

**COMMUNITY ENHANCEMENT THROUGH PARTICIPATORY PLANNING:  
A CASE OF TSUNAMI-DISASTER RECOVERY  
OF BANDA ACEH CITY, INDONESIA**

**By**

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***“There is no power and no strength except with Allah  
the Most High, the Great”***

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## **PENINGKATAN KOMUNITI MELALUI PERANCANGAN PENYERTAAN: KES PEMULIHAN BENCANA TSUNAMI BANDA ACEH, INDONESIA**

### **ABSTRACT**

Kajian ini bertujuan untuk memahami mekanisme dan prosedur penyertaan awam di kawasan yang terjejas akibat bencana tsunami dan mengkaji sama ada proses tersebut menyumbang kepada pemulihan komuniti yang terlibat. Penilaian penyertaan awam telah didokumentasikan dengan baik. Namun begitu, rangka kerja penilaian tidak dapat menilai sejauhmanakah proses penyertaan telah mencapai matlamat dalam konteks pembangunan yang luas. Dalam konteks pascabencana, pembangunan semula diharapkan dapat memainkan peranan dalam pemulihan komuniti. Kajian penilaian ex-post ini mengguna pakai pendekatan kaedah gabungan iaitu soal selidik dan temu bual peribadi. Data soal selidik dianalisa secara deskriptif dan data temu bual mengikut tema. Kedua-dua analisis digabungkan untuk meningkatkan kefahaman mengenai penyertaan. Instrumen ini dibangunkan dengan menggunakan rangka kerja penilaian Rowe dan Frewer—untuk menilai proses penyertaan, dan dengan tambahan criteria usaha sendiri—untuk menilai pemulihan komuniti terjejas. Dengan melibatkan 44 orang responden dalam soal selidik, dan 33 orang daripada mereka dalam temu bual peribadi, dari empat buah desa di Banda Aceh yang paling teruk mengalami kemusnahan; hasil kajian ini menunjukkan bahawa (i) penyertaan telah diterima ramai kerana terdapat usaha yang serius untuk mengambil kira pandangan komuniti dan ia juga berkesan dalam melibatkan komuniti yang terjejas dalam proses penyertaan; dan (ii) keyakinan komuniti telah dipulihkan semasa proses penyertaan dan mereka lebih optimis pada kehidupan mereka. Kajian ini membuktikan bahawa cara bagaimana penyertaan dikendalikan merupakan asas bagi proses penyertaan yang memenuhi tujuannya. Oleh itu, kajian ini memberi sumbangan dalam meluaskan konteks penyertaan, dan memperincikan penilaian terhadap proses penyertaan awam sedia ada. Kajian lanjutan dijangka dapat membangunkan rangka kerja penilaian yang lebih komprehensif dan padat bagi menilai pemulihan kepesatan sosio-ekonomi untuk mendapat gambaran yang lebih jelas sama ada komuniti yang terjejas menjadi komuniti yang mempunyai daya tahan bencana, sebagai matlamat utama usaha pemulihan bencana.

**COMMUNITY ENHANCEMENT THROUGH PARTICIPATORY PLANNING:  
A CASE OF TSUNAMI-DISASTER RECOVERY OF BANDA ACEH CITY,  
INDONESIA**

**ABSTRACT**

This research aims to understand the mechanisms and procedures of public participation process in tsunami-affected areas and to examine whether or not the process contributed to the recovery of affected-community. The evaluation of public participation has been well documented; however, the evaluation framework is deficient in assessing the extent to which participation process has been successful in the fulfilment of its purpose—within the bigger context of development which it belonged. In post-disaster context, redevelopment programs are strongly expected to play a role in recovery of community. In conducting this ex-post evaluation study, mixed methods approach is utilized, i.e. survey and personal interview. Survey data is analyzed descriptively and interview data thematically. Both analyses are combined to enhance understanding on participation matters. The instrument is developed by using Rowe and Frewer's evaluation framework criteria—to evaluate participation process, and additional self-developed criteria—to evaluate the recovery of affected-community. By involving 44 respondents in survey and 33 of them in interview in four most devastated villages in Banda Aceh, the results show that (i) participation was accepted as a major effort to accommodate community views and considered competent in involving affected-community in the participation process; and (ii) community's sense of confidence was restored during/after the participation process and they became optimistic about their life. It is evident that the manner in which participation was facilitated was fundamental for participation process to fulfil its purpose. Hence, the study contributes to the broadening of the context, and deepening the scrutiny, of the existing evaluation approach on public participation process. Further research is expected to develop a more comprehensive and compact evaluation framework to evaluate the restoration of socio-economic vitality of affected-community, in an effort to ascertain whether or not the community is making progress towards becoming a disaster resilient community—as the primary goal of disaster recovery efforts.

# **CHAPTER 1 INTRODUCTION**

## **1.1 Introduction**

This research explores the extent to which the planning and housing reconstruction processes of tsunami-affected areas in Banda Aceh city were carried out participatorily and whether or not the participatory processes contributed to the recovery of assisted communities. The context of this research is, in one sense, the reconstruction efforts following the 2004 Indian Ocean earthquake and tsunami and, on the other sense, also the recovery process after the almost 30 years of civil war.

This chapter is designed as an introduction to the research on community enhancement through participatory planning in Banda Aceh city, Indonesia. The chapter is divided into ten sections including this introduction. The second section is research background—which overviews recovery efforts in Banda Aceh, particularly in post-tsunami spatial planning activities; then followed by the third and fourth sections, i.e. problem statement and purpose of the study. Afterwards are the fifth section, which is to define “recovery” and the sixth section which is to state research questions. Following those are the seventh, eighth, ninth sections, i.e. research methodology—which discusses the mixed methods approach used; significance of the study, and research delimitations and limitations. Finally, this chapter is concluded by the tenth section, which briefly explained the structure of thesis.

## **1.2 Overview of Recovery Efforts in Banda Aceh**

Coastal areas of Banda Aceh, the capital city of Aceh Government (Pemerintah Aceh), were severely destroyed by the earthquake and tsunami that struck on 26 December 2004. More than one-quarter of the city’s pre-tsunami population of 260,000



were killed, together with another 100,000 or more died in other parts of the province<sup>1</sup>. As one of the most devastated areas in the province, Banda Aceh city suffered severely in major sectors, such as housing, infrastructure and environment (Leitmann, 2007). According to the Blue Print of Aceh and Nias rehabilitation and reconstruction, the size of Banda Aceh city is 6,100 Ha, which 4,880 Ha was heavily damaged, and 1,220 Ha was affected 25%.

