

Neighbourhood Maintenance

Maintained Neighbourhood aiming for Sustainability



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1. Abstract

After visiting the Philippines and a wide range of different housing projects I saw a constantly recurring factor, the houses and the neighbourhoods were badly maintained. One example was the project in Smokey Mountain, which started as a joint venture agreement between the National Housing Authority (NHA) and R-II Builders Inc. RBI was made to build a low-cost housing project at Smokey Mountain. And we could see after just a few years the lack of maintenance, even if every house has its own maintenance officer.

In this paper I want to study different aspects for a maintained neighbourhood aiming towards sustainability. I am going to illustrate it from the matter of materials, economical aspects and involvement of the inhabitants. I asked myself what could be provided to a neighbourhood to keep it maintained? Conclusions of what can be done for a neighbourhood to stay alive and maintained are proposed in the later part of the paper.

2. Factors Shaping Maintenance of Urban Design

Sustainable neighbourhood design involves the development of communities with consideration to environmental, social, and economic goals in a balanced perspective. Specific objectives include minimizing external resource inputs and residual exports to and from the neighbourhood system, maintaining a non-toxic environment, sustaining a high quality of life, and financing infrastructure in an equitable and efficient manner (Engel-Yan 2005). Not only are we living in an increasingly urbanized world, we are also experiencing an urbanization of poverty. The rapidly increasing pressure on urban areas causes considerable strain, not only on the urban infrastructure and on housing, but also on the urban environment. It leads to a living under life- and health-threatening conditions, why the importance of maintaining our environment is of high priority. (UNCHS 1995).

Housing areas are built and then fast run down and crime and destruction of neighbourhoods occurs. A problem is social exclusion and poverty; people who

are poor live differently and are stuck more at home. Parameters in a poor area could be *vandalism, inadequate play space* in or outside the home, the problem with *rubbish* removal, *lack of maintenance* of homes and gardens, *lack of community facilities*, shops and facilities are not economically viable, and the *design*. There is a clear connection between bad design and problems like vandalism and rubbish. (Housing and urban policy 2010). Maintenance can be a factor that improves the security situation. If the maintenance is good then people get a feeling that the authorities are present and that there is surveillance (Grundström 2009). The relation to property and to the environment affects the effort and ability to maintain. If there is no connection for the inhabitants to the neighbourhood, there are fewer reasons to care about and maintaining it.

2. 1 Housing in the Philippines

Secure land tenure and property rights are fundamental to shelter and livelihoods. It is a cornerstone for the realization of human rights and for poverty reduction. Secure land and property rights are particularly important in helping reverse gender discrimination and social exclusion of vulnerable groups. Secure land tenure and property rights enable people in rural and urban areas to invest in improved homes and livelihoods. A secure land right for all citizens contributes to conflict reduction and improvement in environmental management as well as household living conditions. (1 UN Habitat 2010) But there are many economic constraints. The total construction cost and the long-term maintenance cost have to be competitive so that house prices, rental rates and long-term local taxes are sufficiently low to attract residents and business (Engel-Yan 2005).

In the Philippines the demand for affordable housing units continues to grow in response to demographic expansion and larger household sizes, in both urban and rural areas. Affordability poses a challenge in view of low incomes, inadequate supply of suitable homes and limited access to home financing facilities. Housing affordability remains a problem due to relatively low household incomes and is only affordable to households belonging to the top 50 per cent of families on the income ladder. Therefore, housing remains beyond the reach of a sizeable proportion of Pilipino population. Home-ownership and security of tenure remain

a problem, and in urban areas only 64 per cent of households own their homes. Metro Manila has almost 2.1 million households which 48 per cent owns or mortgages their housing. More than 30 per cent rent their housing units while 11 per cent occupy their units free with the owner's consent and 22 per cent have no tenure over the land on which their houses are built (2 Un Habitat 2008).

Between 1981 and 1985 the Pilipino government established an interacting network of housing agencies to maintain and fulfil six main specific functions: funds generation, mortgage purchases, mortgage guarantees, regulations and social housing. Housing finance is a joint undertaking by three agencies, the Home Insurance Guaranty Corporation (HIGC), Home Development Mutual Fund (HDMF) and the National Home Mortgage Finance Corporation (NHMFC).

