



# River View HOA

CASE STUDIES OF COLLECTIVE HOUSING IN ASIAN CITIES SERIES • OCTOBER 2022

**When the city of Iloilo began planning a much-needed major flood control project, a lot of informal communities living along the city's rivers and waterways had to be resettled, and the city provided land for them that was fairly close to their old settlements. The Homeless People's Federation was given one large part of that resettlement site to develop a project for housing some of the displaced families. It was the Federation's largest-yet project in Iloilo and it tested and scaled up ideas of collective and community-led house design, settlement planning, materials production and house construction.**

- Project River View Home Owners Association (RVHOA)
- Location Uswag Subdivision, Barangay San Isidro, Jaro District, Iloilo City, Philippines
- Size 172 households
- Finished 2013
- Type Community-managed nearby resettlement housing project for typhoon-affected and flood control project-affected families, on land provided by the city government

## CONTEXT AND PROCESS

### The city

Iloilo is a centuries-old provincial city of about 470,000 people, located on the palm-fringed south-eastern coast of the Panay Island, in the Western Visayas region, right in the middle of the Philippines archipelago. The city is divided into seven districts and 180 barangays (sub-districts) and covers about 7,000 hectares of land. The city's population has more than doubled in the past few decades, and keeping up with this growth has not always been easy - especially when it comes to the supply of housing. More than a quarter of Iloilo's citizens cannot find or afford proper housing and are forced to live without tenure security in squatter settlements along the city's rivers, canals, roads and coastline, where the increasing number of typhoons, floods and landslides make these areas doubly dangerous. Jaro District, where the project described in this case study is located, has the largest share of the city's population, with 126,000 people. Over a quarter of the people in Jaro District are poor and live in these kinds of informal settlements in danger areas.

At the same time, Iloilo has a long history of community-driven and collaborative action on dealing with these housing problems. Iloilo is also a city with a very active and mature community movement. For more than twenty-five years, the Homeless People's Federation in Iloilo (which was one of the first provincial branches of the national Homeless People's Federation and remains one of its most active cities) has been promoting community savings, developing housing and land acquisition projects, supporting infrastructure upgrading, producing cost-saving alternative building materials, and linking with other community networks in a citywide alliance of urban poor organizations to develop citywide post-disaster rehabilitation and resettlement programs. The Federation in Iloilo has cultivated close working partnerships with the local government, at municipal, district and barangay levels (especially the former mayor Jerry Trefñas, who has been a big supporter) and with local universities, NGOs, charities and architects, to develop a range of housing relocation and disaster rehabilitation projects, with a policy of no eviction without relocation.

As a result of this long-established community-city collaboration, the city government has adopted several progressive strategies to make secure land and decent housing more accessible to the city's poor, including a program of buying tracts of land around the city to provide for current and future social housing needs. This "land banking" is part of the city's policy of minimizing the social and economic costs to poor families when they are forced to relocate, and ensuring that nobody should have to move more than five or six kilometers from their original settlements. By 2021, the city had invested over 160 million pesos (US\$ 3.4 million) in ongoing relocation housing projects and had purchased 24 municipal resettlement sites all over the city.

These forward-looking programs and policies were only possible because of the city government's long history of working in partnership with many different stakeholders in the city, including Iloilo's community-based organizations and networks and housing-oriented foundations like Habitat for Humanity and Gawad Kalinga. The city government has also worked with national government agencies, civil society organizations and overseas funders to implement a variety of housing projects for the poor. The city has also helped some 1,000 poor households to form homeowners associations and collectively buy land for their own housing projects, with loans from the national government's Community Mortgage Program. In spite of these efforts, though, the city's estimated housing backlog in 2021 was more than 13,000 houses.

### A city of storms and floods:

Most of Iloilo is just two or three meters above sea-level, and the city experiences serious flooding every year, during the typhoon season. To address this problem, the city government and the national government have developed several major flood control projects over the years. One of those projects was the Iloilo Flood Control Project, which was financed by a bilateral loan from the Japan International Cooperation Agency (JICA). The project set out to improve the city's drainage systems to more efficiently and quickly drain the rainwater and flood waters during typhoons. This involved renovating existing rivers, dredging canals and waterways, lining them with concrete dikes, embankments and maintenance roads, and developing some new concrete floodways to divert flood waters from the Jaro and Iloilo rivers into the sea.

As part of the project, some 3,500 poor households living in informal settlements along the city's canals and low-lying areas were tagged to be relocated. To accommodate some of these families, the city purchased a 16.2 hectare tract of land in Barangay San Isidro to make a new resettlement site. The Homeless People's Federation and the Iloilo City Urban Poor Network were both on the committee to plan this project, and there was an unusual level of collaboration in the planning and preparation of the relocation component of the project. The Federation and the Urban Poor Network surveyed these project-affected families, as well as poor families affected by other road-widening projects, and helped organize them and prepare them for moving to the municipal relocation site in Barangay San Isidro.

### Municipal relocation site at Barangay San Isidro:

The 16.2 hectares of land at San Isidro was privately-owned farmland, and the city purchased it in 2004, specifically for relocating households displaced by the city's JICA-financed flood control project, which included budget for resettling project-affected families. The idea was that nobody would have to move more than four or five kilometers away from their original settlements, so people could keep their jobs and social support networks and their kids could stay in the same schools, as much as possible. After the city filled the land by 1.5 meters, to bring it above flood level, the San Isidro site was ready to provide house plots to at least 3,000 project-affected families from settlements along the nearby Jaro River. The city did not yet provide basic services like drains, paved roads, water supply or electricity in San Isidro, but they did provide a few amenities like a playground, a clinic and a day-care center.

### Typhoon Frank hits Iloilo in 2008:

Iloilo gets its share of typhoons every year, situated as it is on the southeastern coast of Panay Island, but the typhoon that hit the city in June 2008 was "the storm of the century". Typhoon Frank brought flash floods and landslides, and 80% of the city was under water. Houses built along rivers and canals were washed away and 24 people died. Some 1,500 houses were totally destroyed, another 5,000 were badly damaged. A total of 53,000 families were affected - almost all of them very poor. Soon after the typhoon, teams from the Homeless People's Federation began surveying communities affected by the storm, including many still camping out in their old communities, in makeshift shelters made of bits and pieces salvaged from their old houses, and many staying in evacuation centers. Because so many poor families were made homeless by the storm, and many were staying without privacy or security in evacuation centers, the city government decided to open up the 16.2 hectare relocation site at San Isidro for housing these typhoon-affected families, whose needs were deemed more urgent than the flood project relocatees. So the San Isidro resettlement site became home for two sets of relocatees: one set of families affected by Typhoon Frank and another set displaced by the city's flood control project.