To start the recovery efforts, President of the Republic of Indonesia in April 2005 issued two important policies. The **first** is the Government Regulation in lieu of Law 2/2005 on the establishment of BRR (the Agency for the Rehabilitation and Reconstruction of Aceh and Nias)<sup>2</sup>. For its 4-year terms, the Agency has a mandate to coordinate all parties participating in the rehabilitation and reconstruction (R/R) processes; and to execute programmes and projects utilizing state's budget that are intended to fill the gaps, i.e. filling in the sectors or regions that are not being touched by other participating parties. The **second** is the Blue Print of Aceh and Nias rehabilitation and reconstruction based on Presidential Decree 30/2005. The Blue Print set up targets for BRR to achieve during its terms.

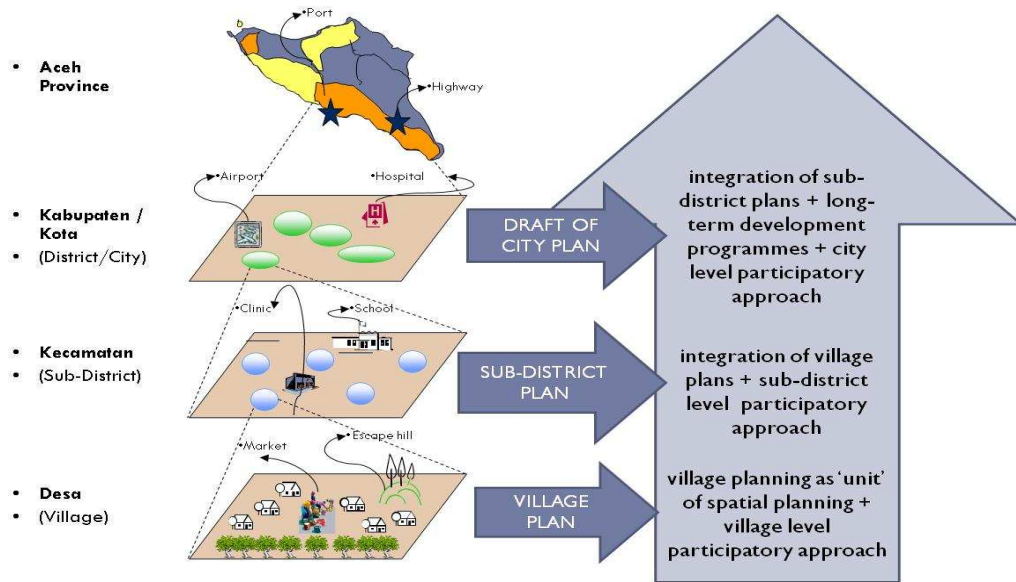
The spatial planning dimension of R/R—which is one of the sectors of R/R in the Blue Print—is clearly stated in article 5 (a) of the above Law, i.e. that reconstruction “... includes spatial planning”. Hence, spatial plan is substantially and legally a prerequisite to carry out rehabilitation and reconstruction programmes, especially for housing and infrastructure reconstruction. To speed up the reconstruction, spatial planning process is conducted parallel at various levels, from village to provincial levels; from general spatial plans to detailed and technical plans. The reason for conducting spatial planning

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<sup>1</sup> The revised master plan of the city states that out of 263,668 pre-tsunami population of the city only 192,194, or 72.89%, survived. See: SKS-BRR Tata Ruang, Lingkungan dan Evaluasi. 2006. *Revisi Rencana Tata Ruang Wilayah Kota Banda Aceh Provinsi Nanggroe Aceh Darussalam Tahun 2006-2016 – Laporan Akhir*. Page II-30

<sup>2</sup> Later, this Government Regulation was confirmed by the National Parliament and enacted as LawNo. 10 year 2005 (or Law 10/2005).

simultaneously, among other things, is the need to accelerate the reconstruction process to effectively use the limited available time (see Figure 1.1).



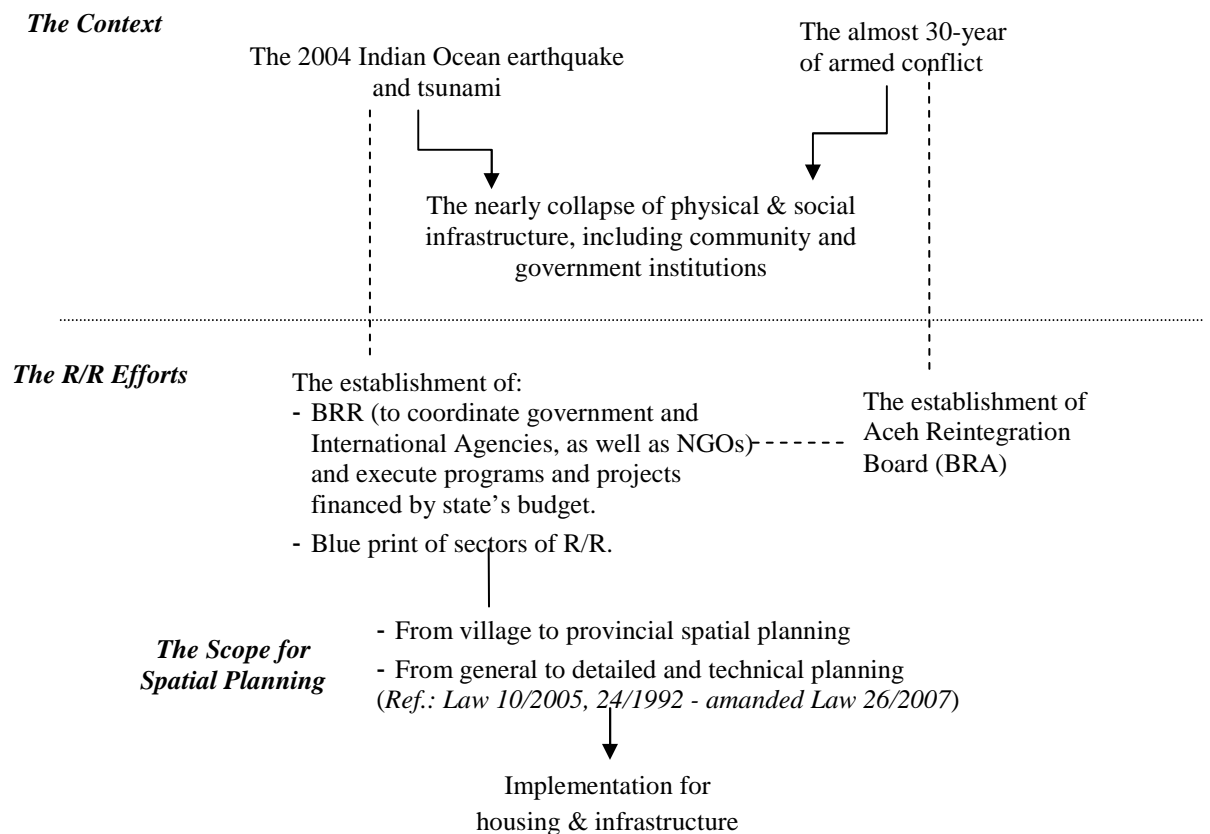
**Figure 1.1 Spatial planning at various levels in recovery efforts of Aceh**

