Organized self-help housing as an enabling shelter & development strategy. Lessons from current practice, institutional approaches and projects in developing countries

Arroyo, Ivette

2013

The aim of this study is to develop better understanding on organized self-help housing as an enabling shelter and development strategy to overcome poverty and build more resilient communities. The study addresses organized self-help housing from three different perspectives: a) current practice in developing countries; b) institutional approaches; and, c) the organized self-help housing process. Firstly, the current practice has been established through studying the state of the arts of OSHH after year 2000 in developing countries implementing an international survey (See Paper 1). Secondly, different institutional approaches have been identified; and the NGOs FUPROVI and SADEL, which worked in Costa Rica and Tunisia respectively, have been selected as case studies (See Paper 2). Thirdly, at the project level, the thesis argues the importance of dweller-control over the OSHH process through analyzing the case study Hogar de Nazareth in Guayaquil, Ecuador (See Paper 3). The research strategy follows a critical social science research paradigm; and case study methodology was implemented due to the multi-layered nature of reality of this research paradigm.

Results show that the tendency of the post-millennium OSHH projects is planning medium-rise buildings up to four or five storeys for in-situ slum upgrading, relocation, reconstruction or new housing projects. OSHH projects should consider that the settlement might increase its density up to five times in a 35-year lifetime, as was the case in some sites-and-services.

The study has identified different institutional approaches to organized self-help housing: a) people-centred OSHH; b) mixed-model OSHH; c) co-operativist OSHH; d) volunteer-assisted OSHH; and, e) community-empowered OSHH.

As an enabling shelter and development strategy, organized self-help housing contributes to improving 'the spatial'; and 'the social'. High degree of dweller-control over the OSHH process is key for enhancing the capabilities of the deprived. Due to mastering the OSHH process, the poor enhance their individual capabilities for planning, decision-making and self-management; and develop collective attributes such as spatial agency, collective efficacy and empowerment.

CBOs with the support of NGOs, the academia, mutual-help housing co-operatives and governmental agencies can remove unfreedoms for slum dwellers to access adequate housing. Political will and the shift to a 'housing as a process' paradigm will lead to planning paradigms that could address better the shelter needs of the poor. From a capability approach perspective, organized self-help housing has the potential to strengthen and empower communities. Therefore, building 'the spatial' whilst building 'the social' are essential for shifting to more 'just cities' in the South.

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Organized self-help housing as an enabling shelter & development strategy

Lessons from current practice, institutional approaches and projects in developing countries




Ivette Arroyo Baquero

Lund University

The City of Lund was established in the 10th century when the region of Skåne was under the authority of Denmark. The Treaty of Roskilde 1658 ceded the region to Sweden, and planning began immediately to create a university.

Lund University was established in 1666 and is Scandinavia's largest institution for education and research, with eight faculties and several research centres and specialised schools.

It is a member of several international networks and collaborations within research and education, such as the League of European Research Universities – LERU and Universitas 21 (U21). Today there are more than 680 partner universities in over 50 countries. Lund University has 47,000 students and 6,300 employees.

Architecture and Built Environment

Architecture and Built Environment was established on 1 January 2005 through a re-organization at the Faculty of Engineering. Its tasks include training architects, supervising post-graduate students and conducting research. The research field covers the entire process of planning, construction and management from conceptualization to demolition and re-use. Research studies can be interdisciplinary and multidisciplinary, as well as a deeper study within one of the subject areas of the research field.

Housing Development & Management (HDM)

HDM undertakes training and research in housing from an international perspective: planning, design, production, use and management, and the relationship between the dwelling and its surroundings from neighbourhood to city level. The aim is to understand how to improve the processes leading to good housing and sustainable development, especially for the poor.

HDM conducts advanced international training for planners, architects, engineers and other professionals working with housing and construction. HDM staff conducts research and studies in the following main areas:

- Housing as a tool for poverty alleviation
- Organized self-help housing / User's participation in housing processes
- Informal settlements development process
- Urban design / microclimate and outdoor thermal comfort,
- Increased residential densities and diversity / The compact city
- Building design / Climate, comfort, and energy use,
- Gender aspects in planning and design of housing and built environment,
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Dweller-control
Spatial agency
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Slum-upgrading
Hogar de Nazareth
Hogar de Cristo
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Organized self-help reconstruction

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Organized self-help housing as an enabling shelter & development strategy

Lessons from current practice, institutional approaches and projects in developing countries

For a more reconciled, equitable and just world!