It was also decided that several housing schemes, on different parts of the San Isidro site, would be developed by different organizations, in partnership with the city, so families could choose what kind of housing scheme they would like to join from many options including these:

- **Gawad Kalinga**, a Catholic NGO, built 400 tiny pre-fab row houses of 20 m<sup>2</sup> each, and gave them to people for free, but people would not get full ownership of the houses and there were lots of rules people had to follow if they move in (no pets, no cooking outside, no expanding or altering the houses, etc.)
- **Habitat for Humanity** built 500 pre-fab steel-framed houses, with funds from the national government's Department of Social Welfare and Development, which were given free to typhoon victims.
- **The Italian government** built 80 units of free housing for flood victims also.
- **Self-build:** Some families could also opt to get a 60 m<sup>2</sup> plot and build their own houses.
- **HPFPI:** The city gave the Federation 1.5 hectares of the site, to construct houses, through a community-managed design and construction process, with loan financing from CLIFF. The Federation also built 62 rowhouse-style transit housing units (with funding from the local government) where many of the future RVHOA members stayed while building their new houses.

### A housing finance opportunity from CLIFF:

At about the same time, a new housing finance opportunity opened up, when the Homeless People's Federation in Iloilo was chosen to implement some pilot community-driven housing projects, with loan capital from the Community-led Infrastructure Finance Facility (CLIFF), which was being managed by the UK-based Homeless International, with funding from the UK and Sweden. The CLIFF funding came as a capital grant to the national Homeless People's Federation, with a great deal of flexibility. One of the cities chosen to pilot CLIFF was Iloilo, where the Federation would use the funds to provide low-interest housing loans to families in some of its housing projects. The loans would then revolve through the Federation's own UPDF, so that more families would be able to get housing loans. The first CLIFF-financed project in Iloilo was a small demonstration housing project in the Kabalaka community, and the second was the much larger housing project in the San Isidro resettlement site, which later became the River View Homeowners Association (RVHOA).

### Initiating the project:

Since many other organizations developing housing on the San Isidro site were offering free houses to typhoon-affected families, the Homeless People's Federation decided to continue to focus on housing families affected by the flood control project (many of whom were also typhoon-affected). The families interested in joining the Federation's housing project came from many settlements and were not yet organized. So the Federation used the screening for the CLIFF housing loans as a strategy to start organizing the new community. The families who would eventually make up the Riverview Homeowner's

Association (RVHOA) all came from settlements that were less than five kilometers from the San Isidro site, and were selected using a set of criteria designed to reach those most in need and accommodate as many families as possible.

The Homeless People's Federation worked with the city's Urban Poor Affairs Office and other government officials to identify prospective community members and make sure they were capable of taking CLIFF housing loans and were ready to take active part in a collective and community-driven housing project. Leaders from the Federation and the Iloilo City Urban Poor Network took the lead in orientating potential community members and managing the screening and selection process.

Initially, a total of 608 families applied to join the project, but many later dropped out when they learned they would have to contribute labor and join a lot of community meetings. Others earned too little to be able to repay housing loans, while others earned more than the income bracket targeted by the project. Finally, though, a group of 172 families became official members of the project, and began the long process of learning to work together, registering their own homeowners association, and working with the federation and other partners to plan, construct and manage their new houses and community.

#### **Project timeline:**

**2004:** City government buys San Isidro site for resettling families displaced by flood control project.

**2007:** Homeless People's Federation in Iloilo is chosen to pilot CLIFF housing finance program.

**2008:** Typhoon Frank, the "storm of the century", hits Iloilo.

**2009:** Land in San Isidro resettlement site allocated to RVHOA project; project members are selected; participatory community layout planning and housing design workshops begin; RVHOA members begin manufacturing ICEB blocks. Construction of houses begins. Community formally registers as a homeowners association.

**2010:** First 43 houses are completed and turned over to residents.

**2011:** Housing loan repayments begin. Community drainage system is constructed by city.

**2013:** All 157 houses are finished and occupied. Electrical posts and meters are installed.

**2015:** Municipal piped water supply system is constructed.

## **SUPPORT GROUPS AND PARTNERS IN THE PROJECT**

**NOTE:** *In many parts of the world, "Inc." after a name means that the organization is a for-profit business or a corporation. But in the Philippines, registering with the Securities and Exchange Commission and getting an "Inc." after your name is the only way for community organizations, homeowners associations, NGOs and other non-profit entities to obtain the formal status that allows them to legally open bank accounts, receive funds, own land and interact with the formal system in various ways.*

**Homeless People's Federation Philippines, Inc. (HPFPI)** is a national network of urban poor communities that was established in 1995 within the communities of scavengers who live around the Payatas garbage dump. The federation is now active in 20 cities and uses community-managed savings as the core strategy of a community-led development process which includes land acquisition, community upgrading, house construction, disaster management and partnership with government. The Iloilo chapter of the Federation organized the flood control project-affected families and helped with all aspects of the RVHOA project.

**Philippine Action for Community-led Shelter Initiatives, Inc. (PACSI)** is the Homeless People's Federation's NGO partner, providing technical, administrative, legal, financial, research and documentation support to all the Federation's housing and organizing work.

**Technical Assistance Movement for People and Environment, Inc. (TAMPEI)**, set up in 2010, is the Federation's technical support partner. TAMPEI's community architects and engineers use participatory mapping, planning and design techniques to help communities develop their housing and upgrading projects. TAMPEI provided technical assistance during the planning and construction of the RVHOA project.

**Community-Led Infrastructure Finance Facility (CLIFF)**, managed by the UK-based Homeless International (now Reall), was an international program which supported community-led housing and infrastructure upgrading projects with grants and bridging finance. CLIFF's funding came from the Swedish International Development Cooperation Agency (Sida) and England's Department for International Development (DFID), and it partnered with HPFPI in the Philippines in several projects, including RVHOA.

**The Iloilo City Urban Poor Network** is a network of several large people's organizations operating in Iloilo, and it helped to identify and screen families interested in joining the RVHOA project.

**The Iloilo City Government** provided logistical support, land and basic services for the RVHOA project. The city also provided a site engineer and other technical support personnel for the project, from its Iloilo City Urban Poor Affairs Office (ICUPAO), the agency tasked with leading the city's efforts to address the secure land tenure and housing needs of Iloilo's urban poor. The city exempted the RVHOA project from compulsory building permits and provided free electrical connections.

**National Housing Authority (NHA)** and the **Department of Public Works and Highways (DPWH)** helped with the subdivision planning, supported landfilling on the relocation site, provided immediate infrastructure and site development projects such as concrete roads, drainage system, electrical and water connection, schools, material recovery facilities and multi-purpose halls.

**Academic institutions** in the city also became important supporters of the RVHOA project. Students and professionals in the fields of architecture, engineering, community development, and other social science courses extended assistance to the Federation and to RVHOA members throughout the project. Students' participation in the project became a way to promote participatory processes, community-led initiatives, and partnership in collective housing among the city's young people. The University of the Philippines Visayas (UPV) and the Iloilo Science and Technology University (ISAT-U) have an ongoing partnership with the Federation's Iloilo Office. The University of San Agustin's College of Engineering and Architecture also continues to assist communities in Iloilo by sending their students to apprentice with the Federation.

**Ledesma Foundation:** The Julio and Florentina Ledesma Foundation, Inc. (JFLFI) assisted the project with expertise on the interlocking compressed earth blocks technology that was used to build the houses.

**The Hilti Foundation** is a private philanthropic foundation, based in Liechtenstein, which promotes (among other things) alternative bamboo construction for low-income housing. Hilti provided funding and technical support for the construction of the nine special bamboo frame houses in the RVHOA project.