In addition, the other part of the Law, i.e. point c of the Consideration, also dictates that “...rehabilitation and reconstruction should be conducted in a special way, systematic, well-directed, and integrated as well as comprehensive by involving participation, and taking into account aspirations and needs of the society...”. Taking these two legal directions, i.e. the need for spatial planning and for a participatory R/R, hence the spatial planning unit of BRR has taken a participatory spatial planning approach<sup>3</sup>.

Reconstruction after natural disaster of tsunami was not the only reason for accelerating the reconstruction process of Aceh. For almost 30 years before the peace accord was signed in August 2005, at various intensities, the province was in the stage of an armed conflict between the National Liberation Front of Aceh Sumatra (known as GAM) separatist movement and the national government. At some points in time, this conflict contributed to the nearly paralyzed of the provincial and district/city

<sup>3</sup>See, for instance, BRR. 2009. *Direktori Dokumen Produk Rehabilitasi dan Rekonstruksi Bidang Penataan Ruang. Banda Aceh.*

governments, especially along the coastal regions<sup>4</sup>; for the fire engagements and fears not only took-place in the jungle and rural areas but also in urban areas. In short, tsunami made none but worsened the existing situation. This explains why, later, BRR admits that this institution also worked in areas that were not affected by tsunami but by conflict, for reasons such as avoiding jealousy and minimizing great impacts of conflict which sometimes worsen than the impacts of tsunami (Bauman, Gazala, & Mengistu, 2006). The scope for spatial planning within the context of post-tsunami Aceh is shown in Figure 1.2.



**Figure 1.2 The scope for spatial planning within the context of recovery Aceh**

Note:

Besides Law 10/2005 on BRR there was also specific legal basis for spatial planning, i.e. Law No. 24/ 1992 on Spatial Planning and all its government regulations. However, in 2007 this law was replaced by Law 26 year 2007 (Law 26/2007), also on Spatial Planning.

<sup>4</sup>History and background of the GAM separated movement can be seen, among others, in Tengku Hasan M. Di Tiro. No date. **The Legal Status of Aceh – Sumatra Under International Law**. Manuscript; and in President of the Liberation Front of Aceh Sumatra. 1984. **The Price of Freedom: the unfinished diary of Tengku Hasan di Tiro**. No place of publication: Published by National Liberation Front of Aceh Sumatra.

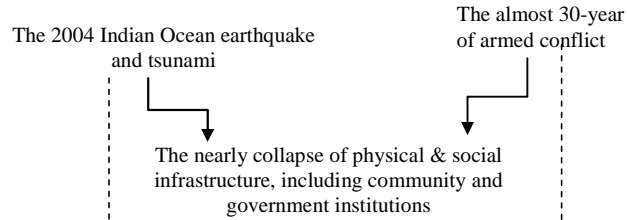
In Banda Aceh, there are 52 villages<sup>5</sup> affected by tsunami, and among them, 49 villages<sup>6</sup> were planned. The villages were mostly located in the coastal areas where the heaviest destruction took place. Parallel with that, sub-districts and the city itself were also planned. Preceding these planning processes—in order to formulate initial and urgent direction for the rehabilitation and reconstruction of the city, in 2005 JICA has also prepared what was called “Urgent Rehabilitation and Reconstruction Plan for the City of Banda Aceh”. In accordance with the Law 10/2005 which mentioned above, all of these spatial plans were reported had been formulated by utilizing participatory approach—including the latter—although it was considered more a technocratic response to disaster. The position of this research study within the context of recovery efforts of post-tsunami Aceh is shown in Figure 1.3.

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<sup>5</sup> Identification of disaster-affected villages is derived from superimposing three sources ‘level of damage’ data, i.e. the Blue Print of Aceh and Nias rehabilitation and reconstruction, the Map Frame, and the Study on the Urgent R/R Plan for Banda Aceh (for detail information regarding the process of identification.

<sup>6</sup> Number of plans which reported accomplished to BRR, by various agencies that carried out the village planning processes.

**The Context**



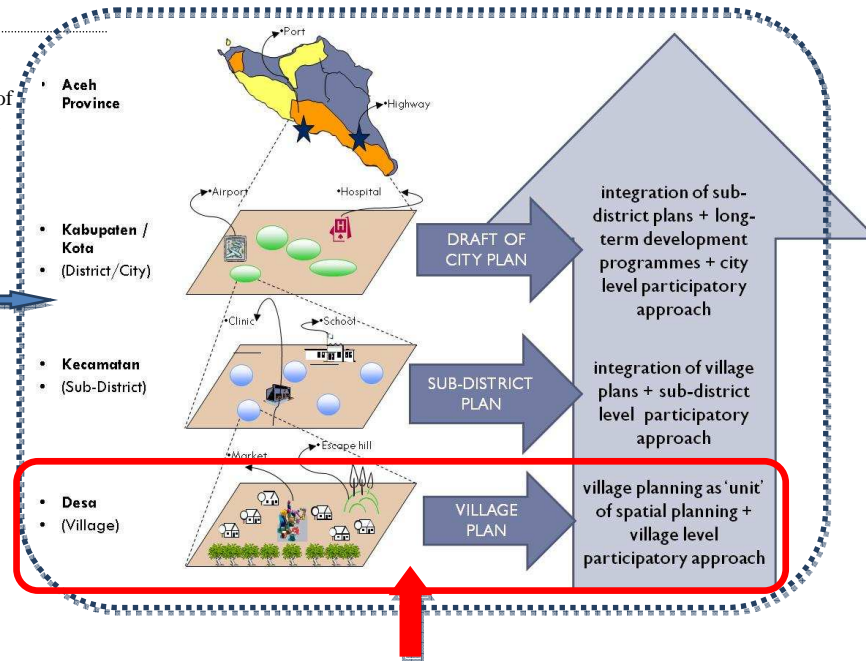
**The R/R Efforts**

- The establishment of:
  - BRR (to coordinate government and International Agencies, as well as NGOs) and execute programs and projects financed by state's budget.
  - Blue print of sectors of R/R.
- The establishment of Aceh Reintegration Board (BRA)

