Introduction

When we do "comprehensive site planning", it's not only the process of laying out all house plots, together with basic services, onto a blank page, without understanding the relation of the peoples houses to their physical and social context. Comprehensive site planning in our practice tries to weaves all the community's components together to build a livable community. And in some cases the process of comprehensive site planning may open up a positive space for people to build their relationships within their community, by working together.

We believe that processes of comprehensive site planning can be a vital tool to find the meaning of "Living Together" through ways of doing, discussing, planning, and sharing together - as human beings used to do when they settled themselves together.

This community handbook is one in a series of ACHR Handbooks for Housing By People, to be published in 2011. We are making an effort to compile the accumulated knowledge and experiences of our friends in the ACHR coalition. These publications will collate case studies of CODI and ACCA projects in Asia and the Pacific, in order to make a series of simple handbooks for community members and relevant agencies, and those who see the possible path of community development.

ACHR Secretariat
Bangkok, Thailand
Dec 2011

"The main purpose of development should be quality of lie for the large majority of people. If you don't have a generous view of cities, then you don't have a generous view of people."

Jaime lerner

Content

Building our home, growing our community

How can we create together those conditions that our faith and spirit place together, to build up our community, share our dreams, learn to find potentials for development, and solve problems for our better tomorrow?

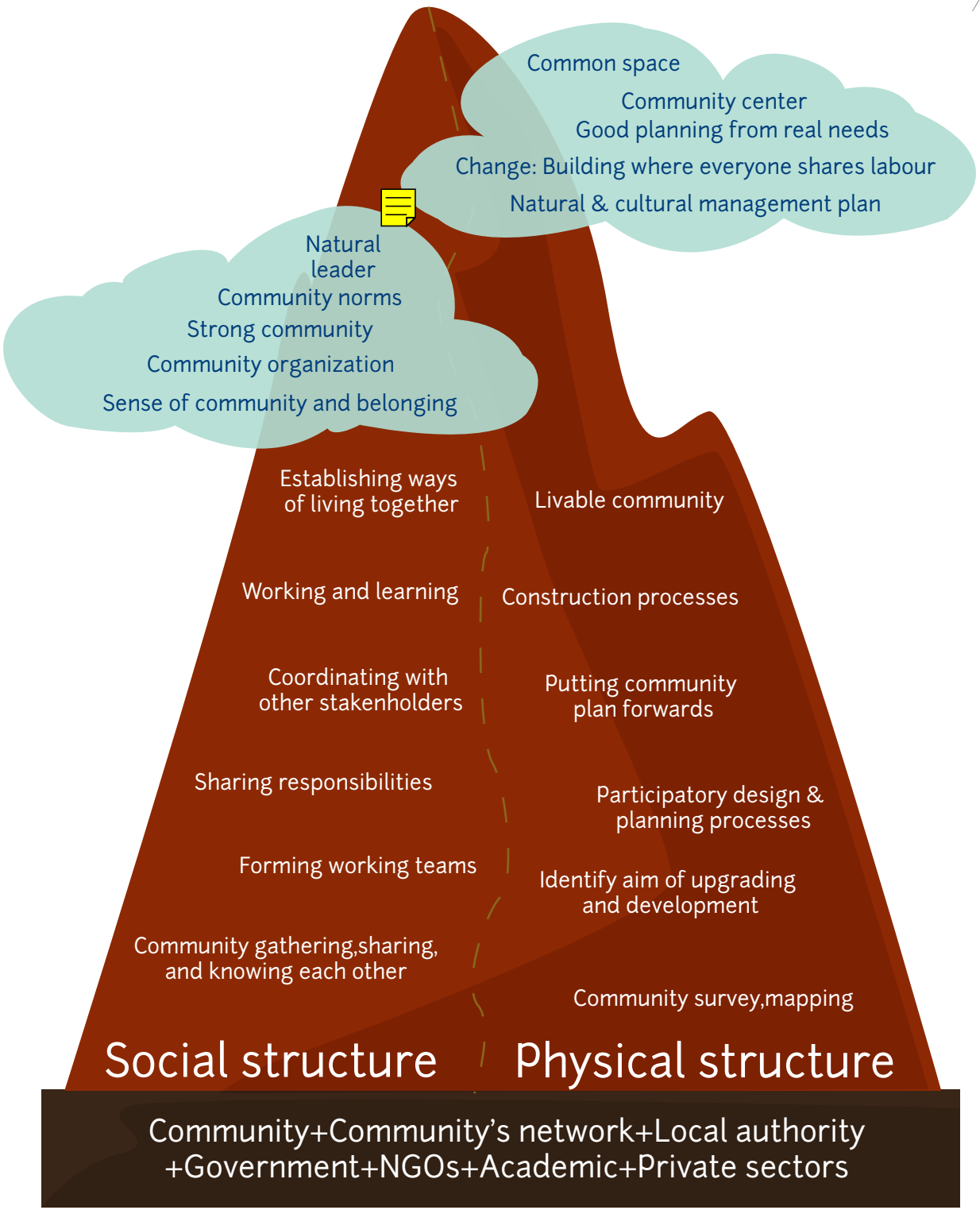
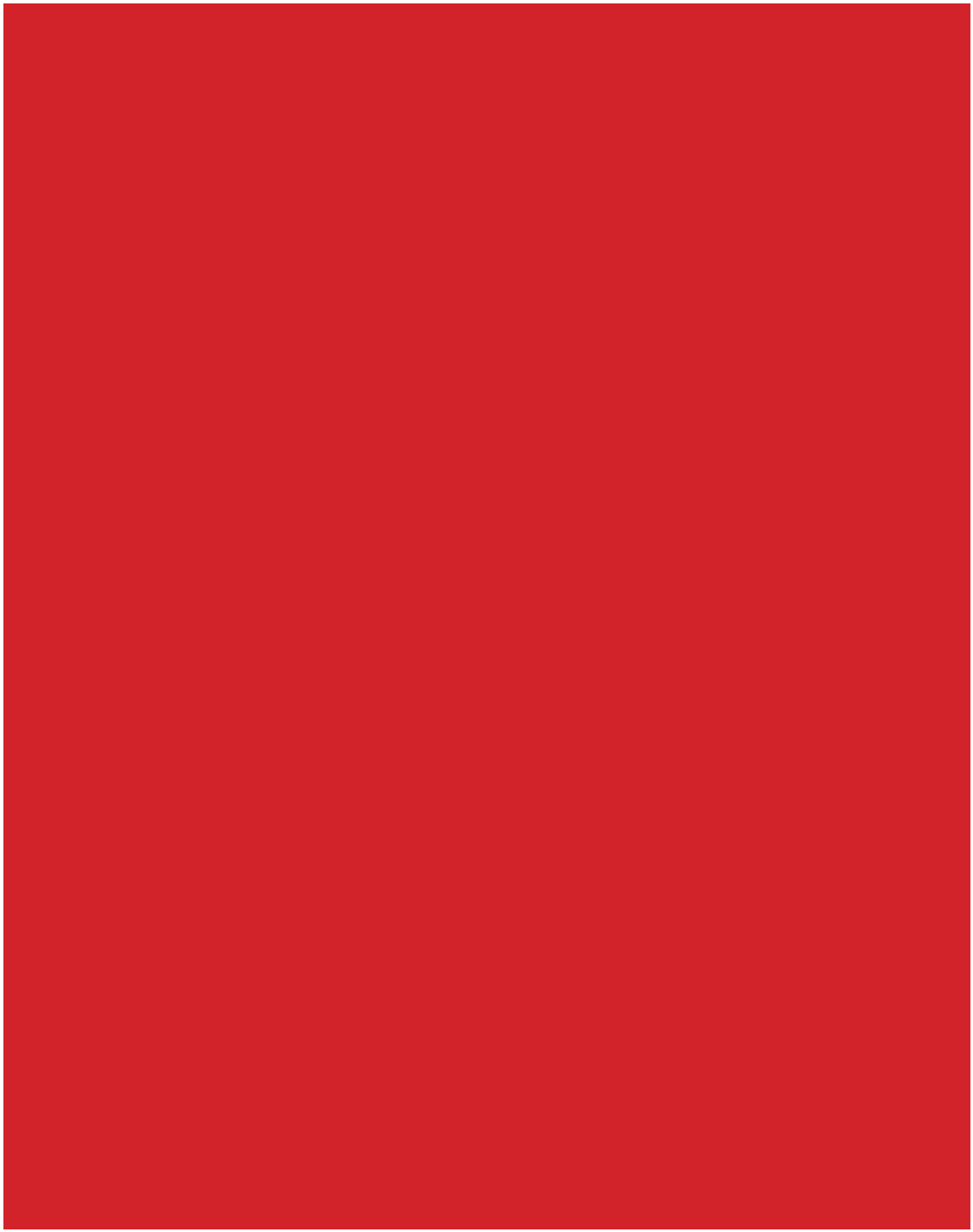

Common space
Community center
Good planning from real needs
Change: Building where everyone shares labour
Natural & cultural management plan
Natural leader
Community norms
Strong community
Community organization
Sense of community and belonging
Establishing ways of living together
Livable community
Working and learning
Construction processes
Coordinating with other stakenholders
Putting community plan forwards
Sharing responsibilities
Participatory design & planning processes
Forming working teams
Identify aim of upgrading and development
Community gathering,sharing, and knowing each other
Community survey,mapping
Social structure
Physical structure
Community+Community's network+Local authority +Government+NGOs+Academic+Private sectors

Diagram showing the new programs in communities that help to create strong and self-sufficient communities.

Diagram showing four main components of
healthy and sustainable community.



5 solutions of housing by people

Instead of promoting a single development model for obtain secure land tenure, improving housing and living environments, these is a range of possible option had been tried and tested by communities.

Resource: 50 community upgrading projects-a publication of Community Organizations Development Institute, Thailand, 2008

1. On-site UPGRADING

Slum upgrading is a way of improving the physical environment and basic services in existing communities, while preserving their location, character and social structure. Usually upgrading means that the houses, lanes, roads and open spaces are improved, without changing the layout or plot sizes. Besides improving the physical conditions and quality of life in these poor communities, the physical improvements made under an upgrading process can act as a springboard for other kinds of development among community members such as income generation, welfare and community enterprises.

2.On-site REBLOCKING

Reblocking is a more systematic way of improving the infrastructures and physical conditions in existing communities by making some adjustment to layout of house and roads o install sewers, drains, walkways and roads, but doing so in ways which ensure the continuity of the community. Communities can then develop their housing gradually, at their own pace. When communities opt for reblocking , some houses usually have to be moved and partially or entirely reconstructed to improve access. Some lanes may also have to be re-aligned to enable drainage lines. Reblocking is often undertaken in cases where communities have negotiated to buy or obtain long-term leases for the land they already occupy. In both cases, the process of reblocking is an importance step in the progress towards land tenure security and improved housing.

3.On-site RECONSTRUCTION

In this upgrading strategy, existing communities are totally demolished and rebuilt on the same land, either under a long –term lease or after the people have negotiated to purchase the land. The new security of land tenure on the already occupied land often provides community people with a very strong incentive to invest their housing, through rebuilding or new construction. Reconstruction also allow communities on low-lying land to first raise the level of the land above floodlines before investing in proper housing. Although the reconstruction option involves making considerable physical changes within the community and requites some adaptation to new environment, the strategy allows people to continue living in the same place and to remain close to their places of work and vital support systems. This continuity is a crucial compensation for the expense and difficulty reconstruction involves.

On-site UPGRADING
Trok Kanom Touay
Community
Ayutthaya
Thailand

On-site REBLOCKING
Charoenchai Nimitmai
Bangkok
Thailand

On-site RECONSTRUCTION
Bonkai
Bangkok
Thailand

4. LAND SHARING

Land sharing is a housing and settlement improvement strategy which allows both the land-owner and the community people living on that land to benefit. After a period of negotiation and planning, an agreement is related to "share" the land, where the settlement is divided into two portions. The community is given, sold or leases one portion (usually the less commercially attractive part of the site) for reconstructing their housing, and the rest of the land is returned to the land owner to develop. At the core of land sharing process is the ability to translate conflicting needs and conflicting demand into a compromise which takes a concrete "win-win" form, and which is acceptable to all parties involved. The people may end up with less area than they had before, and the land owner may get back less than all of his land, but the trade-off is that the poor will no longer be squatters but the legal owners or tenants to their land. And the finally landlord gets to develop the land.

5. Nearby RELOCATION

The greatest advantage of the relocation strategy is that it usually comes with housing security, through land use rights, outright ownership or some kind of long term land lease. Relocation sites can sometimes be far from existing communities, job opportunities, support structures and schools. In these cases, community members who want to keep their old jobs or attend the same schools must bear the burden or additional travelling time and expense and must adapt themselves to a new environment. But in many towns and cities, resourceful communities are finding bits of land to buy or rent cheaply for their housing that are not far away at all. In all cases of relocation whether it is nearby or not so nearby relocation communities face the cost of reconstructing their houses at the new site, and in some cases the additional burden of land purchase payments. But tenure security tends to be a big incentive to invest in housing and environmental development at the new community.

LAND SHARING
Manangkasila . Bangkok
Thailand

Nearby RELOCATION
Klong Toey Block 7-12 + Sua Yai . Bangkok
Thailand

To make a better city for people
Why is relocation one of the answers?

Relocation is one of possible answers for community upgrading. It is a way of finding a solution, not an aim in itself. But it a tool to bring people and their community a sense of security, having better living conditions, and being a part of a livable city that we live in together.

Under what conditions can choosing relocation be a tool to make better communities and livable cities?

- Communities already evicted who cannot return to the old site.
- Communities located in a disaster prone area.
- Communities densely living in a small space with risks of fire and insufficient provision of infrastructure.
- Communities which can be partially relocated, leaving those remaining with more room for comprehensive upgrading for better living conditions.
- Communities connected to each other through a network and decide to move (entirely or partially) to a new area together, due to the growth of the city.

Comprehensive Site Planning's Workshop as the kick starter in city-wide scale

Why workshop with people so importance?

Organizing workshop with people on comprehensive site planning is the one of key processes of housing by people. Because it create the ambience of mutual learning among of community member who will soon stay together and establish the culture of living together in the community. It also create the platform for support agencies like local authority, university, and student to find their prominent roles in supporting the process of housing by people in various facets.

Usually, this workshop take about 3-5 days of working with people. And it is importance to be noted that this process is just the kick start point to roll the power and contribution into the same track of people-driven process. The outcome, emerging idea from people have to follow up, not as the individual pilot project but rolling in the city scale.

3 stages of organizing the workshop

Preparing stage

- Working with people to identify an issues of upgrading from people's demands.
- Start to form the loose community organization to work together, maintain, manage the ongoing process.
- Collaborate and link with local authorities, academics, young professionals to gain more supportive tools.

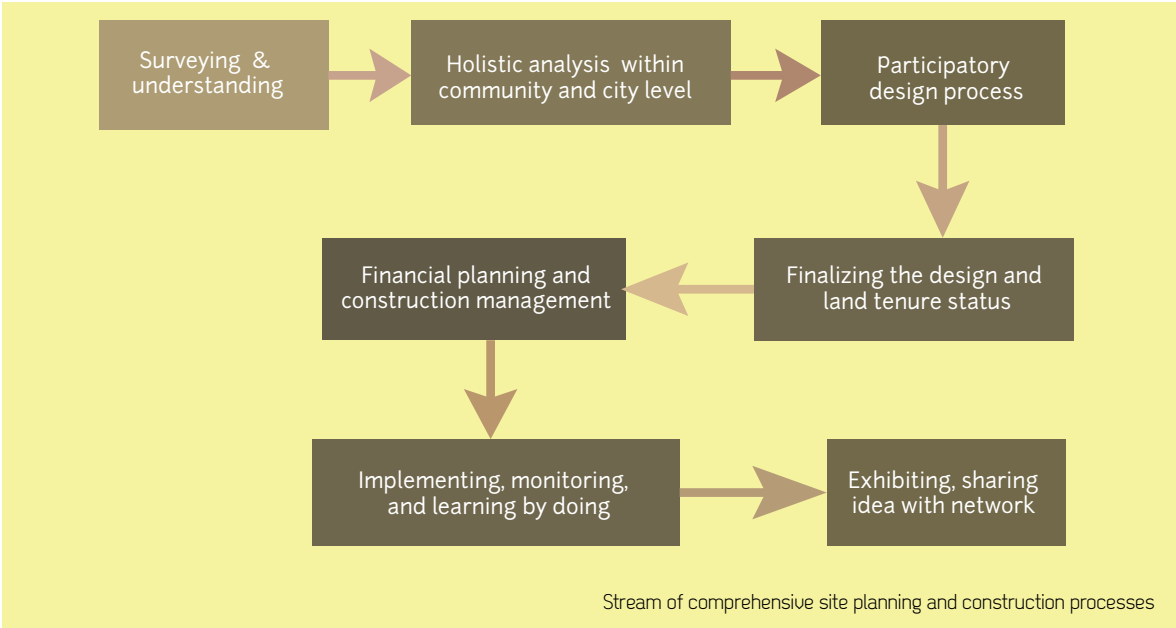
During the workshop

- Working with people and community network on the real site.
- Open for all creative possibility to emerge over the workshop.
- Gain new input to adapt into the actual project (case studies to show alternative way of doing, new techniques)
- Start to implement the common task that every partner actively contribute.
- Built the long-term planning with people, and link it to the larger policies and related organizations.

