadline for the 170 housing units was set before the Ramadan, however delays in the delivering of the construction materials form Java made this deadline impossible to reach (Scheper et al. 2006, p.70).

Next to the housing projects, Muslim Aid joint forces together with IFRC and ILO to deliver 3,000 transitional shelter units. For the construction of these shelter units Muslim Aid contracted 100 unemployed Acehnese engineers, who obtained training in the community based housing construction and ILO teaches them the required English to enable them to cooperate with foreign contractors and conduct quality surveys. Additionally Muslim Aid set up a database of 2,000 unemployed graduate Acehnese engineers who could be hired in future building projects by various agencies (Scheper et al. 2006, p.70). Muslim Aid plans to lobby for additional funding of the Multi Donor Trust Fund and the WB, to incorporate in their project to target the threats to food security by establishing special water gates and pumps. Muslim aid had already developed livelihood programmes for the recovery phase targeting women and children. The often had requests of women for capital to set up their own business again in for instance small food and retail shops. The housing reconstruction, livelihood recovering and environmental projects together must make the delivered aid have a positive
impact on local communities and making them less vulnerable for future threats (Scheper et al. 2006, p.71).

4.3 Conclusion

This chapter presents the findings of the impact of aid delivered by NGOs in the housing sector. The general part and introductory part revealed the broad impact of NGOs based on the ADB, TEC and the ACARP reports. The second part of the chapter examined the assessment reports of four NGOs; OI, WV Indonesia, CRS and Muslim Aid Indonesia. This provided an insight in the achievements, goals, mission, vision, and difference in scope of the housing projects. None of the NGOs constructed only houses and all of the NGOs have their strength and weaknesses in obtaining their objectives and providing impact on local communities.

Major challenges facing the NGOs in the housing in general, as stated in the ADB, TEC, ACARP and the individual NGOs’ reports are the overload of international funding, many agencies were newcomers to the sector without expertise and enough skill-full staff. Furthermore, the lack of knowledge of the culture and local circumstances, and difficulties in the implementation of community based projects and programmes posed challenges. Most of the programmes and projects lacked coherence and clear guidelines of the BRR and an underestimation of the amount of houses needed, making it difficult to target all beneficiaries. Most permanent houses were built in 2006 and 2007 instead of 2005. Muslim Aid and World Vision were considered as moderately successful; however, these agencies also had their weaknesses. After infrastructure and transport, the housing sector was the biggest sector in the provision of aid and is the most visible sector.

The ADB progress report gave a better understanding of effectiveness of the enormous amount of aid delivered. Approximately 30% of the total budget for the recovery was provided by the NGOs. By March 2009, already 139.000 permanent houses were constructed out of the 140.000 needed. The temporal jobs created by the construction sector gave the local economy a boost and in 2005 a decline in poverty, which, however was still higher than the national average. The economic figure of Aceh in 2008 showed a decrease in the economic growth. Livelihood programmes are targeting this poverty gap, but it is unknown if this will create more local capacity. This report displayed that the impact of aid is dependent on the institutional and political system. Delays of approval of programmes and projects of the BRR
lead to a decrease in appropriateness of aid, since the disbursing of annual budgets and funds available was lower than predicted. Contractors spoke of delays caused by poor infrastructure, sudden increase in price of resources and labour. The overload of funding also created higher expectations of beneficiaries of the delivered aid, consequently leading to the aid becoming less relevant.

The TEC report assessed the impact of humanitarian aid on local communities, without defining the concept of impact or giving specifics of the in connotation with the term local communities. This report stressed the need for evidence-based impact of aid programmes, based upon pre-existing standards and adherence to the Sphere Standards and HFA. Poverty reduction and capacity building is linked with the social structure, which can reduce the vulnerability of local communities towards exceptional disasters. In remote areas effective coordination and a holistic approach leads to more effectiveness of aid. Vulnerable members of a community need to be addressed and mainstreamed in all aid programmes and projects, especially in the housing sector. The Peace Agreement with the GAM fighters had a positive effect on empowering local communities to reintegrate them in the communities which increased the overall accountability and transparency of the communities. In the housing sector, more participatory approach of housing construction and monitoring and evaluation of the projects are necessary, making the houses more desirable to live in for the beneficiaries.