**The Scope for Spatial Planning**

- From village to provincial spatial planning
- From general to detailed and technical planning (Ref.: Law 10/2005, 24/1992 - amended Law 26/2007)

Implementation for housing & infrastructure



**The present research study:**

Evaluation of Participation Process and Evaluation of Community Recovery in village level

**Figure 1.3 The position of the present study within the context of recovery efforts of post-tsunami Aceh**

### **1.3 Statement of the Problem**

The goal of participatory planning and reconstruction processes in post-disaster areas is mainly for facilitating implementation—in the sense that the processes engage communities and help affected-people to work together to rebuild their housing, their lives, and their livelihoods, and the processes are also expected to foster community empowerment, as well as to increase social capital (Jha, Barenstein, Phelps, Pittet, & Sena, 2010). In addition to deliver certain desired outcomes mentioned above, participation in redevelopment activities also needs to take part in recovery of community.

Participation process in planning and housing reconstruction of tsunami-affected areas in Banda Aceh has long been accomplished. Thousands of houses reconstructed, which mostly—in various degrees—were reported had been carried out through participation process. The affected-people apparently have restored their confidence and optimism. The questions then arise as whether or not it was through participation process the communities engaged and helped to work together to carry out their housing reconstruction. The next question is whether or not the communities accepted the performed participation process. Afterwards, the questions continue as whether or not the participation process played its role in contributing to the recovery of affected-people; as well as the question on what participation mechanisms were utilized and how were the exercises being applied.

Evaluation of public participation has been well documented. Starting from the discussion on evaluation frameworks (Renn, Webler, & Wiedemann, 1995), (Rowe & Frewer, 2000); on cases as results of frameworks utilization (Webler & Tuler, 2000), (Rowe & Frewer, 2004), (Rowe, Marsh, & Frewer, 2004), (Rowe & Frewer, 2005), (Rowe, Horlick-Jones, Walls, & Pidgeon, 2005), (Webler & Tuler, 2006), and (Rowe, Horlick-Jones, Walls, Poortinga, & Pidgeon, 2008); up to the discussion on development of concepts, theories, and issues on the benefits of public participation (Burton, 2009).

Particularly in the development of evaluation framework, Ortwin Renn, Thomas Webler, and Peter Wiedemann (1995) as well as Gene Rowe and Lynn J. Frewer (2000), all discuss criteria of “fairness” and “competence” in citizen participation. However, Renn, Webler, and Wiedemann concern largely lie with the attributes of the discourse within a participation exercise and put forth these fairness and competence as a set of criteria that can depict the quality of the discourse (Renn, Webler, & Wiedemann, 1995); whereas Rowe and Frewer’s concern is on participation mechanisms and procedures and put forth these fairness and competence as a set of criteria to assess the effectiveness of participation methods (Rowe & Frewer, 2000).

So far it is known by the present researcher, literature on participation in recovery efforts concerns normative discussion of the merits of, and conceptual framework for, public involvement in post-disaster areas. Articles mostly speak about lesson learned, such as on what need to consider, use, and/or do in post-disaster participatory approach. For example, the need to take into account local knowledge and local social system is discussed by Rajkumar, Premkumar, & Tharyan (2008), Lee (2008), and Hawkins & Rao (2008). The need to empower the affected community and to transform knowledge into practice in local procedures is discussed by Triantafillou & Nielsen (2001), and Samaddar & Okada (2006). An article derived from post-disaster experience in Indonesia, suggested the need to identify, use, and strengthen existing social capital (Leitmann, 2007). There is also a writer questioning on who actually gained from capacity building exercise in post-tsunami Aceh—the community or outsiders (Kenny, 2007). Recently, a detail first-hand experience on the successful of planning practitioners and community to collaborate in post-disaster context is presented by Reardon, Green, Bates, & Kiely (2009).

The scarcity of studies on the design and evaluation of more informed, effective, and legitimate participation process in post-disaster areas is regrettable because it is the sort of information development practitioners and especially governments of disaster-

prone countries, appear to be requiring if they are to involve in, and be responsible for, recovery of disaster-affected people and areas.

Natural disasters usually create sudden changes in the environment, housing, and economy of communities and have dramatic effects on the social networks, lifelines, and social well-being of not only the disaster' victims but also the inhabitants of a city in general. When recovering from a disaster, some communities have literally had to start from scratch—both in rebuilding and in creating community consensus and support (Esnard, 2003). Therefore, the reconstruction process should also take into account the existing physical and social infrastructures.

The aim of recovery efforts is to attain capable community in order to achieve a higher level of well-being and more sustainable future. The efforts are then carried out by restoring the socioeconomic vitality of disaster-affected community; in which social development for community in question needs to be focussed on community development for self-help via active involvement of the community in the process (Esnard, 2003).

As planning and housing reconstruction process needs to contribute to the recovery of community by fostering community empowerment, the ability of planners to choose the type of technique most useful for the aim is important in order to achieve optimum utility of the technique (Moughtin, 1992). This is in line with Michael Fagence (1977) who mentions that means of participation are techniques and procedures to be used in order to bring the participants and participant groups into a meaningful co-operative relationship (Fagence, 1977). However, as Moughtin (1992) argues, the more intense forms of participation requires techniques which actively involve the individual. Consequently, the use of techniques should indicate the intensity of community to participate, i.e. the degree of roles and responsibilities of the people and groups involve in the techniques.

The aim of recovery efforts is to attain capable community in order to achieve a higher level of well-being and more sustainable future. The efforts are then carried out by



restoring the socioeconomic vitality of the community (Esnard, 2003). Social development for disaster-affected community needs to be focussed on development of community for self-help via active involvement of the community in the process. This attempt is in line with the aim of participatory practices invading development interventions which is in order to empower individuals and communities. The people are supposed to constitute themselves as active and responsible subjects capable of taking charge of their lives and improving the well-being of themselves and their community.