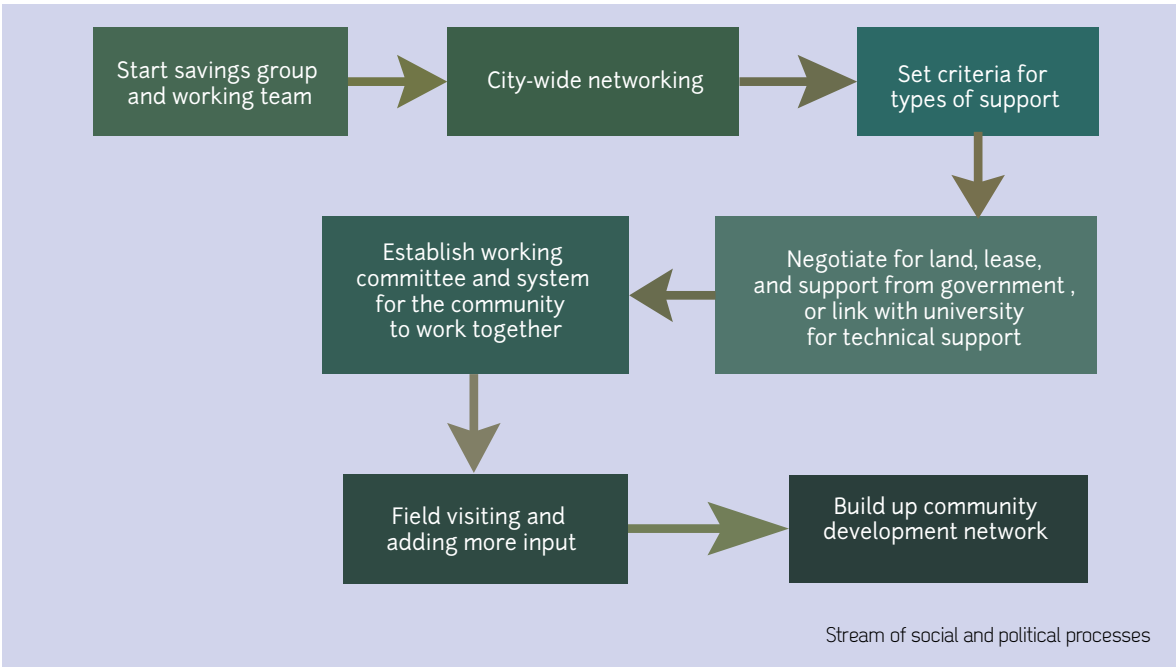
Following up

- Work out on the detail, that it could not be finished during the workshop.
- Implementing with support from all partners as the way of networking
- Capture the emerged knowledge, lesson learnt and tools during the workshop and implementation.
- Review and share the experienced in the network and working platform to gain more additional supports, suggestion.

Comprehensive site planning: common steps in practice



Stream of comprehensive site planning and construction processes



Stream of social and political processes

Key steps during organizing the workshop with people

Somehow it is quite hard to explains every steps in order about working with people, because it is depend on the context of each community and other conditions. This is just the guideline of key steps from our experience with people in the region.

Understanding all conditions, key challenges, and people initiatives had been done so far

- Introduce an aim plus the key process of the workshop that people being a key agent
- Visit the real site together with all partners, if possible we should visit other villages nearby that shared the same context for understanding about traditional living, local dwelling and how they people can sustain themselves.
- Review an information (no. of household, size and context of new site, saving amount and system, no. of community builder,) this process can be done in small group (8-15 person-group).
- Sharing the successful case studies to show and encourage the people and related stakeholders about the alternative way of doing

Learning from people about their needs, living tradition, and available resources

- Dream community: small group working on site planning to learn from people idea on their living tradition, what is importance for people.
- Assimilated idea from people and try to adapt these idea into physical design and planning.

Site planning –life planning

- Experiment the new site planning with people, architect can helps to calculate an area and look forward other possibility of design and planning
- Visualize the possible of housing plot, community lane, open space
- Dialogue on the schematic design of site planning, listening and observe the emerged issues
- After gain some idea and new issues, technical support team start divide the tasks and work out in detail; like low cost community lane and surface drainage, rain water harvesting system, alternative and low cost sanitation and energies

Dwelling design

- Dream house: small group working on housing design, this group should have the local community carpenter or community builder that can provide their input about construction techniques, and also should have some women that can give us a view of sophisticated household caretaker.
- Build an actual house in the real site with real material to estimate the budget, and practice the local technique with local builder

Establish the culture of living together

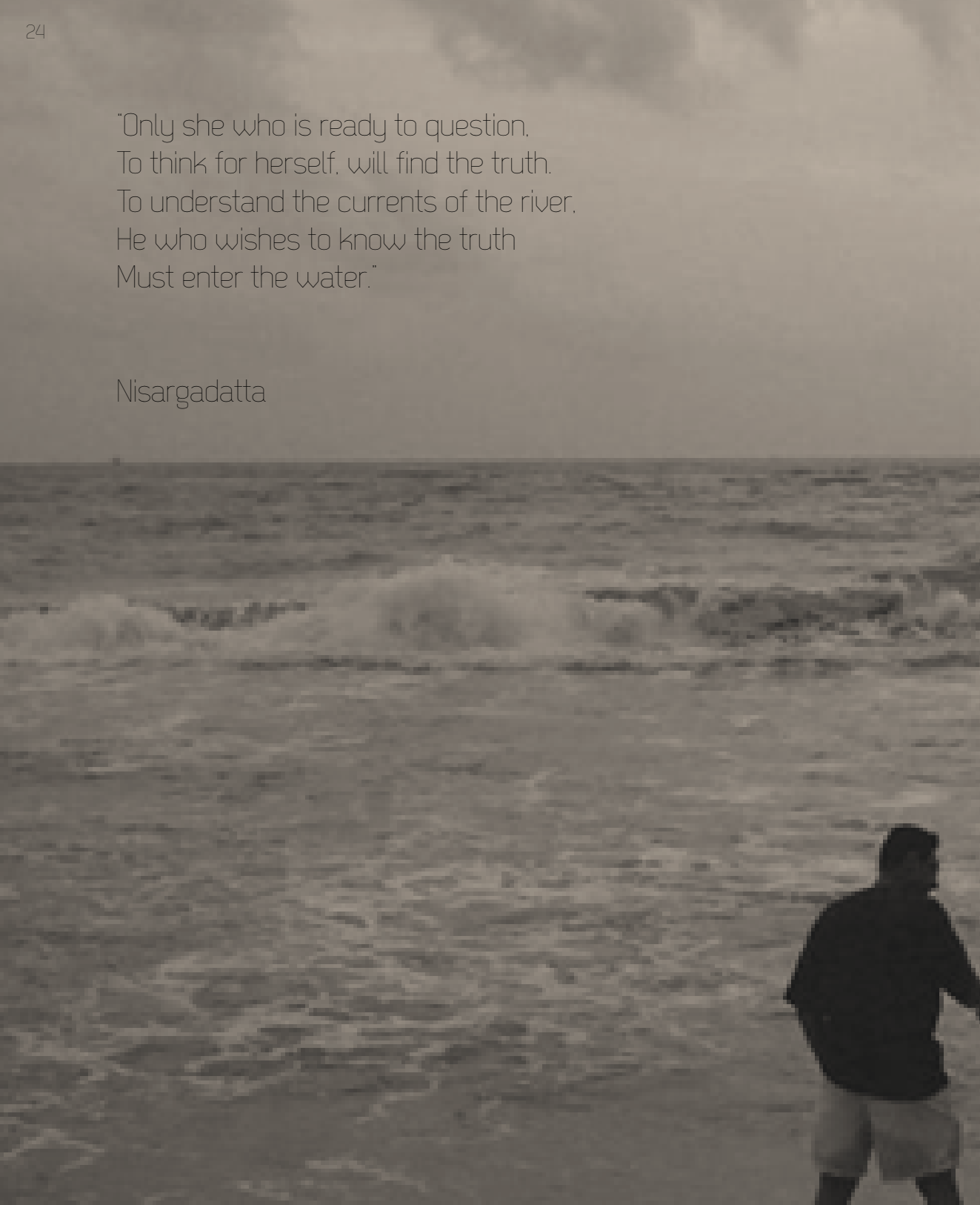
- Dialogue among community about: social and community organization to manage aspects of living together in community' such as community rule, financial and saving scheme, communication among all members.

Platform of working together with local authority, academics, and young professional

- Dialogue with all partner about learning experience on this workshop and plan forward to scale up this one project workshop to the city-wide scale from the contribution of all partners.

"Only she who is ready to question,
To think for herself, will find the truth.
To understand the currents of the river,
He who wishes to know the truth
Must enter the water."

Nisargadatta



Case study of comprehensive site planning

Koh Mook community. Trang province. Thailand
Ale Yaw Ward. Hlaing Tar Yar Township. Yangon city –Myanmar
Mandartola. Gopalganj Municipality - Bangladesh

Koh Mook community, Trang province, Thailand

Location: Baan Koh Mook, Ampur Kantang, Trang province, Thailand
Challenge: Using the opportunity of post- tsunami rehabilitation to solve the land security problem
Solution: Comprehensive site planning
No. of household: 238 HH (90 HH relocate to new site –100 HH on-site upgrade –48 HH upgrade on private land)
Plot per household: 10 x 12 m.
Total area: 14 Rai (22,400 sq.m.)
Working agencies: Samaphan Pramong Peun Baan, Chumchontai Foundation, CODI, Openspace
Budget: Housing 2,850 USD÷unit, Infrastructure 2,160 USD÷unit
Year: 2004

After the tsunami devastated the southern coast of Thailand in 2004, there were many areas affected and damaged, especially those of the fisher folk communities in Trang province of Thailand. From the surveying process, there emerged the rooted problem of land insecurity, and the issue of resource sharing within the community needed to be considered, as well as providing shelter as is usual in the relief stage. Furthermore, the post-tsunami's situation worsened due to the huge sums of donated funds which were not equally shared, and insecure land due to unclear demarcation between community people, private owner, and local authorities.

Koh Mook community was one of the affected areas, located in Trang province for over 150 years. The population is 2,000 people in 400 households. Most of residents practice fishing and rubber farming. Surveying showed that 248 households lived on seriously insecure land, with most them encroaching private lands and protected forest zones.

STEP 1 Surveying –understanding community

Key - start with common problem to buildup working platform
-working group based on existingsocial relationships

1. why survey?

- Understanding physical aspects of their community
- Knowing community members and their skills by working together
- Realize their community problems, needs, and prioritize them for problem-solving

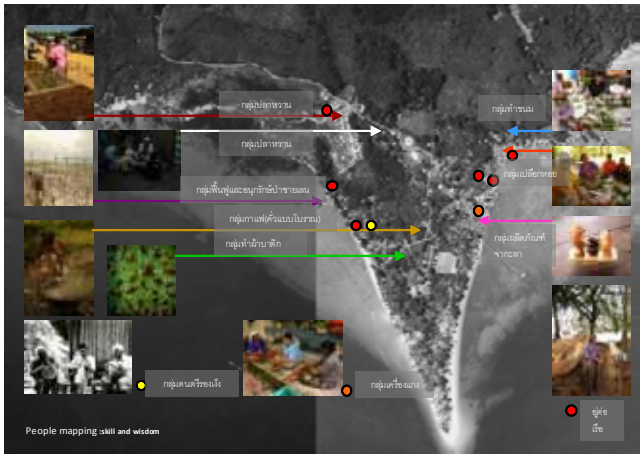
2. What to map?

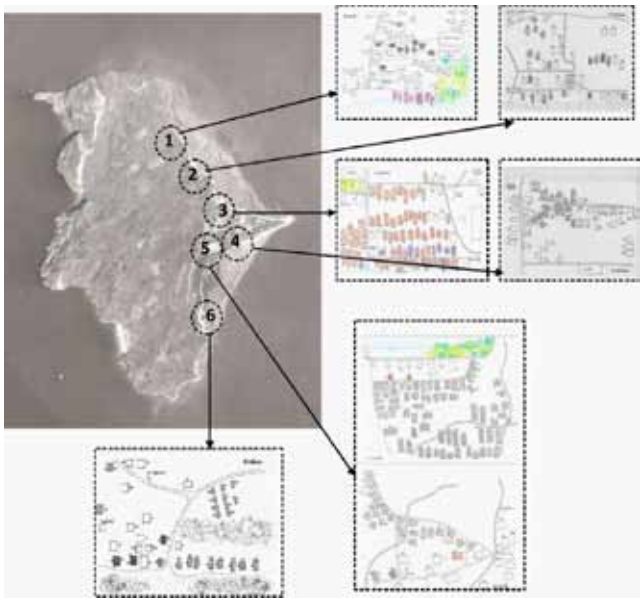
- Local problems
- Community settlements
- Community forest area –boundary
- Road linkages in island
- Port –bay

3. From mapping to understanding the problem, leading to realizing design solutions

- Number of houses that need upgrading–reconstruction–relocation
- Idea of demarcation of community forest and community boundary
- Need for basic infrastructure in some areas
- Need for linked community lanes and bicycle lanes
- Idea of community centre

4. Sharing the output of the survey together and with other groups





1. Architects and working team prepared their overall understanding of the community's situation by surveying and mapping before working with people
2. Community mapping by people survey
3. Dividing the survey group into 6 bays according to social relationship
4. The key in surveying is that community people have to be the main working team in the surveying process.
5. Forming sub-groups for surveying, according to people's
relationships, it is easy for people to work and discuss together freely. Later on the sub-group will develop further for other tasks and responsibilities.

STEP 2 Holistic analysis within community and at city level

Key - understand the whole situation of problems and needs of communities
- form working group according to possible solutions, to work together

1. Analyze information gained from survey to find solution by making it simple and informative

After reaching possible solutions together with people, then we started to form working groups:
1. On-site upgrading group
2. Relocation groups (move to land where sharing with the national forest, and move to privately owned land)

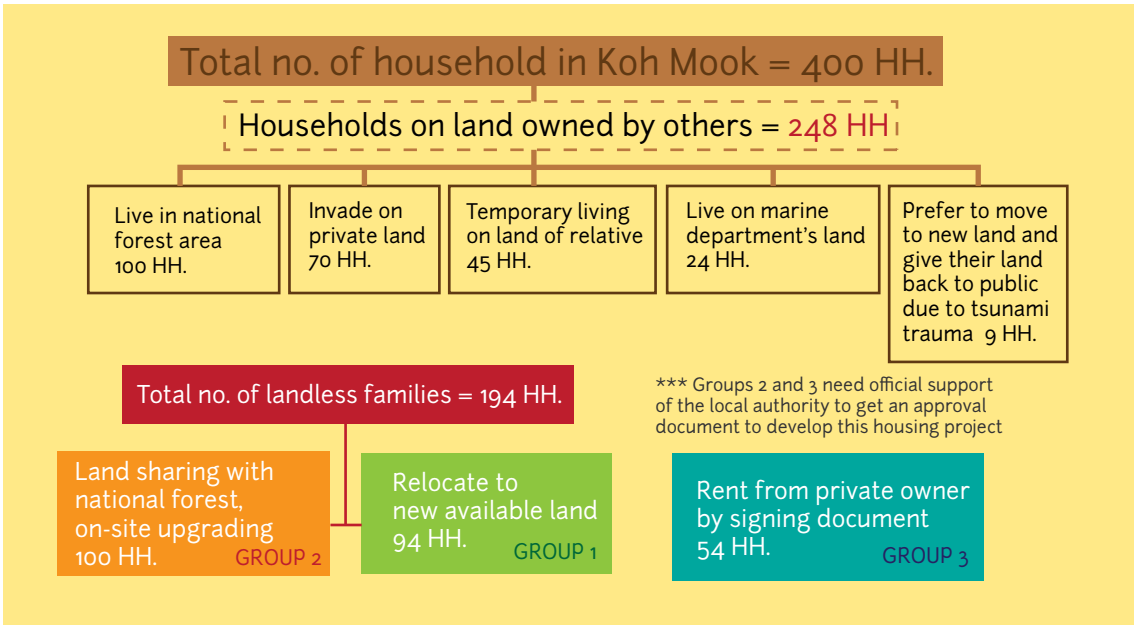
2. Establish aim of project and working committee selected from each bay

Start by forming survey groups according to social and geographical relation that people share to work together, later on it gradually develops into working committees

3. Identify the criteria to divide people into 3 groups of solutions

Tip tool: setting criteria to benefit all members

After getting no. of households for grouping affected families according to 3 solutions, it is important to organize a meeting attended by all members from 6 bays, to recheck on each other. Sometimes there are some families already with land but using the project as a chance to get more land.



