A Handbook on

COMMUNITY UPGRADING

through People's Process

a **H**andbook on

COMMUNITY **U**PGRADING

through **P**eople's **P**rocess


2030
SANARIANG
5x6

"If we start building a lot of smaller constituencies within city, where people start relating to each other - and sharing between constituencies – a lot of horizontal learning, linking, and creativity will start to happen."

- **Somsook Boonyabancha** (Design by/with/for People)

Contents

COMMUNITY UPGRADING HANDBOOK | by ACHR

Community Upgrading is one of the processes carried out by the people to improve their situation. As a process, it takes into account the community's physical attributes, organizational structure and socio-cultural aspects. By translating these factors into concrete evidence that can be visualized in physical form, be it a single-unit house or a planned community, the upgrading process uplifts the community's state of living by improving shelter conditions and attending to their basic needs.

Like any other people's process, community upgrading creates a bond within a group of people targeting a specific goal. Using participative approach, people collaborate with support groups, local government units and academe. Knowledge and experiences are then collated, resulting into easier processes and more accurate decisions.

This community upgrading handbook belongs to a series of ACHR handbooks for housing by people. Experiences and insights of people working for people were compiled while case studies on projects in different parts of Asia were included to represent the numerous processes from which this collective manual for community upgrading was largely based on.

This handbook aims to provide technical professionals, community development practitioners and local leaders with practical knowledge and basic skills in facilitating processes in community upgrading.

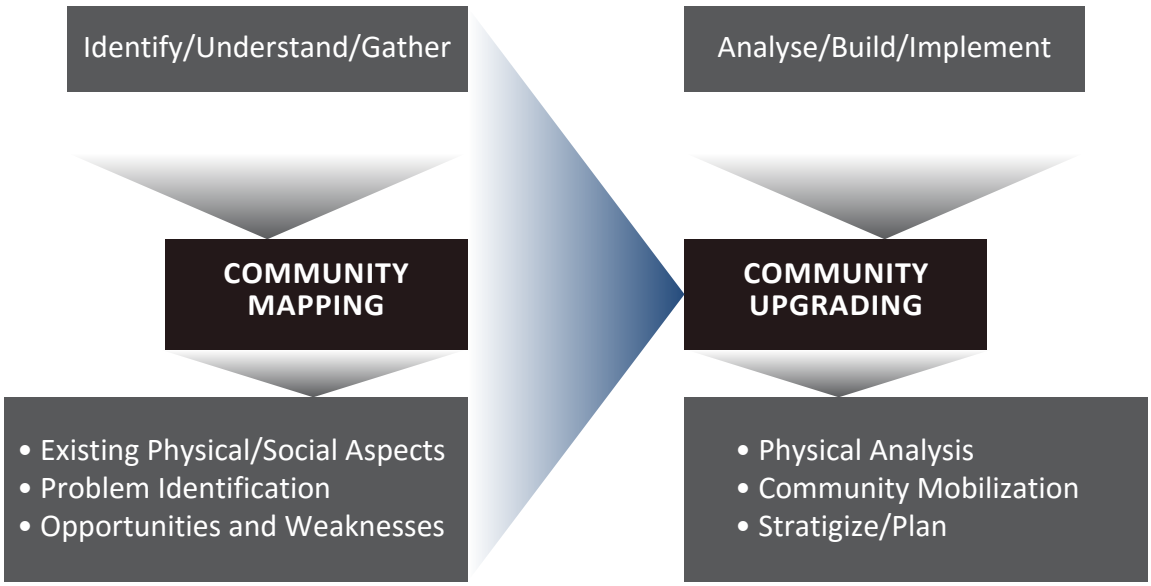
Key Definition of Community Upgrading

What is it?

Upgrading is a way of transforming less developed areas into more decent settlements, thereby alleviating poor living standards. Community Upgrading on the other hand, is the process in which people work together with other stakeholders to improve community settlements.

From the pilot community to succeeding ones, every upgrading process requires the compilation of basic community information, coordination among members, and collective plan and action from different actors to accomplish results within the arranged time frame of the process.

Aside from the physical, community upgrading also considers other aspects - cultural, environmental, socio-economic, political, and legal whic makes it a holistic process. It leaves a great impact as it changes the life of the community in terms of the following:



Culture – Community upgrading significantly contributes to changing the people's way of living. It builds closer relationships among neighbors, develop the confidence of new women leaders, and empower the urban poor to think and react to their own problem.

Environment – Community upgrading helps people understand their surroundings better, learning that caring for their environment means safer and more sustainable way of life.

Socio-Economy – Community upgrading opens up opportunities to build livelihoods which can improve their economic condition. It helps the community learn a lot of things and explore different options that may help them sustain their daily living.

Politics – Attempts to improve the community provide opportunities of collaboration with other stakeholders, such as the government which harnesses the people's negotiatig skills and broadens their horizons that allows them to explore solutions o their problems and strategies to further improve their lives.

Legal – Community upgrading helps people understand existing policies and regulations. It also may affect these existing policies by introducing new methodologies in developing a community.

Why Community Upgrading?

Slums or informal settlement are the most concrete manifestation of urban poverty. The UN-Habitat has reported that 60% of the world's slum population resides in Asia and they endure the pervasive problems of inadequate shelter, poor water supply and sanitation, crime poor health facilities and impacts of disasters. various approaches have been employed in the addressing the urban poverty but one has been identified as "very effective", and this is community upgrading which integrates the physical and environmental elements, culture, socio economic and politico-legal aspects mentioned above

Upgrading in Yogyakarta
(Image Source: CAN Indonesia)

Since it responds to the problem of poverty at the community level, community upgrading reaches the poorest of the poor. It is also highly participatory as it encourage members to take initiative from, fosters unity among them, and links them together with various self-help groups that offer technical, legal and financial assistance. From identifying problems to providing solutions, it generates a series of steps which can serve as standard model for other communities, thus lessening the experimental process and giving more time for project implementation.

Community upgrading has economic and social advantages as well. It is less disruptive because it does not entail "displacement" or relocation of the communities but improvement of their areas. Also, by utilizing the skills of the locals, it does not only minimize labor cost, it also provides employment and opportunities for them to act as chief planners and developers of their own communities. This in turn creates a sense of responsibility, ownership and fulfilment among those who were involved in the project. Furthermore, it cultivates creativity, critical-thinking and positive work ethics.

It may be a long and tedious process but when accomplished altogether positively, community upgrading creates a ripple effect and eventually stirs inspiration for other communities to start anew.

Key Elements of Upgrading

What are these?

— **A**dvocacy of participatory approaches or facilitating communities to attain knowledge and skills that will enable them to become active role player for community development

— **C**reating a collective community work that will open diverse options for the people and for other possible communities in cities

— **B**uilding of partnerships with support groups, academe and local government within the area. Creating more systematized community organization with awareness to better financial mechanism like community savings program and linkage to government fund

— **E**mpowerment of people in improving and recreating settlements through integrated community development process, uplifting living standards

— **O**pening up a greater oportunity for socio-economic development through a possible option of building community livelihood that sustains lives of each family in the community

— **C**ontinuing technical support/assistance from community architects, engineers and other professionals together with social sectors and finance groups in understanding the concept of community driven process and doing community mapping, planning and building better settlements

— **B**uilding proactive national institution as actor in the process of facilitating possible housing loans, enhancing of finance capacity and providing other necessary technical assistance to the community

HOW TO FACILITATE?

Participatory Process

Getting to know the Situation

Participatory experience is the underlying step in collaborative movement in supporting and organizing the community. The interaction provides the community opportunities on mapping out problems and assessing the need for improvement within the settlement.

Participatory Approach – *the community interception*

- It generates vital data about the community for better understanding of the situation.
- People continue to gain awareness of how the process is being done and understand results of undertakings as well as the relevance of each action taken.
- It is a process that facilitates interaction and relationship-building among people and their social system, giving people power to think and plan together so that all related details about the community will be brought into consideration.
- Participatory approach can bring a new community management capacity along the whole upgrading process.
- The participatory approach links everyone and involves all actors to actively collaborate in the development process.
- Participatory process promotes active cooperation towards understanding and working for solutions.

Getting Information from the people

Community members from a Village
(Image Source: ACCA)

Information gathering can be done in stages through a participatory approach. In doing this, people have to be knowledgeable on the relevance of what they do, as well as the costs of every result.

Gathering information moves key actors to participate in order to acquire correct data. In this way, it pushes them to develop ability to collectively learn and analyse their situation, hence strengthening community relationship, awareness and motivation.

