

# THE STRATEGIC PLANNING OF POST DISASTER RECONSTRUCTION (A CASE STUDY OF BANDA ACEH'S RECONSTRUCTION)

Aulia Sofyan <sup>a</sup>

<sup>a</sup> Aceh Provincial Government, Jl. Syech Muda, Wali E-19 Banda Aceh, Indonesia

<sup>a</sup> Corresponding author: S4071825@yahoo.com.au

©Ontario International Development Agency ISSN: 1923-6654 (print)

ISSN 1923-6662 (online). Available at <http://www.ssrn.com/link/OIDA-Intl-Journal-Sustainable-Dev.html>

**Abstract:** This paper investigates the reconstruction of Banda Aceh after the disastrous earthquake and tsunami of December, 2004. It fits the investigation within a framework derived from the literature on disaster studies and disaster recovery. The fundamental issue addressed in the paper is the delays apparent in the reconstruction process even though a new government agency (BRR, or the Aceh and Nias Reconstruction and Rehabilitation Agency) was created to expedite reconstruction. The questions that underpin the research are concerned with the factors that hinder and support effective and speedy reconstruction.

The study used a number of research approaches, including interviews with 50 members of the community, with public figures, with representatives of donor organizations and NGOs from abroad and with national, provincial and local government officials. The interviews were supported by data from focus group discussions, as well as official reports and documents and the wider literature. The author was also able to use participant observation to support and guide the other research methodologies. The author was able to work closely with BRR in discussing in the field problems and obstacles that faced the implementation of BRR programs. The field work for the study was carried out in two six-month periods in 2005 and 2006.

The research showed the approach needed for an effective reconstruction program in Aceh should enhance communication among stakeholders, build stronger coordination mechanisms amongst these

stakeholders, build an effective bureaucracy working within an effective governance system, improve community involvement in the recovery process, strengthen the local government capacity and increase the level of practical and effective commitment from donors and NGOs. These are all aspects that have been listed in the literature as components of effective reconstruction after natural disasters. In general, the thesis research supports these conclusions. An issue that was of special significance in Banda Aceh was the impact of the level of international sympathy and support. Although this is a feature of many international disaster responses the reconstruction in Banda Aceh showed how critical is the actual level of delivery of assistance compared to the level of promises of assistance.

The general recovery process faced obstacles that arose from the presence and absence of factors that can aid reconstruction: lack of communication among stakeholders, lack of coordination among stakeholders, ineffective bureaucracy, lack of community participation, lack of human resources, and unfulfilled promises to the communities. However, the case study showed that factors that strongly support the rehabilitation and reconstruction in Aceh are the strong budgetary commitment by central government, strong financial support from donors and NGOs and the powerful mandate of BRR to aid the reconstruction. A special circumstance that applied in Banda Aceh was the ceasefire agreements in the preceding civil strife and

the agreement of both sides to assist in the reconstruction.

**Keywords:** Reconstruction, Post-Disaster, Recovery, Planning, Disaster Management

## INTRODUCTION

### Literature Review

The focus of the paper is the city of Banda Aceh, within the context of the province of Aceh in Indonesia. Because of this city focus the issues dealt with need to be set within on post-disaster recovery in an urban areas context. As van Horen (2004) indicates, a critical component of this urban context is that of urban governance, which is normally performed by a municipal government elected (wholly or in part, and in whatever way) by the citizens in the area. In the literature, however, the concept of urban governance has now expanded beyond dealing with the role of municipal governments to also include the roles of the private sector and civil society (Minnery, 2007).

Van Horen (2004:4) draws attention to the importance of a resettlement plan, utilizing the various assets he describes. The resettlement plan should be seen as both part of the immediate relief stage after a disaster and as part of on-going reconstruction and development. Discussion about disasters starts with an analysis of this concept. A definition of a disaster is proposed by Goel (2006:3) suggesting that the disaster is related to: (a) Interruption to normal life patterns, including that this interruption could happen suddenly, unexpectedly and with far-reaching consequences so that it may cause human beings to be in conditions of "shock" for a long time; (b) Its effect in human beings such as loss of life, loss of sources of livelihood, and property damage, plus suffering and other effects which may harm people physically and mentally; (c) Its effects on the social support structures such as destruction or damage of infrastructure, communication and other vital services, causing life disturbance and scarcity of resources; (d) This results in people needing shelter, food, clothing, medical relief and social care.

Another view sees a disaster as the intersection between hazards and vulnerability. The disaster usually refers to natural occurrences such as storms or earthquakes which result in damage such as loss of life or damage to buildings. 'Hazards' relate to natural occurrences and 'vulnerability' is related to weakness of a population or system such as hospitals, water supply and sewage disposal systems or other aspects of infrastructure. Vulnerability relates to the sensitivity of populations and their supporting infrastructure to the impact of hazards. The degree of probability that a certain system or population would

be affected by a hazard is known as the 'risk'. Therefore, the potential impact of a disaster is a function of the vulnerability of the population and the risk of the hazard (Goel, 2006:14).