HDMF has become directly involved in housing production where there is a critical need for the lowest 30 per cent of the Pilipino population. It has been doing so through Social Housing Development Loan Programme (SHDPL) and the Group Land Acquisition and Development Programme (GLAD) which provide financial assistance for land and acquisition and site development for social housing projects.

The government has also set up a Community Mortgage Programme (CMP) to enable urban poor communities to acquire land, develop infrastructure and build and improve their homes and their neighbourhood to the extent of their financial abilities, all over the concept of community ownership. The residents can only obtain a loan if they are supported by an NGO, or a government agency. CMP is administered by NHMFC and provides only loans to an average of 9000 households every year, it's far from solving the low-income housing problem on its own and the lowest income households can not access the CMP. They can only access informal finance, the rest of the low-income group accesses the CMP and the median- and high-income segment can resort to formal housing finance.

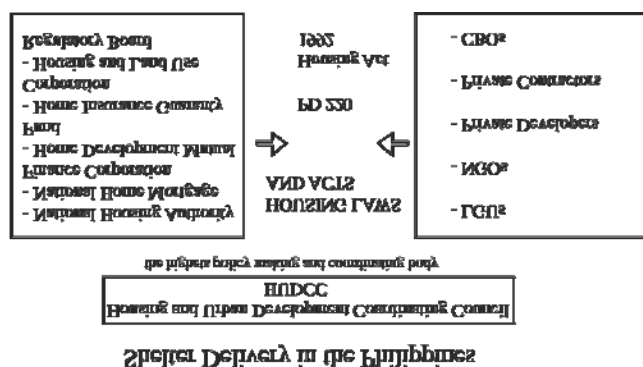
Housing and Urban development Coordinating Council (HUDCC) is advocating the further liberalization of bank lending policies and supports housing micro-

finance in the country as a shelter delivery strategy. Micro-finances is loans to the poor and low-income households to improve or repair existing homes, construct and purchase new homes, buy land or install or improve utilities and other basic services.

The private sector is also involved in the housing production, as United Architects of the Philippines and NGO's like Gawad Kalinga.

The presence of well-developed institutions has not yet fully been integrated in the overall financial system, there is absolutely no competition between government housing-finance institution and private commercial banks. The government provides much-need support for the housing of the less privileged groups through increased budget allocation, loan amortization support and interest-rate subsidy schemes, when private commercial banks offer financial assistance under higher interest rates, determined by open-market. Integrating of the housing-finance system into the national financial system will undoubtedly strengthen its capability to generate more funds for housing production. Given the objectives of the housing programme and the focus on low-income it may be difficult to achieve full integration. If the government's housing finance programme is to be fully integrated its interest rate should reflect those upon the open market. But, market rates for housing finance are beyond the reach of the poorest 30 per cent (2 UN Habitat 2008).

Below is an overall scheme of the shelter delivery in the Philippines.



(Åstrand 2010-25-01)

There are different principal forms of *housing tenure*, the keywords being *owned* and *rented*. It may be owned outright or secured on a mortgage, or rented from the local authority, from a housing association, from a registered social landlord, from a private owner, or they may be subject to a shared ownership agreement.

Buy to let can sometimes lead to poor maintenance, and little or no control over tenant behaviour. The landlord is unlikely to be professional nor have any interest in the neighbourhood where the property is let. One way of avoiding future problems is to insist on long-term agreements from private landlords relating to standards of management and maintenance.

Research shows that most low-income households aspire to own their own house. Normally it becomes a social-economic process that involves self-built and incremental housing Construction, which leads to that the Construction reflects their limit of Financial resources but also creates emotional ties between families and their houses. To most families housing is the largest investment in their lifetime and need loans to finance the investment in their homes. (2 UN Habitat 2008). Even if the residents own their own apartment or house does not that mean that they have money to contribute to the maintenance of the building or neighbourhood.

A mixed tenure development is when owned and rented properties can be next door to one another. I think it is important of a mixed used neighbourhood with different kinds of tenure-ships. It opens for a place to live in different phases in people's life when it comes to age, household composition and stage in a lifecycle but also different income backgrounds.