1. *Community Mapping*

Community mapping is a way of putting everybody on the map and stressing their status on various community issues. Doing this empowers the community with knowledge on every member's location and how they are interconnected with one another. This way, planning will be easy. It is therefore vital that an upgrading process be started by planning with the community.

It is also important for communities to create a community map by physically surveying key structures like, houses, existing infrastructures, drainage systems, low or flood-prone areas, walkways and road access, and to compare and validate all these features through an aerial photo. With the community map, it is possible to color all various existing situation such as house renters, informal settlers, land renters, or social groups. In this way, all possible problems or opportunities could be easily identified and threshed out during the discussion of the team.

Mapping and *community workshops* can be started by obtaining contextual data from the community. This is mainly done to gauge the type of assistance people might need from external parties.

Case Study: *Community On-site Upgrading and Re-blocking (ACCA Program)*

Location: *Kampung Pisang, Makassar City, South Sulawesi* | **INDONESIA**

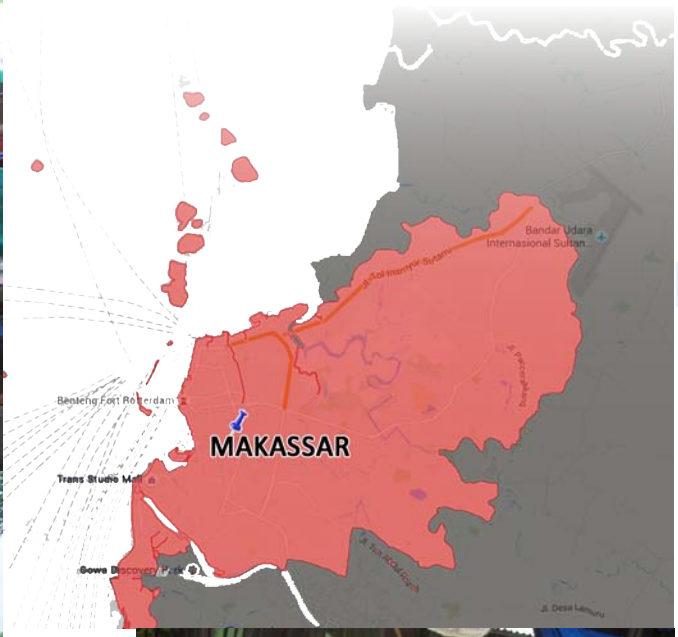
The process of facilitation started out with community mapping and participatory mapping. Its purpose is to identify social, physical and environmental details for the community to fully understand its surrounding area.

Basic data, problems and potential opportunities of Kampung were generated throughout the mapping process.

Photo of the community doing participative mapping

People gather and discuss over a community map to identify issues which includes sanitation, paths and drainage and settlement arrangement. It is done as preparation for planning process. (Image Source: CAN Indonesia)

The results from mapping and planning was documented by facilitators and served as technical document that the community presented to the Mayor.



(Topmost) Members pointing location of their structure in creating the community map

(Above) A member in one of the structures of Kampung Pisang

(Right) People made blocks of paper to place over the map to visualize their community

(Image Source: CAN Indonesia)

2. *Updates and Surveys as Basic Information*

Updating and conducting surveys provides first-hand information about the community. These surveys usually cover the topics like status of living and membership as well as statistics within every household. Data gathered will then be used to link to possible developments. By doing so, every existing pattern and issue within the settlement will be recognized.

A technical team must be dedicated to doing the survey by undergoing a simple training. They should be determined to cover all households in the community. Results can then be validated during one of the community meetings. The key questions on the survey should at least cover:

- Family information such as number of members, education, and employment
- Average monthly income and expenses, assets and affordability preferences
- History in the community and occupation status
- Utilities (water, electricity and other necessary basic connections needed)
- Opinions and expectations for the community development

3. *Survey on Available Resources*

One important element of upgrading is the proper utilization of community resources. People and actors in the process must work on these resources to come up with sound ideas for the improvement of the settlement. These possible resources may include:

- Possible land supply
- Alternative building material
- Livelihood opportunity, etc.

Working over these topics strengthens community development information and provides more concrete prediction to achieving improvements within the settlement. Through this action, options and ideas for planning and strategy making will be opened.

Case Study: *Self-Nearby Relocation by Community (ACCA Program)*

Location: *Kampung Bungkutoko, Kendari City, South East Sulawesi* | **INDONESIA**

Using a method of three-day workshop in Kampung Pisang, the facilitation of the planning focused on results of mapping. People's desire for on-site re-blocking and land sharing made the proposal of 7000 m2 land area of site planning from 3 acres existing community area.

Through creating simple map of the community and basic planning, they identified this definite size of land that they need.

Result of workshop and proposals of the Kampung Pisang were then submitted to the land owner. Continuous follow ups and discussions regarding land tenure is a positive way to keep the process going.

(Above) People create basic map which served as their basis in proposing the 7000m2 identified land needed by the community

(Left) Community Discussion
(Image Source: CAN Indonesia)

Identifying Problems and Collaborative Assessment

The information provided by the people when put together and organized well can provide direction for the upcoming development of the community. It can influence the path of discussions and dialogue among active role players. Through these, figuring out the problem will be easier.

Sorting things out, a community map may be necessary for explaining the community's total environment. Throughout the discussion, it is important to let the people explain and pronounce their own community's characteristics and needs. Performing this step will provide people the chance to be aware of the community situation, making the issues and interests more visible.

Assessment

Issues and opportunities can be laid in a structured manner and a network meeting with the community should be again organized to assess and reflect on details of situation.

Analysed issues and data from the meetings should be presented first to the community before proceeding to planning and making strategies. Presenting data might take several times depending on community response. These responses are validated by giving reflections, pointing out wrong statements and filling out lacking data.

SWOT – **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats

SWOT makes a good tool for analyzing internal and external factors that may affect upgrading community. Learning to identify a community's strengths and weaknesses, as well as the opportunities and threats helps develop awareness on situation, thus adds points to strategic planning and decision making.

Setting Up

The most inevitable part of community upgrading is changing the community in a way that it would take less of what they already have. Valuing stock of community assets, weaknesses, opportunities and possible threats they have may lead to effective planning and strategy making.

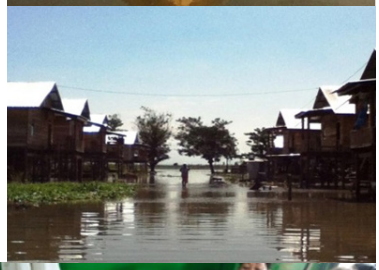
Case Study: *On-site Upgrading for Post Disaster (ACCA Program)*

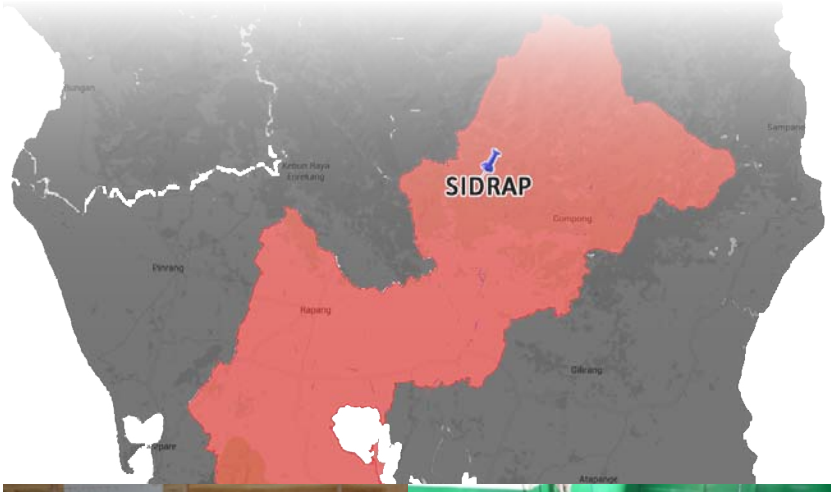
Location: *Kampung Wete's Sidrap City, South Sulawesi* | **INDONESIA**

Surviving an unprecedented disaster in 2012, Wette's Fishermen's Village in Sidrap wanted to re-build their homes. They had been assisted by many groups in house reconstruction aid, exploring problems and potentials as well as disaster preparedness.

Participatory community mapping method was used to map the problems and potentials of the community. The process of active community participation then revealed the needs of the community. Patterns were drafted by experts for through active community participation. Patterns were drafted by experts for minimizing effects on houses.

