TRUSTING THE SURVIVORS TO RECONSTRUCT THEIR OWN SHELTER: CHALLENGES, CONSTRAINT AND ADVANTAGES
LESSON LEARNED FROM UN HABITAT’S POST DISASTER RECONSTRUCTION PROJECT IN ACEH, INDONESIA

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Abstrak. In recent decades, the community participation process in development activities has been widely recognized as the most effective way to help communities, particularly the poor, to fulfill their basic needs. This approach has been practiced not only in normal situations but also in the emergency ones such as in the post earthquake disasters in Yogyakarta, Central Java and North Sumatra, and in the post tsunami disaster in Nanggroe Aceh Darussalam, Indonesia. This paper examines the practice of community participation in the post tsunami disaster recovery project in Nanggroe Aceh Darussalam conducted by the United Nations Human Settlements Programme (UN-HABITAT) and outlines challenges, constraints and advantages faced in the implementation of the approach. This research employed a qualitative method (participatory action research) and focused on a case study in the Geunteng Village of Pidie District, Nanggroe Aceh Darussalam. This research found that ensuring the quality of construction organized by the community in the limited timeframe and in the chaotic post disaster circumstances is the most challenging issue in implementing such an approach. However, this paper argues that it has potential to mobilize social resources available in the community, to increase the value of output, to enhance transparency and democracy, to empower community bargaining to the external stakeholders and to improve the sensitivity of the local contexts culturally and socio-economically.

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INTRODUCTION

In recent decades, the community participation process in development activities has been widely recognized as the most effective way to help communities, particularly the poor, to fulfill their basic needs. This approach has been practiced not only in normal situations but also in the emergency ones such as in post earthquake disasters. In Indonesia’s post-tsunami phase in Aceh, many NGOs, including United Nations Agencies like UN-HABITAT, have also adopted this approach in their reconstruction programs.

Although many scholars hold positive views of public participation, in fact, it is easier to imagine than achieve. The purpose of this paper is twofold: (1) to examine the execution of the community participation approach in the post tsunami disaster recovery project conducted by the United Nations Human Settlements Programme (UN-HABITAT) in Nanggroe Aceh Darussalam and (2) to outline challenges, constraints and advantages encountered in its implementation.

Though many studies have been conducted on this topic, those recording how such the approach is practiced in reality are rarely found. This paper presents results of research which was conducted through the participatory action research method. Through this method, the practical aspects of the approach (challenges, constraints and advantages) can be more empirically understood.

This paper begins by describing the theoretical concept of community participation particularly in the housing sector and how it has been applied by the United Nations Human Settlements Programme (UN-HABITAT) in its post tsunami disaster recovery project in Nanggroe Aceh Darussalam. It then provides background to the case study areas (Geunteng Timur and Geunteng Barat villages, Pidie District) and describes the research method used to analyze and understand challenges, constraints and advantages faced in the implementation process. The conclusions relate key findings from the case study areas and the lessons learned from it.

ENCOURAGING INVOLVEMENT THROUGH COMMUNITY ORGANIZED RECONSTRUCTION

As mentioned, the ideas of community participation have been widely recognized as the most effective way to help the community fulfill its basic needs. Proponents argue that participation helps planners and policymakers understand public preferences and local knowledge, builds support for policies, and could avoid expensive and time consuming litigation against plans and policies (Innes & Booher, 2004). It empowers people and neighborhoods (Friedmann, 1992), and increases neighborhood satisfaction and trust in street-level bureaucrats (Skogan, 2006). Moreover, participation is considered as an essential ingredient of the democratic processes (Fung, 2004; Friedmann, 1992; Healey, 1992).

Manaf (2007, 2008) and Wijanarko and Kartiko (2008) suggest that community based approach aims at encouraging active involvement of the community from the early stages of the process; strengthening the community’s decision-making ability; and enhancing social accountability, sense of belonging and the sustainability of the project. The involvement of the people in the whole process is considered more important than the physical form of any
accommodation which might be built during an intervention. It is about the construction or reconstruction of the whole reality of human lives or livelihoods (Turner, 1976, 1978, 1983 and Purbo, 1979).

UN-HABITAT, a United Nations' agency which has much experience in practicing the approach, commonly refers to it as the “People’s Housing Process” (Tibaijuka 2007, p. 7 and Dercon 2007, p. 1). In contrast to the conventional approach, in which a professional contractor (as the third party) is appointed to conduct the construction activity, the community based approach entrusts the people (as the end users) to build their own houses by employing their own skills and know-how.