The ACARP examined the local capacity and successfulness of the recovery phase in Aceh, who were summoned by the BRR, many agencies as well as the University of Syiah Kuala participated. This report examined the houses and livelihood programmes, transparency of the programmes, women participation, mutual accountability and the amount of social capital. The findings of this research were that there exist a correlation between local leadership and recovery, local leadership and social cohesion. The role of the head of the community is vital to attract funding and foreign aid agencies and strengthen unity within a community. Another finding is that the social cohesion is stimulated when communities are quickly reunited, community facilities are offered such as Mosques.

The real impact of the NGOs is determined in the housing sector by 120 agencies, which are international, national, local, and faith-based oriented. These agencies have in common that they are working in the same sector under the similar circumstances, with different approaches. The second part of the chapter, therefore, assesses the impact of the different NGOs on the local communities in the housing sector.
Oxfam International is as NGO a late comer to the housing sector, who reached 300.00 beneficiaries with their various programmes in Aceh. In almost two years completed 700 permanent houses, with an average of 70% occupied, and is ranked by the BRR and UN-HABITAT 9th out of 60 NGOs working in the housing sector. OI used a community based construction approach and their water and sanitation facilities were praised by the beneficiaries. However, the weakness of OI is that there was no ground for entering the housing sector based on prior expertise. The assessment does not reflect the impact of these numbers of houses built, the focus is “output” and “outcome” based rather than indicating the “impact” of their programmes and projects. The methods used to implement the community based approach are not given. Furthermore, appropriateness of aid, thus the participation rate of beneficiaries is not defined. The concepts as “impact” and “community based approach” are not converted to local identifiable indicators or evidence. The assisting in drafting land rights, perusing land rights, providing legal advice to beneficiaries might raise awareness of the beneficiaries and indirect increase the participation of beneficiaries through empowerment. The report revealed that directly the lack of enough ”community based approach” is evident, since OI did not consult the beneficiaries in the size, material, size budget of the houses. Furthermore, OI did not target the vulnerable groups in their programmes or the wider context. Additionally, OI acknowledged the duplication of aid and the lack of including DRR issues but did so far not act on these consequences. OI used the guidelines of the BRR and constructed houses of 36m2. This international NGO has until 2006 reached an enormous group of beneficiaries, build a considerable amount of permanent houses, with a high satisfaction rate of the beneficiaries. However, evidence of the real “impact” on the local communities, the method used to implement the “community based” approach is executed remains not measurable by indicators.

World Vision Indonesia is the second NGO investigated on its impact on the housing sector in Aceh for this thesis. WV Indonesia targeted 150,000 beneficiaries, and reached, thereby, half the amount of Acehnese as OI. This NGO operates at a country level and has the advantage of more local knowledge and experience in the housing sector. The NGO examined the “relevance”, “effectiveness” and “impact” of the provided aid until 2008, with mixed research methods. The first conducted needs assessment by World Vision Indonesia made apparent the high demand for shelter and permanent housing. In addition, WV Indonesia provided aid next to the housing sector to economic recovery, public health, water, sanitation, child protection and advocacy. In the housing sector WV Indonesia stressed the importance of
quick relocation, re-settlement of houses, issuing land ownership certificates, raised awareness for community facilities and basic infrastructure. WV Indonesia contributed to the increase of “impact” of aid to local communities. This report does not display or revealed methods used to measure the “impact” of the delivered aid on the local communities. World Vision Indonesia accomplished the build of 97 transitional shelter facilities, 450 temporary houses and committed them to build an additional 3,566 houses. They have the shelter facilities and the temporary houses constructed in a “community based” way under the auspices of the ADB. Approximately 80% of the houses were tested and proven to be seismic resistant, thereby highly appropriate. The overall judgement of the beneficiaries is more than half-positive, especially from the poorer the beneficiaries. This report however, does not coherently reflect the concepts of “relevance”, “effectiveness” and “impact” on the housing sector.