**Asian Coalition for Housing Rights (ACHR)** is a regional coalition of community organizations, NGOs and housing professionals around Asia supporting community-led housing. ACHR has partnered with the Homeless People's Federation and other groups to strengthen the processes of people-driven housing in the Philippines, through the exchange of knowledge and experiences, both within the country and with other countries in the Asia region. Besides bringing several international teams to visit the RVHOA project, ACHR partly supported the community drainage improvement project, as part of its "Five Model Cities" project in Iloilo (with funding from the Selavip Foundation).

## LEGAL FRAMEWORK OF THE PROJECT

The Philippines has some of Asia's most progressive housing laws, policies and programs, at all levels of government. But translating those good ideas into the reality of decent, secure housing for the country's urban poor, at scale, has not been so easy. A brief summary:

- **National level laws:** The 1987 Philippines Constitution guarantees the right to decent shelter of all people living in low-income communities. The Urban Development and Housing Act of 1992 mandates housing agencies to formulate a National Urban Development and Housing Framework in coordination with all local governments and other concerned public and private sectors, which provides for the participation of people's organizations like the Homeless People's Federation in the housing programs of the government. More recent laws also encourage legislators and stakeholders to create housing policies and formulate strategies in response to the country's rapidly changing urban context.
- **Climate-related laws:** The Climate Change Act seeks to build national and local resilience to climate change-related disasters and to protect people's right to a healthy ecology. The act compels the government to stabilize greenhouse gas emissions so food production is not threatened and economic development can proceed in a sustainable way. The Disaster Risk Reduction Management Act provides for the development of policies and plans pertaining to all aspects of disaster risk reduction and management, including good governance, risk assessment and early warning, knowledge building and awareness raising, reducing underlying risk factors, and preparedness for effective disaster response.
- **Local level laws:** At the local level, the Local Government Code directs local governments to exercise their powers for efficient and effective governance and towards the promotion of the general welfare of their constituents, including addressing the housing needs of the residents in their constituencies.

### Land tenure:

The land in the entire 16.2 hectare San Isidro resettlement site (including the 1.5 hectare land of the RVHOA community) is owned by the Iloilo City municipal government. The plan is that people living there will eventually be able to buy and own their plots individually, but the land will not be given to them free. After living on the site for a ten-year grace period, people will have to pay for their land in monthly installments, over a 12-year repayment period, in a plan that will have to be approved by the City Council. This payment schedule will be calculated to cover only the city's cost of purchasing the land, with no profit or interest. By November 2022, the land repayments hadn't started yet.

### Government support:

The municipal government in Iloilo has been an active and supportive partner to the RVHOA project, and to many other progressive and community-driven housing initiatives in the city. The city government provided the land for the RVHOA project in the San Isidro relocation site, which is one of many large parcels of in-city land the city has purchased to house urban poor families displaced by disasters and municipal infrastructure projects. While the city has been able to provide land for resettlement, it has not been able to provide funds for building housing on these sites. So the city has actively supported the Homeless People's Federation's savings program and the Federation's community-driven housing finance and housing development projects. In the RVHOA project and other community-driven housing projects in Iloilo, the city government has amplified the voice of the urban poor in making decisions relevant to urbanization and informal settlements in the city, and shown that only through collaboration with organized communities can the city's big problems of land and housing be solved.

## PROJECT FINANCING

*Exchange rate in 2009: 47 pesos = US\$1*

### Land:

The 15,104 square meters of land in the RVHOA project was provided by the Iloilo City municipal government. After living on the site for a ten-year grace period, community members will be able to buy their 60 m<sup>2</sup> plots from the city individually, in monthly installments, over a 12-year repayment period. This payment schedule will be calculated to cover only the city's cost of purchasing the land, with no profit or interest. By November 2022, the land repayments hadn't started yet.

### Houses:

In order to demonstrate a resettlement project which can accommodate displaced community members with a variety of affordability levels, the RVHOA community developed five different housing options, each with a different house design and loan package. The loan capital all came from the CLIFF program and repayments revolve in the Federation's national Urban Poor Development Fund (UPDF). The houses are all owned by the HPFPI until the loans are repaid.

- **House model A (16 units)** The 29 m<sup>2</sup> single-story duplex house cost 85,000 pesos (US\$ 1,810), and was financed by a loan of 70,000 pesos (US\$ 1,490) and 15,000 pesos (US\$ 320) from the families, in the form of labor contribution. The loan was given at 3% annual interest and repayable in 15 years and eight months, with monthly loan repayments of 600 pesos (US\$ 13).
- **House model B1 (40 units)** The 56 m<sup>2</sup> two-story duplex house cost 130,000 pesos (US\$ 2,766), and was financed by a loan of 110,000 pesos (US\$ 2,340) and 20,000 pesos (US\$ 426) from the families, in the form of labor contribution. The loan was given at 6% annual interest and repayable in 12 years, with monthly loan repayments of 1,180 pesos (US\$ 25).
- **House model B2 (49 units)** The 55 m<sup>2</sup> two-story duplex house cost 130,000 pesos (US\$ 2,766), and was financed by a loan of 110,000 pesos (US\$ 2,340) and 20,000 pesos (US\$ 426) from the families, in the form of labor contribution. The loan was given at 6% annual interest and repayable in 12 years, with monthly loan repayments of 1,180 pesos (US\$ 25).
- **House model C (43 units)** The 56 m<sup>2</sup> two-story duplex house cost 175,000 pesos (US\$ 3,725), and was financed by a loan of 150,000 pesos (US\$ 3,191) and 25,000 pesos (US\$ 532) from the families, in the form of labor contribution. The loan was given at 6% annual interest and repayable in 7 years, with monthly loan repayments of 2,220 pesos (US\$ 47).
- **Bamboo houses (9 units)** The 49 m<sup>2</sup> two-story duplex bamboo houses (3 different designs) cost 350,000 pesos (US\$ 7,447), and were paid for by the Hilti Foundation and given to the Federation as a grant. The Federation then sold the houses to community members at cost. The residents paid 50,000 pesos (US\$ 1,063) as equity, and the remaining 300,000 pesos (US\$ 6,383) was financed by a loan, given at 8% annual interest and repayable in 7 years.

### Infrastructure:

- **Land-filling:** The municipal government bore the cost of filling the entire San Isidro resettlement site by 1.5 meters, to raise it above flood levels.
- **External drainage:** The construction of 300 meters of concrete trunk drains around RVHOA community cost 3 million pesos (US\$ 63,830), with the work being done by the city's Department of Public Works and Highways, with funds from Congressman Jerry P. Treñas.
- **Concrete roads:** The construction of 750 meters of concrete roads within RVHOA, following the community's own subdivision plan, was built by the city's Department of Public Works and Highways, with funds provided by Congressman Jerry P. Treñas.
- **Water supply:** The cost for individual piped water connections depended on how far the house was from the mains, but most families paid about 12,000 pesos (US\$ 255) for connections. Each family also had to pay a water meter and application fee of 3,600 pesos (US\$ 77).
- **Electricity:** The electricity poles were provided by a privately-owned electric company, and the families could then apply for a subsidized government "Low Load" program, in which the cost of applying for metered municipal connections was about 2,000 pesos (US\$ 43) per household.
- **Internal storm drains:** The RVHOA community members constructed 36 linear meters of covered concrete drainage lines in the community, using their own labor and a small project grant from the ACHR-Selavip "Five Model Cities" project. The community leadership decided to recover the drainage costs as a loan, which will then be added to the RVHOA's internal development fund.