To Cristian, Juan José and Ana Lucía for sharing my life.

"The best results are obtained by the user who is in full control of the design, construction and management of his own home. It is of secondary importance whether or not he builds it with his own hands, unless he is very poor."

(Turner & Fitcher, 1972: p.158)

"…spatial agency is something that adds social value to the world. [It] show[s] architecture's capacity for transformative action…[ ]…by looking at the world in the different way, one is able to find other ways of doing architecture"

(Awan, Schneider, & Till, 2011: pp 33,34)

"So many people are telling us now, 'We built it before; we'll build it again,'"

(Ruth Zapata, Habitat for Humanity homeowner, survivor of a tornado in Texas on May 15/2013)

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Foreword: lifelong learning

Thanks to a scholarship from the Swedish International Development Agency (Sida), I participated in the International Training Programme *Architecture, Energy and Environment: tools for climatic design* implemented by Housing Development & Management (HDM) at Lund University in 2000. This was my first visit to Sweden, my first contact with HDM; and the beginning of my lifelong learning on housing, urban development and poverty alleviation. During a visit to Sida's headquarter in Stockholm I understood that inequality in the distribution of wealth was the main reason underlying poverty and the spread of slums in my country. Slums and low income housing were not topics among the curriculum of architectural education in Ecuador.

In 2002, I participated in the International Course *Organized Self-help Housing: planning & management,* implemented by HDM and Fundación Promotora de Vivienda (FUPROVI) in San José, Costa Rica. Participants in the course included housing experts from Latin America, Asia and Africa. The exchange with other participants, course lectures, study visits to FUPROVI's projects and independent work constituted the basis of my knowledge on organized self-help housing. After the course, the Institute for Urban and Regional Planning (IPUR) – where I worked as coordinator – became the Ecuadorian counterpart of HDM for the implementation of the Programa de Capacitación para el Mejoramiento Socio Habitacional (PROMESHA[1]) from 2002 to 2010. As Coordinator of PROMESHA on behalf of IPUR-Ecuador, I was responsible to co-organize several activities with HDM in Guayaquil in 2002, 2006, 2007, and 2009. In 2006, I started documenting experiences of organized self-help housing projects implemented mainly by non-governmental organizations (NGOs) in Latin America which lead to an interest in carrying out doctoral studies.

On December 13 of 2007 I was accepted as an industrial doctoral student at HDM, Lund University; with PROMESHA and Universidad Católica de Santiago de Guayaquil (UCSG) as main support. In January 2008, I was appointed director of IPUR and this new position allowed me for stays of 3 months per year in Sweden for participating in research courses and tutoring for my doctoral studies. A scholarship of Riksbyggens Jubileumsfond – Den Goda Staden – has been key for me to be able to work full time on my doctoral studies from June 2012 to June 2013. Lifelong learning has been essential for me to look at organized self-help housing in a more comprehensive manner from three different perspectives: the current practice in developing countries, institutional approaches; and the project level.

[1] The aim of PROMESHA was to strengthen the capacity of NGO's, professionals, local governments, communities and decision makers working on urban development and low-income housing in 8 Latin American countries (Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua and Peru) (Bolme, 2010).