1. Holistic problems of housing and land security. and possible solutions
2. Working structure with consisted of 6 bays
3. Example of 1st bay mapping showing that in one bay people can be divided into 3 groups.According to 3 solutions

4. Start forming sub-groups of each 3 groups for:
- Starting people's savings
- Grouping for income generation
- Working division

Start savings groups and livelihood groups by dividing into sub-groups in which people can easily make decisions and work together. In these small groups, every member has a role and responsibility. These sub-groups can then be linked together at the community level.

In this case, saving groups and working groups in the survey process are the same group.

Tip tool: savings group of relocation project

For people that need to relocate to a new site together, they have to form a sub-group with member who will relocate with them. Through these small sub-groups, they will link with other landless networks in the city, and find vacant land on which they will live together on the same relocation site.

Summarized chart of all sub-groups of Bay 1:

- Total household of each sub-group
- households that need to relocate
- households that can upgrade on existing land

No. of HH = 5
Relocated = 4
Onsite-upgrading = 1

No. of HH = 5
Relocated = 4
Onsite-upgrading = 1

No. of HH = 5
Relocated = 5
Onsite-upgrading = -

No. of HH = 4
Relocated = 4
Onsite-upgrading = -

No. of HH = 6
Relocated = 6
Onsite-upgrading = -

No. of HH = 5
Relocated = 5
Onsite-upgrading = -

STEP 3 Find possible sites for relocation and start to negotiate with land owner

1. Find possible sites for relocation

Tip tool: Issues concerning selection of new site for relocation Select 2-3 possible sites. People have to visit the sites together, measure its real size, check all documents and ownership, risks of flooding and underground water table and salinity, as well as the available infrastructure.

2. Negotiation to buy or to rent, with the people's concrete community development plan

In this case the selected land belongs to government. The community people had decided to form a committee which consisted of religious leaders to negotiate to purchase the land, and to ask clear the land to develop the relocation project.

It is important that the process of negotiation is not only verbal requests, but also having very clear and concrete plans from the people and working agencies.

STEP 4 Participatory site planning for "dream community"

1. Prepare the possible ideas before organizing the site planning workshop with people

common questions for site planning?

- Is the size of the new plot sufficient for the community?
- Size of each plot?
- Site planning design that meets people's needs and saves on construction costs?
- How does this site's design create better quality of living conditions?

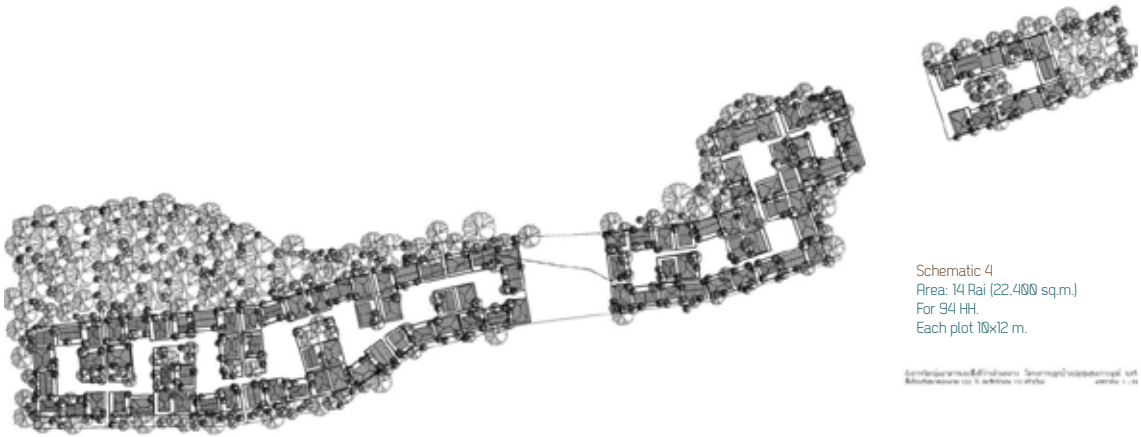
Schematic 1
Area: 10 Rai 2 Ngan (16,800 sq.m.)
For 145 HH.
Each plot 10x12 m.

1. This scheme was designed according to the land that the government promised to give to people. But it is still dense and cannot meet the people's living context satisfactorily.

Schematic 2
Area: 20 Rai (32,000 sq.m.)
For 145 HH.
Each plot 10x12

2. Apart from the 1st schematic design, we also propose other designs to request more land which can cover the full no. of household and include common space.

2. Revise the site planning design after finalizing the relocation site provided by the government, and finalizing the number of households that match with criteria to live in this land



Schematic 4
Area: 14 Rai (22,400 sq.m.)
For 94 HH.
Each plot 10x12 m.

Schematic 3
Area: 14 Rai (22,400 sq.m.)
For 111 HH.
Each plot 10x12 m.

During the working process with people, there were many changes to the number of households who matched the criteria.

After finalizing the number of households and land size, architects can help to plan before hand to answer that; what kind of planning that people can live well with nature, match with culture and occupation, and people can build and develop by their own.

3."Dream community" workshop
What is the suitable size of each plot?

In this workshop, architects can help people visualize the real size of household plot by measuring on the ground, allowing them to discuss and agree on a sufficient size for each household plot. Try to come to a final decision.

Brain storming on what could the dream community look like. Then we can find the common ideas amongst people.

Make it more tangible by laying out community plans using coloured paper.

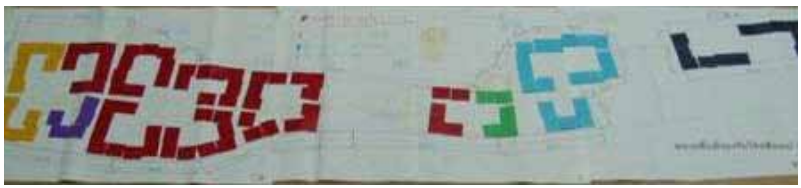
4. Transform into accurate scale plan for new community planning

5. Discuss the community's model to find the common rules for living together

Tip tool: Imagine our new community

Architects can help people by preparing perspective pictures of project: housing clusters, common areas, fishing pier, way of living sustainably with community forest, etc. Through these imaginary pictures, people can have a visualisation and ideas to discuss on how they will live together and maintain their living conditions.

Each sub-group transforms their "dream community" onto paper through questions like: How do we live together? What are the components for a dream community? How will it fit together with everyone's house? After their discussions, let each group share their ideas together.



Start to put house plots into "dream community", lay out the common areas, additional functions and activities in community.
And let each group share their planning to each other, discussing to select the one they like to develop in more detail.

Transform into accurate scale plan for new community planning

Finalize the layout design by making a model that people can comment on and give ideas base on physical matters. Through this discussion, we can create community guidelines and additional functions for new layout, to meet with the needs of people. Such as the need to have common space for community pavilion, sewage treatment , waste recycling, and using alternative energy.

1. Community hall can also be a local museum where the elderly can share their accumulated wisdom to the young
2. Walk way that links all community components together, without disturbing the natural mangrove
3. Community pier and the way to the sea
4. Community court where people gather for their livelihood
5. Aerial view showing housing clusters and community forest

STEP 5 Participatory design process "dream house"

1. Discuss about conditions of constructing housing

Before starting "dream house" workshop, it is important to let people gain more understanding of housing construction. This process of dialogue can help people shape their ideas in a practical way.

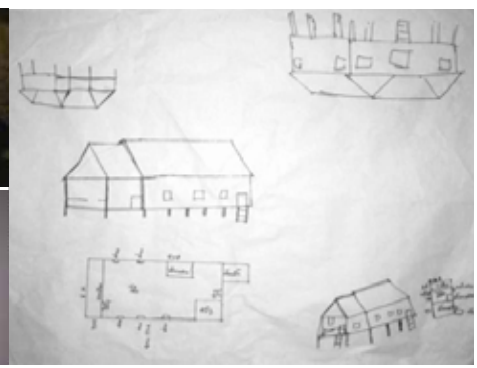
TIP: Issues to be discussed?

- Existing skills of construction
- Size of plot (10 x 12 sq.m.)
- Types of family and occupation
- Budget (2,330 USD)
- Condition of site

2. Let's draw the dream houses

Tip Tool: Dream houses workshop

- Divide into small working groups, it the aim is to make everyone do things, learning and helping each other.
- Before starting the "dream house" process, all basic group information should be collected. For example: number of houses, family members, occupation, income, saving capacity, skills for construction.
(see community survey form in Appendix)
- All stationery should be ready and sufficient for people of each group.



3. Make the dream more tangible

Transform the space usage onto grid paper to give it accurate size and scale for the cost estimations.

First model making to guide people about scaling, space arrangement, and housing design

After each group shares their "dream house" with each other, we ask people to do it again according to their needs, related with their budget, old materials that they have collected, and see how their new house could suit their new community and nature.

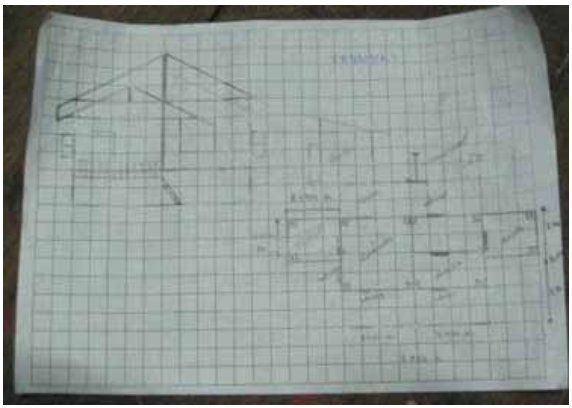
4. Costing of the dream house

Select some 3-5 houses for cost estimation, which can be typical models according to type of family, occupation, way of life. So people can relate their dream house with the actual physical context and their budget, helping to plan for construction management.
(see cost estimation form in Appendix)

Tip

Tool: during "dream house" workshop

It is very important that there need to be some community builders or craftsmen involved in this workshop. They can give practical advice regarding how to construct, what people can do themselves, which techniques help save costs, and how available materials in local area can be used.



1. Transform the space usage onto grid paper to give it accurate size and scale for the cost estimations.
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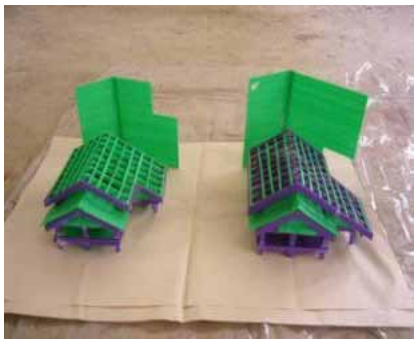

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management.

STEP 6 Adding input by field visits to other projects

Key - how can these field visits encourage people that they themselves can manage their project through working committees?
- Learn to apply good points and avoid mistake s of each case.

Good case of living with nature, and traditional wisdom of house design

1. Field visiting

It is importance to organize field visit program for community people and working committee to visit good case study and add lessons learn inputs regarding: low-cost housing and infrastructure, community that living and maintaining natural resources, and establishing the community's fund and its management.








1. This case show how other community was upgraded after disaster, and planning with new infrastructure.
2. Community centre as information centre or selling souvenirs is an additional program for the rehabilitation projects.
3. Income generation by organic farming, waste recycling can be an additional function for comprehensive site planning.
4. The way to sustainably live with nature can be one of the key issues for field visit programs.

Architects can help people to summarize the design of some houses that can be good models suited with site's context and needs of people.

2. Summarize lessons learnt from field visit

After working team or community committee return from the field visit, they should share their experiences to all community members.

Through this, the community can discuss the way forward of site planning, using the good input they learnt from.

STEP 7 Community management and planning

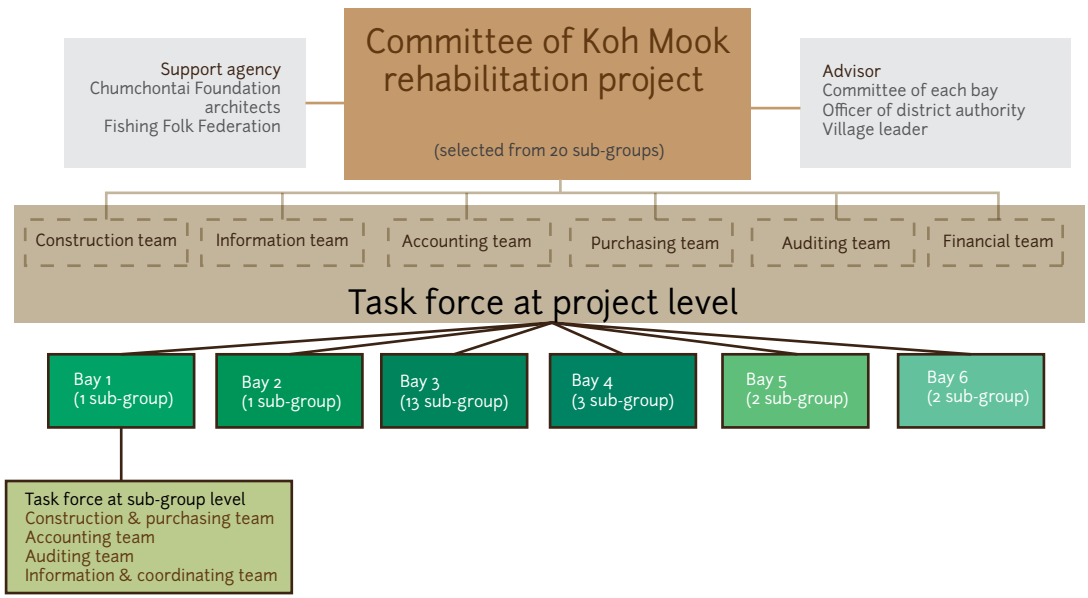
1. Form working committee

Issues to be discussed?

- Budget management and system
- Working schedule
- Role of working committee and each task force
- Action plan of each sub-groups

Tip Tool: Planning vs. Working

- In every step of work (both before and after implementation), there should be a discipline of weekly meetings, to inform everyone about budgets and progress of each working plan.
- Usually the funds for supporting each household in construction, should be paid to people in the form of construction materials rather than in cash.



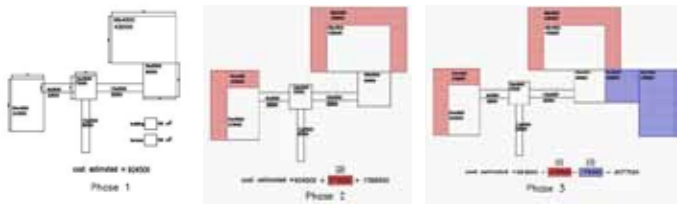
STEP 8 Finalizing the design and prepare construction drawing

Key –Incremental design based on budget, growth of community, self-construction

1. Prepare set of construction drawing

Architect can help to transform the people's planning into accurate scale drawing that is easy to understand and practical for construction.

Final design of lay-out
Area: 14 Rai (22,400 sq.m.)
For 94 HH.
Each plot 10x12 m.



Common building is divided into three zones for three phases of construction

1. Baray and religious place
2. Community pavilion
3. Local museum, cooperative shop, livelihood training center

Existing pier

Pier model

Design for public space

In this case people strategically decided to build a community pier complex to make use of common public land, and solving problem of middle man in fish trading.

STEP 9 Implementing and monitoring together

Key
- How to get people involved in every process of the construction tasks.
- It should be started by implementing common infrastructure that is shared by everyone
- Achieve good quality and equal benefit sharing on construction processes


We used a football ground to practice by applying the Pythagoras concept for measuring entire area.

1. Area measurement workshop

Before demarcating an area for construction, it is important to organize a measurement workshop, so people know how to use simple techniques to measure the area on the actual site



2. Onsite demarcation and laying out for construction

Tip

Tool: Measurement workshop

- By organizing the workshop for a group of community builders, they learned how to read construction drawings, measurements,and how to adjust architectural drawing onto the real site.
- We can mobilize community people through the clearing of the site for construction, so people can work on the ground together.

3. Working together on common infrastructure

By starting on this stage, the aim is to build a common spirit of labor sharing in public works, and training on construction techniques and proper standards.