Structutres at Kampung Wete's





The community created different map that shows problems and opportunities in their community. Around it, people discuss patterns formed and possible steps to be done on future process. (Image Source: CAN Indonesia)

DEVELOPING PLANS & IMPLEMENTATION

Exploring Options – After determining and gathering information, many options are put forward to the community. Exploring these options opens a wider pool for the community to dive into and fish for a better one.

From the gathered information, it will be possible to prepare rough community upgrading plan. An initial assessment of the data can be utilized for planning for following work process. All available information will be used to discover needed knowledge and consider relevant element for the upgrading.

In preparing for planning and implementation of the project, there are considerations that should be looked into. Listed here are some essential steps to finding suitable solution for the situation.

Discussion for on-site upgrading at Strenkali, Suburbaya
(Image Source: CAN Indonesia)

Identifying the Scope of Upgrading

How are they classified? – Community upgrading projects basically vary on its area and scope. Each attend different situations and has definite limitation. The following could serve as guide to the range of alternatives and options that can be done:

1. **Issues and Choices of the Community** – The issues raised by the community have large implications on the kind of upgrade needed. The size of the project depends on what problem it will attempt to address.

2. **Budget** – This refers on how much spending the community can spend for the upgrading. In some instances, the community can raise fund for community's welfare. On this area of scope, finance capacity-building activities are sometimes required on big projects.

3. **Institutions involved** – Aside from the community, there are some institutions/groups that may be involved in an upgrading project.

4. **Legalities** – Legal matters come across every project. Some laws may interrelate with big projects like housing, re-blocking and the like. Legalities could be identified as a massive impact of a certain project. It can also be altered depending on various situations.

These simple criteria will serve as a basic study and analysis of the situation of the community.

Identifying Types of Upgrading & Options

According to given criteria, upgrading alternatives vary as follows:

SMALL UPGRADINGS – This kind of upgrading focuses on small scale projects which usually involve path walks, communal toilets, beautification and cleanliness, and sanitation of the community. Attainable in a short period of time, small upgrading would usually require short time frames and project plans.

Construction of concrete pathwalks in community of Payatas Scavengers Home Owners Association
(Image Source: TAMPEI)

BIG UPGRADINGS – Unlike small scale upgrading, big upgradings take much longer as they deal with huge issues like tenure and decency of shelter and facility, re-blockings and housing re-construction projects.

Housing construction as On-site Upgrading in LTHAI, Mandaue, Cebu
(Image Source: TAMPEI)

Knowing these, communities and their partners will understand and can compare possible options using context data gathered earlier and put all these information into a study and analysis. Another map can then be created for rough analysis followed by a plan for preparation and development process.

Possible upgrading options/alternatives:

On-site Upgrading – Suitable for people who wanted to stay in the same location and perform minimal adjustments as possible (most especially those communities which have lower density and built environment and are closer to securing tenure)

Reconstructions – If the community has a high percentage of built environment, one alternative is to "re-invent/redesign" existing community features such as paths, utilities or the settlement itself. Housing reconstruction may involve low or high rise building.

Re-blocking – There is also a possibility that the community may be close to acquiring tenure but has unorganized, unplanned and/or improper infrastructure system. Re-blocking is an option to re-adjust of existing systems for safety and legal reasons.

Land Sharing/Partaking – For some who may be facing difficulty in having secured tenure, land supply may be shared with the community and the owner for possible purpose of development. In any case, share portion will have to be worked out by both parties.

Relocation – a situation may arise when relocation is inevitable because of certain factors like hazards and affordability of land. In this case, the most convenient option to choose may be to relocate and build settlement near the existing site.

(Image Source: TAMPEI)

Planning Stage

This overall planning stage, which makes use of initial data gathered, is a training ground for the community and local partners in building sensible direction for the community's future. Workloads within this stage include study on land, finance and affordability (see financial orientation), organization of consensus and rights consideration and project development planning.

Key points:

1. Participatory planning is essential in moving and mobilizing the community as well as other relevant actors to make a concrete form of change. It is essential that the team should have an open mind, ready to learn and to facilitate. This kind of planning takes a two-way working behavior to continue the process.

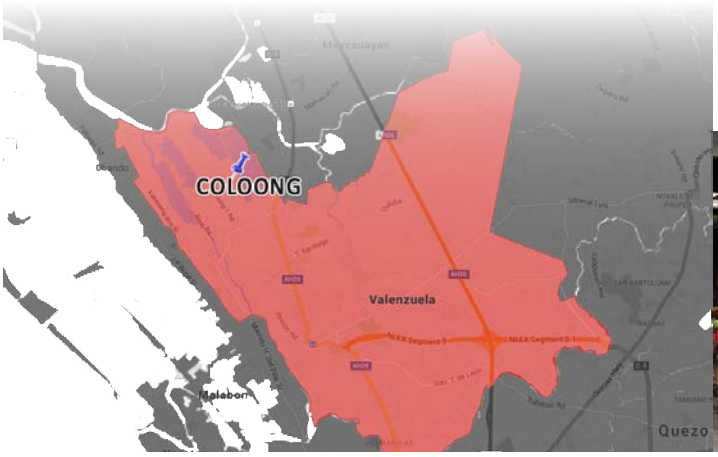
2. Aside from the visual plan and perspectives of development, the plan must include community structure, social relations, typologies/methodologies and finance details, namely, cost estimate and form of repayment.

3. Distributing tasks and conducting parallel activities help minimize complex situation and speed up the process.

4. Time-based program encourages all actors to work on unified direction and concrete objectives; it brings motivation and enthusiasm to the community.

Case Study: *Community Planning at Valenzuela Water World*
Location: *Del Rosario Compound Neighborhood Association, Inc., Coloong, Valenzuela City* | **PHILIPPINES**

The community started out as an informal settlement before it attained land tenure security, acquiring the property it is occupying from a private land owner. To process individual titles, the community needed to prepare a site development plan that complies to planning standards of the building code for socialized housing which is strictly implemented.



(Below) Re-blocking will be easier given the condition of settlement that is built on water and houses are made of light materials.

Originally, the property was dry until in 1980's, flood level was observed to be rising and in 90's, water refused to dry altogether. Flooding in the area is now a permanent problem, forcing settlers to build their houses on stilts and light materials to adjust to the changing condition.

During CAN workshop, people did participatory mapping wherein they draw, create and present the map themselves with guidance of technical professionals (Image Source: TAMPEI)

Since year 2013, DRCNAI has been assisted by Community Architects Network (CAN) in working out options on how to re-block and develop a safer and more sustainable community. Through series of community mapping and planning discussions, schematic design for the re-blocking was generated.

The plan is to fit 96 individual home lot within 4,604 sqm property with space provision for road, alleys and community facilities. (Image Source: TAMPEI)

Throughout the planning stages, community and partners identified onsite and offsite conditions that would have to be considered. Listed below are the following considerations:

1. Floor depth, substrate and subsidence in relation to setting the height of floor level and housing design
2. Wind Intensities
3. Strategy for site development and house construction
4. Drainage and sewerage disposal
   Access and mobility; and
5. Strengthening the existing disaster preparedness strategy

After determining considerations and analyses, recommendations were given based on findings.

The next step of process was conduct re-survey and validation before proceeding to actual designs. Then, soil test was made in consideration of stilt construction. At present, the project is still in the stage of gathering data for developing design of houses to be constructed for the community.

Project Implementation

Implementation or project development is the most diverse part of an upgrading process. It requires full cooperation of various stakeholders to hit the issue directly and to obtain solutions through various programs.

The next step of upgrading is implementing the plan and distributing tasks to different actors involved in the process. In getting the community and its partners to discuss and work together, it is important for them to understand the principle and path of the project. This part of the process tends to get loose and flexible as it focuses more on building the structure of the community – the most anticipated stage that is construction of unit.

This phase is where the actual construction of the community happens. After having the community plan and work on several analysis and support *(*see chapter 5)*, actual drawing and support details of the development are now ready to be transformed into reality.

Throughout this long process, good mobilization and organization is a must because without these it would be difficult to push through the challenges that go with the process and may discourage the people.

Case Study: *Housing Construction: The Core Houses of Mandaue*
Location: *Brgy. Paknaan, Mandaue City, Cebu* | **PHILIPPINES**

The design of the house varies according to the law governing minimum requirements in designing socialized housing. These core houses provide the families outer structural shell of the dwelling alongside basic utilities such as plumbing, electricity and wastewater treatment.