## DESIGN AND CONSTRUCTION

### Design process:

The community architects with TAMPEI worked with the new RVHOA community members to help them develop the settlement layout plan and housing designs for their new community, in a series of lively participatory design workshops. The subdivision plan that was finally agreed to for the 1.5 hectare site included 172 house plots of 60 square meters each, arranged around a network of internal roads. The community plan also included a basketball court, a community center, a playground, a chapel, a mini-market and space for a community garden.

### House design process:

In the first participatory housing design workshop, the people were given paper and colored pencils and asked to draw up and present to each other their ideas about what features they would like in their ideal "dream houses." Many of the ideas were common, and the architects then helped the people to translate those dream house ideas into more specific house plans that could fit onto the 45 and 60 square meter plots in the subdivision plan. The next step was estimating the cost of those dream houses, and the tweaking of the designs to accommodate local building bylaws and socialized housing standards. The participants put all this dreaming and learning together into a set of beautiful cardboard models of their houses, which everyone could see and learn from. Gradually, a set of common house design ideas emerged and the architects helped to translate these ideas into formal plans for a set of three house models, which could fit on the different sized plots and accommodate different affordability levels.

- **House model A:** a single-story duplex house made of ICEBs and treated bamboo, with 29 m<sup>2</sup> of total living area, costing 85,000 pesos (US\$ 1,810).
- **House model B1:** a two-story duplex house made of ICEBs, with 56 m<sup>2</sup> of total living area, costing 130,000 pesos (US\$ 2,766).
- **House model B2:** a two-story duplex house (with a different vented roof system) made of ICEBs, with 55 m<sup>2</sup> of total living area, costing 130,000 pesos (US\$ 2,766).
- **House model C:** a two-story duplex house made of ICEBs, with 53 m<sup>2</sup> of total living area, costing 175,000 pesos (US\$ 3,725).

Because the loan amounts from the CLIFF program were limited, and construction costs were very high, the community people made three crucial decisions, which allowed them to build as much house as possible, while still keeping construction costs within the loan limits:

1. **Building unfinished core houses:** Instead of building fully finished houses, the community agreed to build only core houses, with foundations, flooring, walls, a toilet, a roof and openings for doors and windows, which families could move into and then finish incrementally, as their means allowed. Each family would then have to put in their own doors, windows, stairways, second floors, bathrooms and septic tanks. This trade-off allowed most community members to have two-story houses which would

- eventually have a living and dining room, a kitchen, a decent bathroom and space for three bedrooms upstairs (which was important for large families used to living without privacy in small shelters).
2. **Building semi-detached houses:** Instead of building free-standing houses, allowing all the houses to share one common wall helped to not only reduce the construction costs, but left more useable space on the sides of the houses, for expansion or outdoor kitchens and other amenities.
  3. **Manufacturing their own ICEB blocks:** To cut construction costs more, the community decided to use interlocking compressed earth blocks (ICEBs), which they could make themselves, right on the site. This was a new technology which was then becoming popular in low-cost housing projects in Southeast Asia. The load-bearing ICEBs have a lot of advantages: they're strong, durable and resistant to earthquakes, and because they use less steel and cement, they can reduce building costs by about 35% over conventional reinforced concrete frame construction. Houses made of ICEBs are also much cooler inside than concrete houses, and in Iloilo's hot, humid climate, that is a big advantage. It turned out that Iloilo's golden soil was perfect for making ICEBs, and it cost just 13 pesos (US\$ 25 cents) to make each block.

**Experimental bamboo houses:** The Federation also partnered with the Hilti Foundation to design and construct nine experimental houses in the RVHOA project, which tested the cement bamboo frame ("balay kawayan") technology. The bamboo houses are very finely crafted, with each bamboo structural member being numbered and coded. Seven of the houses were built fully with the cement bamboo frame technology, and the two houses combined the ICEB block system below with cement bamboo frame technology for the upper floor. The bamboo houses turned out to be much more expensive than the ICEB houses, partly because of the expensive stainless steel bolts used to join the treated bamboo poles. The nine bamboo houses were paid for entirely by the Hilti Foundation, and were given as a grant to the federation, which then "sold" all nine to RVHOA member households, at cost, for 350,000 pesos (US\$ 7,447), with monthly loan repayments being made over a 5 - 7 year period, and the repayments revolving with all the others.

**Self-built houses:** During the course of the construction, some families dropped out of the project, for various reasons, and the RVHOA community was left with 15 empty lots. To fill those lots, they coordinated with the Federation and the city's Urban Poor Affairs Office, who helped them identify flood-control project-affected families who were still in need of housing. Although these 15 families joined the River View Homeowners Association, they opted to build their own houses, using their own resources.

### **Housing construction:**

After the house designs were finalized, the architects and engineers from TAMPEI organized a series of workshops with the community members to prepare for the construction process. The people learned about every step of the housing construction, from the foundation right up to the roof. Although a team of skilled masons and carpenters would be in charge of the construction, all the project management and much of the unskilled labor would be provided by the community members themselves, so it was important everyone was familiar with the construction process. Some families with good jobs opted to pay cash for their share of the labor costs, while others opted to work on the site themselves, as a form of "sweat equity."

Since the RVHOA project used the interlocking compressed earth block (ICEB), the technical team facilitated a two-day workshop about ICEBs, which covered the history of the technology, how it differs from conventional construction techniques, how the blocks are made and how they should be handled during the production and construction phases. The Federation brought six block-making machines to the site, and after the materials were assembled, the RVHOA community began right away making the hundreds of thousands of ICEBs they would need for the project, working in shifts, to keep up with the construction.

Throughout the construction process, the Federation and its partners in PACSII invited volunteer students from universities and colleges in Iloilo to come join the process and add their skills and ideas to this unconventional community-led housing project. Young interns from local architecture schools provided technical inputs in a series of training workshops. Some universities, like the University of the Philippines - Visayas and the Western Visayas College of Science and Technology sent (and continue to send, even today) student interns and volunteers to assist the Federation in research and documentation activities.

### **After-project management:**

After the houses in RVHOA were turned over to the community members, it became the job of the homeowners' association to manage their new community, maintain the houses, improve the community and collect loan repayments from the members and passing the bulk repayments to the Federation. Each family was required to consult the Federation's technical team and the city government when they wanted to make any changes or improvements to their houses. All of these rules and procedures were formalized in the Memorandum of Agreement that everyone signed at the beginning of the project.