Once the common infrastructure has been finished, the construction team can be divided into 6 teams, each team constructing the housing in each of the 6 clusters, as local contractor.

Tip Tool: During construction

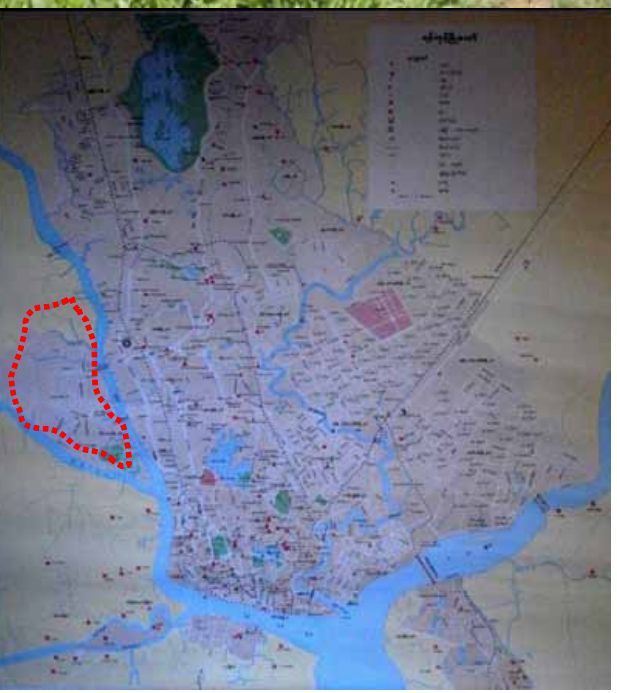
- Purchase construction materials together in one go to save costs of transportation.
- There should be material storage in community
- Weekly meetings regarding construction work is important, as a time to learn, share, conclude, and creating trust among people.

STEP 10 Exhibiting and sharing its success

Key - How to use the opening ceremony as the chance to demonstrate that there is potential in people to develop themselves,taking care of natural resources, to other peoples networks, development agencies,and policy makers?

The principle questions are: what is the condition that makes community live together well? How we can build this up together?

Ale Yaw Ward, Hlaing Tar Yar Township, Yangon city –Myanmar



Red boundary showing Hlaing Thar Yar Industrial Zone, where the poor communities are located.

Location: Ale Yaw Ward, Hlaing Tar Yar Township, Yangon city –Myanmar
Challenge: community located in unsecured land which pressured by development and land speculation
Solution: comprehensive site planning
No. of household: 200 HH.
Plot per household: 15 x 30 feet
Total area: 60 x 240 feet
Working agencies: Women for the World
Budget: 40,000 USD (as a city fund for landless communities in Yangon)
Year: 2010

Due to growing development pressure in Yangon, especially in the industrial zones where many of landless families are located, people are being forced to move out of this area by land speculation and rising rents of private land-owners.

Pan Thakhin savings group is one of a number of landless people's savings groups in Yangon, that is ready to shift to a new area to live together. They have been saving together for 2 years, since Cyclone Nargis hit the Irrawady Delta in 2008.

In order to initiate this pilot project of comprehensive site planning, we also invited other savings groups of landless families from North Okalapa township and in rural area of Yangon to join this series of workshops. The workshops aimed to link each group together, to find a way to deal with this land and housing situation as a network, and learn to develop the process of comprehensive site planning with technical volunteers.

STEP 1 Understanding process by listening, surveying, and sharing idea

Key
- learning about community structure and factors good living conditions
- finding common problems to start on

1. Visualize community together with people

Find starting point by walking and asking people about: history, land available and its price, common problems

2. Understanding factors of good living conditions

It is also important to understand how people earn, and what are the conditions that can support their livelihood.

3. Sharing among people what capital or ideas they already have

We let each of saving groups tell us about their savings process and monthly amount.
And we ask how they could save more for their housing development with land security.

Tip Tool: Make sharing visible and lead to positive possibilities We prepared a big sheet of paper for them to draw and sum up their information, soo that everyone can see and give their comments

From savings presentations we can help them to calculate their options for purchasing land and covering cost of house construction if they can regularly save for 10 years. The people were able to see the possibilities.

STEP 2 Dream house –dream community

Key
- from drawings we can learn people's ideas of their housing
- finding common ideas during drawing and sharing processes

1. Let's draw your dream, together we will make it happen

Based on sub-groups of savings groups, we asked them to explain their dream house by drawing it onto paper. So that we together learnt how people think about their community.

Aspects to be discussed

- How big should one household's plot be?
- What are the components for houses that support their lifestyle?
- Size of lanes?
- What basic infrastructure would be needed?
- And how to build these in an economical way?

STEP 3 Participatory planning process

Key
- finding size of household plot that everyone can afford, especially the poorest
- make sure that planning design benefits all members

1. Finding minimum household plot size that everyone can afford by visualizing and calculating financial schemes

Before conducting the site planning workshop with people, they need to know the actual size of each household plot. Measuring on ground with meter tape or human body was a key tool that helped people to visualise.

Tip Tool: Design –Saving –Financial Plan

Together with people, we can calculate how much of the people's savings can cover the costs of land and housing. This financial planning can help people to find out what is the household plot that everyone can afford, and how their monthly savings go to housing and infrastructure.

2. Household plots layout with color paper

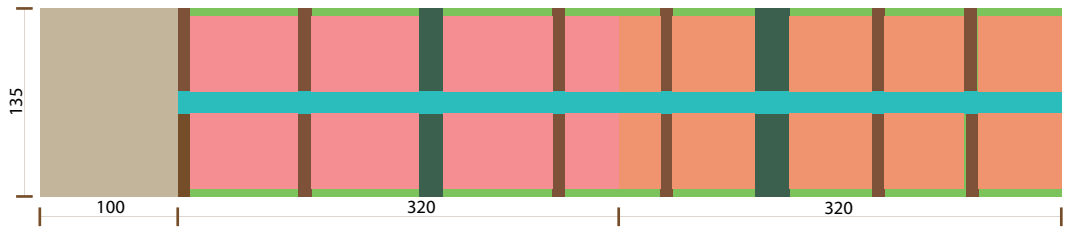
After measuring to find the size of plot, 20x24 sq.ft. was the size that people decided on. We gave a piece of color paper to each, representing an individual plot. This color paper can be folded for people to make a decision on the shape of the plot according to the land price, by folding their paper.

3. Laying out to make a site plan for community

Then, they arranged the 21 individual pieces of paper onto the larger piece of paper representing the available land plot which had been drawn by the men's group. This activity aimed to make the community planning. We can help to assist in this process by questioning the outcomes of each site plan, asking which one is nice and beneficial for all members, and what plan can save the cost of construction, as well as enough for housing and open space.

4. Calculation over paper laying out

After finalizing the first site plan design, we together with people calculated the total land cost depending on chosen plot size. People made the decision to decrease their house plot size from 20x40 sq.ft. to 18x40 sq.ft. to reduce the cost of land.



Temple
Lane
Open space
Open ground for tea shop
Community drainage

house plot 18x40 can get 21 plots

house plot 18x30 can get 27 plots

Total: this plot can fit 96 plots
42 plots for 18x40 ft.
54 plots for 18x30 ft

Land cost

If land cost per sq.ft is 1,250 ky.

18x40 ft. land cost = [320x60x1,250]/21
= 1,143,000 ky.
18x30 ft. land cost = [320x60x1,250]/27
= 889,000 ky.

5. Finalize site plan together by laying out houses and other components

After finalizing the site plan, we asked people to arrange their plots, and make the community model using color papers representing houses, toilets, pig sheds, water hand-pumps, trees.

6. From people's model to concrete design and costing

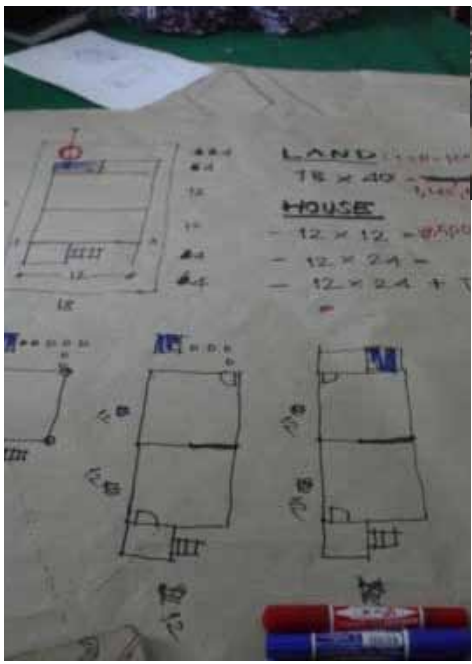
With people arranging the different components in making their community model, we together discussed how people could share infrastructure to save some costs, like using one septic tank between four houses, putting pig shed of each house in clusters to make bio-gas for producing cooking gas.

Tip

Tool: From people's ideas into an architectural model

Architects can help people visualize their house and community plan by model making. With key issues and ideas shown by people's models, when we transform it into actual scale, people can relate to it and have clear ideas of how it will look when finished.

After discussion among local architects, engineers and carpenters, we raised the concrete idea of incremental design that houses could start from a core house. With this core house, the poorest can afford it and gradually improve it according to their ability to pay. Then we together calculated how much the cost of the core house should start at.


LAND
HOUSE

STEP 4 workshop with urban poor networks and architect students to develop site plan and low-cost housing

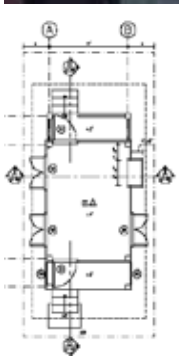
Key - engage with young people and academics to support urban poor networks
- build-up the urban poor and landless network to work together through workshop processes

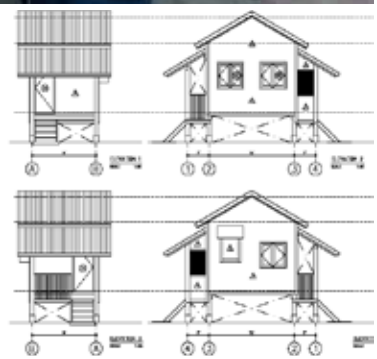
1. Workshop orientation for young architects to facilitate

Building the capacity of young professional is also a key step for development. Students can be good facilitators and technical support, without imposing ideas on people through their theory, when they really understand the process of participation.

2. Understanding people's situation through people's information and sharing

Before conducting the site planning and house design, people's information should be visible. Young professionals can be good facilitators by providing the tools for information sharing. After this process, the people's network can discuss and share information.





3. Participatory site planning

Divide each community and young professional into sub-groups, to lay out their community site plans. Let them discuss and share the outputs to other groups .

4. Develop low-cost houses

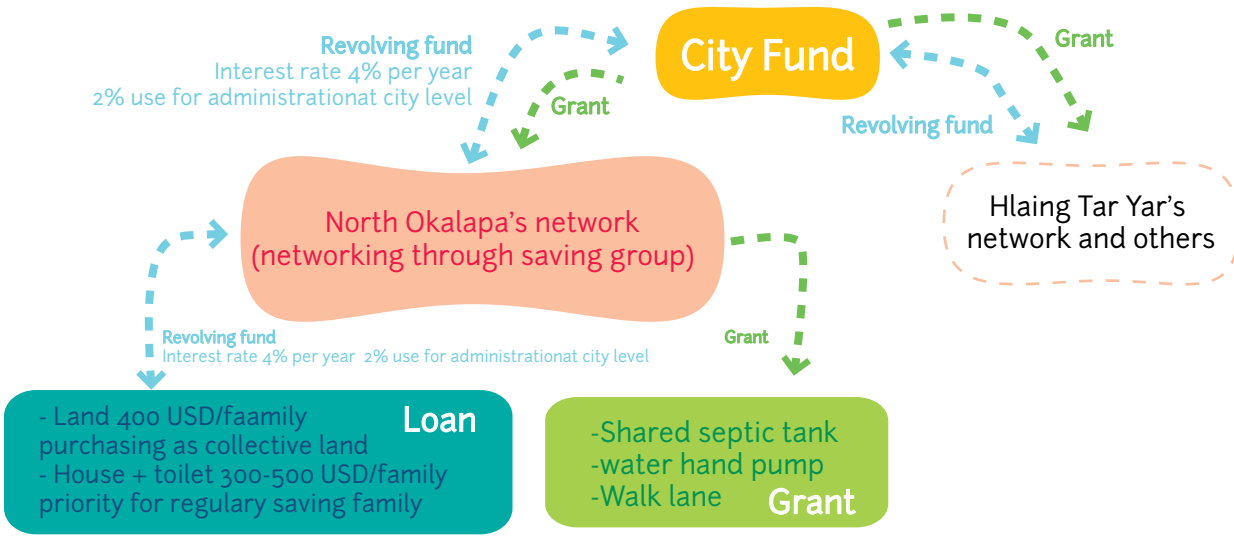
Summarize all inputs learned from people to make a house design with help from architects.

5. Adding more input by bio-gas workshop

Due to the housing project being located in a suburban context where people practice husbandry, they have potential for experimenting with alternative energy, and concentrate compost for agriculture.

We, together with the community network and a group of young architects and engineers, organized bio-gas workshops in 2 communities. The process aimed to let people see the potential of organic wastes. By this hands-on workshop we can explore techniques and other potentials of bio-gas tanks.

STEP 5 Form community task forces and committees to manage the housing project



The city fund concept is based on how to utilize the support budget to help larger numbers of people, instead of spending the whole budget for doing community projects one by one and separately. By forming working groups inside each community and link them on a city scale, it also strengthens the linkages and networking amongst people, and have the capacity to do so.

Tip Tool: What are the criteria for each savings member to obtain a city fund loan or grant to develop their housing?

1. Priority will be given to those who have no land in Yangon.
2. Priority will be given to those who regularly save
3. Priority will be given to those who always participate in savings group activities and respect the savings rules
5. Priority will be given to those with lower income, more expenses, or in debt

STEP 6 Constructing with limited resources, but not limited ideas










1. Subdivide the land into individual house plots, and plan for infrastructures and common space

2. Kick start the process together by working on common infrastructure

In this case, people shared their labor to build common septic tanks and underground convertors before building their own houses.

3. Experiment with the model of low-cost house by building the house of the poorest as a pilot

Through this process we can learn how to build in the cheapest ways, and learn how to manage the budget in the construction processes.

Tip Tool: Producing construction material on their own People want to save costs by buying raw materials like bamboo post and then weaving it by themselves. This idea can be also applied to other materials by forming a cooperative of material production, to provide construction materials for the community network.

STEP 7 Sharing the success, and learn to develop better

After construction is finished, it is important for agencies and community networks to make field visits to the site, to learn from people how they can manage this project effectively, and how to improve aspects and learn from the mistakes.

Issues that can be discussed:

- Management among people regarding financial, construction, and savings issues
- Housing design and site planning and its cost
- How to expand this project's output to help others
- Next step or plans for the community that people want to do to improve their livelihood (energy, agriculture production)

Profile of costing and repayment

Hliang Thar Yar Community

Land for relocation 200x100 feet =20000 sq.ft
One family : 15x32 = 480 sq.ft
Land cost =10,000 USD
Infrastructure =5,000 USD
Housing loan = not more than 500 USD per family

People can save for housing =15-20 USD+month
Repayment =5 years –5-6–interest–

Cost of the project

Housing loan 900 +land 500 +house 400=x30 =2700 USD.
Infrastructure –shared septic tank, water pump–= 5,000 USD

Total support = 33,000 USD (for 30 families, 150 people)

North Okalapa Community

Land for relocation 200x100 feet =20000 sq.ft
One family : 15x32 = 480 sq.ft
Land cost =10,000 USD
Infrastructure =5,000 USD
Housing loan = not more than 500 USD per family

People can save for housing =15-20 USD+month
Repayment =5 years –5-6–interest–

Cost of the projects

Housing loan 900 +land 500 +house 400=x30 =2700 USD.
Infrastructure –shared septic tank, water pump– = 5,000 USD

Total support = 33,000 USD (for 30 families, 150 people)

Our ethos is to ensure that all processes of working still maintain space for people to share their ideas and be the subject of their dreams and solutions, as much as possible.

Even if some persons may not feel like participating, this does not mean that participation should be ended in favour of the community architects leading all the processes. There is still the potential for mistakes to occur along the way, either by the support agency or the people, or both.

The right way seems to be to give the people encouragement and a chance to participate from the beginning, something they do not usually experience in the traditional institutional framework of development. Little by little, people will learn the role they have to play when working together.