The relationship among disaster, hazard and vulnerability is described by John in Goel (2006:5) suggesting that "... The hazard is felt as a natural occurrence threatening life and properties....disaster is a manifestation of this hazard....." Disaster management is a relatively new study in management. The idea of "disaster management" can be approached from a range of perspectives. One crucial aspect is the fact that disaster management is something that extends in time to both before and after a disaster. For example, the University of Wisconsin highlights this broad approach to the term:

"The term 'disaster management' encompasses the complete realm of disaster-related activities. Traditionally people tend to think of disaster management only in terms of the post-disaster actions taken by relief and reconstruction officials; yet disaster management covers a much broader scope, and many modern disaster managers may find themselves far more involved in pre-disaster activities than in post-disaster responses." ([http://epdfiles.engr.wisc.edu/dmcweb/AA02Aimans\\_ScopeofDisasterManagement.pdf](http://epdfiles.engr.wisc.edu/dmcweb/AA02Aimans_ScopeofDisasterManagement.pdf).)

The concept of disaster management as something that extends to pre-disaster and post-disaster activities is supported by two scholars, Yodmani (2005) and Kent (1994). Yodmani (2005:24) specifically includes within the idea of disaster management the processes of preparing in advance for any disaster that might happen in the future. Yodmani suggests that disaster management includes pre-disaster planning, which has, "...three stages: disaster prevention, mitigation, and preparedness. Disaster Prevention is an action which is taken to eliminate or avoid harmful natural phenomena and their effects. Examples of prevention include cloud seeding to control meteorological patterns, pest control to prevent locust swarms, or erection of dams or levees to prevent flooding. Mitigation is an action that is taken to reduce both human suffering and property loss resulting from extreme natural phenomena. Measures include forms of land-use planning, improved disaster-resistant building techniques, and better agricultural practices." (Yodmani, 2005:25)

Kent also highlights the need to consider pre-disaster preparedness and risks. He says that, "Preparedness encompasses those actions taken to limit the impact of natural phenomena by structuring responses and establishing a mechanism for affecting a quick and orderly reaction. Preparedness activities could include pre-positioning supplies and equipment; developing emergency action plans, manuals, and

procedures; developing warning systems as well as evacuation, and sheltering plans; strengthening or otherwise protecting critical facilities; etc. Preparedness also involves assessing risk. Risk is the relative degree of probability that a hazardous event will occur. An active fault zone, for example, would be in an area of high risk.” (Kent 1994: 20)

This approach to disaster management has come to be called the PPRR process (Emergency Management Australia, 2004). The four PPRR stages are ‘prevention/ mitigation’, ‘preparedness’, ‘response’ and ‘recovery’. It has long been recognised that recovery is not just about reconstruction of infrastructure or restoration of business services, but involves reducing potential risk, engaging in preparedness and enhancing disaster resilience. Families, schools and communities are central stakeholders from a grassroots perspective to include in the development of any ‘recovery plan’ in order to achieve a collective contribution to dealing with the devastation and destruction of disasters. The recovery period offers an opportunity to strengthen local organizational capacity to facilitate economic, social, and physical development long after the disaster and so reduce vulnerability to future disasters (Berke et al., 1993).

In addressing both pre-disaster planning and post-disaster rehabilitation and reconstruction it is important to fully take into account the beliefs and values of the local population. These values can have a strong impact. For example, the study by Paradise (2005) in Agadir, Morocco, showed that in this strongly Moslem community attitudes to earthquakes and the planning for potential future earthquakes were influenced by the approach to earthquakes in the Qur’an. He notes that, “Under Islam like in other religions, faith can influence perceptions more often than experience.” (p. 168)

Aceh has a strong and ancient Moslem tradition. The majority of the population is Moslem. There are, thus, many people who believe that natural disasters, especially earthquakes, are a penalty from Allah for past evil actions. There have been many cases of public corruption in Aceh in the past. Deforestation and destruction of nature reserves and national parks throughout Indonesia is driven by greed. There have been sexual scandals and dishonesty involving public figures, so the belief has arisen amongst some in the community that the disaster the province suffered was a consequence of these human actions. This belief should be taken into account throughout the rehabilitation and reconstruction process. The belief is that, without losing the role of Allah Almighty God, humans have become the main factor in the collapse of nature and civilizations and that the destiny of humans flows from their efforts either to

improve their life or not to do so (Fachruddin, 1981:27).

Cuny et al. (1984:21) argued decades ago that “... in dealing with natural hazards, the vast majority of disaster management activities are related to development projects; only a small portion are related to emergency response”. Thus disaster management needs to be a component of general development planning, or at least the planning of development projects, rather than being seen as only a response to natural disasters. Like other aspects of development planning it should include a recognition of community values. As will be discussed below, disaster planning must consider all aspects of vulnerability and community resilience. Vulnerability is often high in developing regions (as was the case in Aceh).

Cuny et al.’s (1984:14) approach stems from their wide definition of disaster management, “Disaster management can be defined as the range of activities designed to maintain control over disaster and emergency situations and to provide a framework for helping at-risk persons to avoid or recover from the impact of the disaster”.