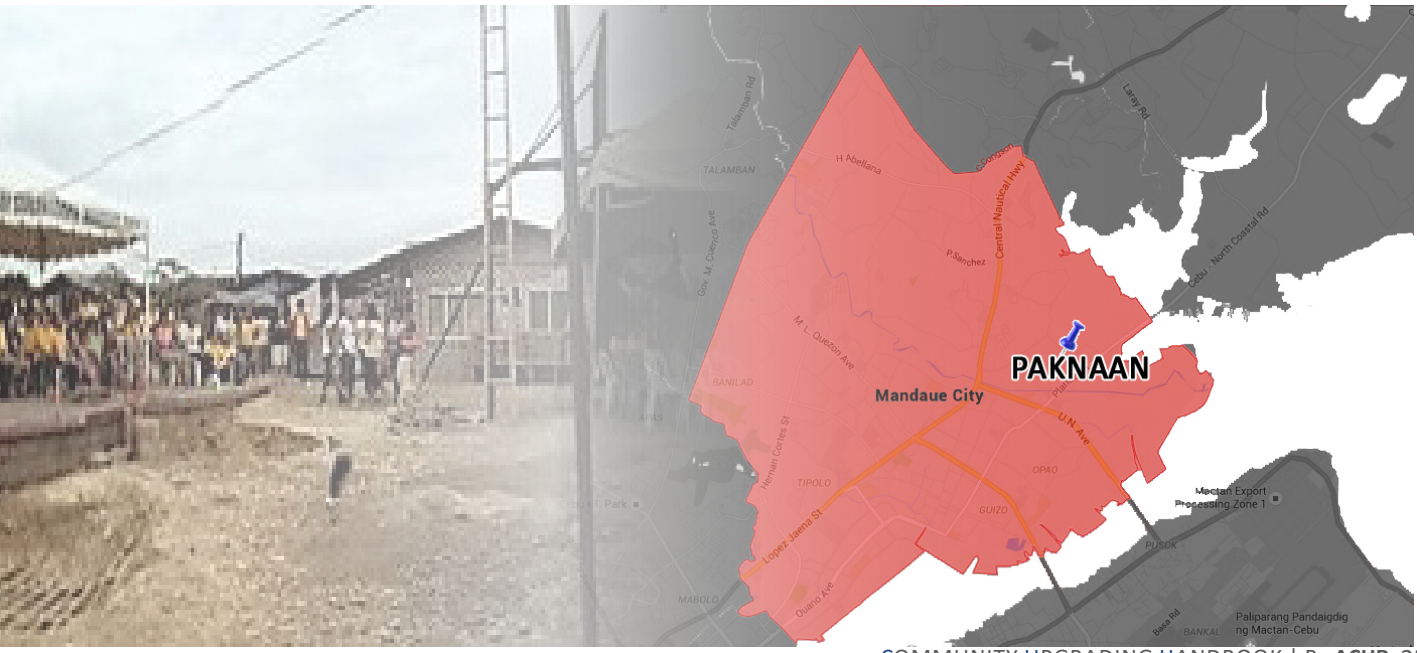
Production of ICEB for the row houses

The housing design implemented was row houses made of Interlocking Compressed Earth Blocks (ICEB) which turned out to be cost effective material and a sustainable one. The design was developed during a workshop organized by HPFPI and facilitated by Technical Assistance Movement for People and Environment, Inc. (TAMPEI). Within this workshop, several ideas were developed according to how the community envisioned their house and to have guidelines of financing and cost efficiency.

The final design was of a row house consisting of accommodations on the first two levels and a loft on the third. One of the essences of the design is to make the people share the cost of dividing the firewalls to promote mutual understanding among neighboring residents while building their house at the same time. If the whole block is being constructed simultaneously, then it would reduce cost and time.

The challenge encountered during this process was that not everyone agreed immediately for the reason that they might not afford the cost. This caused delays and raised dependency of some members of the community. As a result, feasibility of taking incremental design approach in Paknaan was explored.

ICEB core houses at MMVHAI




Group III

BUILDING COMMUNITY CAPACITY TOWARDS UPGRADING

A Comprehensive Part of Planning

Implementing an upgrading project in a community comes with several related structural support which may be related to finance or capability enhancement of the people, most especially those that have serious concerns. Such support may include the following:

Savings and Community Finance

Developing a systematized finance in a community organization is a key to its growth. It grants people flexibility in making decisions, giving rise to various possible improvements within their area of settlement. It presents available options and often dictates the approach and implementation the project would have.

Listed below are some of the key questions for determining the financial capability of a community:

— What are the possible available sources of fund for upcoming upgrading?

— Are the members willing to save and contribute to a community fund?

— How much is the average savings of each household?

— Is there a need for a loan or any revolving fund from government, micro-finance institutions or other private sectors?

— What will be the system and management of the fund in relation to the upgrading? How will it be sustainable in terms of continuing development of the community?

Often times, financing is a challenge for a community in implementing a project. For this reason, the Homeless People's Federation Philippines, Inc. (HPFPI) guides the community in generating ideas on where they will seek fund. HPFPI presents options and explains details and possible implications of each action.

Moreover, finance is a matter that can prompt the community members to push their limits in supporting improvements within their area. It also capacitates the people to negotiate with state, private parties and various stakeholders in acquiring tenure and decent living.

(Top) Savings orientation with HPFPI

(Bottom) Community members filling up their own savings booklet

(Image Source: HPFPI)

Case Study: *Community Savings in Barangay Payatas*
Location: *Payatas, Quezon City Metro Manila* | **PHILIPPINES**

In an urban poor community in Barangay Payatas, HPFPI conducted savings orientation. Its purpose was to make people recognize underlying rationale for savings, the roles and responsibilities they need to assume, as well as policies regarding finance. The orientation took time to ensure that everyone understood the financial topics discussed.

Community members of Brgy. Payatas managing finances based on orientation of HPFPI

(Image Source: HPFPI)

First, small groups of ten coming generally from same area were registered as an association. Each group was encouraged to save a certain amount, usually P150.00 every month for future projects for the community.

For the purpose of transparency and accountability, people meet weekly and discuss the current state of collection and possible opportunities they can avail of. Through a collective discussion and attempts on savings, people come together to identify issues and problems within the community that require financial support. Community groups decide where to spend their savings, and whether to access loans or develop an upgrading project.

Technical Workshops

Part of the integrated community development process is learning the basics mainly through the conduct of technical workshops. This process aims to empower people in recreating their settlements in such a way that they understand the principles of technical works. Technical professionals are present in this stage to teach the community essential knoledge, from planning principles to construction methods and project supervision. Orientation and trainings are also given to communities to develop certain skills needed in various phases of development.

1. *Design Development*

The goal of this workshop is to gather community members and the technical team to jointly plan the layout of the community's site.

In this activity, communities are given technical inputs to formalize ideas for real construction. It aims to stimulate the community to come up with prototype models that could be replicated in other communities similarly situationed. Most importantly, it is aimed at educating people about existing standards and laws.

In facilitating a design development workshop, the following could serve as important/useful notes:

- One good way to start the process is by identifying the level of knowledge of participants and professionals relevant to the design and building
- Prepare inputs that people can relate to and work on; giving too much technical words may hinder the understanding of the people thus making the process less progressive
- Establishing groups with same level of knowledge creates stronger ideas that can be enhanced through supervision of technical professionals
- Letting people lead the process will make them assess their own work; and
- Designing by/with/for people gives the community an initial idea of the cost of development, encouraging the community to decide and discuss after their priorities.

Listed below are some common tools used in facilitating a design workshop:

- Card boards
- Manila/Brown paper & Coloured Papers
- Pens and pencils
- Crayons and colored pens/pencils
- Scissors and cutter
- Scaled Rulers
- Measuring Tools (like rope, tape, etc.)

Case Study: *CLIFF Housing Project in Iloilo City, Philippines*

Location: *RVHOA, Jaro, Iloilo City* | **PHILIPPINES**

One good example of a community-led series of workshops was a training conducted for the members of Riverview Homeowners Association (RVHOA) in Iloilo City, Philippines. The training was led by the Philippine Alliance through the support of community architects and five para-professionals in preparation for the actual construction management and supervision of the fifth batch of CLIFF Housing Project. The said para-professionals were at first involved only in activities like logistics preparation but eventually were given the tasks of sharing their knowledge and skills to the next batch of CLIFF RVHOA housing participants.

Site development workshop participted by members of RVHOA
(Image Source: Philippine Alliance Western Visayas)

1 The first workshop focusing on *Site Development* was made both informative and fun through the inclusion of games like the following:

- Solving a puzzle of the whole site development map of San Isidro Relocation Site;
- Pegging of flaglets after correctly answering a question regarding the CLIFF Project Site;
- Counting and numbering of housing units of the first and second batches of housing participants; and
- "Portray-me-a-scene" game where usual situations in public infrastructures such as day care and health centers, public schools, and basketball courts are re-enacted.