People as the "SUBJECT" of development

Traditional housing in floodplain area in Bangladesh, which can be learned to adapt into this project

Comprehensive site planning and low cost housing's workshop

Mandartola, Gopalganj Municipality - Bangladesh

on 9-18 June 2011 (6 days)

Basic information

Plot size and its location:

4.16 acres on paddy field, no basic infrastructure, underground saline water, annual flood level about 4'-5'

Infrastructure:

30,000 USD from UPPR will be given as a grant for basic infrastructure development (partly land-filling, roads, water and sanitation, electricity) to be built with all free community labor.

Housing loans:

410,000 USD from ACCA fund, will be given as the housing loan (1,000 USD per unit, at 2.5 interest, repayable in 5 years to the CDF, with loan recovery managed by the saving group)

Key challenges:

- What is the practical site planning that match with all conditions (minimum budget, incremental development, practical implementing by local)?
- How this allocated land by government, which cannot accommodates for all 346 families, will be benefit the most vulnerable group which will be accepted by CDC and all members?
- As the pilot project having partnership with government, how to make this chance to set up CDF and its mechanism to help the other poor group in the city?
- How to take this chance to create YP platform in Bangladesh?

Working teams in workshop:

Urban Partnerships for Poverty Reduction Project (UPPR) at town level and urban specialist from headquarter, YPs (5 urban planners and 5 architects), UNDP consultant, and community architect from ACHR

Mandartola is the new land that allocated by government for 346 evicted families in Gopalganj municipality. In 2009, those 346 families were evicted from their settlement to make way for the expansion of sport complex. Now they are living in temporary housing in 32 locations scattered around town. People have been organized by the Urban Partnership for Poverty Reduction Program (UPPR-an organization managed by UNDP) into saving group and Community Development Council (CDC). 346 families requested to move into this 4.16 acres, once land filling and plot allocation have been finished. To do so, community architect with local young architect and planner, and together with UPPR and municipality's staff have been assisted to get people involve in the process of site planning and housing design.

Outcome of workshop

- Schematic site plan where can accommodate 198 families with each cluster having their own basic services and open court yard. Each plot about 18x30 sq.ft. and 21.5x25 sq.ft.
- Infrastructure plan and rough costing (land filling, shared sanitation and septic tank, rain water harvesting and water supply's tank)
- Low-cost house model which starting from 35,000 taka by using bamboo post (470 USD) –60,000 taka by using RC column. Column (800 USD). These costs are the material cost plus labor cost.
- Financial scheme at household level for loaning and paying back
- Concept structure of CDF and revolving fund within the existing community development committee (CDC) structure that need to follow up.

Workshop diary

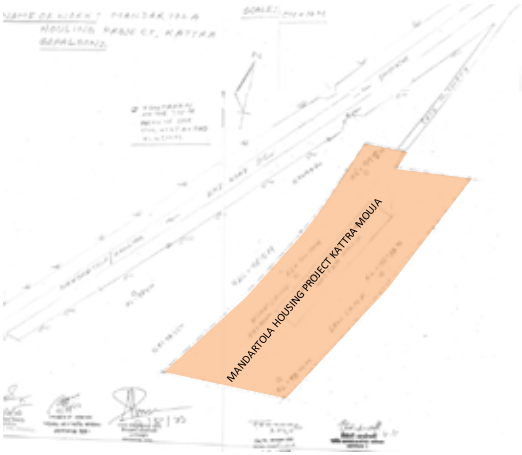
To get the sense of how workshop had been organized, it has to explain the day to day processes, and how working team and people have been learned and tackled the emerging issues during the workshop. Hope this workshop diary could be the practical guideline and lesson learnt for the next workshop with people.

Things to be concerned:

Collaborative with clear direction among working partners and especially the following-up team.

It is importance to be noted that, start from the stage of preparation the loose community organization have to be formed . In view of the fact while participating in workshop, the given input and outcome gained from the workshop will have to be follow up by this people organization. If the people and community have not been organized in prior, somehow the momentum might be loose because of no clear following-up team.

1 City-wide survey process with women representative from Community Development Council (CDC)
2 Map showing the informal settlement in Gopalganj Municipality



Preparation's stage

City-wide survey.

UPPR, Gopalganj Municipality, and CDC had conducted the city-wide survey of informal settlements in the city. And identify the pilot project to kick start.

Basic information for site planning, and low-cost housing design.

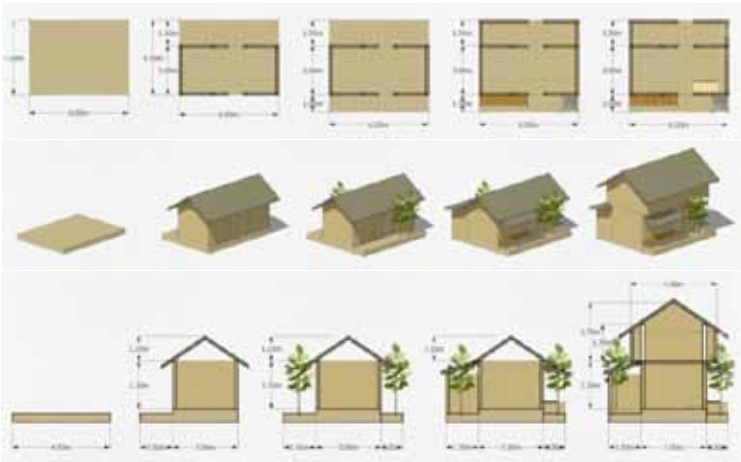
UPPR with Gopalganj Municipality had surveyed the site, measure its site, location and surrounding context, as well as the available of local materials.

Basic research on related project and context.

community architect did some review and research on what are the existing knowledge or related project regarding to the site planning and low-cost housing in Bangladesh, to learn and prepare for sharing with people during the workshop.

1 - 2 Ambience of walkway which links community pier to housing cluster

3 Ambience of walkway which links community pier to housing cluster

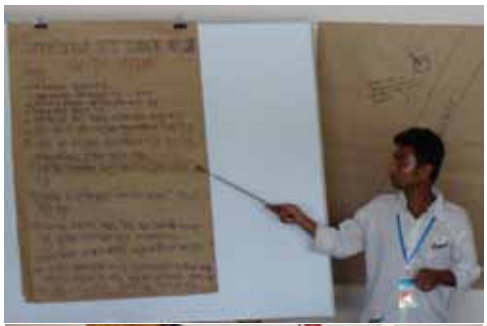


Trial on possibilities of housing design and site planning.

Due to the allocated site is quite small comparing to the number of households, it is importance for architect to trial the possible solutions and see more limitations in practical, before the workshop. So that during the workshop, we will not waste much time.

1. Ambience of walkway which links community pier to housing cluster
2. Ambience of walkway which links community pier to housing cluster
3. Ambience of walkway which links community pier to housing cluster

DAY 1



1. Ambience of walkway which links community pier to housing cluster
2.-3. Ambience of walkway which links community pier to housing cluster

- Introduce the workshop's objective and ideal process of working together
- Review information (5 sub-groups of community people)

Issues to be discussed and shared:

1. Expectation from workshop
2. Plot size and its condition and context
3. Limited budget for support , how to do?

- By sharing from people,we put all issues and idea into the paper. So that everyone can see things in common. And some information have to be cross-checked.
- Sharing case study of housing project in Myanmar + giving the homework to draw dream house
- Visited the new site given by government. Engineer team checked the seasonal flood level, drainage line, and quality of underground water.

Emerging issue: To divide community people into small groups to work together in this kind of workshop, initially it aimed to start from the working groups or sub-clusters who prefer to live together related to their social relationship. But sometime in reality, all community member can not participate for this workshop. And community representative have not been selected from the all group of people especially the vulnerable group which not belong to saving group in which the selection process based on. So that It is difficult for community people to divide themselves. Finally we decide a group for 8-10 peoples and there were 5 groups that time and we asked them to share their experience to their friend in their community.

DAY 2

1-2 Ambience of walkway which links community pier to housing cluster 3 - 4 Ambience of walkway which links community pier to housing cluster

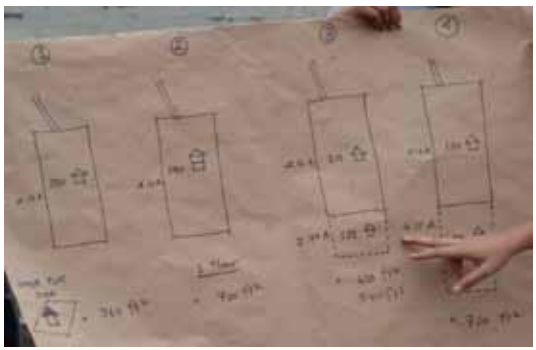
- People sharing their dream house's drawing What we learned from people's drawing was, what are the importance element of new house new community?

- Working on the dream community
(4 sub-groups of community people mixed with YPs)

Issues to be discussed and shared:
1. how dream community will look like, what are the community's elements?
2. size of housing plot?
3. how to live together?

- Each group share their dream communities The basic area requirement started from 540-720 sq.ft.

Emerging Issues: Since the member in working group does not belong to the same locality, some of them quite new to each other, then it is difficult to start with common dream community. Then we asked people how they used to live in community, and start to find things in common by draw it into paper and dialogue.
And it is importance for us as the facilitator, before organizing this kind of workshop, we have to visit their house, understand their living supports, and observe and learn from their dwelling. So that the dialogue process on the dream community practice will be more valuable, concrete.



1 Ambience of walkway which links community pier to housing cluster
2 Ambience of walkway which links community pier to housing cluster

- Based on the people sharing , YPs group develop 4 schemes of site planning
(summarize the possible area of house's plot that can be accommodated for 350 families)

- Let people visualize the actual sizes of plot on the ground, starting from 360, 540, 720 sq.ft

Tip: For rough calculation for site planning, we imply the percentage of housing about 70– and the rest of 30–will be kept for open space, and road.

Schematic 1: each house plot = 360 sq.ft.

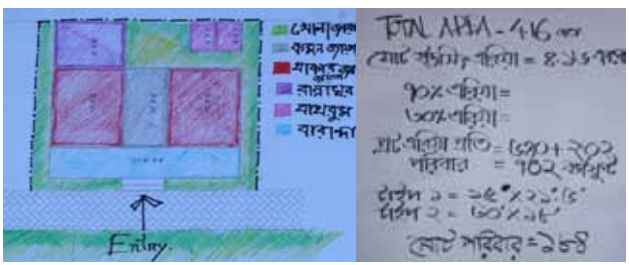
Schematic 2: each house plot = 360 sq.ft , and they can build for 2 storey to gain more housing space

Schematic 3: each house plot = 540-600 sq.ft, initial site can deserved for 211 families and they have to propose for more land about 2.74 acres

Schematic 4: each house plot = 720 sq.ft, initial site can deserved for 180 families and they have to propose for more land about 4.11 acres

Emerging Issues: How to identify the number of people to move into this relocation site? Someone raise the key point about there are some people are not so poor and already have their own land. This situation led people and working team to step back and review the identifying process of beneficiary, and establish saving group for housing project.

DAY 3

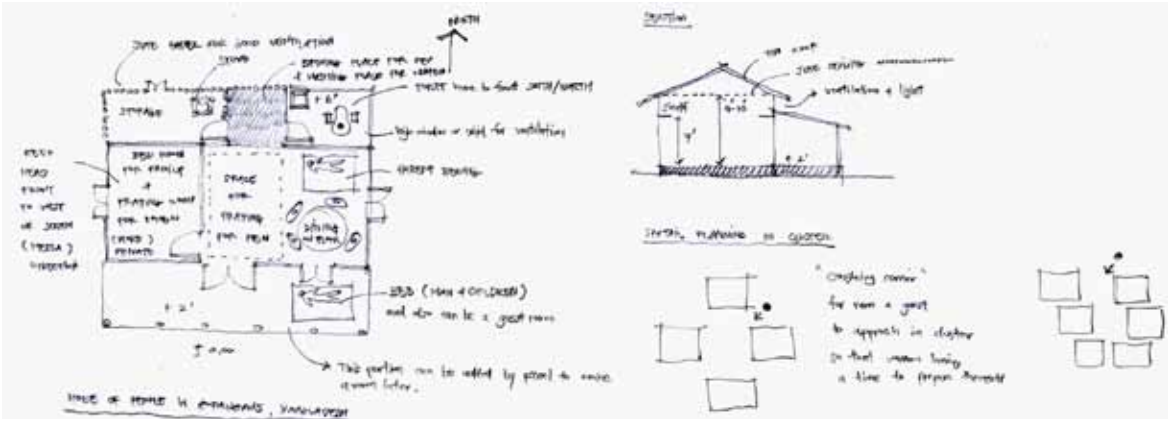


1,2,3,4 Ambience of walkway which links community pier to housing cluster

- Based on the 540 sq.ft. gain from discuss with people, YPs group and technical support team divided into 3 groups to brain storm the possibility of site planning that could accommodate as much as it can, basic infrastructure to provide, and design of cluster neighborhood.

- While Yps group was working on the site planning, we let people do detail survey in their primary group. Based on below questions, we wish to get the clear number of the evicted or the poorest for the first priority. Since this site could not accommodate for all 350 families

Issues to be discussed and shared:
1. how many the poorest family in the primary group (poorest in this context means no land, minimum income)?
2. how many evicted family and how many of them being member of CDC?
3. how many non-evicted family whom being member of CDC?



5-6 Sketch showing the traditional space arrangement in typical house. It is importance to adapt these idea and meaning into new design

- YPs introduced the site planning that can deserve for 184 plots. And explain about the 2 typical housing plans.And let people visualized the actual size of plot on the ground ;

- 1st type is about 18 x 30 sq.ft. and second type is about 21.5 x 25 sq. ft.

- People agreed to those sizes of plot.

Emerging Issues:

1. What are the criteria for people selection?
2. What about the rest of family that this new relocation site can not deserve them?

By the end of the discussion, we concluded that the community representative, have to go back to discuss among their primary groups about the criteria of selection, and meet again in CDF level to finalize.

Issues to be concerned:

Traditional living and space arrangement of housing is quite importance to learn and adapt in the new design, especially the space's usage that relate with ritual orientation, or women in public space in Muslim culture.

DAY 4

- Begin the day by breaking people into small group and let they share their idea and reflection from last 3 days., and raise the points that still need to concern?
From the sharing, there are some ambiguous about how existing CDC can manage the housing project, and how to select the beneficiary –since this land given to the evicted family, it means priority should give the evicted firstly rather than the other poorest of CDC.

1 Ambience of walkway which links community pier to housing cluster
2 Ambience of walkway which links community pier to housing cluster
3-5 Ambience of walkway which links community pier to housing cluster

- Then we break people into 5 working groups according;

1. Finalize the master plan and total no. of plots in AutoCAD (only YPs)
2. Develop the low-cost house and costing (YPs + community builders)
3. Develop the infrastructure and costing (YPs + technical support + engineers from municipality)
4. Establish the financial scheme for housing (community members +CDC representatives + UPPR)
5. Community organization, selection's criteria (community members +CDC representatives + UPPR)

Ambience of walkway which links community pier to housing cluster

DAY 5

- Share and Summarize common issues and idea from 5 groups

- Discuss on project's action with CDC representatives, UPPR, municipality's staff

- Community builder + YPs + local engineer planed to build an 1:1 model house on the site.