From a similar perspective, Olshansky (2006:153) noted the connections between post-disaster recovery and urban planning. He argued that is a vital function of the planner. Rapid action must take under extreme circumstances and this requires the expertise that planners have to offer. He argued that planners play a key role in the recovery process. Olshansky argued that,

“To succeed, we must learn from disasters of the past, while also applying the planning knowledge of the present. From past disasters, we know that successful reconstruction requires both outside funding and local citizen involvement. As planners, we know that the processes should be rich in data, imagination, communication, and participation. Planners have an obligation to take an active role and advocate for the funding and full participation necessary to achieve these goals.” (p.153)

However, care needs to be taken in drawing lessons from other places. Some may provide only limited lessons because of the difference of the systems involved. Olshansky, for example, notes that some disasters provide only limited lessons for the current situation, because they occurred at a time when “the economic, technological, and governmental systems differed significantly from those of today.” (p.158). Similar to Olshansky’s view, Burkle (2006:258) notes that “Every country has some response capabilities but no country has a perfect system, especially where large-scale threats challenge the integrity of the public health and security apparatus.”

Thus, post-disaster recovery must be seen in the context of the range of activities that should occur both before and after the disaster itself, and the lessons applied to any disaster management situation should take into account the different contexts in which disasters occur. The approach taken in this thesis is to recognise this context, but focus on the post-disaster response and recovery phases in Banda Aceh. The recovery phase is seen as the least investigated and most poorly understood of the four phases of a disaster – prevention/ mitigation, preparedness, response and recovery (Drabek, 1986; Rubin, 1991).

Recovery after the 2004 tsunami needed to include preparedness for the future, however, as Banda Aceh is still vulnerable to future disasters, so the thesis will incorporate analysis of the local planning context. Disaster management is related to management of all activities and actions which should be conducted before and after the disaster. Therefore, understanding the full disaster management cycle becomes very important.

#### **METHODOLOGY**

The paper aims to analyse the effectiveness of the post tsunami rehabilitation and reconstruction of Aceh, and to identify lessons for post-disaster reconstruction. The approach taken in the paper is to use a single case study of an urban area in Indonesia that was severely impacted by a disastrous tsunami and which was then the focus of sustained national and international reconstruction efforts.

Yin (1994:26) highlights that, “The relative size of the sample -- whether 2, 10, or 100 cases are used -- does not transform a multiple case into a macroscopic study. The goal of the study should be to establish the parameters, and then these should be applied to all research. In this way, even a single case could be considered acceptable, provided it met the established objectives.”

Banda Aceh has been chosen as the case study, because whilst it has many similarities to the other Aceh cities that were affected by the tsunami in December, 2004, it was in fact the most badly affected. In addition, information on the reconstruction process was available through the work and publications of BRR, the researcher was able to obtain access to information and interviews through his personal contacts and the time frame of the research for the paper enabled the reconstruction process to be monitored for over two years. It was seen as a suitable case study that enabled linkages to be made to reconstruction efforts in other parts of Indonesia and it also was identified as an example that would provide useful lessons for disaster

reconstruction in other cities in other developing countries.

The methodology of this study is based on significant analysis and critical assessment of the process of reconstruction in Banda Aceh using a framework derived from the literature on disaster management and reconstruction and institutions. The research depends heavily on the use and analysis of records, documents and interviews. This research used focus group discussions, in-depth interviews, direct observation, and analysis of documents in a single case study to focus on the factors that inhibited and supported the implementation of reconstruction. These were supported by a simple quantitative survey focused on a particular aspect of the overall framework.

Data were collected before and during the two periods of direct fieldwork. Before the fieldwork, the data were obtained from the literature, including government reports, and internet sources. During the fieldwork period, data acquisition methods included interviews, a focus group discussion and field observations as well as data acquisition from secondary sources.

#### **ANALYSIS AND RESULTS**

The interviews with the respondents were based on the seven aspects of the Van Horen (2004) and Healey (2002) framework. They show that the assets identified in the framework are of importance to those interviewed. There were several of the assets that were specifically addressed in recovery and reconstruction programs (such as physical and social assets) and generally the programs were seen to be effective. Other assets (such as natural assets and social capital) were not as strongly addressed through the post-tsunami programs but had been part of local government's suite of programs before the disaster. The aspect of the institutional and governance framework was important but was impacted upon indirectly through post-disaster activities rather than being addressed directly.

The research showed, although through the various interviews rather than directly through the survey, that religious and cultural beliefs were important enough in Aceh to need to be addressed as a separate asset within the asset framework approach to reconstruction.

The findings from the questionnaire and interviews show that the van Horen (2004) framework can be used to assess whether or not the community was satisfied with the various elements of the overall recovery and reconstruction program. It also helped to identify areas where the community was less satisfied and so where greater attention is needed in future.

The findings of the research showed that there is a clear need for preparation before a disaster, a need to enhance communication among stakeholders, build stronger coordination mechanisms amongst these stakeholders, build an effective bureaucracy working within an effective governance system, improve community involvement in the recovery process, strengthen the local government capacity and increase the level of practical and effective commitment from donors and NGOs. These are all aspects that have been listed in the literature as components of effective reconstruction after natural disasters.

In general, the research supports these conclusions. An issue that was of special significance in Banda Aceh was the impact of the level of international sympathy and support. Although this is a feature of many international disaster responses, the reconstruction in Banda Aceh showed how critical is the actual level of delivery of assistance. It also showed, however, that if there is a high level of immediate international support this may involve a large number of agencies providing funding and support for a wide range of activities, and this may add to the problems of communication and coordination.