Abbreviations

CBOs	Community Based Organizations
CSS	Critical Social Science
CODI	The Community Organizations Development Institute
FUCVAM	Federación Uruguaya de Cooperativas de Vivienda por Ayuda Mutua
FUNDASAL	Fundación Salvadoreña de Desarrollo y Vivienda Mínima
FUPROVI	Fundación Promotora de Vivienda
GK	Gawad Kalinga
HABITAR	Centro de Estudios y Promoción para el Habitar
HDM	Housing Development & Management
HFHI	Habitat for Humanity International
HFHP	Habitat for Humanity Philippines
IPUR	Institute for Urban and Regional Planning
NGOs	Non-Governmental Organizations
OSHH	Organized Self-help Housing
OSHR	Organized Self-help Reconstruction
PRODEL	Programa de Desarrollo Local
PROMESHA	Programa de Capacitación para el Mejoramiento Socio Habitacional
SADEL	Swedish Association for Low-cost Housing
SDI	Slum/Shack Dwellers International
Sida	Swedish International Development Cooperation Agency
SPARC	Society for the Promotion of Area Resource Centers
TAO	TAO-Pilipinas
TECHO	Un Techo para mi País
USINA	Centre of Projects for the Built Environment
WB	The World Bank

1 Introduction

This thesis starts with the background of the study explaining the relationship between housing, poverty, self-help housing and urbanization in the context of capitalist economic development. The first section also introduces and defines organized self-help housing. The second section defines briefly different types of self-help housing and states the research problem. The third section formulates the aim, research questions and limitation of this study. Finally, the fourth section presents the structure of the thesis, specifying the papers that are included.

1.1 Background

> "…slums and urban poverty are not just a manifestation of a population explosion and demographic change, or even of the vast impersonal forces of globalization. Slums must be seen as the result of a failure in housing policies, laws and delivery systems, as well as of national and urban policies. Although urban centres throughout the world now hold more of the 'poorest of the poor' than ever before, the urban poor are usually able to help themselves and to access official assistance more than their rural counterparts. Indeed, the immigrant poor have largely moved to city slums voluntarily in order to find jobs" (UN-Habitat, 2003a: p 2).

According to Jenkins, Smith, & Wang (2007: p 75), "capitalism continues as the increasingly dominant form of economic engagement across the world, however the global aspect of this does not mean that all are beneficially affected by this worldwide". Capitalist economic development has shown to be inequitative and exclusionary regarding income, health, education, living conditions and housing. Informal settlements or slums[2] in developing regions are the physical response to these inequalities, in the context of rapid urbanization and lack of governmental social housing provision. UN-Habitat has estimated that around 924 million people lived in slums in 2003 – which constitute the manifestation of the urbanization of poverty. Slums are expected to reach 2 billion of slum dwellers by 2030 (Payne & Majale, 2004). The importance of land and housing for understanding urban poverty is increasingly recognized. For Berner (2001), "the nature of the relationship between housing and poverty is multidimensional.

[2] The operational definition of slums is a settlement that lacks one or more of the following: a) access to improved sanitation, b) access to improved water, c) access to security of tenure, d) durability of housing, e) access to sufficient living areas (UN-Habitat, 2003b), (Acioly, 2012).
Slums feature the most deplorable living and environmental conditions and are characterized by inadequate water supply, poor sanitation, overcrowded and dilapidated housing, hazardous locations, insecurity of tenure and vulnerability to serious health risks – all of which have major implications for quality of life. (UN-Habitat, 2012b).

Substandard informal housing has two major dimensions, namely (a) lack of quality/infrastructure/space, and (b) insecurity. Both are factors, indicators and causes of poverty". Berner also states that housing poverty is determined by land supply and allocation – following Hardoy and Sattertwaite's (1989) argument that instead of 'housing gap', what exists is a lack of suitable and affordable land for the poor. For Payne & Majale (2004), pro-poor regulatory frameworks are important as part of "a twin-track approach that aims to upgrade existing informal settlements and improve access to legal and affordable new housing". Revising and relaxing planning and building regulations; and reducing time and informal costs associated to complex bureaucratic procedures, are key issues for governments for improving existing slums and preventing the formation of new ones (Payne, 2005).

Informal settlements or slums have mainly been built both informally and incrementally through self-help housing by the people themselves. The poor cannot afford the costs of planners or architects; but they can pay for some qualified construction labour for complex tasks like electrical installations of plumbing. Incremental growth of the initial shelter/shack suits the practice of the poor better due to limitations in accessing formal credit because of lack of land tenure or stable income. Therefore, self-help housing has become the widespread solution for the shelter needs of the poor in developing regions. The lack of technical assistance has shown several limitations. Firstly, the initial shelter is not designed for horizontal expansions and incremental growth over time. Secondly, the vertical growth of the initial shelter is limited in height to two or three storeys whilst compromising the structural quality of the house for resisting earthquakes.