## IMPACTS OF THE PROJECT

The RVHOA project was the Homeless People's Federation's largest and most complex housing yet in Iloilo, and it involved the greatest amount of collaboration and partners. As such, the project stood out as a shining confirmation for everyone in the city that when communities are at the center of the process and all the key stakeholders in the city collaborate to support them, the city's serious problems of land and housing for the poor can be solved. The project strengthened the long working partnership between the Homeless People's Federation and the Iloilo City government, and it opened new possibilities for the city's urban poor to take part in solving the city's housing problems and developing other aspects of the city also. The Federation is now continuously invited to take part in urban development forums, technical working groups and multi-sectoral councils in Iloilo, and has been given a seat on the city government's planning board,

In the RVHOA community, the project built strong bonds of friendship and collaboration between residents who came from many different places. The training and workshops they went through, as well as the long and challenging construction process, produced many new community leaders. Some RVHOA residents have joined the pool of volunteers and staff at the Federation's Iloilo Office, and others have used the construction skills they acquired through the process to get jobs on construction sites around the city.

### Problems:

**Flooding fears:** The RVHOA housing project has had its share of challenges. Even before the project began, many families interested in joining were fearful that the resettlement site might be vulnerable to future flooding, and even after the land-filling and flood control projects, decided against moving there.

**Reluctance to use the ICEB blocks:** During the planning and construction stages, the cost of conventional building materials kept rising. The Federation responded by introducing the cost-saving ICEB technology. But community members were understandably suspicious of this unfamiliar building technology. It was only through learning exchanges, regular materials testing and visits to other communities that had used the blocks that people began to trust the ICEBs would work. Their trust was affirmed when the RVHOA houses withstood a magnitude 4.3 earthquake in 2013 - without a single problem.

**Non-uniform house improvements:** The completion of the RVHOA housing project unleashed a storm of improvements and embellishments to the core houses. For most residents, this was their first taste of living in a home of their own, and their pride of place expressed itself immediately and enthusiastically, in brightly-colored paint jobs, new front porches, added balconies, picket fences and all kinds of flowers and greenery planted in the tiny spaces in front of the houses. It wasn't always possible for the homeowners association or the Federation to monitor or supervise all these improvements, some of which didn't quite follow the rules, and there has been some grumbling from the city's planning and development officer.

**Loan repayment problems:** Because the "core houses" in the RVHOA project were unfinished, the residents had to invest in adding things like doors, windows, bathrooms and internal finishes at the same time that their monthly housing loan repayments were beginning. It was a double financial burden for families who were mostly still quite poor. Many families invariably opted to use their limited resources to make their houses more livable and fell behind on their loan repayments. Loan repayment soon became a serious problem, and has remained a serious problem - for not only RVHOA but for many of the Federation's housing projects around the Philippines. To deal with the problem, the Federation has worked with the homeowners association to help boost people's earning with livelihood training and projects, has extended the loan repayment period to allow for smaller monthly repayments, and has experimented loan repayment strategies that link with the community savings groups and community volunteer collectors. Through these measures, the Federation's Iloilo chapter has so far managed to keep up with its bulk yearly loan repayments to the Federation's national UPDF fund, which is managed by the Federation's NGO partner PACSII. More than half of the repayment of RVHOA housing loans has now been collected. But the repayment problems persist, and that means that the funds cannot revolve and help needy families in other projects to get secure land and housing.

### Successes:

Despite the challenges the RVHOA project has faced, the community members are all happy to be part of a community-driven and participatory housing process in which there was space for them to express their needs and ideas take active part in the design of the houses and the new community. The roomy, solid, safe houses are an enormous improvement over the make-shift shelters in their old informal settlements. The new RVHOA community is close to colleges and universities, hospitals, churches, public markets and public plazas and public transportation is available and affordable. The community continues to be improved, with water and electricity connections, and government-funded concrete roads and drains, as well

as a gym and daycare center beside the Federation's satellite office in the community. Many have described enjoying a new sense of upward mobility here, and joke that their community feels like an exclusive subdivision. Since the project began, many of RVHOA's children have grown up, finished their education, gotten good jobs and are now contributing economically to their families' development and comfort, and also taking leadership roles in the community.

## STORIES FROM COMMUNITY MEMBERS

**Gina Yarra** was the first community member to move into her house in RVHOA. Her family used to live along the riverbank in Barangay Benedicto, in Jaro District, where even a little bit of rain could mean having their house flooded. The family lived in constant fear of the water. "When it rained even a little," Gina recalled, "I couldn't sleep the whole night through. I needed to be vigilant, and as soon as the river water reached our floor, we had to vacate our house." Now that they have moved, Gina and her family can live comfortably and with a greater sense of security.

**Richie Jacusalem** is member of the RVHOA community and lives in a Model C house, which required the largest loan. Since he moved into the new community, he has been investing time, money and effort into making his new home more and more beautiful. For Richie, this this process is a community endeavor. "When we beautify our houses, we also think about beautifying the whole community." This sense of community spirit thrives in RVHOA. More and more community members are inspired to clean and beautify their houses and surroundings. Participation in community events has been enhanced, now that most of the families have moved into their houses. "It is easier to call for a meeting now because they're already here in the site, unlike before where it was really difficult to get a quorum."

## FOR MORE INFORMATION ABOUT THE PROJECT

*This case study was written in 2022 by Attorney Stewart Paul Torre and edited by Ericka Nava at PACSII, with additional technical information from Architect Jay Rubinos. The case study brings together stories from these members of the RVHOA community: Edna Lagnason, Evelyn Pentinio, Glen Jaspe, Helen Villarin, Jerry Jacusalem, Kusela Pabon, Ludesa Arevalo, Luisa Blancaflor, Purificacion Sinsoro, Remegio T. Tayo, Rosaly Gutierrez, Rosemarie Valdex and Sonia Cadornigara.*

Please follow these links to more materials about the RVHOA project in Iloilo:

<https://www.youtube.com/watch?v=iXIY11SKwIA&t=49s>

<https://world-habitat.org/world-habitat-awards/winners-and-finalists/community-led-infrastructure-finance-facility-cliff/>

<https://reall.net/data-dashboard/philippines/rvhoa-san-isidro/>

For more information about this project and other housing projects supported by the Philippines Homeless People's Federation, please contact:

Homeless People's Federation Philippines, Inc.  
(Contact person) Ms. Theresa Carampatana (HPFPI National President)  
234-A Tandang Sora Avenue, Quezon City, Philippines 1116

- e-mail (1): [homeless.pilipinas@gmail.com](mailto:homeless.pilipinas@gmail.com)
- e-mail (2): [pacsii.ph@gmail.com](mailto:pacsii.ph@gmail.com)
- e-mail (3): [pacsii.secretariat@gmail.com](mailto:pacsii.secretariat@gmail.com)
- website: [www.pacsii.org](http://www.pacsii.org)

## PHOTOS



*Most of Iloilo is just two or three meters above sea level, and the city experiences serious flooding almost every year, during typhoon season.*



*Iloilo is a very old city, and is dotted with ancient monuments from the long Spanish colonial period, like the Molo Catholic church above.*



*Over a quarter of the people who live in Iloilo's Jaro district live in squalor and insecurity in informal settlements like these, along the shoreline and on low-lying bits of leftover land.*



*Iloilo is a watery city with many rivers and canals. Many of those waterways are lined with informal settlements like these, where the residents are especially vulnerable to floods and typhoons.*