The international response to the tsunami disaster in Aceh was comparatively good, especially given the unexpected advances in Aceh's peace building process. It also needs to be emphasized that aid organizations were often working in extraordinarily difficult circumstances, made even more challenging by government/military policies and behaviour. It is crucial to involve communities in the recovery process at all stages. Communities are likely to be the most efficient in restoring some micro-infrastructure. Furthermore attention should be given to building community-based disaster preparedness for future possible events. In involving the community, however, a tension can arise between the need for immediate rapid emergency actions and the need for carefully considered responses that lead to longer-term sustainable conditions. In planning for post-disaster recovery attention should be paid to the opportunity to promote issues such as gender equality, conflict resolution and human

The interviews with the respondents were based on the seven aspects of the Van Horen (2004) and Healey (2002) framework. They show that the assets identified in the framework are of importance to those interviewed. There were several of the assets that were specifically addressed in recovery and reconstruction programs (such as physical and social assets) and generally the programs were seen to be effective. Other assets (such as natural assets and social capital) were not as strongly addressed through

the post-tsunami programs but had been part of local government's suite of programs before the disaster. The aspect of the institutional and governance framework was important but was impacted upon indirectly through post-disaster activities rather than being addressed directly.

The research showed, although through the various interviews rather than directly through the survey, that religious and cultural beliefs were important enough in Aceh to need to be addressed as a separate asset within the asset framework approach to reconstruction.

The findings from the questionnaire and interviews show that the van Horen (2004) framework can be used to assess whether or not the community was satisfied with the various elements of the overall recovery and reconstruction program. It also helped to identify areas where the community was less satisfied and so where greater attention is needed in future.

## CONCLUSIONS

The aim of this study was to analyse the effectiveness of the post tsunami rehabilitation and reconstruction in Aceh. The study concludes that the process of rehabilitation and reconstruction was effective in many regards, but not for housing and related sectors. Today, some five years after the tsunami and earthquake, the Aceh Government still faces the problem of affected people who have not yet been housed. The paper was structured around four research questions derived from the relevant literature. It answered those questions through the case study of Banda Aceh, using available reports, interviews, a focus group discussion and participant observation.

The first question was: **“What approaches are needed for an effective reconstruction program in Aceh?”** The research showed that the approach needed for this could be modelled on the framework suggested by van Horen (2004) combined with the institutional framework suggested by writers such as Healey (1998) and explained in Chapter Two. The research confirmed the fundamental veracity of the livelihoods assets model suggested by van Horen (2004).

But it also confirmed the critical importance of the institutional and governance arrangements suggested by both van Horen (2004) and Healey (1998). An effective reconstruction program needed to create effective communication among stakeholders, build strong coordination mechanisms among the stakeholders, build an effective bureaucracy, improve community involvement in the recovery process, strengthen the local government's capacity and

increase the level of practical commitment from donor organizations and NGOs.

The second question was: **“What factors have constrained and supported the reconstruction process in Aceh?”** The general recovery process faced obstacles that arose from the presence and absence of the factors that aid reconstruction and which are noted in answering Question One: lack of communication among stakeholders, lack of coordination among stakeholders, ineffective bureaucracy, lack of community participation, lack of human resources, and unfulfilled promises to the communities. In terms of the network uncertainties discussed by Koopenjan and Klijn (2004), namely substantive uncertainty, strategic uncertainty, and institutional uncertainty, all three were present in Banda Aceh. Substantive uncertainty arose from the conditions resulting directly from the disaster, including uncertainty about the degree of damage, about local needs and about the resources available. Strategic uncertainty existed at the beginning because of lack of clarity over the desired future direction for the city; but this was partly addressed through the production of the Aceh and Nias Blue Print (2005). Institutional uncertainty arose through the complexity of the arrangements put in place involving BRR, the province, local governments and NGOs as well as the fact that BRR was a new institution with untried powers and approaches. These uncertainties all constrained the reconstruction process at the start; but the uncertainties were addressed through on-going communication and collaboration.

In addition to this, however, the literature on disaster management indicates how critical pre-disaster planning (including prevention, preparation and mitigation measures) is but there was no such planning in Banda Aceh. The reconstruction process was thus constrained by the lack of pre-disaster planning for this reconstruction so that structures and approaches had to be developed in a crisis situation without any substantial pre-planning.

However, the case study showed that strong supporting factors in rehabilitation and reconstruction in Aceh are the strong budgetary commitment by central government, strong financial support from donors and NGOs and the powerful mandate of BRR to aid the reconstruction. A special circumstance that applied in Banda Aceh was the ceasefire agreements related to the preceding civil strife and the agreement of both sides to assist in the reconstruction.

The third question was: **“What has been the role of the Aceh and Nias Reconstruction and Rehabilitation Agency (BRR) in the implementation of the reconstruction programs, in the light of these constraints and opportunities?”** The role of Aceh and Nias Reconstruction and

Rehabilitation Agency (BRR) has been very significant and generally effective in the implementation of the reconstruction programs, in the light of these constraints and opportunities. However, BRR faced many challenges. BRR was less successful than intended in re-housing tsunami victims.