When it comes to the governance of the neighbourhood it needs to be with equal right of participation for tenants as for owner-occupiers. Involvement can be achieved through a legally constituted organization with strong resident leadership and direct accountability to residents from all types of tenure or representation of local bodies such as the local authority, other statutory agencies, voluntary organizations, businesses and faith communities. It is needed to set up a guideline of principles for a model of how the governance should work in the community.

2. 2 Involvement

Use of local resources is supported by United Nations as one linkage to poverty reduction. Low-cost housing constructions generates more jobs per unit of investment than high-cost housing, and informal-sector construction methods are more labour-intensive than formal ones. Informal-sector housing creates 20 per cent more jobs per unit of expenditure than formal-sector, and at the same time six times as many dwellings can be built for the same investment. Similar situations occur when it comes to maintaining neighbourhoods, why involvement of the local inhabitants should be encouraged to take care of their neighbourhood. But there is an urgent need to actively encourage adherence to acceptable health, safety and labour standards (UNCHS 1995).

The Habitat Agenda states that inhabitants should be involved in the human settlements planning and decision-making. In the Philippines we could see this take place through representation of specific community leaders. But the question still remains if the community is addressed enough.

According to Henry Sanoff, an Architectural researcher, participation is a human right, and it is important to be able to influence one owns living environment and a right to creativity. Of importance is when the users enter the process, if changes are needed in the building process it is becoming more costly in a late part of the process (Brahme 2010-04-22).

Involvement in the planning process is one of the most important factors to social sustainability. If the initiative comes from the inhabitants most of them have also learned how to cooperate which contributes to future cooperation's in maintaining their surroundings. Involvement can lead to a strengthened trust in decision-making and better decisions for the neighbourhood. And is more appropriate to the inhabitants which leads to happier inhabitants and a way to strengthen the community. Participation in the planning process can lead to continuously involvement from the inhabitants and a good community feeling. The risk of being discontent with their neighbourhood diminish through their decision-making. Self-administration gives dignity and self-confidence but this also leads

to social networking. And it also means that the people that were not interested to live in the area choose to live elsewhere (Berg 2002). This might not be the scenario in the Philippines lower- and middle-income classes where they do not really have the ability to be that fastidious.

2.3 Material

United Nation's strategy for poverty reduction encourages productive investment, where use of local materials is a part of contributing to national income. Experiences from a number of countries indicate that for every unit of currency spent directly on house construction, an additional unit of currency is added to the national income (UNCHS 1995).

The provision of basic services as water, electricity, sanitation and livelihood is crucial for a functional neighbourhood and for maintenance of it. It is important to remember to consider the whole "Life Cycle cost". The period of use is much more costly than the construction and then last the demolition period (Brahme 2010-04-22). When we choose method and material we have to remember to build for the time of usage.

Well-planned design and the use of high-quality materials can provide an attractive appearance for the neighbourhood and be a major factor in ensuring long-term sustainability.

When we select material we have to consider the regional accessibility and the transportation of the material required, quality, life-cycle impacts as source of energy supply and the usage of energy, use of energy efficient materials, provide natural ventilation, heating and cooling, products that reduce material use, products that reduce the impact of new construction, renovation and demolition, everything to make it easier to maintain. If we also want to contribute to sustainability at a macro level we have to consider the environmental impact in manufacturing, products that prevent pollution, products that reduce the environmental impact during building operation, naturally or minimally

processed, products with high post consumer recycled content, salvage products and use renewable energy sources and equipment that conserves energy.

High levels of storm water runoff in urban areas causes many environmental and economic problems including water pollution, flooding, and erosion. Why implementing of materials on roofs, patios etc. should be done with surfaces that generate storm water runoff, but also retrofitted to collect rainwater, which will reduce runoff as well as domestic water consumption. Urban foresting and green roofs on buildings is something to consider when it reduce storm water runoff and provide evaporative cooling, shades buildings and through evapo-transpiration cools the air (Engel-Yan 2005).

One reason why sustainable materials and good quality materials is not used is that it might be more expensive in the construction phase and affects the builder's economic interests. Most companies is not interested to build for a cheaper usage phase, but if the inhabitants were incorporated in a early stage they might effect the outcome to be more sustainable, where it is them how are going to be a part of the usage phase (Berg 2002). But we have to remember that it is also a matter of how well the architect planned the consumption of materials.