Organized self-help housing has been implemented efficiently in several types of projects by Non-governmental Organizations (NGOs) and Community Based Organizations (CBOs) in developing countries before and after the global commitment to the Habitat Agenda in 1996[3]. For this thesis, organized self-help housing is defined as "a process that involves the community's active participation and decision making in planning, design, self-construction, and post-project activities with technical assistance of a facilitating organization" (Arroyo & Åstrand, 2013a). Consequently, it is urgent to study how self-help housing with technical assistance has been implemented in developing countries.

The thesis studies organized self-help housing from three different perspectives: a) current practice in developing countries, b) institutional approaches; and c) the organized self-help housing process. The study argues that OSHH implemented by NGOs and CBOs is an effective bottom-up approach to slum upgrading, relocation, reblocking, new housing and reconstruction projects as it will be discussed through analyzing different examples from developing countries. This research also highlights the importance of organized self-help housing as an enabling shelter and development strategy for overcoming poverty whilst building more

[3] The Habitat Agenda is a global action plan for adequate shelter and sustainable human settlements agreed in 1996 in Habitat II (UNCHS, 1996a).

resilient[4] communities. Hence, there is a need for adequate institutional and pro-poor regulatory frameworks that include OSHH. It also emphasizes the effects of high/low degree of dweller-control over the OSHH process on community development.

1.2 The research problem

Organized self-help housing is sometimes confused with aided self-help housing, sites-and-services, state assisted self-help housing, assisted self-help housing or with self-help housing. For this thesis, based on Harris (1999), aided self-help housing or state assisted self-help housing is a top-down process implemented by governments for alleviating poverty or for reconstruction purposes that originated in Europe after the First World War. Whereas sites-and-services refers to the top-down approach implemented by U.S. Aid in the 1960s (Abrams, 1969) and the World Bank from the 1970s to mid 1980s to provide plots and infrastructure – and sometimes core housing – for the poor in developing countries. Assisted self-help housing is a bottom-up and family-based approach to self-help housing that incorporates technical assistance and micro-credit implemented by facilitating organizations – e.g. the work of PRODEL[5] in Nicaragua. Self-help housing or spontaneous self-help housing refers to how the people themselves self-build their own housing but without technical assistance.

Currently there is a lack of knowledge on the practice on organized self-help housing in developing countries. NGOs and CBOs have implemented different approaches to OSHH, and have applied OSHH to different types of projects. Therefore, it is important to study current practice in developing countries to learn lessons that can improve planning and housing practices. Institutional approaches to OSHH imply different levels of community participation; and not all approaches are successful in terms of empowering the community over the OSHH process. There is the need of increasing our knowledge on how to plan and implement organized self-help housing projects as an alternative architectural and planning practice to support the deprived in accessing adequate housing. Hence, the importance of studying three main aspects of organized self-help housing: current practice in developing countries, institutional approaches and the OSHH process.

There are several reasons that make governments hesitant in incorporating organized self-help housing within housing and development policies. First, the *technical quality of housing* of self-help housing has been questioned but experience from OSHH projects has demonstrated as good quality as contractor build housing (Rodríguez & Åstrand, 1996). Second, the *construction period* for sites-and-services projects has regarded to be too long in some experiences (Cohen, 2009), but some organizations that have implemented organized self-help housing (OSHH) as a continuing learning process have manage to improve their timing (Viales, 2007). Third,

[4] Resilient: the ability of a person to withstand or recover quickly from difficult conditions (Oxford Dictionary Online).