*Typhoon Frank, which has been called the "storm of the century", hit Iloilo in June 2008. Almost 80% of the city was under water and the houses of 53,000 families - most of them poor - were destroyed or very badly damaged.*



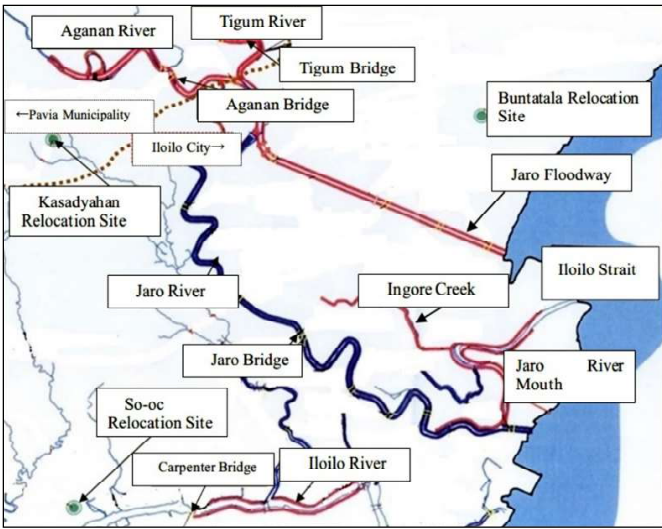
*Informal communities like these ones, along the city's rivers and waterways, experienced some of the most destructive damage from Typhoon Frank and the floods it caused.*



*Many families whose houses were destroyed by the typhoon were reluctant to leave their settlements and camped out in tents and makeshift shelters made of any bits and pieces they could salvage from their former houses.*



*Thousands of families who had been made homeless by the typhoon had no choice but to stay - without privacy or security - in evacuation centers that were set up by the government in school gymnasiums like this one.*



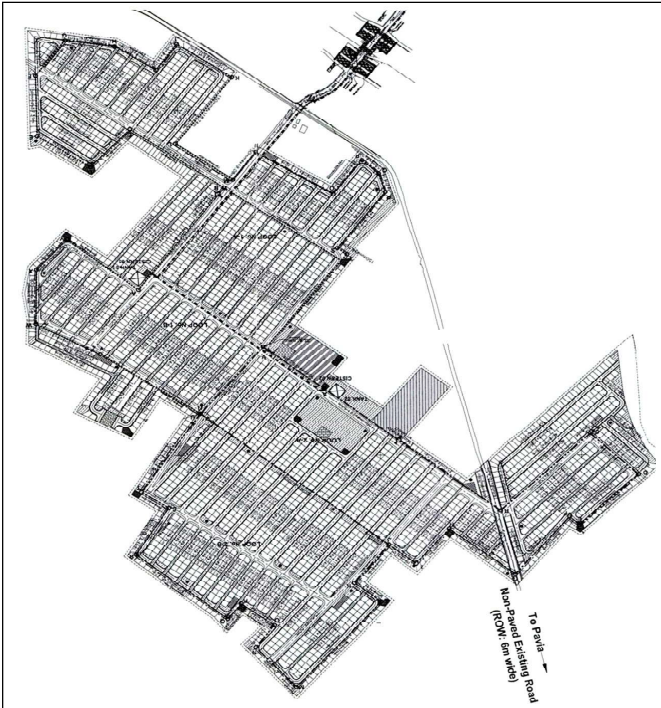
The Iloilo City Flood Control Project set out to improve the city's drainage systems during typhoons by dredging and widening the city's rivers and canals and lining them with concrete dikes, embankments and maintenance roads. The project also built some new rivers, to divert flood waters into the sea.



The Homeless People's Federation and the Iloilo City Urban Poor Network jointly surveyed families living in informal settlements that would be displaced by the big flood control project. They used the survey process to begin organizing people and to let them know about the large municipal resettlement site the city was preparing for them in Barangay San Isidro.



The process of preparing communities for the flood control project and resettlement involved lots of community meetings, in which the options available to people, under the resettlement housing projects being planned by different organizations, were explained. The city's idea was that everyone should get resettlement housing and nobody should have to move more than five kilometers from their old settlement.



Here is a map of the 16.2-hectare San Isidro resettlement site, which the city purchased in 2004, for housing families displaced by the flood control project. The city had to speed up its plans, though, after Typhoon Frank made the need for resettlement plots more urgent. After raising the land by 1.5 meters (above), the San Isidro site was ready for about 3,000 families.



In response to the urgent need for shelter after Typhoon Frank, which had made thousands of poor families homeless, the Federation worked with the city and other agencies to quickly build 66 units of transit housing on the San Isidro site.

The plywood rooms and services were simple, but the transit housing gave people a decent place to stay near the site of their future houses.



Many of the families used the not-yet-developed land around the transit housing to cultivate vegetable gardens like these.

Some enterprising residents in the transit housing opened small "sari-sari" provisions stores to boost their income during a hard transition.



Displaced families who were interested in joining the Federation's housing project at San Isidro came from many settlements and were not yet organized. So the Federation used the screening for the CLIFF housing loans as a strategy to start organizing the new community. All the screening was done in close collaboration with the Iloilo City Urban Poor Community Network.