Material has a crucial impact on people's well being, and it is important for the inhabitants to be able to identify, accept and like their surroundings. We also have to provide and educate the inhabitants about their surrounded materials and renovation. Techniques is a part of social sustainability, but if it is too hard to maintain it could instead gain conflicts.

3 The Role of Architects

Architects must have a good understanding how local infrastructure and society interacts. Careful consideration of these relationships during neighbourhood design could yield significant improvements in infrastructure resources efficiency as well as reduction in pollutant emissions and overall costs. Poor planning in micro-neighbourhood level ends in cumulative consequences at macro-city level, planning sustainable in neighbourhood level could be decisive (Engel-Yan 2005).

Housing is a dynamic process and evolves with the users. It is important to plan for flexibility and a non-rigid design. Poor design of houses and neighbourhood and the use of inflexible building materials results in wastage of materials, time and effort. Regulated progressive building activities result in coordinated and harmonious housing development, with expansion limits and pre-determined expansion schemes. Flexibility of future expansion should be affordable, involving simple intervention and no wastage of materials and the ability to them (Åstrand 2010-03-22).

An architect should act as a moderator for users to be involved in the whole process. Where it is important as mentioned that their enter at an early stage, and could lead to social, environmental and economical sustainability. In my opinion it is also important for architects to consider that women are equally addressed in the process, among the planners, the politicians and the users. We have to plan for the long-term and consider the social and cultural norms, environmental and the practical requirements. Environmental specifications should be developed for each stage of the neighbourhood life-cycle; materials manufacturing, construction, use and demolition (Engel-Yan 2005). Architects should also consider different categories of people, related to age, household composition, stage in a lifecycle etc, and provide for various spaces for self-employment activities on the plot and for the whole community.

4. Design for Maintenance of a Neighbourhood

Economic

1. Importance of a mixed used neighbourhood with different kinds of tenure-ship.
2. Equal participation in governance for tenants as owner-occupiers.
3. The right to secure land tenure and property.
4. Equal access to property and financing of it.

Social

1. Involvement in the building process. Incorporate users already in the beginning of the planning process.
2. Incorporate inhabitants in the construction of the building, it makes it cheaper and the builder gets a connection to the building.
3. Community-led actions, teaching, long-term skill training of how to maintain their neighbourhood. Educate the users in the building process and ongoing how to build and maintain the materials and technologies.
4. Self administration of the neighbourhood from the inhabitant, which leads to dignity, self-confidence and social networking.
5. Encourage community work and livelihood centres to be a part of the maintenance and creativity in the neighbourhood, such as material and recycling workshops and ecological recycling agriculture.

Technical

6. Provide basic services as water, electricity and sanitation.
7. Quality instead of quantity, when it comes to materials and production.
8. Build for the time of usage. Use of materials that is cheap in the usage phase instead of in the production.
9. Green building techniques.
10. Use of local materials, and if possible recycle the materials as for example concrete, metal and brick or hollow blocks.
11. Easily maintained materials.
12. Incorporate a lifecycle perspective in planning the neighbourhood, where flexibility is of importance.
13. Importance of public spaces in the neighbourhood to invite people from outside, to not create a gated community and keep the area alive and provide for the economics of the *sari-sari* shops etc. which is gaining the local economy.
14. Importance of greenery in the neighbourhood, private/public eco-gardens, pocket parks, but also greenery that does not need too much maintenance. These areas create healthier areas, places for social contact and encourage

to strengthen the social networks and is income generative. It is important to remember that this is also made with quality and made with the involvement of the users. This educates and strengthens the social network.

(Berg 2002)

15. Flexible housing design to allow for various users.
16. Recycling; composting, rain water harvesting, and recycling grey water, to use in the maintenance of neighbourhood greenery etc.
17. Environmental specifications should be developed for each stage of the neighbourhood life-cycle; materials manufacturing, construction, use and demolition.

Thanks for reading!

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Lectures

Lena Brahme

2010-04-22 *User Involvement*

Rachelle Navarro Åstrand

2010-25-01 *Housing Sector of the Philippines*

Rachelle Navarro Åstrand

2010-03-22 *Sustainable Neighbourhood Design*