[5] Fundación PRODEL: Programa de Desarrollo Local is a Nicaraguan NGO since 2003. It started as a bilateral cooperation programme between Sweden and Nicaragua in 1993. See http://www.prodel.org.ni

arguments related to the *small scale contribution* of sites-and-services projects in relation to the demand for housing in most cities (Cohen, 1983), although today there are cases of city-wide slum upgrading projects that incorporate an OSHH approach successfully (Boonyabancha, 2005). Fourth, a *limited view on assisted self-help housing* that focus only on the savings from the self-build activities performed by the community; without considering the gains in terms of enhanced capabilities and community development due to the OSHH process (Rodríguez & Åstrand, 1996). Fifth, the *lack of community involvement* in designing their own improvement programmes in sites-and-services affected negatively commitment to the neighbourhood; which had negative consequences in project maintenance and cost recovery (Cohen, 1983). Finally, another reason is the lack of knowledge on *how dweller-control over the OSHH process* affects community development in the long term; and how this process can lead to more resilient communities.

1.3 Aim, research questions, and limitations

The aim of this thesis is to develop better understanding on organized self-help housing as an enabling shelter and development strategy to overcome poverty and build more resilient communities. The study addresses organized self-help housing from three different perspectives: a) current practice in developing countries, b) institutional approaches; and, c) the organized self-help housing process. First, the international practice will be established through studying the state of the arts of OSHH by means of identifying organizations, project types and lessons after year 2000 (Paper 1). Secondly, the institutional perspective will be addressed by studying how the NGOs FUPROVI and SADEL have anticipated some principles of the Habitat Agenda in their institutional approaches to OSHH projects in Costa Rica and Tunisia respectively (Paper 2). The Habitat Agenda is important for this thesis because it makes explicit the importance of bottom-up approaches to self-help housing with technical assistance among other shelter enabling strategies; which incorporates NGOs and CBOs among actors for addressing the problems of adequate shelter for all and sustainable human settlements. Thirdly, the study addresses the project level and argues the importance of dweller-control over the OSHH process through analyzing the case study Hogar de Nazareth in Guayaquil[6], Ecuador (Paper 3). The following research questions should be answered:

[6] Hogar de Nazareth is an organized self-help housing project implemented by Corporación Hogar de Cristo from 1990 to 1998 in Guayaquil, Ecuador.

Table 1.1 Research questions to study OSHH from three perspectives: a) current practice in developing countries, b) institutional approaches, and c) the OSHH process

Perspective	*Research questions*
a) current practice in developing countries	*How have NGOs and CBOs planned and implemented organized self-help housing projects in developing countries since year 2000? What types of OSHH projects have been implemented? Which organizations are the main actors and what are key lessons? How have poor communities been organized and become agents of change through OSHH projects?*
b) institutional approaches	*How have FUPROVI and SADEL facilitated organized self-help housing projects? To what extent have these NGOs incorporated the principles of the Habitat Agenda in their approaches to OSHH? What are important lessons from the approaches of FUPROVI and SADEL?*
c) the organized self-help housing process	*How was the OSHH process of Hogar the Nazareth implemented? How was dweller-control[7] over the OSHH process? How did dweller-control over the OSHH process affect the enhancement of capabilities? How did technical changes affect community development?*

This thesis is limited to OSHH projects because there is a lack of updated research in this area, whereas there has been a lot of research on self-help housing, aided self-help housing and sites-and-services since the 1970s (Abrams, 1969; Mangin, 1967; Turner & Fichter, 1972; Turner, 1976; Burgess, 1978, 1982; Ward, 1982; Skinner, 1983; Mathey, 1992; Ward, 1996; Tait, 1997; Harris, 1997, 1998, 1999, 2003, 2012; Yengo, 2008; Cohen, 2009; Bredenoord & Van Lindert, 2010; Ntema, 2011; among many others.

The importance of the study is to extract lessons that can be further develop as guidelines for improving the current OSHH practice in developing countries. Fieldwork was implemented in Costa Rica and Nicaragua for studying institutional approaches to OSHH. Fieldwork has been mostly conducted in Guayaquil-Ecuador for studying Hogar de Nazareth OSHH process. The international survey was implemented mostly from Sweden.

[7] Dweller-control is a concept that highlights the importance of the involvement of low income households during the whole housing process. In *Freedom to Build*, Turner argues the link of dweller-control over the housing process with individual and social well-being (Turner & Fichter, 1972).