The fourth and final question was: **“What framework can be suggested to improve institutional capacity building in Aceh reconstruction?”** The framework derived from Healey (1998) and Van Horen (2004) was used successfully to evaluate the post-disaster reconstruction of Banda Aceh. The combined framework has six categories of assets or resources that need to be put in place for disaster management - physical assets, natural assets, human capital, relational assets, economic assets and reform of the governance framework. The interviews carried out for this research were structured, and discussed in the thesis, in relation to this framework. The interviews generally indicated that respondents were satisfied with the progress of the recovery process; but the framework structured around these forms of assets was also shown to be a successful way of conceptualizing the rebuilding tasks in a post-disaster situation.

Physical and natural assets are the most obvious assets impacted on by a natural disaster such as Aceh's tsunami. Economic assets are not so immediately obvious but nonetheless are still important. These are also assets that are relatively easily identified and addressed (although often imperfectly) by international aid agencies. Human and relational capitals were shown in the case of Banda Aceh to be of particular importance and so should be flagged as a concern for post-disaster reconstruction. Firstly, many of the people killed in the tsunami were those with both expertise and local knowledge. When external experts were brought in to help fill this vacancy they did not have local knowledge. Building up these relational assets under these circumstances is something that needs particularly careful and sensitive approaches. Similarly the strong Muslim ethic of the Aceh community was identified as being fundamental to the approach taken to reconstruction in the province. In the case of Aceh the role of the local religious and spiritual culture was in fact critical. This is an element of relational values – and potentially of governance – that should be considered in similar post-disaster reconstruction situations. Reform of the governance framework included the need for more adequate recognition of good governance values such as transparency and accountability; there is still room for improvement in this, as well as for

demonstrations of greater political will from the government.

Successful recovery is grounded in official government acceptance and adoption in practice of a comprehensive strategy for disaster and risk management. This was done in Banda Aceh. A commitment for recovery equally needs to be supported fully by the understanding of the community. This is where, despite the efforts of BRR and other agencies, the efforts were less than satisfactory.

Effective recovery capabilities need to be an integral part of established mitigation, disaster preparedness, management, and response systems and like these other aspects of disaster reduction need to be developed and sustained long before the time of their actual implementation. This had not been done in Banda Aceh.

The post-tsunami reconstruction also brought into stark focus the problems of merging short-term crisis management actions, needed to rescue the affected citizens from the impacts of the disaster and provide at least minimal support, with the longer-term actions needed for continued development of the city and the province. An approach to rational long-term planning would be to perform a needs assessment before designing a program, design a program that reflects the assets and needs of the population, supply sufficient training, require or provide long-term funding, and include empowerment as one the primary goals when designing sustainable development programs. Such strategic and long-term planning and the needs, assets, and involvement of the community should not be ignored in the post-disaster stage of recovery. But the case study showed clearly that recovery is complex and requires patience. The interviews showed that in some cases the local community felt that mistakes had been made in the location and allocation of housing that would have a negative impact on long-term housing provision.

While the issues that cause problems for recovery in each disaster are different and may be hard to anticipate, the rapid action planning model would incorporate disaster risk assessment into disaster-prone human settlements and effectively mainstream risk management into their national planning process, as recommended by the 2005 World's Conference on Disaster Reduction, Kobe, Japan (United Nations, 2005).

## REFERENCES

- [1] Alexander, David. (2006). Globalization of Disaster: Trends, Problems and Dilemmas. *Journal of International Affairs*, 59(2):1-22.
- [2] Anderson, M., and P. Woodrow. (1998). *Rising from the Ashes: Development Strategies in Times of Disaster* Westview Press: Boulder CO, London.
- [3] Badan Rehabilitasi dan Rekonstruksi (BRR) and International Partners. (2005a) Media Update August 30, 2005, Jakarta. BRR. *Membangun Tanah Harapan* (first-year report on the operations of the BRR). Banda Aceh, Indonesia.
- [4] Badan Rehabilitasi dan Rekonstruksi. (2007). *Action Plan of Rehabilitation and Reconstruction in Aceh-Nias 2007-2009*. Banda Aceh. Page V-21. Jakarta.
- [5] Badan Rehabilitasi dan Rekonstruksi. (2009). *BRR Report*. Banda Aceh.
- [6] BAPPENAS. (2005d). *Preliminary Damage and Loss Assessment The December 26, 2004 Natural Disasters, A Technical Report Prepared by BAPPENAS and The International Donor Community*. Jakarta.
- [7] Bello, Walden. (2006). The Rise of The Relief and Reconstruction Complex. *Journal of International Affairs*, 59(2):281-296.
- [8] Berke, P.R, Kartez, J., & Wenger, D. (1993). *Recovery after Disaster: Achieving Sustainable Development, Mitigation and Equity*. *Disasters*, 17 (2): 93-109.
- [9] Bildan. L. (2003). *Disaster Management in Southeast Asia: An Overview*, Asian Disaster Preparedness Center, Pathumthani, Thailand.
- [10] Bolyn, Robert and Stanford, Lois. (1998). *The Northridge Earthquake: Vulnerability and Disaster*, Routledge, London.
- [11] Bradshaw, S. (2002). Exploring the Gender Dimensions of Reconstruction Processes Post-Hurricane Mitch. *Journal of International Development* 14: 871-879.
- [12] Brandstorm, Bynander, and Hart. (2004). *Governing by Looking Back: Historical Analogies and Contemporary Crisis Management*, *International Journal of Disaster Medicine*, 2(2): 120-126.
- [13] Brusset et al. (2006). *Evaluation of the Linkage of Relief, Rehabilitation and Development (LRRD) Regarding Interventions in Connection with the Tsunami Disaster in December 2004: Indonesia Case Study*. Report prepared by the Channel Research for Swedish International Development Cooperation Agency (SIDA).
- [14] Buchanan-Smith, M. and Maxwell, S. (1994). *Linking Relief and Development*. IDS Discussion Paper No.344. Brighton:IDS Bulletin.
- [15] Bulir, Ales, and Hamann, Javier. (2005). *Volatility of Development Aid: From the Frying Pan into the Fire?* World Development, for the IMF Working Paper.