The Christian Relief Services published in 2005 an assessment conducted to make the next 5 years plans and projects more effective, relevant, providing greater impact and sustainable outputs and outcomes, thus increasing the overall appropriateness. The programmes of CRS are based on the OECD DAC Principles of Aid Effectiveness. This NGO consisted after a year of 350 staff members, and is considered as new player in the housing sector. Next to the housing sector, this NGO provides aid in livelihood recovery, water, sanitation, healthcare, child protection. The housing sector is however, the largest sector they are working in. CRS proved to offer considerable aid to the local communities in a participatory way of approach. They constructed 710 semi permanent houses and are committed to construct even 1,300 more houses. CRS assists in the drafting of shelter guidelines, are specifically technically very skill full and adhere to the traditions and wishes of the beneficiaries. Due to their long-term experiences of aid delivering in Indonesia, they were by other agencies, the local governance and the Acehnese quickly accepted, regardless of their faith-based orientation. CRS targeted the vulnerable groups as well. The participatory methods used are consulting with local engineers, architects and community committee and contracted Acehnese labours for the construction of the houses, consequently empowering the communities and holding the NGO and local governance accountable for the construction pace. However, this assessment report also does not explicitly explain how the concepts of “impact”, “sustainability” and “effectiveness” are measured. The impact of their aid is affected by not enough of construction experience, not having enough experienced staff, having to cope with language barriers, providing shelter tents that were not appropriate to the Acehnese climate. CRS did
not provide enough information and transparency to the beneficiaries, decreasing the overall transparency and impact on the local communities.

Lastly, the Muslim Aid Indonesia is examined as NGO for the impact of their programmes on local communities. Muslim Aid in general adhered to the Codes of Conduct set by the ICRC and stressed public accountability. In the recovery phase, they were involved in the housing sector, creating livelihoods and increasing the local capacities. In Banda Aceh, Muslim Aid Indonesia set up its headquarters and their staff of almost only locals, though it is a national NGO methods used are targeting especially local communities. Muslim Aid achieved the construction of 170 permanent houses by April 2006 and their budget for each housing unit was US$ 5,000. Muslim Aid Indonesia explained in detail the tools used to implement the “community based” approach in the housing sector, provided houses that are appropriate to the wishes and traditions of the locals, and all houses look different and are adjusted to the specific needs of the beneficiaries. Muslim Aid joined forces, aligned, with other agencies to provide additional shelter, create livelihood opportunities by contracting local unemployed labours. A data-base was created of all unemployed labours, facilitated trainings for unskilled people and targeted women and children with special programmes. The scope and reach of this NGO is much smaller than the other listed NGOs, however the methods used to implement their programmes target the local communities are regarded successful. Muslim Aid also addresses related challenges such as creating livelihoods, targeting the vulnerable groups and resulting in increasing the coping capacities of local communities. The benefits of the local oriented strategy are that the delivered aid is appropriate to the communities is flexible in the implementation stage and empowers the whole community.

The four NGOs reveal the difference in scope, approach, vision, experience, guiding principles, output, the satisfaction of the beneficiaries and the challenges. Consequently, the relevance, appropriateness and effectiveness of the provided humanitarian assistance on local communities varied as well. No clear evidence is found of indicators used that measure the impact of the programmes on local communities. The conversion of all guidelines and concepts to locally measurable indicators poses difficulties in the implementation phase.
5. Conclusion

This thesis analyses the impact of humanitarian aid provided by NGOs on local communities. This broad topic is narrowed down by the case study of Aceh in the aftermath of the tsunami in 2004. More specifically the impacts of the community-based housing projects on local communities by NGOs are examined. The presumption is that the huge influx of humanitarian aid leads to an increase in the impact of the programmes on local communities. This thesis contributes to the current debate on aid effectiveness and the methods used to measure sustainable humanitarian aid in a complex environment. Additionally, it aims to identify and refine the methodologies and tools for measuring impact of humanitarian aid. The research questions was: To what extent are foreign aid programmes of NGOs that target the housing recovery process accountable for the impact on local communities after the tsunami in Aceh, Indonesia in 2004?