The ultimate goals of empowerment process are the people: a) gaining psychological power through conscientization; b) gaining political power through engagement in social action; and c) resulting change (Carr E. S., 2003). Criteria and definitions of the effectiveness of empowerment process are derived from the abovementioned three stages of the process.

The effective facilitation as empowerment therapeutics is when intellectuals are successful to promote social change by enabling the community to gain awareness of their situation and providing them with tools to mobilize and organize themselves. Effective facilitation will be assessed through the achievement of performing the five fundamental purposes of facilitation mentioned by Triantafillou & Nielsen (2001).

The occurrence of cooperation among community depends on particular level of social capital exists in the community (Uphoff, 2000). The enhancement of social capital in community is occurred during the empowerment and participation process. The understanding of this enhancement will be referred to Norman Uphoff 's terminology and conceptualization of social capital, which explains the connections that exists among elements of social capital and the consequences can be attributed among elements and their interactions. Theoretical approach to this research study is shown in Figure 1.4.

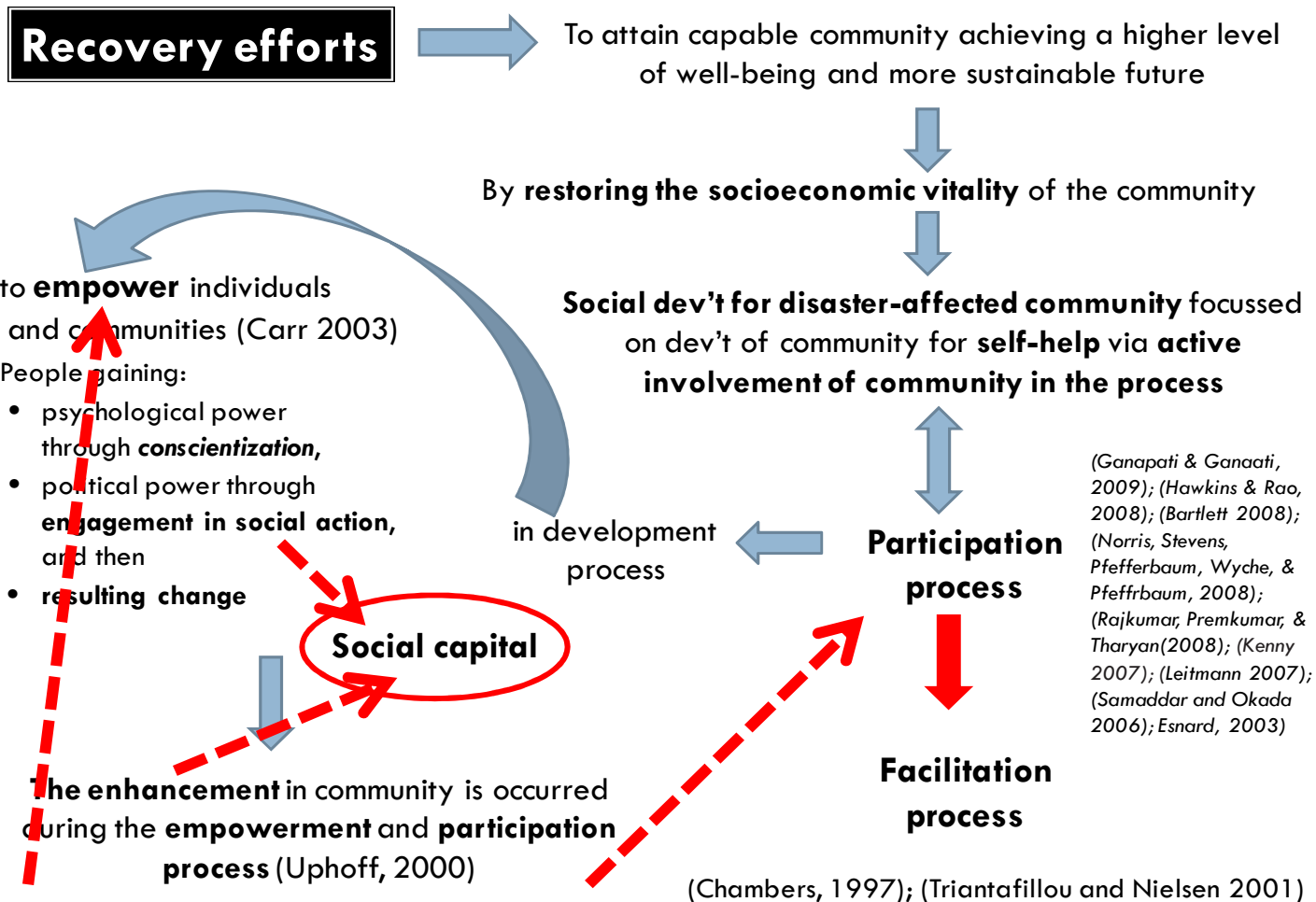


Figure 1.4 Theoretical approach to the present study

As meaningful co-operative relationship achieved through techniques and procedures utilized in participation process, and the enhancement of community is occurred during participation process; therefore, this study utilizes the fairness and competence criteria developed by Rowe and Frewer (2000) to evaluate the applications of mechanisms and procedures during planning and housing reconstruction processes in affected-areas in Banda Aceh.

The public may be involved in a number of different ways or at a number of levels. However, the relative effectiveness of the various public engagement mechanisms is unclear, as efforts at evaluation have been sparse (Rowe & Frewer, 2004), (Rowe, Marsh, & Frewer, 2004). The main question then is “what works best when” (Rowe & Frewer, 2004); hence, the effectiveness of public engagement depends on the particular mechanism chosen and the way in which this mechanism is applied. They posit that should thus be a theory or model that predicts or describes how to enable effective involvement (i.e., which mechanism to use, and how) in any particular situation (Rowe & Frewer, 2005).

The evaluation criteria of effectiveness for mechanism chosen will employ the acceptance and process criteria developed by Rowe and Frewer (2000). There are five criteria for acceptance, which are related to the effective construction and implementation of a procedure, and four criteria for effective process, which are related to the potential public acceptance of a procedure.