- [16]Burkle, F. M. Jr. (2006). Globalization and Disasters: Issue of Public Health, State Capacity and Political Action. *Journal of International Affairs*. 59(2): 269-279.
- [17]Carter, Nick, W. (1991). *Disaster Management, a Disaster Managers Handbook*, Asian Development Bank, Manila.
- [18]Christoplos. (2006). *Links between Relief, Rehabilitation and Development in the Tsunami Response*, Tsunami Evaluation Coalition, London.
- [19]Choi, Sang Ok, and Kim, Bok Tae. (2007). Power and Cognitive Accuracy in Local Emergency Management Networks. *Public Administration Review*, 67:198-209.
- [20]Comfort and Haase. (2006). Communication, Coherence, and Collective Action: the Impact of Hurricane Katrina on Communications Infrastructure. *Public Works Management and Policy*, (10): 328-343.
- [21]Comfort, L.K., Dunn, Mark., Johnson, David, Skertich, Robert, and Zagorecki, Ada. (2004). Coordination in Complex system: Increasing Efficiency in Disaster Mitigation and Response. *International Journal of Emergency Management*, 2(1-2): 62-80.
- [22]Comerio, M.C. (2005). Key Elements in a Comprehensive Theory of Disaster Recovery. 1<sup>st</sup> International Conference on Disaster Reduction. Institute for Social Safety Science and EERI, Kobe, Japan.
- [23]Comerio, M.C. (1998). *Disaster Hits home: New Policy for Urban Housing Recovery*. Berkeley and Los Angeles, University of California Press.
- [24]Cuny, F (1984). *Disasters and Development*. Oxford University Press, Oxford.
- [25]Drabek, T.E. (1986). *Human System Responses to Disaster: An Inventory of Sociological Findings*, Routledge, London.
- [26]Emergency Management Australia. (2004). *Emergency Management in Australia, Concepts and Principles*, Australian Emergency Manuals Series, Manual 1, Commonwealth of Australia, Canberra.
- [27]Ganapati, N.E and Ganapati S. (2009). Enabling Participatory Planning after Disasters: A Case Study of the World Bank's Housing Reconstruction in Turkey. *Journal of the American Planning Association*, 75(1): 41-59.
- [28]Gaillard, J-C, Clave, Elsa, Kelman, I. (2008). Wave of Peace? Tsunami Disaster Diplomacy in Aceh, Indonesia, *Geoforum*, 39: 511-526.
- [29]Goyet, C and Moriniere, L. (2006). An Evaluation of the Tsunami Evaluation Coalition (TEC) – Final Draft. Library: ERD Date.
- [30]Goel, S.L. (2006). *Encyclopedia of Disaster Management: Disaster Management Policy and Administration*. Deep and Deep Publications, New Delhi.
- [31]Goggin, Malcolm L., Bowman, Ann, Lester, J.P. (1990). *Implementation Theory and Practice: Toward a Third Generation*. Scott, Foresman/Little, Brown Higher Education, Glenview.
- [32]Gustavsson. (2003). *Humanitarian Logistics: Context and Challenges*. *Forced Migration Review*, (18): 6-8.
- [33]Haas, J.E, Bowden, M.J and Kates, R.W. (1977). *Reconstruction Following Disaster*. Cambridge, Mass.: MIT Press.
- [34]Hakim, D. M. (2005). Local Geo-information Support for Disaster Management for Aceh. Late Paper Proceeding of 1<sup>st</sup> International Symposium on Geo-information for Disaster Management in March 2005, sponsored by Delft University of Technology.
- [35]Hedman, E-L, E. (2005). Back to the Barrack: Relokasi Pengungsi in Post-Tsunami Aceh, Indonesia. 80, pp.1-19.
- [36]Hilhorst, D, and Bankoff, G. (2004). Introduction: Mapping Vulnerability in G. Bankoff, G. feeks and D Hilhorst (Eds). *Mapping Vulnerability: Disasters, Development and People*. (1<sup>st</sup> ed. Pp.1-9) UK and USA: Earthscan.
- [37]Hopkins. (1996). *The Problem of Defining High Reliability Organizations*. The Australian National University. National Research Centre for OHS Regulation, Canberra.
- [38]Ingram, J.C, Franco, Guillermo, Rio, C.R & Khazai, Bjian. (2006). *Post-Disaster Recovery Dilemmas: Challenges in Balancing Short-Term and Long-Term Needs for Vulnerability Reduction*, *Environmental Science & Policy*, 9:607-613.
- [39]International Federation of Red Cross and Red Crescent. (2007). *Learning from the Tsunami: Mid-Term Review*. p.9, Reported by Ian O'Donnell with Celia Kakande.
- [40]ISDR. (2007). *Learning from Disaster Recovery, Guidance for Decision Makers*. A Publication from IRP, supported by ADRC, ISDR and UNDP. Preliminary version for consultation.
- [41]Karunasena, Gayani, Amaratunga, Haigh, Richard & Lill, Irene. (2009). *Post-Disaster Waste Management Strategies in Developing Countries: Case of Sri Lanka*. *Journal of Strategic Property Management*, 13: 171-190.
- [42]Kenny, S. (2007). *Reconstruction in Aceh: Building Whose Capacity?*, *Community Development Journal*, 42: 206-221.
- [43]Kent, R. (1994). *Kesiapan Bencana*. UNDP Program Pelatihan Manajemen Bencana.pp.12.available at:[www.unisdr.org/cadri/documents/Indonesian/Kesiapan-Bencana.pdf](http://www.unisdr.org/cadri/documents/Indonesian/Kesiapan-Bencana.pdf).