This chapter concludes the findings of the chapter 3; the real impact of the tsunami on Aceh and chapter 4; the impact of the delivered aid of NGOs on the housing sector. The baseline used for this conclusion is derived from the pre-existing political, economic and social conditions in Aceh. Chapter 1 and 2 provided the research question and the concepts and frameworks regarding aid effectiveness and natural disasters on different level of analysis.

5.1 Background

The most important criteria for measuring the successfulness of aid is impact, thus the changes or difference in people’s lives brought about by humanitarian assistance of NGOs. Community based approach towards the provision of aid should result in an overall increase in; transparency-, accountability-, empowerment- and better coping capacities of local communities. When a participatory approach is used, it gives the local community ownership over the houses, pride, cultural identity and adds to the social coherence. The housing sector does not directly target basic human needs, but has a multi-sector impact and includes for instance the provision of water and electricity facilities. In general, the role of NGOs is increasing in the humanitarian aid world, and in particular in the housing sector. NGOs are viewed as specialist in a sector of aid provision.
5.2. Impact assessment concepts of relevance and appropriateness

The current debate on aid effectiveness together with the increased interest in the characteristics of a natural disaster leads to the many designed concepts and frameworks used to understand and simplify the reality and the impact of for example tsunamis. In this thesis, various frameworks and concepts are used to identify the internal- and external conditions, which cause the huge impact of the tsunami in Aceh. Bearing in mind that humanitarian assistance is one out of many indicators influencing the sustainable change over time on local communities.

These concepts and frameworks have different meanings according to the level of analysis and definition of the concepts. At the global level the Paris Declaration on aid effectiveness and the AAA stresses the positive influence of national/local ownership, harmonization, alignment that must lead to coherence of aid programmes with the national policy, increasing accountability, predictability of the donors commitment, and context specific delivery of humanitarian aid. The HFA stressed the importance at a global and regional level of Asia and the Pacific to promote a systematic approach towards reducing the impact and risks to natural hazards on local communities. The HFA sets out guidelines and consequently let to the publication of more frameworks and methods used to increase the coping capacities of local communities towards future threats of natural hazards. Making these concepts universally acceptable and operational as a tool to measure impact poses a huge challenge; however, within this thesis the SMART objectives of the ECHO Manual are used to identify/measure the achievements.

5.2.1. SMART objectives

The delivered aid, if it is to be effective must contribute to the (..)"reduction of human suffering; influences the local economy and have an impact on the local capacity building and sustainable livelihoods(..)"(ECHO 1999, p. 35).

The SMART objectives that measure the influence of humanitarian aid translate these aims in for instance in housing building projects. In this thesis, the achievements of the housing sector on local communities are assessed, thus the indicators that have a direct or indirect effect on the aid provision in the housing sector are used, such as experience of NGOs in this sector, implementation approach used, inflation rate, price of construction materials, availability of skilled (local) labour. The SMART objectives use the baseline as a starting point of analysis to measure the achievements made in the housing sector.
5.2.2. Baseline
The pre-existing political, economical and social conditions in Aceh reflect the baseline of analysis and influence the effectiveness humanitarian aid. The impact is illustrated by how the current situation differs from this yardstick.

The province of Aceh suffered from three decades of fights for indecency by the GAM, causing the absence of many NGOs in the region, fear and casualties under the population, understaffed local authorities and local (religious) leaders. The local economy; the fishing industry and agriculture decreased as well. The profits made by the revenues of oil and gas did not increase public spending nor brought it wealth to the local communities. The predominately-Muslim population had traditionally a strong social cohesion and was accustomed to help family members and friends. Thus, while these prior disaster conditions were unfavourable, the strong social traditions and trust in traditional local leaders gave hope for positive and swift recovery.

5.2.3 Characteristics of a tsunami
A natural disaster such as the tsunami is the outcome of the scope, scale of the event and the human vulnerability to cope with the consequences, which is context specific. The real impact of a tsunami is the total damage, loss of lives, property loss, and losses of houses, infrastructural damage and the impact on the economy. The impact in the housing sector can be decreased by the available of material resources and labour for the recovery phase.