Tibaijuka (2007, p.1) in her Foreword on Anchoring Homes. UN-HABITAT’s People’s Process in Aceh and Nias after Tsunami states that

“for people who have lost relatives, neighbors, and most of their assets as a result of a disaster, social capital is often the only resource left. The mobilization of this resource requires a special effort because people are traumatized, displaced and in fear of the future. UN-HABITAT has long history of building social capital through Community Organized Shelter Construction or People’s Housing Process”

Moreover, Dercon (2007, p 1) asserts that

“people’s process recognizes people’s organization and encourage them to execute development programs, which build on their own skills and know-how”.

The Community Organized Shelter Construction or People’s Housing Process in The Aceh-Nias Support Settlement program (the ANSSP) was implemented in four stages: Planning Process; Community Organizing for Project Implementation; Project Implementation; and Hand Over. In implementation, UN-HABITAT provides assistance directly to the affected communities (Tibaijuka, 2007). The community was encouraged to identify its own objectives and was facilitated to work out a plan (Community Action Plan). Based on this plan, UN-HABITAT then signs the contract. In accordance with the ‘community contract’, UN-HABITAT transfers the funds for the proposed activities directly to the community’s bank account (Dercon 2007, p 1).

The funds were disbursed over four separated stages. These four stages were used as instruments to monitor and evaluate the progress of the project against the budget. For stage one, UN-HABITAT disbursed 20% of the total amount of the project value, then 45% in the second stage, 20% in the third and 15% in the fourth. At each stage, the project’s progress was evaluated. The evaluation results justified whether the project would continue, be corrected or even terminated. UN-HABITAT field staffs encouraged the community and provided training to increase its capacity, particularly in conducting joint monitoring for construction activities. Through this method it could, hopefully, encourage active involvement of the community in the early stages of the reconstruction process; strengthen the community’s decision-making ability; enhance social accountability, sense of belonging and the sustainability of the project after completion.

Although public participation might be so desirable that no scholars would doubt it, when practiced in emergency situations such as post disaster reconstruction, things are easier said than done. (Chakrabarti, Majumder, & Chakrabarti, 2009; Davidson, Johnson, Lizarralde, Dikmen, & Sliwinski, 2007; Ganapati & Ganapati, 2009; Innes & Booher, 2004). Participatory initiatives often attract an unrepresentative sample of the population (Ganapati &
Ganapati, 2009). Some forms of participation, like public hearings, are poor mechanisms for deliberation, angering citizens and leading them to mistrust authority (Innes & Booher, 2004). Participation may be characterized by an asymmetric power relationship between planners and those who decide to participate (Arnstein, 1969). Through two cases studies of the UN-HABITAT ANSSP Project in Aceh we now examine empirically how the community participation processes apply in the real world, notably in a post disaster recovery program or project.

**TWO CASE STUDIES OF UN–HABITAT–ANSSP IN PIDIE DISTRICT AND THE RESEARCH METHOD**

Overall, the UN–HABITAT Aceh–Nias Settlements Support Program (ANSSP) in Pidie District covered 9 Villages (Geunteng Barat, Geunteng Timur, Peukan Baro, Rawa Gampong, Gajah Ayee, Petradu, Meunasah Jurong, Buangan, and Lueng Bimba) spread in 4 Sub Districts (Batee, Pidie, Panteraja, Meurah Dua). UN–HABITAT started the ANSSP Project in Pidie in June 2005 and in April 2007 had successfully reconstructed up to 1022 housing units and rehabilitated another 120.

Since there was a large number of the houses constructed by UN–HABITAT ANSSP in the Pidie District, this research was focused on two case studies there, i.e. one in Geunteng Timur Village (265 Housing Units) and another one in Geunteng Barat (264 Housing Units). These two villages were chosen as the case studies because they supported the largest number of housing units reconstructed/rehabilitated through the ANSSP Project in that District. Besides, these villages were the most isolated among the tsunami–affected areas in Pidie District, so that the issues and the challenges were more complex (for instance, it was quite difficult to deliver weighty materials and equipment because of the very bad accessibility to the location).

To achieve the main objectives of this research, a qualitative method (participatory action research) has been employed. In contrast to the traditional paradigm, in which the researcher and the object of research (researched) must be separated, the researcher in participatory action research functions not only as observer but also as an object of the research itself. The participatory research is thereby aimed at both understanding and practical transformation of implementation process (ALtrichter, Kemmis, McTaggart, & Zuber–Skerritt, 2002).