- [44] Kilby, Patrick. (2007). *The Strength of Network: The Local NGO Response to the Tsunami in India*. Blackwell Publishing, Oxford, p.120-129.
- [45] Liphstiz, Raanan. Popper, Micha, and Sasson Oz. (1996). *Building Learning*
- [46] Loh, Benjamin. (2005). *Disaster Risk Management in Southeast Asia: A Development Approach*. ASEAN Economic Bulletin, 22(2): 229-239.
- [47] Long, D. (2007). *Logistic for Disaster Relief: Engineering on the Run*. IIE Solutions, 29(6):26-29.
- [48] Mader, G.G. (1980). *Land Use Planning After Earthquake*. California, William Spangle and Associates.
- [49] Manyena. (2006). *The Concept of Resilience Revisited*. Disasters, 30(4): 433-450.
- [50] Marshella, A.J and Christopher, M.A. (2003). *Ethnocultural Considerations in Disasters: an Overview of Research, Issues and Dirtections*. Psychiater Clin North Am.2004 Sept, 27(3):521-539.
- [51] Martchenke, J., Rusteen, J. (1995). *Prehospital Communications during the Loma Prieta Earthquake*. Prehospital Disaster Med, 10(4): 225-231.
- [52] May, Peter, and Williams, W. (1986). *Disaster Policy Implementation: Managing Programs under Shared Governance*. New York and London: Plenum Press.
- [53] Maznewski.M. (1994). *Synergy and Performance in Multi-cultural Teams*. PhD Thesis, University of West Ontario.
- [54] McEntire, D.A and Thomas, E.D. (2003). *Emergent Phenomena and the Sociology of Disaster: Lessons, Trends and Opportunities from the Research*. Disasters 21(2): 39-56.
- [55] McAuslan, P. (1993). *The Role of Law in Urban Planning*, in N. Devas and K. Rakodi (eds.) *Managing fast growing cities*, Longman. New York. pp. 236-264.
- [56] Mileti, Dennis S. (1999). *Disaster by Design: A Reassessment of Natural Hazards in the United States*. Joseph Henry Press. Washington DC.
- [57] Minnery, J. (2007). *Stars and Their Supporting Cast: State, Market and Community as Actors in Urban Governance*. Urban Policy and Research, 25(3): 325-345.
- [58] Moynihan, P Donald. (2008). *Learning Under Uncertainty: Networks in Crisis Management*. Public Administration Review 68(2): 350-365.
- [59] O'Brien, David. (2006). *Challenges to Making Humanitarian Action Work: The Indian Ocean Relief Effort in Contemporary Perspective*. Canadian Foreign Policy, 13(1) 37-58.
- [60] O'Callaghan, S, et al. (2009). *Early Recovery: An Overview of Policy Debates and Operational Challenges*. ODi Humanitarian Policy Group, Nov 2009.
- [61] Olshansky, R.B. (2007). *Planning Following Catastrophic Disaster: Research Challenges*. Retrieved from <http://planningresearch.blogspot.com/2007/>.
- [62] Onwuegbuzie, Anthony J. and Leech, Nancy, L. (2005). *On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies*. Journal of Social Research Methodology 8(5) (December): 375 - 387.
- [63] Paradise, T, R. (2005). *Perception of Earthquake Risk in Agadir, Morocco: A Case Study from a Muslim Community*. Environmental Hazards, Volume 6 (3): 167-180.
- [64] Perry, Marcia. (2007). *Natural Disaster Management Planning, A Study of Logistics Managers responding to the Tsunami*. International Journal of Physical Distribution & Logistics Management.37(5): .409-433.
- [65] Quarentelli, E.L. (2005). *Ten Criteria for Evaluating the Management of Community Disasters*. Disasters, 21(2): 39-56.
- [66] Rajasingham-Senanayake. (2005). *Sri Lanka and the Violence of Reconstruction*. Development, 48: 111-120.
- [67] Rajkumar, Premkumar and Tharyan. (2008). *Coping with the Asian Tsunami: Perspectives from Tamil Nadu, India on the determinants of Resilience in the Face of Adversity*. Department of Psychiatry, Christian Medical College.
- [68] Rahman. (2005). *Disaster Management and Public Awareness in Bangladesh*. In Nazamuddin, K (eds), *Disaster in Bangladesh, Selected readings, Disaster Research Training and Management Centre, University of Dhaka, Dhaka*.
- [69] Rigg, Law, May, and Carl. (2008). *Grounding a Natural Disaster: Thailand and the 2004 Tsunami, Asia Pacific Viewpoint*, 49(2):137-154.
- [70] Rubin, Claire B. (1991). *Recovery from Disaster in Principles and Practice of Emergency Management*. Washington D.C: International City Management Association.
- [71] Rubin, Claire B. et al. (1993). *Planning for Disaster Recovery in Management Information Report*, (International City and County Management Association), 25(7) 7 July 1993.
- [72] Shaw, S.L. (1981). *A History of Tropical Cyclones in the Central North Pacific and the Hawaiian Islands, 1832-1979*. Silver Spring: U.S. Dept. Of Commerce, National Oceanic and Atmospheric Administration.