1 Ambience of walkway which links community pier to housing cluster
2 Ambience of walkway which links community pier to housing cluster
3 Ambience of walkway which links community pier to housing cluster

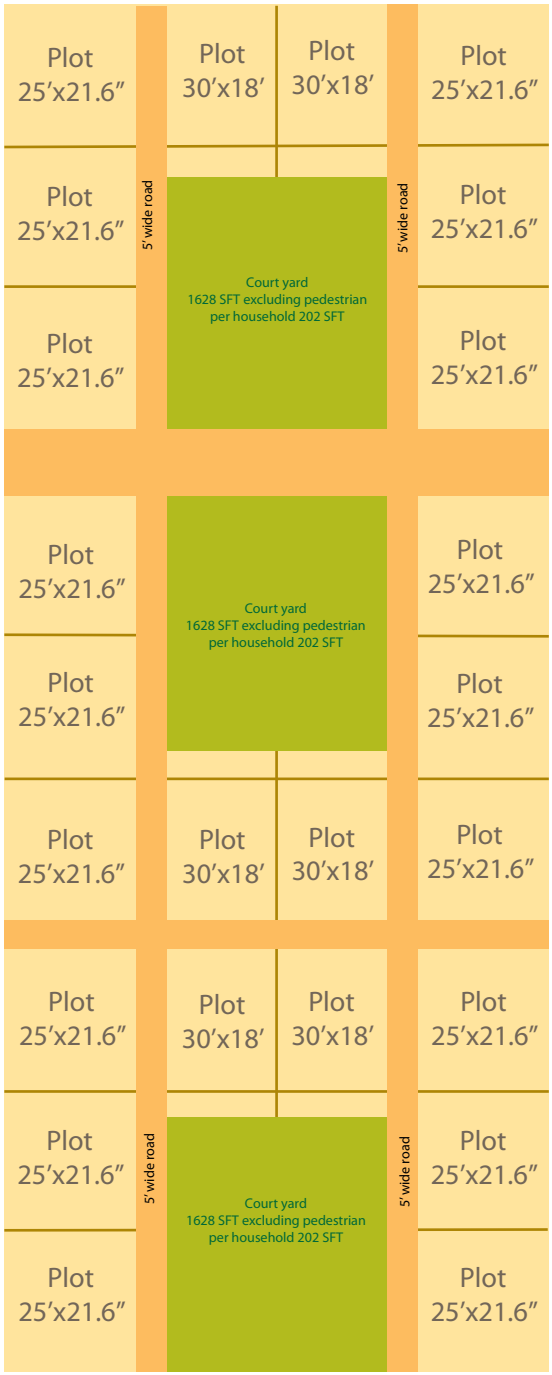
DAY 6

- Compiled information and outcome gained from workshop to give back to people, and local team to follow-up

মাস্টার প্ল্যান

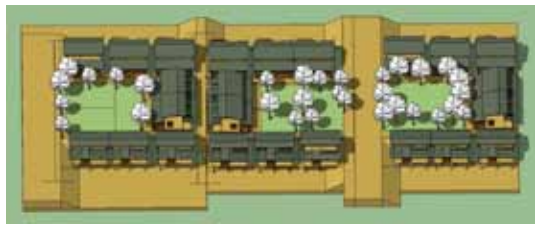
- মোট প্লট সংখ্যা= ১৯৮
- মোট জমির পরিমান= ৪.১৬ একর
- রাস্তার জন্য বরাদ্দকৃত জায়গার পরিমান= ০.৬০ একর
- উঠানের জন্য বরাদ্দকৃত জায়গার পরিমান= ০.৯৪ একর
- কমিউনিটি জায়গার পরিমান= ০.২০ একর
- সিডিসি এর নিজস্ব জায়গার পরিমান= ০.০৫ একর
- প্রধান সড়কের প্রস্থ= ১২ ফুট
- ভেতরের রাস্তার প্রস্থ= ৫ ফুট

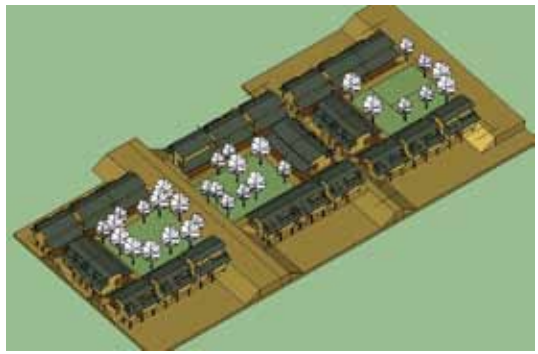
Site planning was developed with local team which can accommodate for 184 households



বাড়ি সম্পর্কিত তথ্য

প্রতিটি প্লট এর পরিমান = ৫৪০ বর্গফুট
কমন জায়গার পরিমান (প্রতিটি প্লট) = ২০২ বর্গফুট
মোট জমির পরিমান (প্রতিটি পরিবার) = ৭৪২ বর্গফুট
সামনের ফুটপাত এর প্রস্থ= ৫ ফুট
প্লট (ক) পরিমান = ২২’ x২১.৫’=৫৪০ বর্গফুট
প্লট (খ) পরিমান = ৩০’ x১৮’ =৫৪০ বর্গফুট





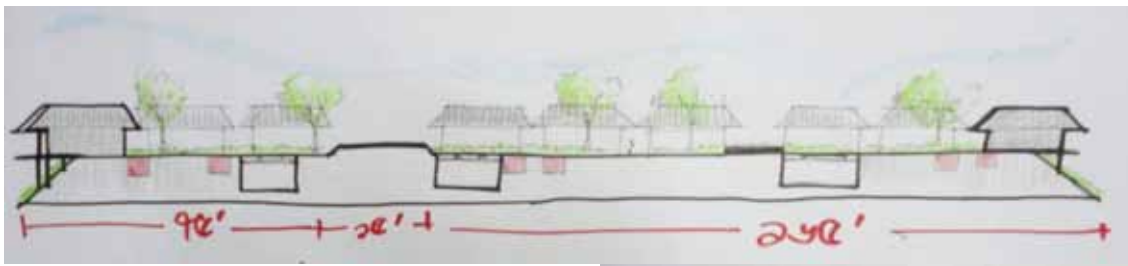
Perspective showing the cluster and space usage

প্লট
কমন উঠান
রাস্তা

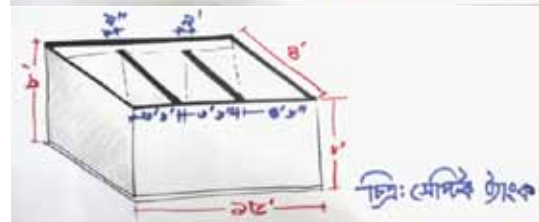
Total cost of infrastructure

		পরিমান	একক প্রতি খরচ	পরিবার প্রতি খরচ	মোটখরচ
মাটি ভরাট		১৭০৬৪	২০২	১৭৯৬০	৩৪৪৮৩৮২
পানি সরবরাহ	পৌরসভা		৮২৭	২৩১৩	-
	বৃষ্টির পানি	-	-	৮০০	-
পয়-নিষ্কাশন	সেপ্টিক ট্যাঙ্ক	-	-	৮২৯৪	৬০৫১৯
	সক ওয়েল	-	-	২৫০	২০০০

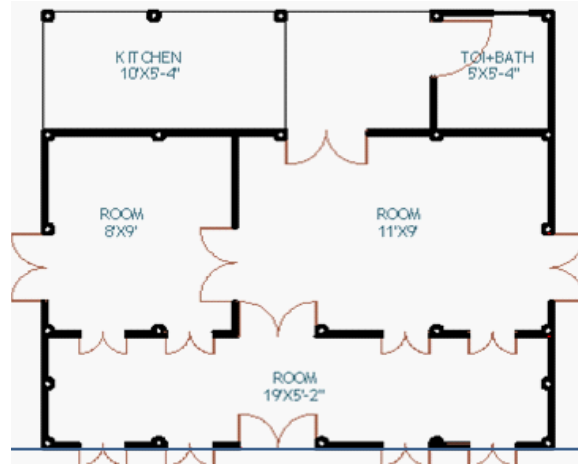
পরবিার প্রতি খরচ মে াট খরচ ২৯,৬১৭ টাকা



1 Section showing the dimension and position of water tank and septic tank in the cluster
2 Proposed idea on shared septic tank (one septic tank per two houses)
3 Proposed idea on rainwater harvesting from the roof
4 Proposed idea size of water tank in each cluster



Low-cost house's plan



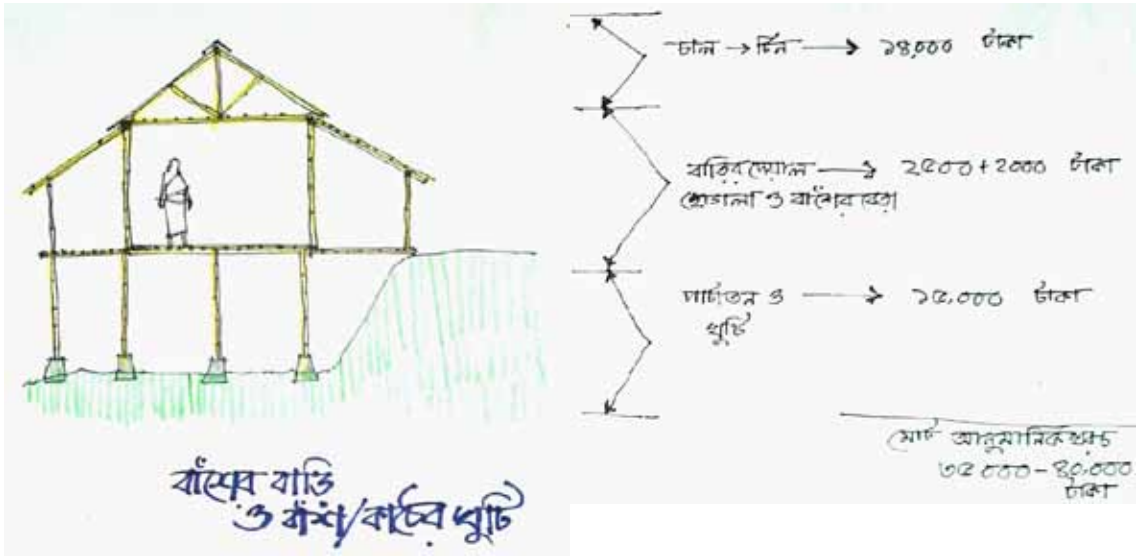
Type A: 25 x 21.5 sq.ft

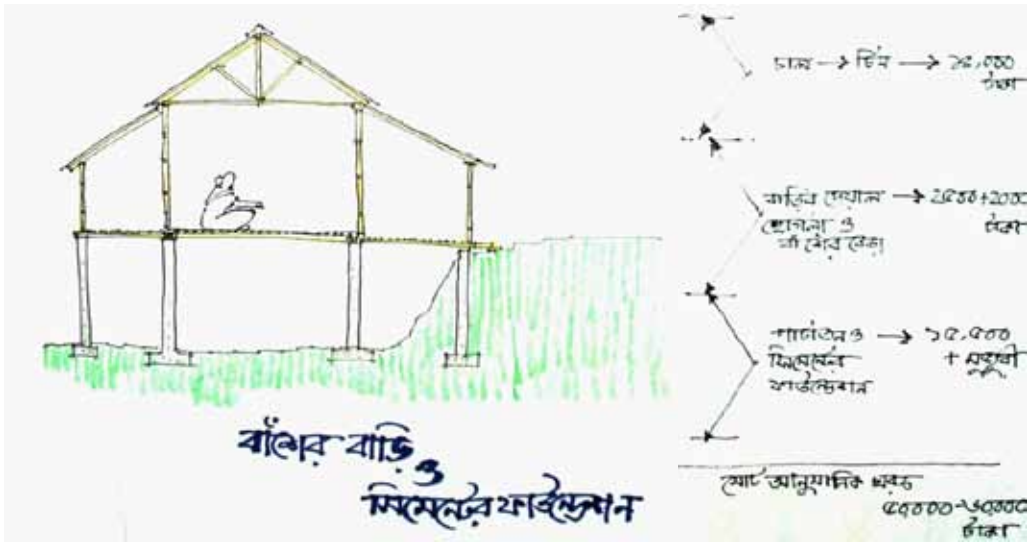
Type B : 18 x 30 sq.ft

Cost of Material per unit

উপাদান	উপকরণ	দাম /একক
খুঁটি		
	ইট	৮ টাকা /১
	লোহা	৮০টাকা/কেজি
	ক্লাম	২৫টাকা/ফুট
	সিমেন্ট	৪০০টাকা/বস্তা
	গাছের গুড়ি	৫০০টাকা/১টি
	বাঁশের খুটি	২৫০টাকা/১টি
বেড়া		
	টিন	৫০০০টাকা/১বান
	বাশের চাটাই	১২০টাকা/১হাত
	হোগলা	১৫০টাকা/১আটি
	পাট খড়ি	১০০০টাকা
	দড়ি	৭০টাকা/১কেজি
দরজা+ জানালা		
	সি আই সিট	১৫০টাকা/ফুট
	কাঠ(তক্তা + পাল্লা)	৬০০টাকা/cft
	বাশের চাটাই	১২০টাকা/(১.৫'X৬')
	মেহেগনি	১২০০টাকা/cft
	শিরিশ	১০০০টাকা/cft
	চাম্বল	৬০০টাকা/cft
গ্রিল		
	মুলি বাঁশ	১১০টাকা/১পিস
	সুপারি গাছের ফ্রেম	৬টাকা/১পিস
	প্লাস্টিক রড	১৫০টাকা/১কেজি

ফ্রেম		
	পেরেক	১১০টাকা/১কেজি
	স্ক্রু	১৫০টাকা/৮০পিস
	তারকাটা	১১০টাকা/১কেজি
	কাঠের পাড়	১৫টাকা/১ফুট
	কাঠের চটা	৬টাকা/১ফুট
	আড়a	৪০০টাকা/১পিস
চালা		
	টিন	৫০০০টাকা/১বান
	মটকা	১৫০টাকা/১পিস
পাটাতন		
	সুতা	৩০০টাকা/১কেজি
	হোগলা	২০০টাকা/১আটি
	মুলি বাঁশের চটা	১১০টাকা/১পিস
কাঠ		





Total cost of bamboo post's house is about 35,000-40,000 taka and for using RC column's house is about 50,000-60,000 taka

ACTION PLAN

Selection Process

Meeting in Primary Group

- sharing workshop's output within the sub-groups
- collect and update information from all members
- discuss about selection's criteria

Meeting in CCD

- summarize information from each primary group
- summarize the selection's criteria

Selection process

- prepare the list of people who will live in the new site
- CDC leader should participate in each sub-group during the selection process, it aims to this process very fair
- summarize the list in CDC level
- organize the big meeting to finalize the list, and form the new sub-group of whom will live together in new site

OUTPUT

1. List of family who will live in the new site
2. New sub-group of beneficiary, then form the saving group

Saving –CDF

Discuss about structure of CDF and mechanism

- start finding idea of CDF and mechanism from the primary group to CDC cluster (bottom-up process)

Financial scheme

- develop financial scheme that concerns the affordability of people (sort out: interest rate, term of repayment, loan ceiling)

OUTPUT

1. Financial scheme that people can afford
2. CDF structure from bottom up process

Site Planning

- Conduct site survey in actual dimension
- Architect adjust the plot's design according the actual dimension
- Meeting with people, engineer to share idea
- Finalize the master plan

OUTPUT

1. No. of house plots
2. Master plan that readies for legalization and approve

Low-cost house

- Community builder and local engineer develop actual model house
- finalize the material and costing
- Architect help to develop incremental design
- Plan the construction management with community builder and local engineer

OUTPUT

1. Design of low-cost house with incremental design
2. Costing of low cost house

Infrastructure

- Design infrastructure with local engineer
- Calculate the cost of each infrastructures

OUTPUT

1. Final design of infrastructure
2. Costing of landfill, sanitation, electricity, water supply

Proposed community process after workshop

1. Form the sub-groups among people who has been evicted (both from beneficiary, and non-beneficiary)

2. Select representative from each groups to be a community committee in CDC

3. In case of the first beneficiary, they have to form the housing task force of each works, like saving group, community builder, coordinator, auditor tem, purchasing team.
And for the non-beneficiary group of this new site, they can form the task force to work with local authority to find the possible land.

4. Start saving for housing

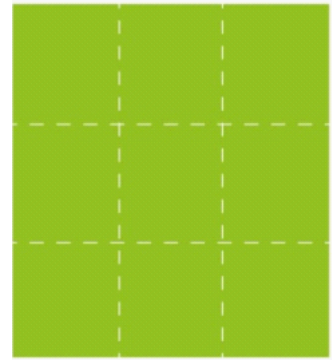
5. Selection process of who will shifted to relocation site, concerning to social sub-group, life style
(the process of selection should be done openly at the CDC, CDF level)

6. Discuss about action plan for implement the project (construction management, budget)

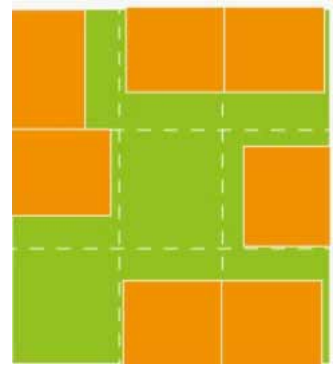
7. Meeting with local authorities to show the people's action plan and working step that local authority can closely working with

8. Start implementation
   - land filling
   - develop water covert, sanitation, water supply, and electricity in cluster level
   - start develop the incremental housing

Note: Like this workshop, sometime, the outcome of participatory design with people can be more developed by architect and planner to enhance the quality of space and planning in such a tough and small site provided by government. So that architect has to develop the design based on the outcome gained from workshop to meet those challenges. Here are the detailed design after the workshop using for follow-up.