However, the Rowe and Frewer’s evaluation framework is considered deficient, in the sense that it is not sensitive to what actually happens, in terms of the action of participants or the experience of participants (Harvey, 2009). Hence, to examine the extent of community enhancement through participatory planning and housing reconstruction process, this framework is combined with three other self-developed criteria in effort to evaluate empowerment process, facilitation process, and the dynamics of social capital.

There were four different planning methods utilized in participatory planning process in all affected-villages of Banda Aceh city. The evaluation applied mixed methods approach to study four most-destroyed—this study terms it ‘inundated’—villages, as representation of each planning method. The intent of this study is less to comment on the plan as the end result of mechanisms evaluated, but more to explore whether or not the performed-exercises had delivered the intended outcomes, and had been accepted by participants; as well as whether or not the exercises contributed to the recovery of affected-people.

#### **1.4 Purpose of the Study**

This study attempted to contribute to the knowledge base by investigating participation process in planning and housing reconstruction of post-tsunami affected -villages and -people in Banda Aceh city. This study evaluates participation process in both aspects: 1) whether the participation processes have delivered its intended goals/outcomes and been accepted by the participant communities—i.e. through participation processes the communities were engaged and helped to work together to carry out their housing reconstruction in accepted manners; and 2) identification of the extent to which participation process contributed to the recovery of community in the affected-villages.

#### **1.5 Defining Recovery**

According to Oxford Advanced Learner’s Dictionary, recovery (*in something*) means the process of improving or becoming stronger again. In a broader sense the definition of the term depends on social, economic, political, and cultural factors of particular community. In this stage, a prior definition is built from experiences of recovery efforts in other countries or in Aceh, to capture the expected purposes of the efforts.

In Cooks Nagar, one small community in Tamil Nadu, India, Bartlett argues that in the context of post-disaster reconstruction, there is growing awareness of the need for more integrated inclusive processes that **allow people to retake control of their lives**, and that ensure practical responses to local conditions (Bartlett, 2008) (*bold added*).

Hawkins and Rao mention that the purpose of CEDER (*a project for recovery efforts in Tamil Nadu, India*) is to **help survivors rebuild their village and their lives** and to provide them with assistance in the long-term development of their community. They also argue that recovery efforts also **provides an opportunity for the creation of innovative new programs** that are not only helping communities in the affected area recover but also helping the people **achieve a higher level of well-being and a more sustainable future** (Hawkins & Rao, 2008) (*bold added*).

Samaddar and Okada argue that, ultimately, reconstruction in disaster-affected areas is for helping to **get a more disaster resilient community** (Samaddar & Okada, 2006) (*bold added*).

From her diary notes, Sue Kenny (2007) noted down the expressions of people she had met in Aceh. The people want to **return to the earlier situation in order to continue their life by themselves**.

*‘What we want . . . small-scale practical help’ to ‘pick up their lives’, to go back to their kampongs, however devastated, and start working again. They needed to ‘gain some control of their lives, to restore their dignity. . .’* (Kenny, 2007, p. 206) (*bold added*).

According to Kenny’s interview with Forum Bangun Aceh (Forum for the Development of Aceh) or FBA—a local NGO which is working on capacity building of community—it is clear that Aceh should be **rebuilt by means of community self-help**.

As quoted from the article, the interviewee pointed out:

*. . .the belief that the empowerment of survivors and their active involvement in the process is the key to recovery . . . the strength and resilience of the Acehnese people themselves is the most valuable asset for the recovery of the province and its people . . . Aceh should be rebuilt by the Acehnese and for the Acehnese . . . the role of outsiders is merely to facilitate and assist them in their task* (Kenny, 2007, p. 211) (*bold added*).

Based on the abovementioned expected purposes of recovery efforts, hence the prior definition for recovery is: *a state of disaster-affected community who is capable to rebuild their village and their lives to become a more disaster resilient community in efforts to achieve a higher level of well-being and more sustainable future by the use of their own strength and resilience with active involvement in the process.*

## **1.6 Research Questions and Subquestions**

There are two research questions and a number of subquestions in this study, i.e.:

1. How did the performed-participation processes in planning and reconstruction of post-tsunami affected villages deliver the intended outcomes/goals? Were those processes accepted by affected-communities in those villages?
2. How did the mechanisms and exercises of the processes contribute to the recovery of communities in question?

To answer these, a number of subquestions arise, i.e.:

- a) What participation mechanisms/exercises were utilized and organized?
- b) How were the exercises being applied? What activities occurred in each setting of the exercises?
- c) How did the community involve? What topics were discussed, and what information, opinions, and beliefs were exchanged among participants?
- d) How did the community feel recover? What exercises encouraged most to feel recover?
- e) How were the decision-making processes during participation process?
- f) How was decision making carried out?
- g) Who were the key persons and how did each key person play her/his role?
- h) What kind of interpersonal dynamics exist? How did the participants influence the decisions?

- i) Reflecting from above questions, How was communities experiencing the processes? What made communities motivated? What were the exercises that can ensure that the processes and results sustained?

Presumably the public engagement processes empower the communities, the next question may be: What elements of social capital are enhanced during the processes? The subquestions then, i.e. how did participation process release them from the trauma of disaster? What is community opinion about the experience? and what is the advantages of the whole process for their well-being?

## **1.7 Research Methodology**

Research methodology of this mixed methods research study discusses the four main aspects of research methodology used, i.e. research design, sampling, data collection, and data analysis.

In research design section, knowledge claim, strategies of inquiry, and the mixed methods used for data collection, are discussed. This study adopts subjectivist epistemology and social ontology, in which the study holds view that the knowledge is produced by the knowers and sees the world as a world of meanings and interpretations—which generated through intentions and reasons (Biesta, 2010). Strategies of inquiry adopted by this study is called “basic concurrent mixed design”, in which data is collected and analyzed separately, then findings drawn from combined analysis, afterwards. Research methods used are survey method—on the quantitative side; and qualitative interview—on the qualitative side.

This study adopts purposive sampling. Sampling process utilizes multi-stage cluster sampling approach, for both: the affected-villages for sample locations, and the affected-individuals for unit of analysis. Population of affected-villages is villages with the highest level of damage among tsunami-affected villages in Banda Aceh city, and reported that participation carried out in planning and housing reconstruction process.