- [73] Smillie, I. (1998). *Relief and Development: the Struggle for Synergy*, Institute for International Studies. Occasional Paper No. 33, Brown University.
- [74] Silver, Marshall. (2001). *Disaster Insurance in Vietnam – the Path to Obligatory Solutions*. Natural Disaster 2000-2005.
- [75] Silva, Jo da. (2009). *Lesson from Aceh. Key Considerations in Post-Disaster Reconstruction*. Published by Practical Action Publishing.
- [76] Steinberg, Florian. (2007). *Housing Reconstruction and Rehabilitation in Aceh and Nias, Indonesia-Rebuilding Lives*. Habitat International, 31: 150-166.
- [77] Swaroop. (1992). *A Study of Long Term Recovery of Three Communities in the Aftermath of Hurricane Hugo*. HRRC Monograph 9B. College Station, Texas A&M University, College of Architecture, Hazard Redution Recovery Center, p.171.
- [78] Team of Public Administration Master, Gadjah Mada University. (2006). *National Disaster Handling Agency: A Proposal of Institutional Arrangements*, presented to Special Committee for Disaster Handling Bill House of Representative-Republic of Indonesia.
- [79] TEC (Tsunami Evaluation Coalition). (2006e). *The Role of Needs Assessment in the Tsunami Response* (de Goyet, C., & Moriniere, L.C. International Centre for Migration and Health (I.C.M.H) with Budi, M.A., harjadi, A., Heal, B., Hidayatno, A., Iopriore, C., & Rahardjo, E.W)
- [80] Telford, J. and Cosgrove, J., & Houghton, R. (2006). *Joint Evaluation of the International Response to the Indian Ocean Tsunami: Synthesis Report*. London: Tsunami Evaluation Coalition.
- [81] Tendler, J. (1997). *Good Government in the Tropics*. The John Hopkins University Press, Baltimore and London.
- [82] Thomas, A. Garrett. (2003). *The Political Economy of FEMA Disaster Payments*. Federal Reserve Bank of St. Louis – Research Division.
- [83] Topping, K.C. (2009). *Long-Term Recovery: Past Lessons Informing Future Action*. PEER Loma Prieta symposium, San Francisco, October 17, 2009.
- [84] Turner et al. (2003). *A Framework for Vulnerability Analysis in Sustainability Science*. Proceeding of the National Academy of Science of the United State of America (PNAS). 100(14): 8074-8079.
- [85] United Nations Development Program (UNDP). (2006). *Human Development Report*, Oxford University Press. Oxford.
- [86] Uyangoda, J. (2005). *Ethnic Conflict, the State and the Tsunami Disaster in Sri Lanka*. Inter-Asia Cultural Studies. 6(3): 341-352.
- [87] Van Horen, B. (2000). *Informal Settlement in-Situ Upgrading: Bridging the Gap between the de Facto and the de Jure*. Journal of Planning Education and Research. 19(4): 389–400.
- [88] Van Horen, B and Shuaib, F. (2006a). *Post-war Reconstruction and Institutional Capacity-Building in Jaffna Sri Lanka* (pp.160-161), in Clark M (Ed): *Aid in Conflict*, Nova Publishers, New York.
- [89] Wall, I. (2005). *Where Is my House? Improving Communication with Beneficiaries: an Analysis of Information Flow to Tsunami Affected Population in Aceh Province*: UNDP, pp.12-13.
- [90] Yin, K. (1994). *Case Study Research: Design and Methods*. Sage Publications, Thousand Oaks, USA.
- [91] Yodmani, S. (2005). *Disaster Risk Management and Vulnerability Reduction, Protecting the Poor*. Social Protection Workshop Paper, Manila.