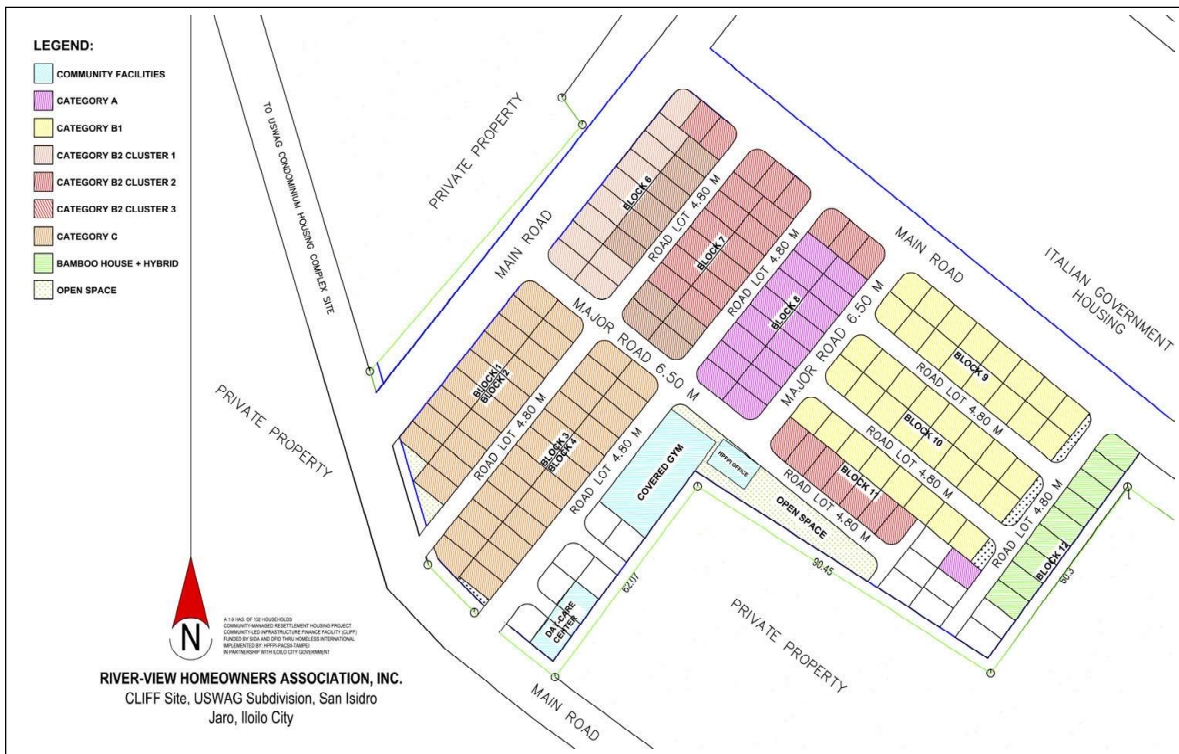


Once the list of 172 families was finalized, there were lots and lots of meetings, to orient everyone about the new project and to help them understand how the CLIFF loan program worked.

One of the early steps in the lively series of participatory design workshops involved developing a layout plan for the new community, on the 1.5-hectare land allotted to the Federation.



With facilitation by the community architects in TAMPEI, the RVHOA community members used colored paper to explore different ways of laying out the house plots, roads and common amenities, going through four or five draft plans.



The subdivision plan that was finally agreed to for the 1.5 hectare site included 172 house plots of 60 square meters each (but with slightly different shapes), arranged around a network of internal roads, with a basketball court, a community center, a playground, a chapel, a mini-market and space for a community garden.

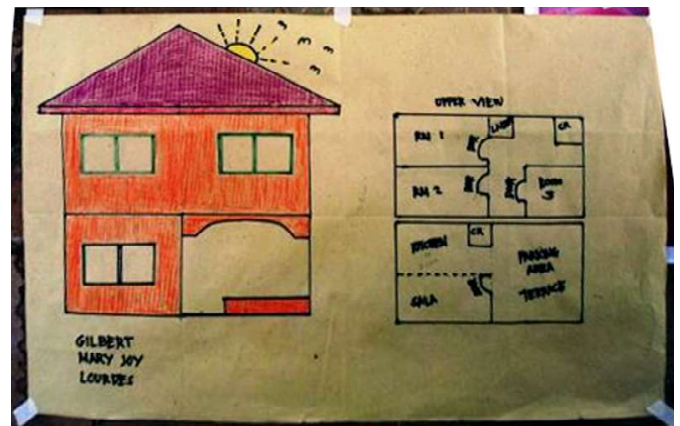


Once the subdivision plan was approved by the city, the architects and engineers surveyed the site, to mark out the house plots and roads, with assistance from students from nearby technical colleges



The first site office (above left), was a bit primitive, but was soon replaced by a shady and comfortable bamboo office and fenced-in materials warehouse (above right), ready for the building to start.





Some "ideal community" sketches, "dream houses" and house models made by community members, during the lively housing design workshops.



A line of colorful cardboard house models, showing many different housing ideas and aspirations, lined up for everyone to look at.

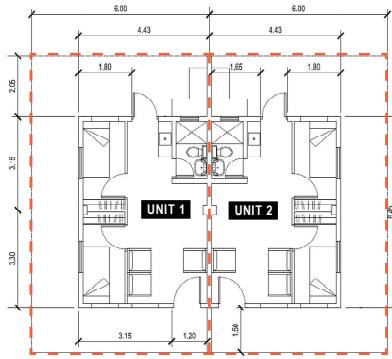


Once the most popular designs were identified, the community architects helped translate people's ideas into formal drawings and models.

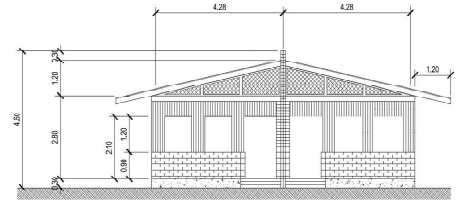


### RVHOA HOUSE MODEL A

- Single story duplex “core” house
- Plot size: 60 sq. meters (6m x 10m)
- Total living area in house: 29 sq. meters
- Cost: 85,000 pesos (US\$ 1,810)
- Monthly loan repayment: 600 pesos (US\$ 13)
- Number of units: 16



GROUND FLOOR PLAN

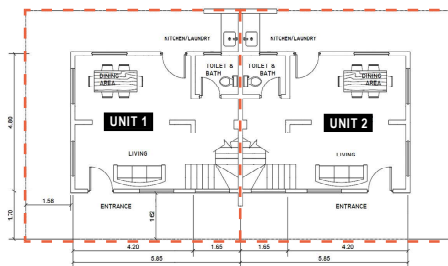


FRONT ELEVATION

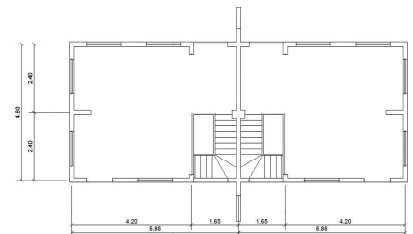


### RVHOA HOUSE MODEL B1

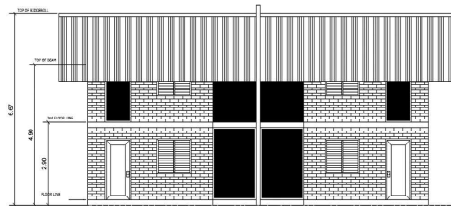
- Two-story duplex “core” house
- Plot size: 60 sq. meters (8 x 7.5m)
- Total living area in house: 56 sq. meters
- Cost: 130,000 pesos (US\$ 2,766)
- Monthly loan repayment: 1,180 pesos (US\$ 25)
- Number of units: 40



GROUND FLOOR PLAN



UPPER FLOOR PLAN



FRONT ELEVATION

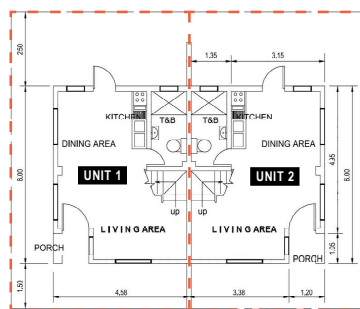


SIDE ELEVATION

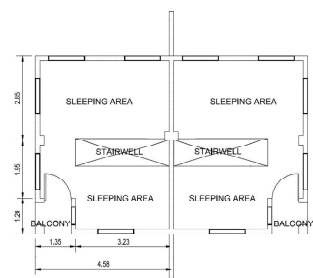


### RVHOA HOUSE MODEL B2

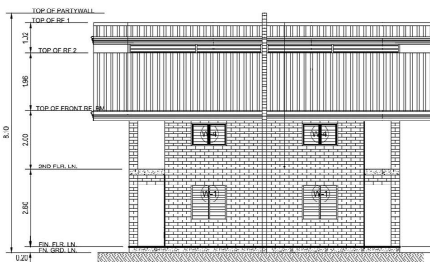
- Two-story duplex “core” house
- Plot size: 60 sq. meters (6 x 10m)
- Total living area in house: 55 sq. meters
- Cost: 130,000 pesos (US\$ 2,766)
- Monthly loan repayment: 1,180 pesos (US\$ 25)
- Number of units: 49