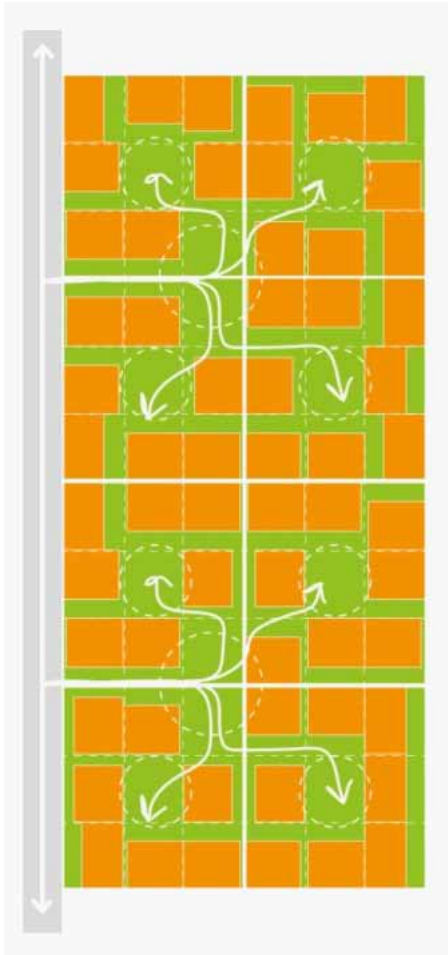


PLOT SIZE: 8 x 9 m. and have
9 units of each sub-cluster

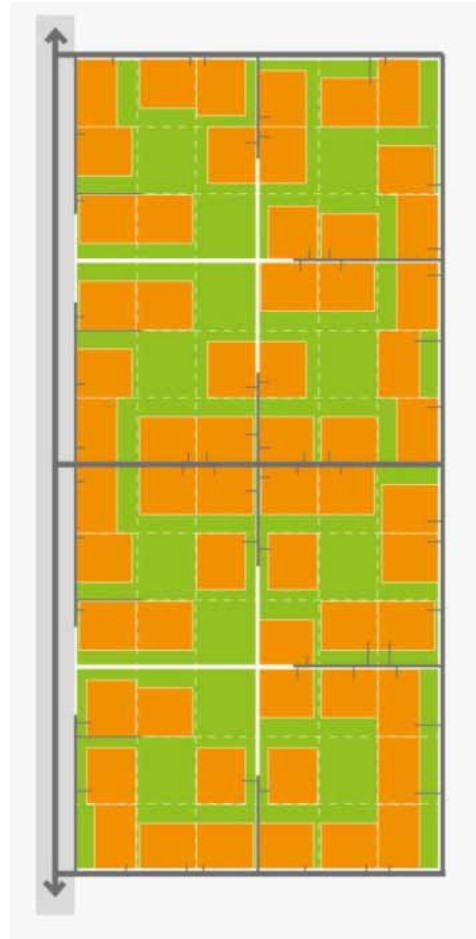


Flexible housing in plot:
Type 1 –5.5 x 9 m.
Type 2 –7.5 x 6.5 m.

Planning system in cluster



Access's Line:
Linkage from main road to inner court of sub-cluster



Service's Line:
Water supply and sanitation line

This site planning can accommodate for 192 units with the same concept of site planning during the workshop. It was developed from cluster concept plus the idea of traditional space arrangement.

1 This perspective's section shows the cluster housing on stilt where inner court was filled up to link with main road
2-3 New housing design which using local materials and keep the traditional space arrangement
4 Perspective shows an ambience of linkage of sub-cluster

" Life is creative. It plays itself into existence, seeking out new relationships, new capacities, new traits. Life is an experiment to discover what's possible.

As it tinkers with discovery, it creates more and more possibilities.
With so much freedom for discovery, how can life be anything but playful? "

a simpler way
Margaret J. Wheatley

TIP

- Building a sense of working together
- Principle checklist for site planning and housing design
- During implementation

Building a sense of working together

Make it easy and fun by letting people be the subject in the working process

Work in small groups so that people can easily discuss and share ideas

one group should not be more than 10 people, with people themselves forming the small groups, so that it naturally represents their social relationships

Warming up by letting people be the subject of the workshop's information

Right from beginning, people must learn to see and analyze their information by compiling and sharing it. Then we can start to share what other data is needed and people can spend time to write it down, find more, and start discussions.



To dream, draw and discuss

These are important processes so that people can express their ideas



Find collective ideas and consensus from the small sub-group's ideas

Let the small sub-groups present their ideas, as there will be common ideas among them. Capturing these common ideas to discuss them in more detail for further discussion and work, professionals can share ideas with people during process. But they should not lead the whole process.

Make it visible and tangible

We can use a 1:1 scale to let people visualize and measure their dream house, community, or road width, so that they can relate how these actual sizes fit with their space's usage

A natural leader always emerges through the working process, just wait, listen and observe

During the working process, there will be someone obviously showing their ability and who will volunteer to work constantly, who will also be accepted by other people. We have to observe this emergence and give them the right role in participatory work.



Practical information and solutions always with the people

We just need to listen and observe from what they draw and ask some good and open-ended questions to encourage them to give some more thoughts.



Trust building is the key of forming small groups

When people form groups, they will form according to their relationship and trust, so that they can work together easily. Through this grouping, later on they can develop other things like saving, building houses and infrastructure.

No need for one hero, one leader

In the new way of working as a community, there should be many leaders for many kinds of work. From the small sub-groups, people can select representatives to work with other groups and form a community committee. This committee will work together but when the crucial decision is needed, it must be worked out in small groups to find consensus too.

Let people being active by identifying and distributing the right tasks to the right persons

Start defining the task forces according to the needs of work, not by identifying positions first then defining the work.

For any decision making, criteria for the decision must come from the collective ideas of people

As a support agency, we should just ask questions about how they together take decisions, or what aspects should be concerns, rather than giving direct answers.

Principle checklist for site planning and housing design

Site analysis –selection

- Searching for vacant lands for housing development

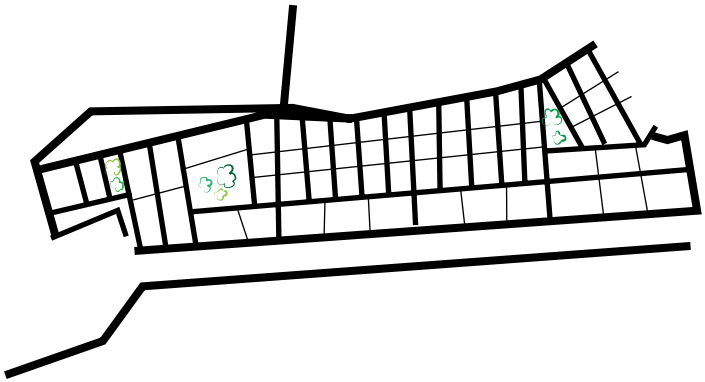
It can be government land or private land, but the
important aspect is to check with the city authority's master plan or development plan for long term
development.

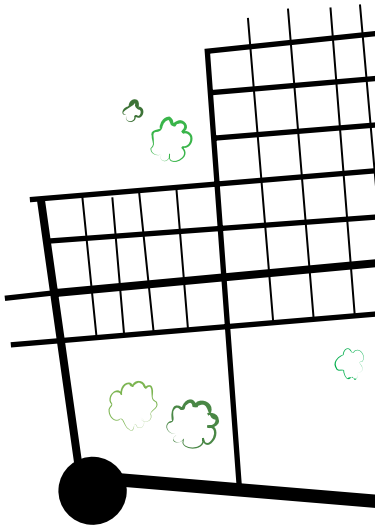
- Visiting the real site and measuring

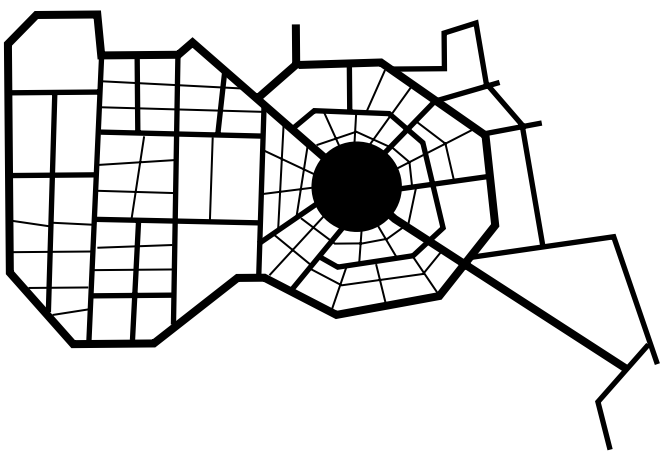
Visit the real site, don't believe only the documents. We have found many cases where the real site and the document are not the same, where the size is different from the measurement in document.

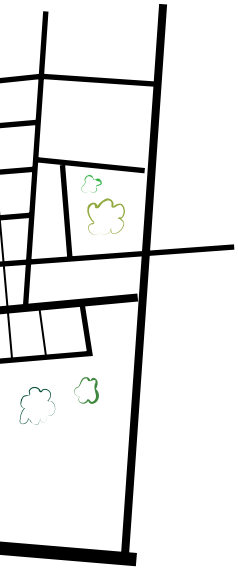
- Check list for new relocation site

1. Check with people living nearby the site about flooding, quantity and quality of underground water table of each season.Sometime when we visit the site it does not show the sign of flooding, but it will be submerged during monsoon season.
2. Check the accessibility of community entrance.
3. Check the micro climate in the locality: wind direction, rain, sun, and weather
4. Check for main infrastructure and services like: water supply and sanitation, electricity, school, health care or hospital, and religious place.
5. Check many sites for possible relocation and visit them all before making a decision. Don't forget to check the land documents and its price (land price, and fee for land transferring). Do measure the size on the real site.









Social aspects and site planning

Keeping in mind that when we lay out community planning, we also lay out the life of community. People occupation, believe, religion, living culture, and social relationship are all the key aspect for planning. There are some comparative examples of site planning which give you the facts and concerns of each planning types as a guideline for your community planning.

- Linear planning

Easy to plan and install infrastructures, circulation, and service line. And in term of security. This planning is quite easy to look after each other, since having 1-2 entrances. But sometime it have to concern about location of common space, and cost of wiring and drain because it might be expensive than other types.

- Grid planning

Easy to plan and install infrastructures, circulation, and service line with the cheapest cost. But planning with this type have to concern more about sense of community, and location of common space.

- Center Planning

This type suit with the large area and community that have the community centre, church, or mosque in the centre. It's quite difficult on laying out its plan and implement the plot's division by people doing themselves, and difficult to access in community and make the plot division. But this type can create the sense of unity and centre.

- Cluster planning

Series of cluster planning within the community is suite for community that have many social relationships.
Each cluster can have their own infrastructure and service's hub to take care together, like common space, septic and rainwater's tanks. But this type is quite difficult of laying out its plan and implement the plot's division by people doing themselves.

Basic facilities and services

Infrastructure and service:

- All pavement can be earthen ground, or cover by gravel rather than concrete pavement to absorb the water into the ground.
- Road and circulation system that use minimum space and size to allocate an area for housing and open space. Common car parking is preferable.
- Surface drainage should be open able, deep enough for monsoon season, and having manhole for every 10 m. distance

Electricity and wiring

- Check the number of households and community activity to choose the capacity of generator and wiring network.
- Wiring can be done by 2 ways: wiring with standing post and undergrounded wiring.
- There must be the central circuit breaker in each cluster in case of fire, flooding, and thunder.

Water source, supply and piping

- Drinking water source have to be located in the clean and safe place, and maintainable.
- There have to be water storage tank, or rainwater harvesting within community for dry season.
- Water storage should be in higher level in case of electricity shortage, water ran in the tap through the gravity.
- Location of water meter and its piping has to plan along with site planning to avoid the water pressure's problems.

Community communication

- Install the community speaker that can inform community updated and warning.
- Sign board nearby the community centre or entrance.

Water sanitation

- Each household have to have septic tank connect to their toilet, or can share for one septic tank per 2-4 households.
- Low-cost or hand-made grease trap have to install at the kitchen to trap all grease in the water before flowing into the drain. This grease and its sediment can be used as the fertilizer.
- People can learn how to produce the Effective Microorganisms (EM) to use for catalyzing process in the septic tank and avoid the un preferable smell.

Solid waste and recycle

- Solid waste management in community can be the discussed issue of the site planning, location of deposit have to be easily access and maintain, and far from living area. Waste deposal can be recycled to reuse, sale, and be a good fertilizer.

Basic facilities and services

Fire and safety

- Try to separated the fire risk activities from living and housing area.
- With in the community there have to have the fire's extinguishes like sand bucket in each household in case construction materials are flammable.
- When design site planning, the fire escape have to be demarcated and known for all member. Space between house, width of the main road, have to be sufficient for fire truck to accesses.

Natural disaster

- Planning in ways that does not obstruct the natural water ways or drains.
- It is importance to identify the location nearby for the temporary shelter or safe place, in case of disaster like flood, earthquake, tsunami, or eruption.

Planning that community member can look after each other

- Avoid the discreet corner and inaccessible area in site planning, dead-end area have to have enough lighting.
- Try to create common space or pocket garden within each cluster or in the overall site planning, this area is the place that assist the relationship among the community member.

Livestock and healthcare

- In case of community that have livestock, cages have to be separated from housing area. Those area should be access to the natural light, good ventilation.
- If the number of livestock is quite large, there is possibility to build biogas tank to generate power, and organic fertilizer.

Landscaping

- Using local plant for landscaping, the plant that have medical matters, eatable, and usable in daily life such as bamboo.
- Try to design the landscape relates to local climate, geography, and people culture.
- Try to preserve the ecological fragile area like river bank, swamp, community forest by landscaping or creating buffer zone.

Factors on housing design

- Budget and payment's capacity
- Local climate and weather
- Space arrangement that suites with household member, job, religion, age, needs, behavior
- Construction materials and available of local skills
- Design with natural and cultural aspects
- Building code and community regulation
- Construction cost

mplementation

Start with communal infrastructure or main community works that everyone will be sharing

The aim is to get all community members involved in working together during the construction process.

Start to build a pilot house by taking the poorest house as the first

By this process we can learn how to build in the cheapest way, and learn how to manage the budget in construction processes.

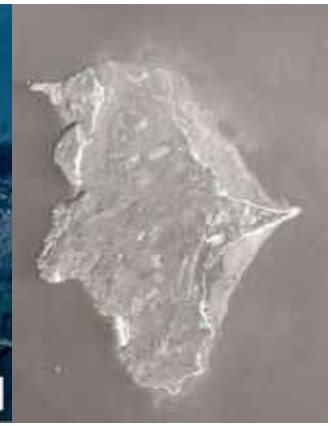
Link with technical support for construction and develop alternative materials and techniques

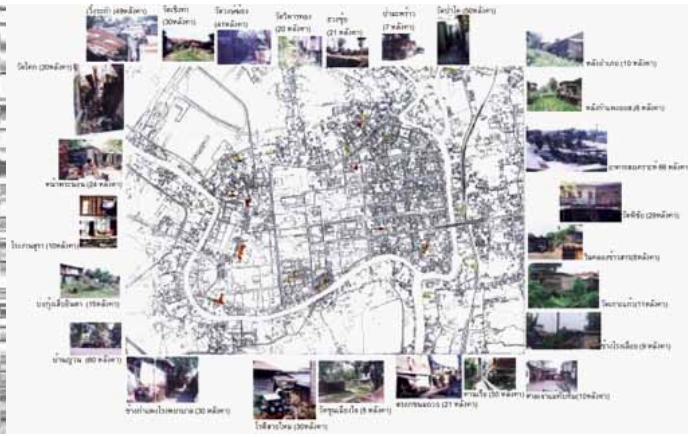
Some communities linked with academics to support the training program for construction and develop new materials, like earth block or bamboo. Through this training, community people can gain more skills and develop their skills into a co-operative for material production, and income generation through the grouping of skilled labor.

TOOL

- map and aerial photo
- understanding space usage and arrangement
- dream house. dream community
- design with financial plans
- model making
- imaginary picture
- 1 : 1 model house
- material experimenting
- learning from our traditional way of living
- informative cartoon book

Map and aerial photo

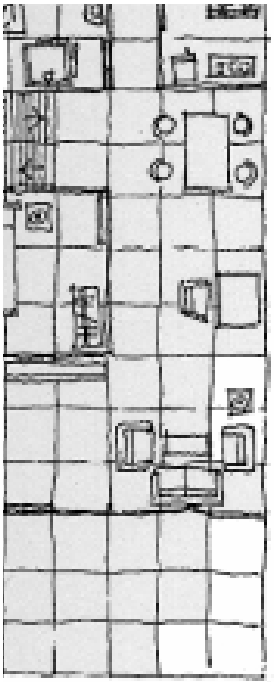


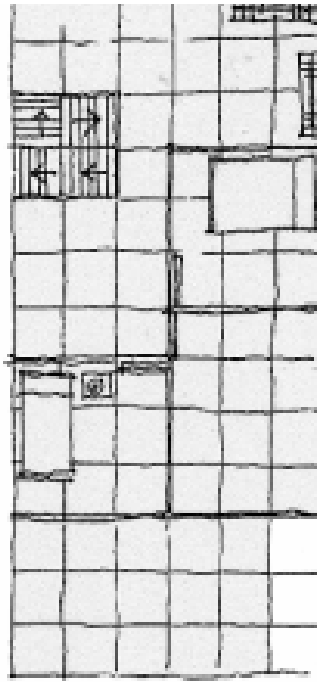


The available city maps are important for city-wide survey processes. by plotting the location of informal settlements throughout the city onto the map and analyzing it along with city planning, and the direction of development and growth of the city. It can help the community networks and working teams to make a decision within the broader view of the city's scale.