The impact of natural hazards on a community level depends on the social resilience influenced by local circumstances and the wider context. The impact can be decreased by the resilience towards the hazard, the type of hazard, the event itself, coping capacities of the local community, and immediate reaction. The immediate reaction exists for instance of evacuation plans, provision of shelter, availability of funds, ad hoc measures, as well as the social cohesion. Impact of a natural disaster differs locally. Many scholars debate the concept of resilience, which can also be understood as building of coping capacities. No characteristics or specific indicators exist that are able to measure the level of resilience of a community.

5.3. The housing sector in Aceh

The impact assessment of humanitarian aid by NGOs in the housing sector entails much more than only the practical build of the houses according to the needs and with the consent of the
local governments and population. A first assessment of the amount of houses needed came to the figure of 80,000-100,000. Community based approach is preferred, since this leads to long-term economic success, encourages local ownership, increases the appropriateness of the aid and the coping capacities of local communities. In reality the meaning and amount of participation of local communities in the housing sector differs. Community-based approach is not always favoured in short time-frame, while the community is still grieving and the NGOs do not have enough (local)staff to introduce participation of the community at every level of the project cycle. In Aceh, in the housing sector approximately 107 NGOs were working, together with the BRR, and 12 donors. The total amount of agencies is 120 out of the total 463 of all sectors this is a considerable amount.

5.3.1 Internal indicators influencing the housing sector

Internal and external indicators that has an impact of the successfulness of aid are listed hereafter and reflect SMART objectives in this thesis.

The GOI authorised the established of the BRR to increase the coherence and coordination of all the aid agencies. All NGOs in Aceh gained access to the affected areas and needed to be registered, and adhere to the basic requirements drawn by the BRR in order to execute the aid programmes. Since all actors work via either the BRR, or Multi trust fund the fragmentation of the aid is regarded moderate. The establishment of the BRR positively channels the aid and increases the effect of it.

The challenges in the housing sector begin with the huge influx of aid in a short period of time, which provided coordination problems. Local communities were not accustomed to foreign aid agencies, let alone having knowledge of community-based recovery approaches of NGOs. Furthermore aid agencies were often understaffed, on average lacked enough prior construction experience, faced challenges such as absence of clear building criteria and landowner certificates. NGOs were pressured to build the houses fast, which narrowed down the time for community-based construction approach. The wishes of the beneficiaries were not in accordance with building more earthquake prove houses, which posed difficulties. These indicators caused delays in the implementation phase and thus decreased the effectiveness of aid.

Indonesia does have a stable macro- economy, the aid flow was predictable, and transparent due to the authority of the BRR, with a good working funding mechanism increases the
effectiveness of aid, which reaches the local communities. The flexible budget of the BRR financed the gap of the housing sector caused by delays in the implementation phase. However, the adjustment of the amount of needed houses, which rose from 80,000 to over 140,000, posed budgetary problems for NGOs. The basic requirements drawn up by the BRR asked for a minimum standard of 36m2 for each house, build following the community based approach. This made it impossible for NGOs to build the initially agreed amount of houses and slowed down the process of rebuilding and reconstruction considerably. Further internal factors increasing the impact of humanitarian aid are the good coordination between the various agencies and governances and effective good governance. Good governance and in particular the decentralisation of authorities to district and local level of governance lead to increasing empowering and effectiveness of the delivery of aid. These listed factors all influenced the impact of aid, especially in the short term.

The involvement of women in the recovery process and good functioning of local leaders increases the effectiveness of aid and speed up the construction of houses. Despite the disrupted communities, when local communities were able to stay together the social cohesion lead to better and more equal distribution of humanitarian aid, and positively influenced the effectiveness of humanitarian aid.