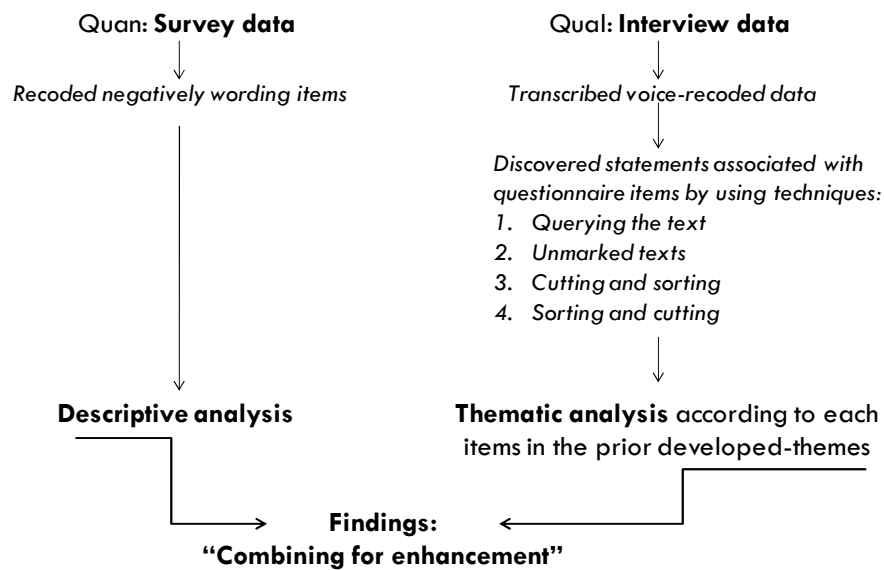
The extremely destructed villages which considered had adequate written planning report and had more than two community meetings during village planning and housing reconstruction process are the sampling frame of villages. On the other hand, population for individuals is tsunami-affected individuals who involved in participation process mentioned above; and individuals who participated in more than two community meetings in the above mentioned sampling frame villages, represented the sampling frame for individuals. After the multi-stage cluster sampling carried out, four villages as village samples are chosen and characteristics of individuals as unit of analysis are determined. The characteristics of village samples are: a) among most-devastated villages; b) documented had only one planning report; c) represented one out of four types of planning methods; d) had participant's names in the report; f) had numbers of community meetings in the report; and g) representing a village for each district in Banda Aceh. For individuals, unit of analysis is affected-individuals who more than twice participated in community meetings.

The instrument for data collection is a combination of Rowe and Frewer's (2000) evaluation framework and three self-developed criteria. Rowe and Frewer's acceptance and process criteria is utilized to answer the first research question regarding whether the performed-participation processes delivered the intended outcomes/goals and whether those processes accepted by affected-communities in those villages. This study calls these criteria as tool for "Evaluation of participation process". The three self-developed criteria on facilitation, empowerment, and social capital dynamics are used to answer the second research question regarding the contribution of participatory planning and housing reconstruction processes to the recovery of communities. These criteria then called as tool for "Evaluation of Community Recovery". Prior to data collection activities, the questionnaire items were pre-tested for content validity by three persons who had involved in participatory planning and housing reconstruction in Banda Aceh. Then, pilot study was carried out, which one of the aims is to give general idea about the reliability of



the measures through inter-reliability test. Data collection procedures takes two main forms, i.e. self-administered questionnaire and structured-personal interview.

In data analysis, the quantitative survey data is analyzed descriptively. The validity of quantitative data is assured through descriptive statistics on continuous variables and normality distribution of scores, in effort to observe on extreme scores in the data to acknowledge whether these scores are having influence on the mean, or not. The internal consistency reliability of the questionnaire is measured by using the average inter-item correlation measurement. On the other hand, the qualitative interview data is analyzed thematically—based on the prior developed-thematic framework for this study. The trustworthiness of qualitative data is checked by using three techniques, i.e. thick description, presenting negative/discrepant information, and peer debriefing. Finally, both quantitative and qualitative analyses are combined in data interpretation stage. The mixed analyses of both results occurs concurrently (i.e. in no chronological order), which called “concurrent mixed analyses”. However, due to the overall study is based on the prior developed-thematic framework, hence, the quantitative analysis strands is given greater priority. The techniques of mixing the analyses stemmed from the purpose of the complementary research, which aimed to seek elaboration, illustration, enhancement, and clarification of the results from one method with results from the other methods. Specifically, the combination of analyses results of this study is a way to enhance the sensibility and the utilization of data interpretation, which called “combining for enhancement” (Bazeley, 2010). Finally, the legitimation of mixed research findings—which is to check the extent to which the combination of quantitative and qualitative approaches succeeds to address the research’s complementary purpose—is carried out by utilizing three types of legitimation, i.e. sample integration legitimation, weakness minimization, and multiple validities (Onwuegbuzie & Johnson, 2006). The mixed analyses strategy of this study is shown in Figure 1.5.



**Figure 1.5 The mixed analyses strategy of the present study**

## 1.8 Significance of the Study

A study of participatory planning and housing reconstruction processes in disaster-affected areas and communities is important for several reasons. First, in body of knowledge of disaster management, specifically in literature concerns disaster recovery and management activities, and particularly in recovery of community, understanding how the approaches were carried out to encourage cooperative activities among affected-people, can help to identify the underlying logic of how participation activities and procedures were designed to convince the people of their capability to rebuilding their own village by using their own strength with active involvement in the process—in efforts to create a turning point from pessimistic to optimistic, at the first phase of reconstruction stage of recovery efforts.

Second, in body of knowledge of public participation in techno-science policy and decision making, specifically in literature concerns the design of more inform, effective, and legitimate public participation process, particularly in evaluation of public participation exercises, the experience of utilizing the upgraded-evaluation framework to the ex-post evaluation study, in post-disaster context, and with additional focus (not only

focus on the process and the outcomes, but also on the purpose), can serve as input to the development of public participation exercises evaluation framework. The input is at least in three topics, i.e. the timing, the context, and the focus of the evaluation.

Third, in body of knowledge of empowerment, specifically in the attempts to promote social development through techniques of empowerment and participation, understanding approaches in creating circumstances enabling the affected -community or -individual to bring about beneficial changes by themselves; can help to reveal the importance of outsider's role to facilitate the affected-people in organizing and analysing their knowledge in a manner that enables them to participate productively, as it is critically required to recover themselves from trauma and also to recover their physical environment.