(Image Source: Philippine Alliance Western Visayas)

These activities not only familiarized the participants with the existing and upcoming development projects and basic public infrastructures in San Isidro Relocation Site, it also enabled them to indirectly conduct ocular inspection. Moreover, it defined the accessibility of public facilities from the houses, which is corollary in determining of the habitability of their housing units.

2 The second workshop was about *House Design, Plan Reading and Measurement*, which, like the previous one, utilized interactive activities such as:

- Orientation on existing house design and standards and other related law to housing
- "Portray scene" activity which taught participants about space allocation and visualization of home spaces like kitchen, bedroom, etc.; and
- Use of measuring tools as guide to visualize human scale, spaces and to understand and translate technical plans.

(Image Source: Philippine Alliance Western Visayas)

2. *Skills Training*

Skills trainings are a continuation of design development. These are not just about educating people regarding the construction in their community. These are made to ensure that people are prepared enough to take over and manage on their own some upgrading process in the future. In this process, people are required to learn skills such as material evaluation, estimating, and some construction methods, in the most practical way.

The following are some of the skills trainings the communities may find helpful:

Procurement Workshop

To have an idea of what the development would look like and how much it would cost, people need to know the pre-construction activities which include basic plan reading, materials familiarization, structural plan reading, and other construction activities. Moreover, it is from this workshop that people will be able to learn skills in doing estimates, quotations, filling in and submission of necessary documents and transacting with external parties.

Material Selection

In this activity, people are introduced to different construction materials that may possibly be used in upgrading their community. It mainly aims to make them familiar with characteristics of various materials, its affordability and more importantly, its practicality. This way, they can make an immediate analysis and comparison to have enough basis for selection.

(Image Source: Philippine Alliance Western Visayas)

Construction Methods Training

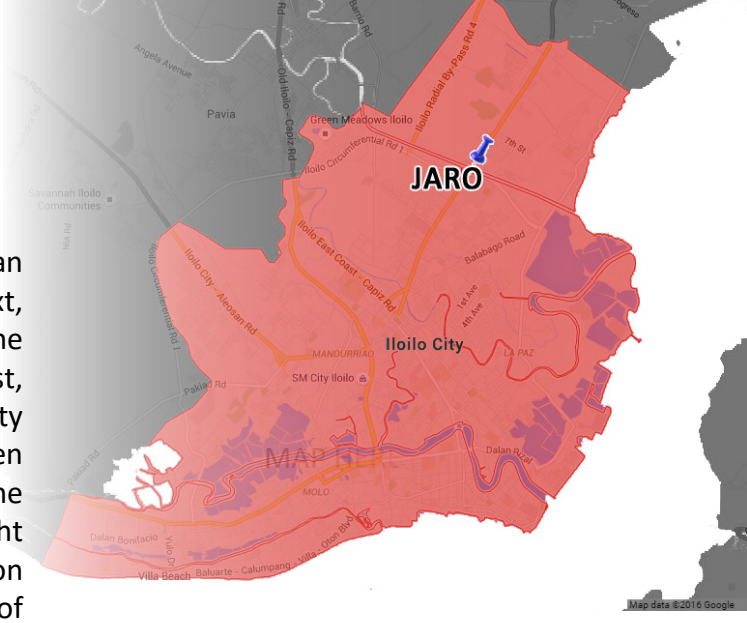
In developing a settlement, one vital factor to consider is affordability. It is inevitable to spend but to lower the expenses is a huge help for the people. This is why developing initiatives and exploring alternatives are great things particularly for the beneficiary. In the upgrading process, it is necessary to conduct training activities to transfer technology and methodology to communities.

Just like the Design Development phase, all these skills training were conducted in RVHOA in Iloilo City. After the House Design, Plan Reading and Measurement Workshop, another workshop was facilitated by the technical team, focusing this time on *Materials Familiarization*. PowerPoint presentations and actual materials used in constructing the selected type of house were presented to the community to teach the members the standards they should use in procuring materials.

Community members play games as a way to be familiarized with different materials for construction (Image Source: Philippine Alliance Western Visayas)

ICEB workshop with TAMPEI

Part of this was the *Interlocking Compressed Earth Block (ICEB) Workshop*. ICEB, as a relatively new and alternative building construction material, was introduced to the community by discussing its history and structural performance in terms of durability, resiliency, safety, as well as its aesthetics. A visit to the production site was likewise held to give participants a firsthand experience on how to prepare the material. These activities were conducted as part of the technical team's goal to help the community decide whether or not to use the material.



After a workshop on materials, an *Estimates Workshop* was facilitated next, the purpose of which was to orient the participants on the construction cost, specifically the capital fund and equity they will eventually shell out. Given the construction cost prepared by the engineer, the participants were taught the basic estimation and were guided on how to calculate the approximate cost of their given house design. The technical team prepared an exercise to evaluate the participants' learning outcome.

(Left) Community members participated in Estimates workshop facilitated by TAMPEI

(Right) One of the technical assistant demostrated process of construction to community members

(Image Source: Philippine Alliance Western Visayas)

The last of skills training was the *Mini-Construction Workshop*. This demonstration type training aimed to familiarize the participants in the processes and stages of construction and to emphasize the role of participants in construction management and supervision. The technical team prepared miniature houses which were divided in different parts that symbolize every stages of construction. The participants constructed their houses according to the given process; the technical assistants then gave inputs.

Partnership with Government and other Stakeholders

Building and acquiring knowledge and developing mutual support and learnings among the community and its partners are important for continuous growth.

Building a team to work with the community in various aspects of the upgrading is the aim of engaging with different working groups like the local government unit (LGU), academe and other support groups. These working bodies give stronger power to the community by playing a part in the process like:

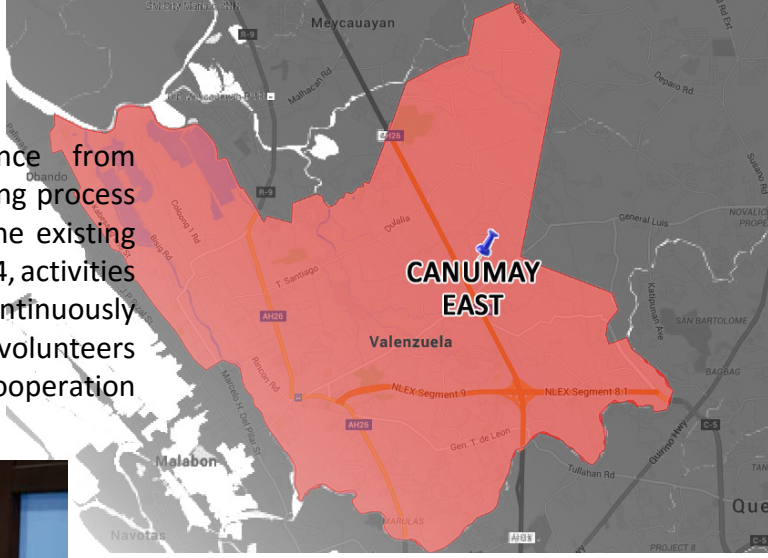
- Giving technical assistance to the people regarding financing, planning and constructing settlements
- Carrying out research on community issues and solution
- Forming a social development taskforce
- Bridging communication between the people and the local government

What's more, engagement with the mentioned working groups sustains the system of mutual support among the community and the technical and social groups.

Case Study: *Community Re-blocking in United Libis Home Owners' Association*

Location: *Canumay East, Valenzuela City* | **PHILIPPINES**

The members of ULHOA have been living in the area for 33 years. They had partially acquired the land using their savings and a community loan in 2010. The site has an existing power transmission line that cuts across the center of the site, which requires a 10-meter "no build" easement on both sides. This issue caused for many of the existing structures to be subjected for demolition, and people will be relocated either within or outside the site. In addition to this, they were required by the Local Government Unit (LGU) to provide a re-blocking plan which they were able to submit and get approved in 2013.