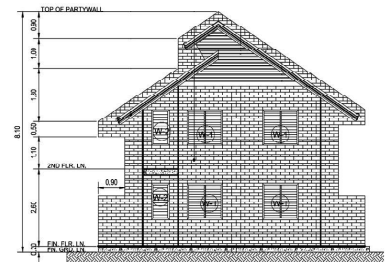
GROUND FLOOR PLAN



UPPER FLOOR PLAN



FRONT ELEVATION



SIDE ELEVATION



### RVHOA HOUSE MODEL C

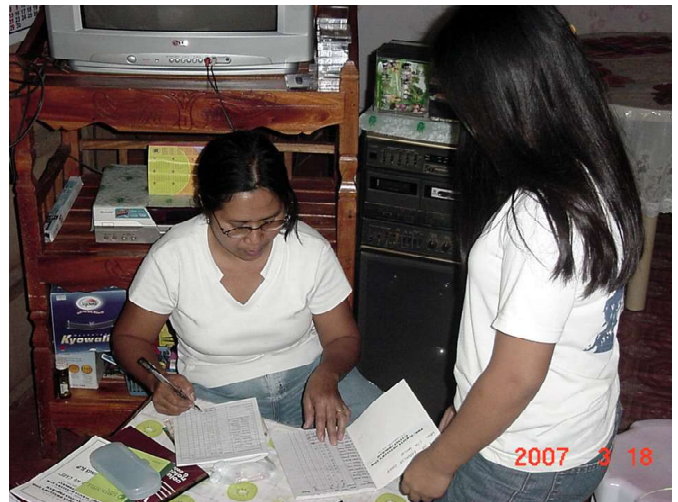
- Two-story duplex "core" house
- Plot size: 60 sq. meters (6 x 10m)
- Total living area in house: 53 sq. meters
- Cost: 175,000 pesos (US\$ 3,725)
- Monthly loan repayment: 2,220 pesos (US\$ 47)
- Number of units: 43



*Here is a model of the 1.5-hectare RVHOA project, built by the community architects team and kept in the site office throughout the process.*



*A meeting on the site to form the River View Homeowners Association and elect the first set of officers, in compliance with the government rules.*



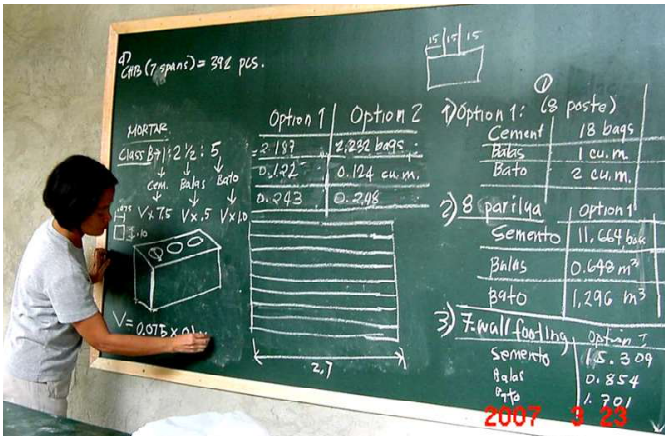
*The practice of collective community savings is a key part of the Federation's program, and was an important part of the RVHOA project.*



*Community members talk about how they will organize their systems for procuring building materials, to get the best prices and make sure every penny is accounted for.*

*Jeffrey Subaldo, at right, who became one of the construction team leaders during the RVHOA project, discusses procurement.*





Community architect May Domingo-Price gives a lesson in the economics and materials science of interlocking compressed earth blocks.



To everyone's delight, the soil around Iloilo was ideal for making the ICEB blocks, and produced a block with a beautiful honey-yellow color.



There were lots of workshops to train community members about all aspects of making, curing, storing and using the ICEB blocks.



The finished blocks were periodically tested for compressive strength, which was almost always much greater than conventional concrete block.



Here the ICEB block-making area on the RVHOA site is being visited by a team of international visitors from ACHR.



The big task of moving all those ICEB blocks from the block-making area to the building site was helped by lots of good-natured volunteers.



▲ *Community-managed procurement of building materials for a project of this size and complexity involved lots of training, collaboration and skill in sniffing out the best bargains.*



▲ *All the building materials delivered to the RVHOA site were checked and counter-checked by members of the procurement committee, before being taken to the warehouse or construction site.*



▲ *A cheerful group of community workers helping dig the trenches for the foundations of one block of new houses at RVHOA. And (above right) a foundation ready for the ICEB block walls.*



▲ *Photos from various stages of the construction of the ICEB houses in RVHOA. It took about four years to complete all the houses.*





▲ Community members paint rust-resisting red-oxide paint on the steel purlins that will hold up the roofing sheets on a group of houses.



▲ A group of houses that are close to being finished, with the steel roofing purlins being put in place, and the galvanized steel roofing sheets being unloaded from the truck.



▲ To keep them affordable, the houses were left partly unfinished, and it was up to people to add the doors, windows and other finishes.



▲ A photo from the weekly payroll at the site, where the community workers either logged in their "labor equity" or got paid by the project.



In these two demonstration houses, some inexpensive bamboo doors, stairs and window grilles are showing people one option for finishing the house enough to move in.



A shot of the upstairs room, with plywood floors and a softly dappled daylight coming in through the bamboo window grilles.



Here Engineer Camarista explains the technical plan for laying the storm drainage lines in the RVHOA project.



The work on the storm drains, with covered channels that are 2.5 meters deep (right), started in one section of the RVHOA project where people had already moved in.







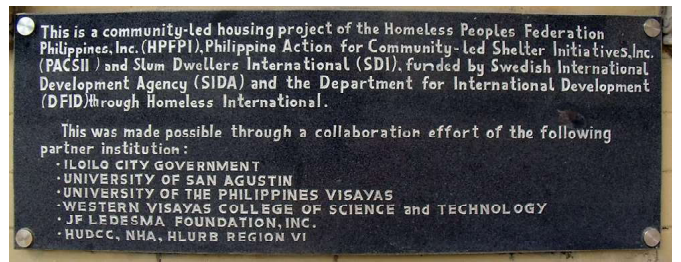
This crisp aerial view shows the finished RVHOA project, shortly after the construction was finished in 2013.



A group photo in front of the completed RVHOA housing project, with a visiting group of international visitors from SDI.



The welcoming entrance sign was built proudly with ICEB blocks, and was later painted white, pink and red, with this inscribed granite plaque.



Here are three of the special houses made in the project using the unconventional cement bamboo frame technology.

The bamboo houses are very carefully crafted, with every bamboo pole being numbered and bolted in place, and lots of beautiful details.



▲ *Here's what the RVHOA community looked like a few years after the project was over, when the place was looking much more lived-in.*



▲ *Some of RVHOA's children doing what children do all over the world: making flower bracelets.*