5.3.2. External indicators influencing the housing sector
After the disaster stroke external factors that influences the aid effectiveness are the wider macro- economic environment, inflation rate, corruption, bureaucracy of the agencies and aid agency competitiveness. Indirectly climate change, economic slowdown and fear of terrorism influences the humanitarian aid. The external constrains were caused by a sudden increase in demand of resources for the reconstruction by NGOs and local agencies. The destruction of the infrastructure, fishing industry and damaging effects of silt layer on agriculture land did the CPI augment drastically. Additionally, the huge inflation rate of more than 40% in 2005 posed challenges in the budgets of the aid providers. The fear of terrorism of the GAM fighters on the other hand created a momentum for peace talks and positively influenced the aid effectiveness. Furthermore, the increasing costs for fuel, building material and the lack of infrastructure made the budget for the houses when not flexible unachievable. Moreover, trade barriers and corruption, lead to scarcity of wood and timber in a short period, making the unit prise of a house double in a year.
5.4 Case study of the housing sector in Aceh

The real impact of the tsunamis in the province of Aceh is estimated at a total number if 167,000 casualties nearly 5% of the population, 20% became homeless, 110,000 houses were destroyed and 365,000 houses severely damaged. Due to destruction of infrastructure and telecom communication, some villages became isolated. The total economic impact was estimated at approximately a year's GDP and the livelihood damage was US$1.2 Billion. However, local economic growth is the result of foreign investment, which is still lower than national average and unpredictable for the long-term. Most permanent houses are built in 2006 and 2007. The housing sector is characterised as having the most funds available and spend much per project. By the end of 2008 139,000 houses are constructed, 70,000 repaired, 20,000 temporary houses provided and 15,000 households left the temporary housing facilities. In total, the output of the amount of housing facilities provided is impressive. In 2008, the economic growth declined as well as the poverty rate; however, the poverty is still higher than the national average.

5.4.1. Findings of non-governmental organisations (NGOs)

In this part, the significance, relevance and appropriateness of the aid delivered by four NGOs is examined. The SMART objectives focus on the achievements of the humanitarian aid, which are influenced by negative and positive indicators.

The NGOs attracted an enormous amount of funding, and therefore many new comers in the housing sector appeared. The consequence was that many NGOs worked with little experience under dire circumstances. The triangulation of assessments of the NGOs reveals overlapping challenges that poses difficulties to construct the amount of committed houses and reduces the overall effectiveness of humanitarian aid. The lack of comprehensive field reports, evaluations, and midterm reports of the NGOs working in the housing sector made it difficult to draw clear conclusions. The NGOs who did contributed to the empirical part of the thesis, were Oxfam International, World Vision Indonesia, CRS and Muslim Aid Indonesia. The NGOs represent the different level of analysis and are chosen to illustrate the different approach and implementation of community-based housing projects and programmes. The NGOs therefore have a different impact on local communities, due to difference in scale, mission, vision, scope and experience.
5.4.2. The real impact of NGOs on the housing sector

The impact of the NGOs is measured differently; however, the amount of beneficiaries reached is reported. From their research methodology the method used for measuring the impact can be deducted. The level of analysis influenced the implementation of the concept of impact, additionally the findings reveal the Acehnese are accepting aid provided from NGOs with a Catholic identity, however Muslim aid preformed better in terms of satisfaction of the houses. The impact is assessed by investigating the methods used by the four listed NGOs to measure the influences of the programmes in the housing sector, what their output was and whether they used a participatory community-based approach. Additionally, the challenges and positive influences on the effectiveness of aid are listed.

On an international level of analysis, the NGO Oxfam International is assessed. This NGO reached the most beneficiaries 300,000, constructed 700 permanent houses, used a community-based approach, and 70% of the beneficiaries are content with the result. This assessment mentioned the measuring of impact of the delivered aid, however focuses more on the outcome and output of the programme. At a national level, two NGOs are examined World Vision Indonesia and Muslim Aid Indonesia. WV targeted 150,000 beneficiaries 450 houses are constructed and approximately 3500 additional housing units are constructed. This assessment is executed to increase the relevance, effectiveness. Muslim Aid constructed 170 permanent houses. This NGO adhered to the IFRC code of conduct and referred to the public accountability instead aid effectiveness. Lastly, the CRS as a locally oriented NGO assessed their programmes after a year, which are based on the OECD DAC principles of aid effectiveness. The report focuses rather on output and outcomes than impact. CRS constructed 710 houses and is committed to an additional 1300.