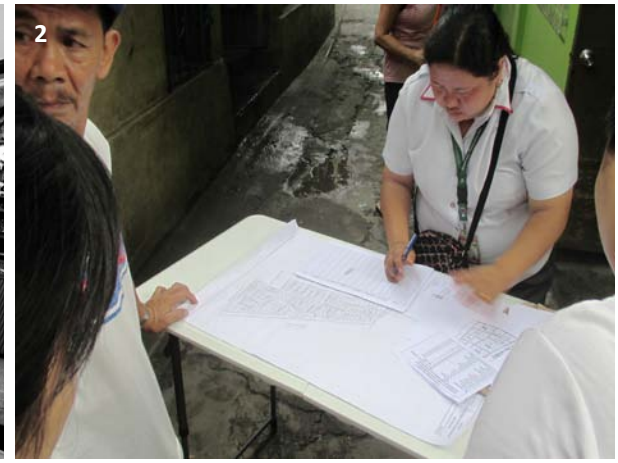
ULHOA sought technical assistance from TAMPEI to come up with a re-blocking process wherein the structural stability of the existing structures shall be secured. Since 2014, activities regarding onsite re-blocking were continuously conducted with the help of student volunteers from Bulacan State University and cooperation of Valenzuela LGU.

Meeting with Valenzuela Mayor and LGU about re-blocking and planning of steps

All existing houses in the community have no technical plans and building permits so that assessment of structures was conducted to know the effect of re-blocking. The process then revealed the manner of construction the houses were built, condition of structural components, and sanitary and electrical connection. These identified parts that need to fixed and conditions to be improved.

During the process, consultations with the house was conducted to explain the effect of the re-blocking and also to seek ideas from the community to re-plan their houses. Based on these inputs from the people, the technical team came up with a scheme which they presented during a meeting with the community for validation. Estimates were also provided enabling visualization of the design with budget constraints.

TAMPEI continues to assist the community until the completion of the project.



(1) ULHOA site; (2) Structural Assessment with the City Engineering representatives; (3) Planning and discussion regarding assessment of structures; (4) Technicals assesment and measurement of existing structures; (5) ULHOA residents helping in the assessment

(Left) ULHOA re-blocking plan approved by the LGU
(Top Right) Proposed structures drafted by TAMPEI
(Bottom Right) Existing ULHOA road and structures

(Image Source: TAMPEI)

Community Building and Technology

It is essential to build a sensitive community team in a community-driven process. The team helps in preparing the people to undertake a project, the readiness of the latter being an important element for the successful undertaking of the initiative. When people are equipped and empowered to think and plan, they can bring out the details into consideration breaking down abstract concepts and setting clear and concrete goals. After all, the community is the key actor in the upgrading process that usually is able to define what its needs are.

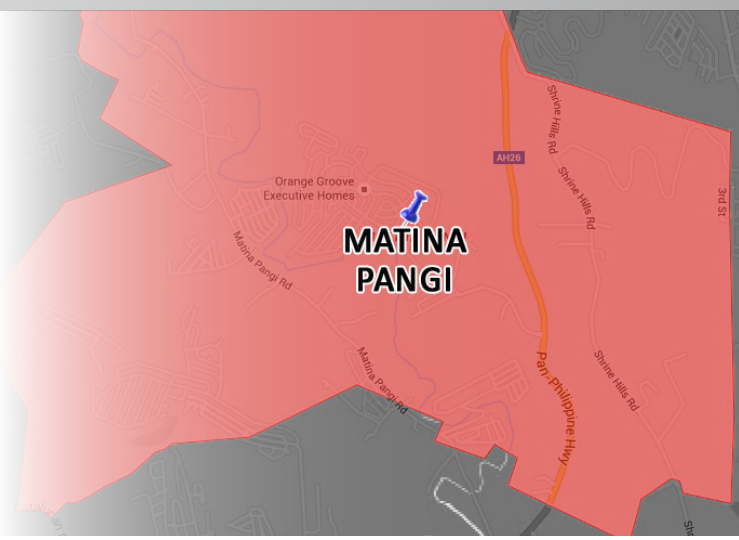
Physical planning and building can be integrated to the social and economic pattern for the community to adapt and live in a new setting. The relationship and interaction within spaces, livelihood and culture then begins to be the focus and meaning of the whole process.

Alternative Building Technology – Nowadays, the developing industry of construction releases countless innovations that may keep the community building team exploring. As affordability becomes a constant challenge in land development, alternative building technology that arises can be a seen as a way to achieve good quality and cost efficient construction.

Case Study: *Matina Crossing Community*
Location: *Matina, Davao City* | **PHILIPPINES**

One good example of a joint research and construction using locally available material was the case of Bamboo Footbridge in Matina Crossing Communities in Davao City.

Brgy. 74-A Matina Crossing Federation, Inc. (BMCFI) is composed of four SEC-registered community associations namely Matina-Balusong Neighborhood Association (MABANA), St. Benedict Neighborhood Association (SBNA), St. Paul Neighborhood Association (SPNA), and Shalom Community.



Matina community meetings and discussions on bamboo foot bridge with Academe and LGU

BMCFI's total population of at least 488 informal settler households have since early 1997 been occupying a portion of the 24-hectare Arroyo Compound, a privately-owned property whose main access back then was by traversing a wide river via makeshift bridge of bamboo poles lashed together. Often swept away when the river overflows, the bamboo bridge, accompanied by a single handrail of the same material, could not support heavy loads and allows only a single line of passersby; thus making the transfer of goods and transportation difficult for the residents.

Looking at the scenario as an opportunity to build a safe and sustainable footbridge that will benefit the whole community, BMCFI collaborated with the academe and several stakeholders for a possible construction of a community footbridge.

Initially hesitant to the idea of using bamboo as the bridge›s main material, the residents eventually realized its integrity and affordability after participating in the hands-on training on bamboo propagation, harvesting, treatment and construction facilitated by the technical team. “Apus” (Dendracalamus asper), a locally available and suitable bamboo species characterized by thick walls, wide diameter and long span, was used and treated by the team with borax and boric acid through Vertical Soak Diffusion – a method developed by Environmental Bamboo Foundation around 2000 and improvised by SaBa – to decelerate deterioration and repel pests called “bukbok” (Dinoderus minutus).

On February 2010, the Homeless Peoples’ Federation Philippines, Inc. (HPFPI) and Philippine Action for Community-led Shelter Initiatives, Inc. (PACSII) in partnership with Asian Coalition for Housing Rights conducted the «National Workshop of People›s Organizations and Technical Professionals in Community-Driven Upgrading and Housing» whose aim was to introduce community-driven planning and housing processes and solutions by urban poor communities.

Meeting with academe on the Bamboo bridge and foundation design and structural study (Image Source: TAMPEI)

Attending the workshop were HPFPI-PACSII representatives Engr. Jeofry Camarista of Western Visayas and Engr. Noel Zeta of Central Visayas; academe representatives Engr. Isaac Muncada of UP Mindanao Architecture Department and Engr. Evtri Tabanguil of University of Mindanao Engineering Department; bamboo construction experts Arch. Andrea Fitrianto and Arch. Jajang of Sahabat Bambu Indonesia (SaBa); and community members themselves.

Part of the workshop was the participatory development of seven bridge designs by community and technical professionals, from which, top three designs were selected and consolidated by the Indonesian team to come up with a single design for the footbridge. The final design, conceived for three months and inspired by the works of bamboo designers Jorg Stamm (Germany) and Simon Velez (Colombia), was a 23-meter long overarching bamboo bridge complete with crossed railings, nipa leaves (Nypa fruticans) roofing, a three-inch thick concrete flooring with steel reinforcement, and reinforced concrete foundation on both ends.

A community member presenting a design for the bamboo bridge

Computer software such as ArchiCAD and STAAD were used to generate and analyze the proposed design. Complementing the drawings was a 1:40 scale model made out of 3-mm diameter bamboo skewers pinned using mini-drill intentionally used without glue to mimic steel bolts joinery in reality and show deformations and failures when tested with loads.

The workshop was followed by a series of consultations with local government and further researches with the academe. Eventually, the construction of the footbridge commenced on November 2010. Two Indonesian bamboo carpenters, Suyadi and Sunarko, spent an accumulated three months, to lead and transfer bamboo constructions expertise to locals whom they called “warriors” for their willingness and hardworking skills.

(1) Community members performing "Bayanihan";(2) Assembling the structural component of the bridge offsite;(3) Assembling of the bamboo bridge;(4) People pouring concrete slab

After weeks of construction activities and almost a year of participatory planning, the bamboo footbridge project paved way to demonstrate the power of a community-driven upgrading. It helped the community gain solidarity, fortify their occupation on the area, and show that as a single community, they could design and implement a solution that addresses their need for safe access over a river tributary which has been their perennial problem for over a decade.