Forth, in the body of knowledge of social capital, specifically in its analytical approach, i.e. by analyzing social capital dynamics through the analysis of social capital elements; the experience of operationalizing the broad concept of Uphoff (2000) in a concrete ground can serve as input to the development of operationalization of concept, and as encouragement to the acceptance and adoption of the concept in evaluation of social capital dynamics in communities.

Fifth, the findings of this study can serve as input to the development of guidelines for post-disaster participatory planning and re-development approach, specifically in Indonesia.

Finally, lessons learned from this study are of concern and relevance to rehabilitation and reconstruction situations around the world in other post-disaster areas, with or without prior post-conflict situations.

## **1.9 Delimitations and Limitations**

The underlying assumption to delimit this study is derived from perception of the 'not in my backyard' (NIMBY) phenomenon, but on the other way round. This

phenomenon characterizes social response of community to unwanted development in their area, which is perceived to have negative impacts on their environment (see (Schively, 2007)). In other word, unwanted development engendered negative response. Thus, wanted development engendered positive response.

In damaged areas, development—or in this case, reconstruction—is positively wanted. The more damage of an area, the more demand for quick reconstruction, and, the more likely that enthusiastic members of the community to participate. Based on this argument, this study will confine itself to do the enquiries about participatory planning processes in four inundated-villages in Banda Aceh. Each village represents each of the four different participatory planning methods used in post-tsunami spatial planning projects in Banda Aceh.

Spatial planning processes in Banda Aceh carried out within 2005-2007. This will be a difficult task to recall the six- to twelve-month experience of community participating in planning and housing reconstruction activities, which had been passed three to five years ago. Moreover, according to ACARP report (Rochelle & Thorburn, 2007), villagers were far more interested in discussing their current concerns, than recalling matters relating to earlier recovery aid.

In fact, additional information from agencies' practitioners who facilitated the planning processes, and from government officials who followed/supervised the processes would have been important to for confirmation or enrich the explanation on the experience. However, the practitioners had left Banda Aceh and difficult to trace back one by one; meanwhile the officers had been moved to other departments, or been replaced. For those abovementioned limitations, this study had shortage of preliminary data and informants, especially the ones who facilitate and assist the planning processes. These factors, in fact, important for validity and reliability of this study. Therefore, this study decided to rely on the results of interviews with community members who actively involved in the process, and utilized planning reports which submitted to Spatial Planning

Directorate of Aceh-Nias Rehabilitation and Reconstruction Agency—as preliminary data and information on the matters.

For the issues of validity and reliability, this study utilizes a number of validity and reliability measurements for the analyses of quantitative data, qualitative data, and findings, as follows: a) the validity of quantitative data is obtained through descriptive statistics on continuous variables and normality distribution of scores; and the internal consistency reliability of the questionnaire is measured by using the average inter-item correlation measurement; b) the trustworthiness of qualitative data is checked by using three techniques, i.e. thick description, presenting negative/discrepant information, and peer debriefing, and finally, c) the legitimation the mixed research findings—which is to check the extent to which the combination of quantitative and qualitative analyses succeeded in addressing the research’s complementary purpose—is carried out by utilizing three types of legitimation, i.e. sample integration legitimation, weakness minimization, and multiple validities.

#### **1.10 Structure of Thesis**

This thesis consists of six chapters, and organized as follows:

Chapter One presents the introductory background and overview of this research study. It highlights the context, the relevance, the scope, the methodology, and the significance of this study.

Chapter Two provides a careful review of relevant theoretical foundations on recovery of community, evaluation of public participation exercises, facilitation of empowerment and participation, and analytical approach of social capital. Furthermore, this chapter elaborates on this theoretical underpinning to review relevant literature on recovery of affected-community, public participation exercises, and facilitation processes in post-tsunami planning and housing reconstruction activities in Indonesia. Afterwards, this chapter provides a discussion and justification for the selection of research constructs

and variables to be investigated. This chapter concluded with conceptualization of evaluation framework to be utilized in this study.

Chapter Three is on research methodology. It discusses research design, sampling, and it explains thoroughly the instrument and procedure of data collection adopted for this study. It discusses methods of data collection through survey and personal interview during fieldwork in Banda Aceh city, Indonesia, as well as the methods of data analyses.

Chapter Four is devoted as an introduction to fieldwork results. It presents the general description of respondents by employing descriptive statistical measurements and elaborates the experience of the four villages during redevelopment process in each village, which extracted and re-structured from all of respondents' explanation during filling-in questionnaire and/or interview sessions.

Chapter Five presents the mixed data analyses. It discusses thoroughly the analysis on action-reaction among all of the stakeholders from the four villages during planning and housing reconstruction activities. The structure of analysis follows the thematic framework for evaluation which has been developed for this study.

Chapter Six examines conclusions and policy recommendations arising from this research study. This chapter summarises pertinent arguments presented in this thesis and weaves them into a concluding discussion. The important results from this research study and the way in which they can contribute to the debate are highlighted, especially concerning the utilization and development of evaluation framework of public participation exercises, and the role of external-enablers in facilitation exercises towards empowerment, as well as the management of planning and housing reconstruction programs within recovery context. The conclusion in this chapter concludes with an outline of important policy implications regarding the crucial roles of comprehensive guidelines on recovery and qualified external-enablers in improving recovery management in Indonesia, towards achieving disaster resilient communities.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews relevant literatures that help to establish a rationale for a research on understanding community enhancement through participatory planning. The chapter is divided into six sections including this introduction. The second section discusses relationships among recovery efforts, disaster resilient community, and empowerment. The discussion is intended to develop justification that disaster resilient community is the ultimate aim of recovery efforts, in which the approach to achieve this is through empowerment and participation process.

The third section is on participatory planning. Starting with brief description on the changing role of public participation in planning thought and key factors and processes affecting participation; this then followed by discussion on participatory planning in post-disaster context. The role of planning practitioners as external enablers in empowerment of affected- individuals and community is discussed, which then followed by the explanation of implication of empowerment and participation in social capital of community.

The fourth section is on participatory planning in Indonesia. This section briefly discusses the regimes of spatial planning since 1966 and describes empirical studies on participatory planning in Indonesia.

The fifth section discusses topics on evaluation of public participation. Starting from justification to the need of evaluation, this then followed by brief explanation on concepts of community engagement. Afterwards are discussions to overview problems of evaluation, issues of effectiveness, and the development of criteria for effectiveness. The last is conceptualizing evaluation approach for this research study.