Participatory approach

The implementation of the programmes differed greatly between the NGOs as well as the concept of participatory approach. The construction of houses is not a main issue within Oxfam International but rather public health and hygiene; they stated to use a participatory approach, however, in which way it is used is unclear, this influenced the overall successfulness. World Vision does only state to have used a participatory approach in the education sector; however, the beneficiaries generally view the constructed permanent houses as being suitable to local circumstances. Muslim Aid made clear how the community-based
approach of the construction process of the houses worked. The assessment does not state clearly the methods used to guarantee impact on the local communities, however in the execution of the plans and programmes this NGO uses in practise participatory methods aiming at increasing the coping capacities of the local communities. CRS used a clearly defined participatory approach, hired local staff, adhered to the local culture and customs.

Positive influences on the aid effectiveness
The strong point of Oxfam International is that their houses provide water and hygiene facilities and OI addressed the issues of land rights and other legal issues. World Vision targeted vulnerable groups as well, provided legal advice on how to purchase land certificates and advocated for re-settlements of communities. Muslim aid stands out positively by using mainly local skilled labour, adhered to the traditions and needs of the beneficiaries cooperated with other NGOs to increase the coping capacity, via livelihood programmes targeting unemployed labours and facilitated trainings. CRS although originating from a different religion than on the ground was fast accepted and praised for the technical knowledge, adhering to cultural norms and values, moreover targeted also the vulnerable within the community.

Negative influences on aid effectiveness
Oxfam International revealed that as a newcomer in the housing sector, it lacked experience as well as experienced staff, is not enough needs driven, targeted the whole community and thereby duplicated the aid provided by other agencies, were bound to an inflexible budget. Consequently, OI could not deliver the amount of houses in time due to late arrival of building materials. World Vision did not take into account the wider impact of the tsunami, faced difficulties with implementation since no land owning certificates were issued on time. Muslim Aid mentioned the same causes for delays in the implementation such as the issue of land owning certificates were gone or not issued, delays in the delivery of building materials and bad quality of it. Challenges faced by CRS were the lack of enough skilled labours, knowledge, informed the communities not enough on the progress of the programmes and provided at first not appropriate shelter tents.

The NGOs have in common that they provide the construction of houses for local communities in Aceh. None of the illustrated examples only assists in the housing sector, the NGOs do not have standardized methods used to measure impact, mostly outcomes and outputs are measured without taking into account the wider context of the influences of the
tsunami. Muslim Aid in the execution of their programmes influences the local communities the best. The level and successfulness of the participatory approach of the construction varies greatly. The challenges of delays of lack of experience, knowledge results in mixed results of the output and satisfaction of the beneficiaries over the constructed houses. The assessment reports of the NGO reveal a huge difference between concepts, frameworks and the implementation in reality of the programmes. Therefore, the significance of the humanitarian aid delivered by NGOs in the housing sector is difficult to entangle. Better coordination, coherence, cooperation and flexibility in budgets should lead to better performance of the NGOs and consequently results in increased effective usage of the funding, leading to long term positive change for the beneficiaries.

5.5 Overall conclusion

This thesis provides a scientific conclusion based on secondary data such as documents, policy papers and assessment reports. The overall conclusion can be used as starting point for further social research. There does not exist a blue print for effective provision of aid effectiveness. The circumstance change, the cultures differ, moreover the internal and external conditions prior to the natural disaster heavily influences the effectiveness of aid making it impossible to predict the impact on the local communities. In the case of Aceh, the 30 years of insurgency influenced the conditions; the lack of well functioning local governance, and above all the lack of good alert system made the damage and losses from the tsunami severe.

All the internal and external factors in the recovery phase combined makes the assessment of the impact of foreign aid challenging, however the assessment reports of the NGOs, TEC, WB and ADB are a good guideline and indicate where the difficulties are for future natural disasters. NGOs are at best one of the many factors increasing the aid effectiveness. The amount of new actors in the field of humanitarian assistance such as the growing quantity of NGOs, the role of contactors, and the introduction of new technology in communications suggest that foreign aid could in the future proves to be more effective than in the aftermath of the tsunami in 2004.
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