The Matina Bamboo bridge
(Photo credits: Andrea Fitriano)

Other Technologies built with Community

Interlocking Compressed Earth Blocks (ICEB)

by RVHOA in Mandaue, Iloilo

(1, 2) Stack of newly produced ICEB;(3) ICEB houses (Image Source: HomelessIloilo)

ICEB is an alternative to conventional houisng technology which is now widely-used in construction in Asian countries such as Thailand, Cambodia, Laos and Philippines. The ICEB is a mixture of limesoil, cement and water produced through a mechanical process.

In Philippines, ICEB was introduced in Iloilo City for implementation of CLIFF Phase II- Community-Managed Resettlement Housing Project, a massive affordable housing project funded by Swedish International Development Agency (SIDA) and the Department for International Development (DFID) for 172 families affected by the Iloilo Flood Control project. The ICEB was primarily adopted as a response to the need for a construction technology that is comparatively lower than the conventional housing technology when it comes to over-all construction cost, but will not compromise the socialized housing standards.

Atisan Water System

by ASHAI in Talisay, Cebu

(1) Clustered water meters; (2) Contruction of water system;(3) Water connection in house
(Image Source: ASHAI)

The problem of the community started with the shortage in water supply that affected all the members of the community. Because the supply cannot meet the demand, it affected children going to school, members going to work as well as all the household needs.

The community decided to get loan from ACCA for water supply system which will connect households to main water source. They replaced the existing water hand pump with an electric jet pump and a water tank. Everyone with connection has meter reader recorder and is required to pay a monthly bill.

The process contributed to the development of community organization and its financial capability by turning the water supply system into an income-generating project. Through this project, the community began to discuss and plan for other issues. It opened a wider avenue for the people to discover new opportunities and strengthen community relationship. *(See story on p. 61)*

Challenges in Community Upgrading

In facilitating community upgrading, challenges are one of the things that community architects and organizers usually encounter. Working toward the same objective, the community and its partners should be able to overcome these shortcomings.

Listed below are some key challenges that are commonly encountered during the process:

Elements of current structure of the Settlement. Current situation of the community always poses great challenge to community architects. These issues can be seen upon mapping out the whole settlement.

Unforeseen events that may hinder community development. After the mapping process and extensive analyses, there are still possible things that may be left out or overlooked. Sudden changes of orders and delays are just a few.

Community motivation and interest. In some cases,people lose focus on and interest in the process. Time-consuming activities, along with other issues, may inhibit participation of the people. All of these may result in inefficient flow of the process.

Government cooperation and attention to community needs. One difficult part of people's process is to link with the government. An unresponsive government may cut the power of the people in local development thus making less possibility of negotiating with resources.

Taking the risk of the alternatives. Doubt is another certain challenge when proposing new ventures to community people. There is a common fear of trying something for the first time.

Clarity of results and understandings. One important thing to note when facilitating a community is to clarify the data during the gathering as well as evaluation process, as people tend to be confused about a topic or to overlook some essential issues.

Failure in Partnerships. More than anything else, this part must be the biggast challenge an upgrading process could encounter. This may be brought about by different causes such as mentioned above. This kind of failure results to a much greater impact to community which may create gaps, break communication line and lead the whole process to collapse.

Case Study: *ACCA Community Water System Project in Atisan Seaside Homeowners Association*

Location: *Talisay, Cebu* | **PHILIPPINES**

Members of the Atisan Seaside Homeowners Association, Inc. (ASHAI), an informal settlement community in Talisay City, Cebu Province are tormented daily by the problem of short water supply. Each day, they have to wait in a long line to draw water from a manual water pump. Children arrive late in school because preparing for school meant waiting for their turn to use the pump. Worse, the community could not get a permit from the local government for water connection from the city because of their informal status.

To address the problem, the members decided to apply for a $3,000-loan from the ACCA Program in 2011 for the construction of a water supply system which directly connects the main water source to homes of the residents. The community proposed that the existing water hand pump be replaced by an electric jet pump which comes with a 5,000-liter water tank where water can be stored.

ASHAI water supply system connecting to the main water source going to every community household

(1, 2, 3) community members performing labor for the water system; (4) a faucet connected to the water pump

Construction began in late 2011 and was completed in 2012. Each house with water connection has a meter reader recorder. Members are required to pay their water bill every month. A member that fails to pay his/her water bill in 3 consecutive months will have his or her connection cut off. Cost of water is Php 130 per 10 cu. m. and a charge is added per succeeding cu.m. utilized.

The project has 32 households with meters but about 60 households are now getting direct water supply connection. Not all families have meters because it is costly. The other households just connected with those with meter readers to save on cost. Almost every month since the first connection, income generated from the water system is utilized for additional water distribution lines to households.

Because of the project, the Atisan community had to create policies on the use of the water system, on its maintenance, and on livelihood because it is also an income-generating project. This exercise contributed to the strengthening of the community since members regularly meet to discuss the project. At the same, the community would discuss their plans regarding a more challenging issue, their security of tenure. The land on which they are currently residing is a private land and negotiations with the owner have stopped because of the high cost of land (about 60 USD per sq.m.) and absence of an access road to the community.

Clustered meters connected to the water pump

At present, the community has found ways to creatively utilize the income from the small upgrading project. The community has recently established a small cooperative that sells rice to community members. The purpose is two-fold: to provide the members access to this staple food especially during lean times. The other is to generate income that would be directly posted to the members' land savings. This means 5% of the total income generated from the rice business would go to the member's savings which now total to more than USD 4,000.00

The story of the Atisan Seaside community demonstrated how a small upgrading project has contributed not only to addressing a very basic need but also to finding solutions to long term needs such as land and housing. Of course, the project also contributed to building and strengthening community relations which is key to any community endeavor, but especially to attaining the goal of tenure security.

Lessons Learned

Upgrading is a part of a cycle. It can't be projected as a linear process. You can start with mapping, then project development followed by an upgrading, then you could go back to mapping. Projects within the community is unending because people continue to develop, discover issues and create solutions.

When you give "space" to people to undertake a development, it shows that it is doable. Along implementation, there are confusions/challenges/ issues but still the project will push through. *People learn from their weaknesses* and by that, they are able to resolve issues arising during the implementation.

"The whole point of upgrading is building community empowerment as much as satisfying the physical need of the people"

Partnering with government, there is a positive and a negative side to it. On the positive side, because of these upgrading projects, government somehow understands and recognizes the significance of the people's process. On the negative part, the act is seen as competition to the responsibility of the local government for they respond inattentively. But if we put it the other way, *if we collaborate as partners supporting each other, it breaks the idea of the community being only a recipient of the development.*

Implementing an upgrading process helps a community develop its to capacity for decision making. It *promotes communal understanding* within the community as the beneficiary of the outcome of the project.

"Teach by showing, learn by doing"

It isn't about the issue of how technically perfect the upgrading done by/with people is but it is about how these small initiatives have proven what people are capable doing. Its level of complexity of the process corresponds to the people capability to implement. It must be used as *a venue to empower the community*.

Every *upgrading process must be demand-driven* to make it successful especially in small upgrading. Impact is not based on what is provided but it is the process sharing the large part on how it was implemented and planned. Whereas from the start, on the part of identifying needs, planning and financing, people are capacitated while professionals understand that the context of the process is absolutely not perfect but has to be fluid instead.

"Role of technicals..."

As a technical support professional of group in a small upgrading, our role is to make small inputs only and arrive to the best approach on how to do it because your intention is to have mutual understanding with the people. Upgrading is a collaborative process *wherein technical theories and community's practical experiences can be combined*.

It's about how you build on and ensure the enhancement of ideas of the people. You cannot claim to have all the knowledge on technical aspect whereas, *people can be more knowledgeable*

Another role of technical support professional or group is to *challenge the community to go further*. What other developments can we carry out in our community?

Technical professionals are not limited to the technical aspect only, which means it is inseparable to organizing and assessing dynamics of people, especially community leaders. It is how you can use the process of upgrading to create balance by breaking down vertical structure into horizontal structure in the community and showing differences of need in terms of gender.