In this study the researcher was partly involved in the implementation process of the ANSSP project in Geunteng Timur and Geunteng Barat villages in the Pidie District. Through this method, not only can one learn from the implementation process but one can also ensure that the objective of the project can be achieved effectively Sohng (1995).
The ANSSP-Project in Geunteng Timur and Geunteng Barat villages, Pidie

The villages of Geunteng Timur and Geunteng Barat are located in the Batee Sub-district (Kecamatan), approximately 15 km from Sigli Town (the capital of the Pidie District). These two villages are neighbors. The majority of the inhabitants work in the fishery industry. Before the tsunami, the population was 966 persons in Geunteng Timur and 975 persons in Geunteng Barat. After the tsunami, the number of inhabitants in these two villages decreased to 802 people in Geunteng Timur and 965 in Geunteng Barat.

The tsunami disaster damaged hundreds of houses and destroyed much infrastructure and social facilities in these villages. The number of the houses destroyed or damaged in the tsunami calamity can be seen in Table 1 below.

Table 1: Houses destroyed by the tsunami disaster in the case study villages

<table>
<thead>
<tr>
<th>No.</th>
<th>Village Name</th>
<th>Number of Houses</th>
<th>Fully destroyed</th>
<th>Heavy damaged</th>
<th>Small damaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Geunteng Timur</td>
<td>272</td>
<td>264</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Geunteng Barat</td>
<td>270</td>
<td>265</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>542</td>
<td>529</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Accessibility to the village was quite poor and limited to small-scale economic activities only. For big construction activities such as rehabilitation and reconstruction, it was quite difficult to deliver weighty materials and equipment needed. One narrow and long suspension bridge had to be crossed carefully and by queuing.

In the period of the reconstruction activities, bolts in the bridge frequently loosened and it became dangerous. Therefore, the UN-HABITAT field staffs, along with the villagers had to regularly control the weight of the daily traffic passing the bridge.

Community Action Planning (CAP) Process

The post disaster reconstruction activities conducted through the participatory approach in the ANSSP-Projects were implemented in four stages: the Project Planning Process; Community Organizing for Project Implementation; Project Implementation; and Hand Over.

In the planning stage, UN-HABITAT facilitators encouraged the community not to reconstruct their future settlement in the unplanned method they had employed before. UN-HABITAT facilitators assisted the community technically to conduct tasks such as: Community Land Mapping and Land Measurement; Verification of Beneficiaries and Land Tenure Status; Working out the Community Action Plan (CAP); Designing and Determining
the House Type (Core House); and Finalization of the Village Plan and the Priorities of the Village Development Program.

In order to undertake these processes, the community was assisted in organizing themselves and mobilizing their existing resources, particularly social capital. The community was asked to select and establish a “Planning Committee” as their representative at the village level. The Planning Committee prepared and conducted the tasks voluntarily. Additionally, they were asked to select a “Community Cadre” who would be the representative of the community at the hamlet level, and help the Planning Committee voluntarily. Each hamlet had two community cadres consisting of one male and one female.

To verify the beneficiary candidates, UN-HABITAT trained the Community Cadre on the eligibility criteria of the beneficiaries, and administration requirements to be fulfilled by the beneficiary candidates. The process of beneficiary verification and community land mapping took approximately 2–3 weeks. Its result in indicative beneficiaries and establishment of land parcel ownership, and was announced during a one-week public hearing. Parallel to the beneficiary and land ownership verification process, the Planning Committee held a Community Action Plan workshop attended by all the villagers discussing the community infrastructure development programs.

In the Community Action Plan (CAP) workshop, UN-HABITAT’s field staff assisted the beneficiaries to identify problems and facilitated them to formulate alternative solution and identify related institutions, which would become actually responsible for solving the problems. All the infrastructure identified was then prioritized by the community in terms of its urgency to resolve. Beside the CAP workshop, the Planning Committee also held a village-planning workshop. In it, they finalized the Village Planning prepared by the committee based on the results of the community land mapping and measurement.

Both workshops resulted in the CAP and Village Planning documents. The results were announced in the community center and achieved a social consensus, hopefully suggesting no problem in the implementation stage. The final village planning was to be determined formally in a Village Meeting (Duek Pakat II). The Planning Committee would then follow it up with the preparation of the technical proposal for infrastructure projects that would be submitted to, and approved by, the UN-HABITAT.

**Organizing the Community for Project Implementation**

To implement the construction activities through the community based approach, the beneficiaries were grouped into small housing cluster groups (in Bahasa. Kelompok Pembangunan Rumah --- KPR), consisting of 8 to 10 families per group. To coordinate the implementation of the project at the village level, a Community Development Council (in Bahasa. Tim Pengelola Kegiatan --- TPK) was established.