1.4 Structure of the thesis

The thesis contains five chapters and three appended papers. It claims the potential of OSHH as a pro-poor enabling shelter and development strategy for cities without slums. Chapter 2 positions the research in relation to philosophy, architecture, planning; and research paradigms. Then, this chapter reviews the tensions that housing, planning and urban development face in developing countries. Next, the literature review analyses aided self-help housing, conventional social housing, sites-and-services, and organized self-help housing.

Chapter 3 presents the research methods that have been applied in the study. Chapter 4 includes the results and discussion of the state of the arts of OSHH in developing countries since year 2000. It also discusses institutional approaches driven by NGOs and CBOs. Finally, this chapter claims the centrality of dweller-control over the OSHH process for enhancing capabilities and fostering community development. Chapter 5 presents the conclusions of the thesis and includes identification of future studies.

The three following papers are appended:

Paper 1: Organized self-help housing: lessons from practice with an international perspective.

Paper 2: Organized self-help housing as a method for achieving more sustainable human settlements. Lessons from two non-governmental organizations: FUPROVI and SADEL.

Paper 3: Organized self-help housing: lessons for improving the process. Dweller-control and community development in Hogar de Nazareth, Guayaquil-Ecuador

2 Theoretical framework

In the theoretical framework, the first section positions the study according to the fields of philosophy, architecture, planning and social sciences. The second section presents a conceptual framework to be used later in Paper 3 and in Chapter 4, Results and discussion. The third Section raises the question on how to move from cities with slums to 'just cities'[8] in the South. This section compares the contexts, underlying mechanisms and effects of urbanization in developed and developing countries and current tensions between housing and urban development in the South. Then, it argues the failure of conventional social housing and how a shift to a more positive view of slums led to slum upgrading programmes.

The fourth section argues for the need to find a planning paradigm for shifting from cities with slums to 'just cities' in the South. The fifth section argues that aided self-help housing originated in the North and was transferred to the South; this section also discusses the limitations of sites-and-services and the shift to enabling housing policies. The sixth section highlights the rationale underlying organized self-help housing. Finally, the last section discusses current research on organized self-help housing in developing countries; and analyzes examples of organized self-help housing projects implemented by the architectural collective USINA and the network of CBOs Slum/Shack Dwellers International[9].

2.1 Positioning the study

Philosophical stances

Architectural and planning alienation

Wallenstein (2010) highlights that "modern capitalism works by creating a consent through images, sound bites, brands, and various visual technologies that impact directly on our brain, bypassing the censorships and reflective mechanisms of consciousness". This alienation includes architecture and planning in developing countries, in which gated communities, shopping malls, and skyscrapers are associated with ideas of modernity or development even in contexts with high levels of poverty, segregation and inequality. Conversely, Wallenstein argues the capacity of

[8] Here I refer to Fainstein's (2000) planning theory of 'the just city' – where the term just refers to justice –that will be explain further in section 2.4 Dichotomies in Planning theory and practice.

[9] SDI defines itself as a CBO, "a network of community-based organizations of the urban poor in 33 countries in Africa, Asia and Latin America" (See http://www.sdinet.org/about-what-we-do/). However, it is considered as "a transnational NGO founded in 1996 and currently registered in South Africa and the Netherlands, with its member countries ranging across the continents of Africa, Asia and Latin America" for Awan, Schneider, & Till (2011) and many others. However, these authors emphazise that SDI represents "'federations' of the urban poor and homeless groups who have organised themselves at a city or national level". In this thesis, SDI will be consideres as a CBO due to the high degree of dweller-control over their approach to OSHH.

architecture to open a space of freedom to question formal contradictions of society. The duality of cities in the South – coexistence of high-income spatial developments and informal settlements – are part of these contradictions of contemporary society. This duality is the physical expression of modern capitalist inequality. Architecture and planning have surrendered to the forces of the market instead of activating our reflective mechanisms of consciousness. How can architecture and planning move away from the current mode of production of 'the spatial'[10] only as material good? How can these spatial oriented practices contribute to remove 'unfreedoms'[11] to adequate housing and to 'the right to the city'[12]?