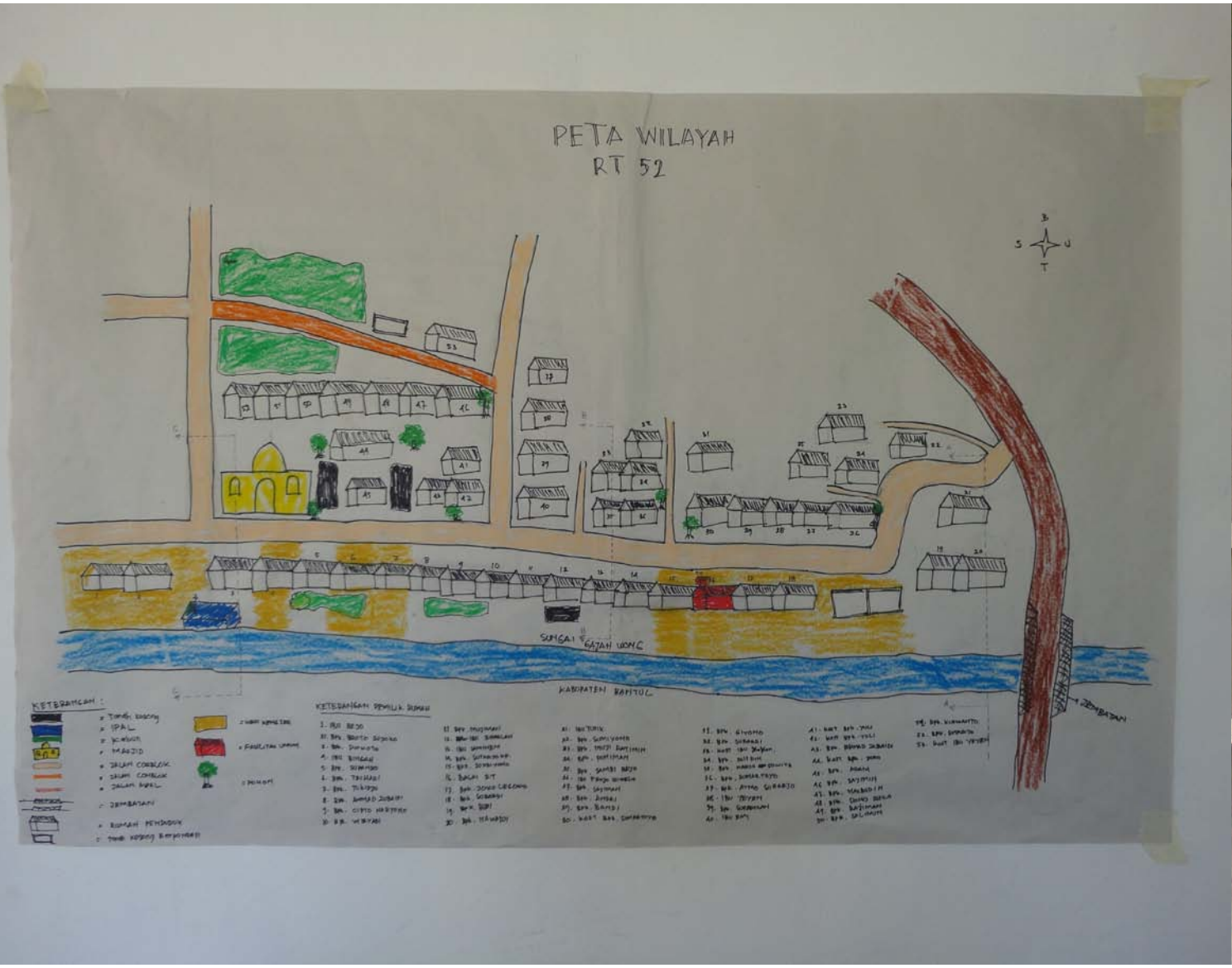
Tips for Upgrading

Breaking down each issue can help actors familiarize themselves with the situation. Creating a map for each issue is useful in terms of recording events and intensifying participative approach for future community development.

Assigning different committees for every subject minimizes the tendency to overlook important matters.

Maintain a positive working atmosphere and proactive undertakings to boost community participation; keeping things close to the goal motivates people to act.

A great amount of patience and perseverance is key to achieving consolidated goals; there is no such thing as easy path to success!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Acronyms and Glossary

ACCA – Asian Coalition for Community Action
ACHR – Asian Coalition for Housing Rights
ASHAI – Atisan Seaside Homeowners' Association
BMCFI – Brgy. 74-A Matina Crossing Federation, Inc
CAN – Community Architects Network
CLIFF – Community-led Infrastructure Finance Facility
DFID – Department for International Development
DRCNAI – Del Rosario Compound Neighborhood Association, Inc.
HPFPI – Homeless People's Federation Philippines, Inc.
ICEB – Interlocking Compressed Earth Blocks
LGU – local government nnit
LTHAI – Lower Tipolo Home Owners' Association, Inc.
MABANA – Matina-Balusong Neighborhood Association
MMVHAI – Malibu Matimco Village Homeowners Association Inc.
PACSII – Philippine Action for Community-led Shelter Initiatives, Inc.
RVHOA – Riverview Homeowners' Association
SBNA – St. Benedict Neighborhood Association
SIDA – Swedish International Development Agency
SPNA – St. Paul Neighborhood Association
SWOT – Strength, Weakness, Opportunity, Threats
TAMPEI – Technical Assistance Movement for People and Environment, Inc.
ULHOA – United Libis Homeowners' Association

ACCA Program – A program of ACHR which supports a process of citywide and community-driven slum upgrading in Asian cities
Barangay – Smallest political unit in the Philippines
CLIFF Housing Project – is a project coordinated and partly funded by UK based organisation Reall (formerly known as Homeless International) which supports slum dwellers to improve their lives and find lasting solutions to urban poverty
Kampung – A small village or community of houses in Malay-speaking lands

Bibliography

Asia's Urban Poor. Third Culture. July 28, 2015. http://www.thirdculture.cc/musings/asias-urban-poor/ (Accessed July 19, 2016)

Bermundo, Emelyn. *Perween Rahman Fellowship 2014 Report*. Philippine Alliance NCR, 2014

Boonyabancha, Somsook. *Design by/with/for people*, by Supawut Boonmahathanakorn and Chawanad Luansang, (p. 23). Bangkok, Thailand: Asian Coalition for Housing Rights, 2010.

Boonyabancha, Somsook. *Guideline for citywide upgrading Philippines*. 2012.

Environmental Science for Social Change and Technical Assistane Movement for People and Environment, Inc. *Report: Site Visit and Field-based Learning, Valenzuela City*, 2013

Fitrianto, Andrea. *Community Bridge: Building resilience with bamboo.* A research paper prepared for the conference of Sustainable Buildings, Infrastructures and Communities in Emerging Economies SB13 Manila, 2013.

Hirst, Laura, J. Mamo, M. Veronesi. *Grounding knowledge: experiences in community-led housing in the Philippines*. Development Planning Unit, 2016.

Homeless Iloilo. *I.C.E.B. (Interlocking Compressed Earth Blocks)*. The Official Blogsite of HPFPI in Iloilo City,. <http://homelessiloilo.blogspot.com/p/sustainable-and-innovative-construction.html> (Accessed 19 July 2016)

Kusworo, Yuli. *CAN Indonesia 3-year Story-English ver*. 2013.

Libutaque, V. M. *Riverview Homeowners Association (Category B-Batch 2, Cluster 3)*. Philippine Alliance Western Visayas, 2010.

Libutaque, V. M. *Flow of technical activity for the housing design workshop*. Philippine Alliance Western Visayas, 2010.

Luansang, Chawanad, S. Boonmahathanakorn and D. Archer, eds. *Handbook: Community mapping for housing by people's process*. Bangkok, Thailand: Asian Coalition for Housing Rights, 2011.

Orendain, D. J. *A backgrounder on the Matina Crossing Community*. Philippine Alliance Mindanao, 2011.

Orendain, D. J. *Matina Crossing Community and their bamboo footbridge initiative*. Philippine Alliance Mindanao, 2011.

Orendain, D. J. and J. C. Co. *Pole by pole: The Matina crossing communities and bamboo footbridge story*. Philippine Alliance Mindanao, 2011.

TAMPEI. *TAMPEI held technical trainings and workshops for additional 90-units of CLIFF expansion communities*. Philippine Alliance Western Visayas, 2012.

The State of Asian and Pacific Cities 2015, p. 10.

Van Horen, Basil. *Community Upgrading and Institutional Capacity Building to benefit the Urban Poor in Asia.* Paper presented at the Forum on Urban Infrastructure and Public Service Delivery for the Urban Poor Regional Focus: Asia. June 24-25, 2004, New Delhi, India. <https://www.wilsoncenter.org/publication/community-upgrading-and-institutional-capacity-building-to-benefit-the-urban-poor-asia> (Accessed July 17, 2016), p. 2.

The role of professional such as architect, is to learn what is valuable in the tradition, culture and local experience of people and try to find out ways in which improvement can be made.

- Fr. Jorge Anzorena

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Handbook