After the housing cluster groups and the Community Development Council were established, UN-HABITAT trained them as to how to prepare all documents required by UN-HABITAT and how they could participate in monitoring the construction activities. Following the training, the community had completed all the required documentation including the creation of a bank account for the housing cluster group and had let UN-HABITAT field staff check them before submitting them to UN-HABITAT main office in Banda Aceh for approval. Upon approval of the submitted documents, UN-HABITAT and the Housing
Cluster Groups (KPR) would sign the Project Implementation Agreement endorsed by village leader (in Acehnese, Keuchik) and the Community Development Council (TPK).

Before procurement began, the Community Development Council held a meeting attended by all the Housing Cluster Groups to discuss the procurement guidance from the UN-HABITAT field staff. In the meeting it was explained that the process of the procurement would follow three principles: value for money, transparency, and a competitive tendering process. All qualified and registered companies had the right to join the tender process including the community itself but the community must be on behalf of village institution endorsed by the head of village (Keuchik).

In this meeting, some people were selected as representatives to join the Community Development Council as the procurement team to do field surveys and assessment of the supplier candidates in the tendering process. Persons selected desirably had experience in building materials. In the procurement process, the supplier candidates were invited to the project explanation meeting. There, the UN-HABITAT staff described the specification of materials required and the quotation form to be filled in by the supplier candidates.

In three days (on the persistent time), the supplier candidates had to give the completed quotation form back to the UN-HABITAT team in a sealed envelope to be opened together with the procurement team. In the same day, the field survey to the supplier would be conducted. In this survey the community would once more confirm the credentials of the supplier and the quality and quantity of the materials available. Some questions about the price and technical aspects were also asked including whether the price included transportation to the field, the risks and insurance of the material and so on.

The survey team took some materials such as timber, sand, and steel as a sample. This sample was shown and the findings of the field survey reported to the meeting attended by all the housing cluster groups. From this meeting the communities could list the suppliers and decide the winning ones. All of the winning suppliers were then invited to sign the contract. Then, the contract would be signed by the Head of Housing Cluster Group and Supplier and endorsed by the village head (Keuchik).

After the contract was signed, delivery of the building materials could be started. A Grand Opening Ceremony was conducted as a symbol of the beginning of the project implementation. Before starting the construction, UN-HABITAT field staff specialized in housing construction conduct Training and Briefing for masons on the technical standards of the construction.

Project Implementation

As mentioned above, the construction process was conducted in four stages. The funds to support the activities were disbursed in four separated stage. These four stages of disbursement were used as instruments to monitor and evaluate the progress of the project against the budget. First stage, UN-HABITAT disbursed 20% of the total amount of the project value, in the second stage 45%, in the third 20% and in the fourth 15%. At each stage, the project's progress was evaluated. The evaluation results justified whether the project should continue, be corrected or even terminated. To anticipate this, UN-HABITAT field staffs encouraged the community and provided training to increase their capacity, particularly in conducting joint monitoring for
construction activities. At the beginning of every stage, briefing and training sessions were also conducted. These activities were joined by Housing Cluster Group (KPR) and Community Development Council, so that their capacity to monitor the work of the construction could be increased.

**Hand Over Stage**

In the Hand Over stage, the cluster groups conducted a meeting inviting all the households as the member of the cluster groups. The entire process was evaluated and reported. The end status of project budget was socially accountable. The bank account was then closed. The result of this activity was then reported to UN-HABITAT as the final sign off. The visibility of the donor’s name was set up on a small placard on each house.

**CHALLENGES, CONSTRAINTS AND ADVANTAGES IN THE IMPLEMENTATION PROCESS**

**Community Control over Building Material Qualities**

Before describing the experiences of the community quality control practised in Geunteng Timur and Barat, it is important to advise that a common challenge faced in these villages is that there is a strong “pressure group”. This group wants to take up considerable profits from the reconstruction activities. However, through the community driven approach this problem can be minimized. This section will show how to overcome the detrimental practice, particularly in Geunteng Timur, and how it could become a lesson to improve the quality of restorative work in the other village (Geunteng Barat).

In Geunteng Timur, UN-HABITAT fully trusted the community to choose what kind of building materials they would use to reconstruct their own houses. The community decided to use, for example, timber for concrete moulding. To monitor the quality of timber delivered by the supplier is quite difficult because there are various kinds of timber available in the market. Therefore it is not simple to rely on the community to monitor and identify what kind of timber has been delivered. This situation resulted in much many poor quality timber being used as concrete mouldings. Consequently, the building concretes produced, such as columns and beams, were not good enough. This experience was an important lesson learned by the UN-HABITAT staff in Pidie District. For the construction activities in Geunteng Barat, UN-HABITAT suggested and persuaded the community to use plywood for concrete moulding instead of timber. Plywood is prefabricated and smooth so that quality is much easier to control.