Aerial photo is an important tool to help people and work teams to understand the overall picture of the site and its geographical context during mapping and site planning.

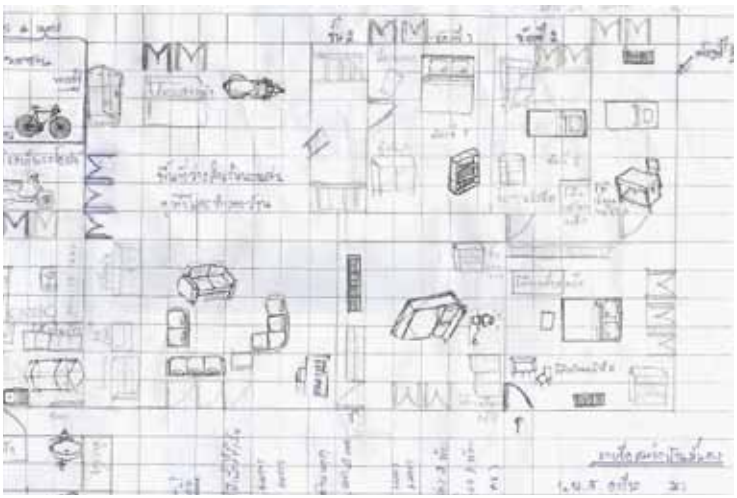
Understanding space usage and arrangement

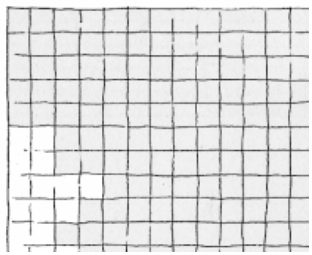


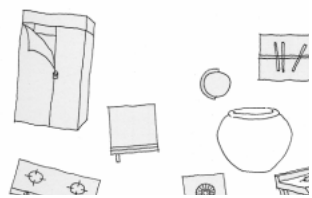


Cutting and pasting of furniture di-cuts and laying them onto grid paper is one tool that can help people plan and precisely think about their house size and its planning.

It is good to let people look back at how they live and what is the thing they like in their house, and what needs to be changed or adjusted. Through this tool we can learn how people design for their living space. then architects can share their ideas based on people's understanding



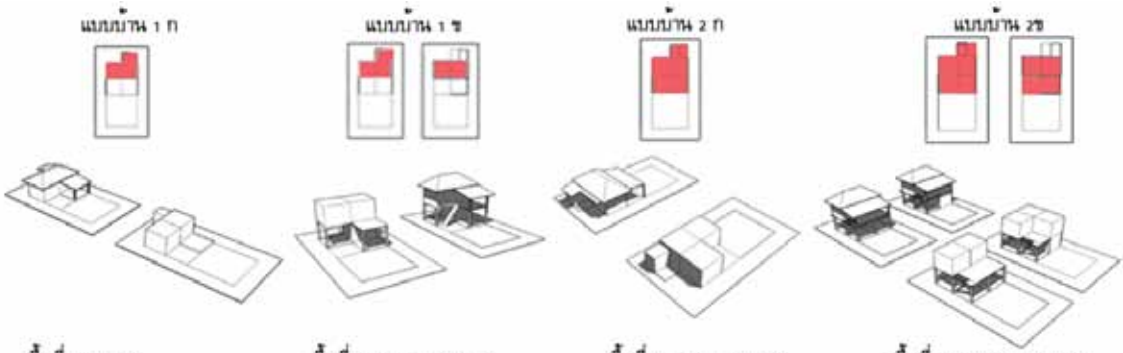




Dream house, dream community

Through this process of drawing and discussing we together learned about how people visualize their new house and their community, how big a household plot, how traditionally people used their house, and what are the components that are important to them.

Design with financial plans



	แบบบ้าน 1 ก	แบบบ้าน 1 ข	แบบบ้าน 2 ก	แบบบ้าน 2ข
พื้นที่	24 ตร.ม.	24+ 18 = 42 ตร.ม.	24 +18 = 42 ตร.ม.	24+18+36 +78 ตร.ม.
ราคา (ไม่รวมค่าแรง และส่วนผนัง)				
	โครงสร้างเบา โครงสร้างหนัก	โครงสร้างเบา โครงสร้างหนัก	โครงสร้างเบา โครงสร้างหนัก	โครงสร้างเบา โครงสร้างหนัก
	50,000 บ. 54,250 บ.	63,100 บ. 67,8500 บ.	63,000 บ. 72,000 บ.	89,200 บ. 99,200 บ.
ผ่อนต่อเดือน (ดอกเบี้ย ร้อยละ 4)				
	375 บ. 407 บ.	473 บ. 509 บ.	472 บ. 540 บ.	670 บ. 745 บ.
ผ่อนต่อวัน				
	13 บ. 14 บ.	16 บ. 17 บ.	16 บ. 18 บ.	23 บ. 25 บ.

Housing design and its financial planning can virtually help people relate their daily saving and income to the house type that they can afford.

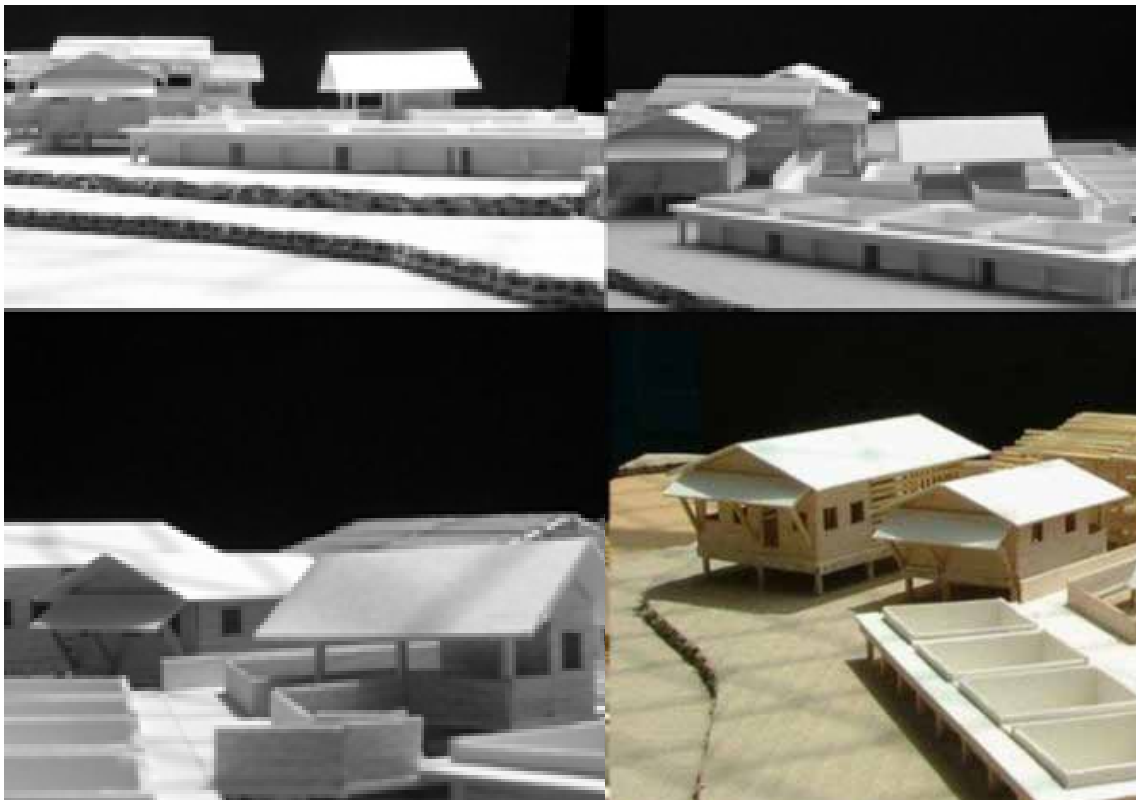
Model making

Community builders and carpenters are the key persons for the model making workshop. Once they know the concept of making models, they can help to calculate amounts and sizes of structures, and the practical construction processes by their skill.

By letting people make their house models by themselves, when they lay those house models together as a community, they can easily understand the concept of site planning by how one house can affect to other houses and the community. Then they discuss and adjust their design and size.

Architects can try to experiment with the space usage of house plots and the possible designs relating to area, community lay-out, and available budget.

Architects can make a model of the overall project to help people visualize the linkage of building and the area's usage, as well as building form and materials.



maginary picture

Images of the new community can encourage people to see the new possibility of community
upgrading and planning, and add creative functions. This perspective also shows how nice the new community can be if there is greenery with open space and a
community center.

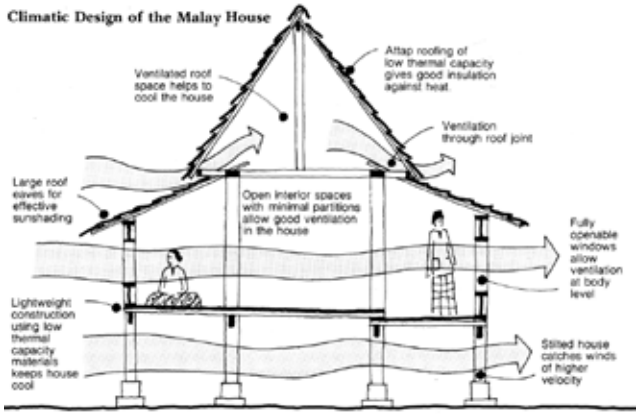
1: 1 model house

Making a 1:1 model house is very useful for people to visualize, and can also help people to calculate the materials needed and cost of the house and very exiting for people!

Material experimenting

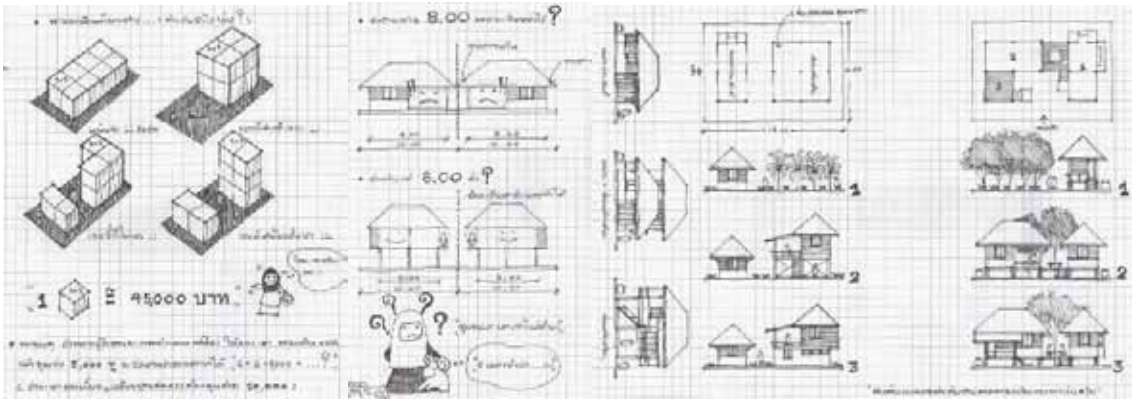
To explore new possibilities with available or waste materials is an important process to bring new ideas of producing materials for construction.

Learning from our traditional way of living

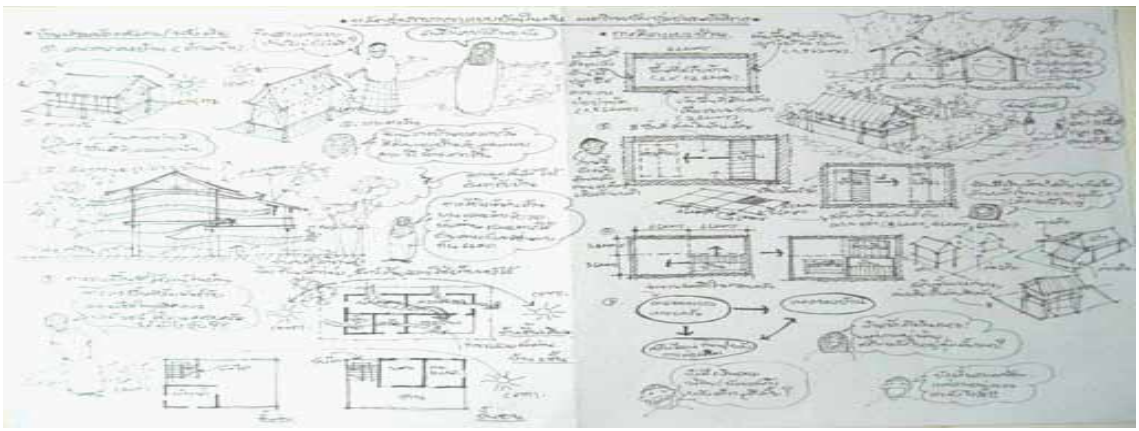


Sometime we show people the picture of traditional houses and our traditional way of life. These inspirational pictures can be discussed for many aspects of community life and housing design suitable for the local climate, available materials, and culture of living.

nformative
cartoon book



This cartoon book aims to question and show people the possibilities of housing design schemes according to the house setback, incremental design, costing.



This cartoon summarizes ideas of vernacular architecture in the southern part of Thailand. It aims to show how our ancestor lived in a simpler way, and by these stories people can adapt these ideas to their house design.

APPENDIX

- city-wide survey for comprehensive upgrading
- household survey for community upgrading
- price of construction material survey
- table of budget estimation
- financial plan of household level

City-wide survey for comprehensive upgrading

City's name: Detail of contact person:

Brief about situation:

Date: Surveyed by:

No.	Community's name	Population	Landless families	Location	Age of community	Saving/day (Average)	Land owner	Infra. Problems	Possible Solution

Household survey for community upgrading

Community's name: _____ Detail contact: _____

Location (before relocation): _____

Location of new relocation site: _____

Brief about situation: _____

Date: _____ Surveyed by: _____

No.	Name of HH head	Family members	Household No.	Occupation	Skill	Income/day	Saving/day	Contact	Remark

Price of construction material survey

Shop no. 1 Name:	Address:	Contact no.:
Shop no. 2 Name:	Address:	Contact no.:
Shop no. 3 Name:	Address:	Contact no.:
Shop no. 4 Name:	Address:	Contact no.:
Date:	Surveyed by:	

No.	Item of material	Unit	Price / unit				Remark
			Shop no. 1	Shop no. 2	Shop no. 3	Shop no. 4	

Table of budget estimation

Community's name: Location: Project's type:
Number of household: Interest rate: Paying back's duration:
Date: Calculated by:

No.	Item of material/task	Quantity	Unit	COSTING / unit		TOTAL COST		Supported Budget	Net cost f people pa
				Labor cost	Material cost	Labor cost	Material cost		
	TOTAL								

Financial plan of household level

Community's name: ..... Location: ..... Project's type: .....
Number of household: ..... Interest rate: ..... Paying back's duration: .....
Date: ..... Calculated by: .....

Household / Cost	Name ..... HH. No.	Name ..... HH. No.	Name ..... HH. No.	Name ..... HH. No.	Name ..... HH. No. .....
LAND					
INFRASTRUCTURE					
1. Walkway					
2. Electricity					
3. Water supply					
4. Sanitation					
5. Etc.					
HOUSE					
1. Main structure					
2. Temporary wall/partition					
3. Permanent wall/partition					
4. Toilet					
TOTAL COST					
Amount of loaning					
Ability of pay-back per month					
Interest rate ..... % per					
Total pay-back amount					
Total pay-back amount per month					

Credits

We would like to thanks to all community peoples who we are working in Koh Mook community from Thailand, Ale Yaw Ward, from Yangoon city of Myanmar, and Mandartola community from Gopalganj Municipality in Bangladesh. Without these active groups of people who have been working hard in the region to make the better change, we could not learn and compile all those emerging knowledge to be this handbook. Also this book would not have been possible without the generous assistance, beautiful pictures, and valuable comments from many friends in various countries. We wish particularly to thanks the following:

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