Other items of construction using timber as the raw materials such as frames of doors and windows were also very difficult to control through the community monitoring method. There was not sufficient capacity within the community to undertake such monitoring. It resulted in the refusal of supply of many low quality timbers. Unfortunately, the payment had been already made and the supplier did not want to substitute the goods with the better ones. Learning from this experience, UN-HABITAT field staff enhanced the capacity of the community on how to identify good quality building material in a practical way. Another very important aspect within the community monitoring process was to create collective solidarity in a household to refuse delivered building materials that have not met the qualities agreed in the contract.

In the tendering process, UN-HABITAT requested the community to select members democratically to form an ad hoc procurement
Committed. The committee should undertake a field survey to the suppliers’ offices/warehouses and bring samples of the timber to the community. In a community gathering, the committee then showed the sample to the households, and the community could then identify the timber quality when in the field. If the timbers received were of lower quality than that of the sample, they could directly ask the supplier to exchange, or if they were not brave enough to do that they could report the case to UN-HABITAT.

Community Control of Construction Quality

All of the efforts to get good quality building materials in Geunteng Barat were successfully completed through the community empowerment process. However, although good materials are available, it would be useless if the method used to construct the house is not correct. The lessons learned from Geunteng Timur were not only with regard to the quality of the building materials but also the construction process.

For instance, an important issue of community control over construction quality was the bad habits or traditions in pouring the concrete, particularly for columns. Workers poured the building columns without the proper concrete mould. They poured the concrete after building up the brick wall or, in other words, they simply use the brick as the concrete mould.

With this traditional method, the dimension of columns produced cannot be ensured. Another issue was that the mortar did not cover the steel properly. The photo on the left shows the poor quality of columns produced through the traditional method. In the coastal areas, it can accelerate the corrosion of the steel.

Learning from this problem, UN-HABITAT did not recommend the traditional method anymore. UN-HABITAT asked the community to prepare the concrete mould first before constructing columns and other building structures including lintels and ring beams.
To substitute for the traditional method, UN-HABITAT offered onsite practical training. After this training there would be no reason for the masons to practise the traditional method anymore. In quality control of the construction, however, it was found that the masons did not undertake the construction correctly. So, the situation required more intensive monitoring activity. Households (as the end user) were then informed how to monitor the construction process, to which end UN-HABITAT disseminated leaflets and posters on how to evaluate and monitor the construction.

Unfortunately, the more intensive the household’s control, the more time is needed in the construction process. It has become another issue in the reconstruction. The masons complained that the households always criticized the work. UNDP as the ANSSP Funding Agency then complained to UN-HABITAT that the implementing agency was very slow in the reconstruction process. As a result, UN-HABITAT took over more responsibility from the community. The community was requested to fire the masons who were not disciplined and hire other masons capable of more professional and faster work.

**CONCLUSIONS**

Based on this research conducted through participatory action and in-depth interviews between the UN-HABITAT facilitator and the key persons in the ANSSP-Project, particularly in Geunteng Timur and Geunteng Barat, the researcher identified some challenges and constraints in the implementing of the approach. They are as follows:

1. This approach is still relatively new among the tsunami survivors in Aceh so that it requires specific facilitating methods to apply it properly.
2. In many cases, the approach, which was applied through the agency cash donation by means of community contracts, needs adequate control. Otherwise, this approach tends to encourage corrupt behaviour in the community itself, not just among contractors.
3. Ensuring the quality of construction in the limited timeframe assigned for project completion is the biggest challenge in practising this approach, particularly in the post disaster context.

However the researcher argues that participatory approach has some advantages such as:

1. This approach can increase the transparency and reliability in selecting the appropriate target groups of the program because of the direct involvement of the community in verifying and validating the beneficiaries.
2. The involvement of the owner can minimize the construction budget, especially for project supervision or the use of recipients’ own unpaid labor (sweat equity). Even in many cases it motivates the owners to invest their own capital to buy better quality materials.
3. It can effectively mobilize the social resources available in the community, eg. environmental knowledge and networks. By giving strong support, it can improve democracy and empower the community to increase their bargaining power with other stakeholders economically and politically, especially among the ruling class.
4. Last but not least, this approach is culturally and socio-economically more receptive and adaptable, so that in long term (after the project completion), the built environment and the economy will grow sustainably.
REFERENCES