Latour (2004) argues the need of "the cultivation of a stubbornly realist attitude dealing with matters of concern, not matters of fact". Informal settlements or slums should be considered a matter of concern – a thing, an issue, a 'gathering' – that has humans and nonhumans 'participants' which make this 'thing' robust, complex and urgent to address in the South. As Latour pointed out, "it is entirely wrong to divide the collective…into the sturdy matters of fact, on the one hand; and the dispensable crowds, on the other". This means that we should avoid breaking the issue of slums in different matters of fact such as infrastructure, shelter or public space, on one hand; and the community living in it, on the other. It is important to understand the 'thingness of slums' to search for other ways of doing architecture – for slum upgrading, relocation, reblocking – that go beyond contemporary capitalist alienation. If we look deeper into the 'thingness of slums' we will understand rich and sturdy social relationships among slum dwellers, the ways they produce 'the spatial', and how people relate to it – to the public, semi-public and intimate space.

Other ways of doing architecture

Awan, Tatjana, & Till (2011) argue that "mainstream architectural practice is not engaged enough with political and social contexts… [there is] no clear consensus as to how create alternatives", specially for the poor to access adequate housing, and that lead to 'the just city'[13]. This amended statement is valid especially in the context of developing countries where rapid urbanization and the lack of response of governments to the shelter needs of the urban poor has derived in the proliferation of slums. Why has architectural practice failed in achieving a more equitable and inclusive

[10] The spatial: through the thesis I use this term taken from Awan, Tatjana, & Till (2011), as a way to move from the static context and limits of the term 'architectural' to the more open possibilities of 'the spatial'. Other ways of doing architecture should "prioritise values outside the normal terms of reference of the economic market, namely those of the social, environmental and ethical justice.

[11] *Unfreedoms*: a term coined by Amartya Sen which refer to the constraints to ever expanding freedoms to development. For Sen, development is "the process of expanding human freedoms" (Sen, 1999). Sen identifies 5 freedoms: political freedoms, economic facilities, social opportunities, transparency guarantees and protective security (Samuels, 2005).

[12] *The right to the city*: a term introduced by Lefebvre in 1968 that implies "the right to information, the rights to use multiple services, the right of users to make known their ideas on the space and time of their activities in urban areas; it would also cover the right to the use of the center" (Lefebvre, 1991, p.34 in Marcuse, 2010). For Marcuse (2009), "the right to the city… is a moral claim, founded on fundamental principles of justice, of ethics, of morality, of virtue, of the good".

[13] The just city: a planning theory developed by Susan Fainstein that defined the just city in terms of democracy, equity, diversity, growth and sustainability (Fainstein, 2005).

built environment? One of the reasons might be the dominant architectural paradigm that guides teaching and practice: the definition of architecture in terms of object-building (Awan, Schneider, & Till, 2011); which leads to paradigms such as housing as a product. Why has the planning practice failed in addressing the challenge of slums in the context of rapid urbanization in the South? The answer might be related to an understanding of development as economic growth that serves the interests of the market but fails in addressing 'the spatial' needs of the poor as a way of redistributing wealth. In developing countries, planners face tensions when working for public organizations or private enterprises because private developers are more in control of city planning than governmental agencies[14]. Moreover, informal urbanization – new informal settlements and incremental growth of older slums – has been so rapid and wide in scale that inherited planning paradigms have not been suitable to cope with these phenomena. These tensions are reflected in the lack of pro-poor housing policies for removing 'unfreedoms' to access adequate housing. The poor is also deprived from the 'right to the city', a concept introduced by Lefebvre in 1968 as 'a cry and a demand'; that (Marcuse, 2009) develops further specifying that 'the cry' is from the discontented – or alienated – and 'the demand' is from the deprived – the urban poor. The right to the city has been further especified as "the right to clean water, clean air, housing, decent sanitation, mobility, eduction, health care, democratic participation in decision making", all of these are neccessities for a decent life (Brenner, Marcuse, & Mayer, 2012). How the urban poor can access adequate housing and excert their right to the city still remain unanswered questions in developing countries today.

Among architects, planners and researchers that have been influencial in developing other ways of doing architecture and planning in developing countries, the work of Charles Abrams (Abrams, 1969), Jacob Crane (1950), John F. C. Turner (1967; 1972; 1976), John Habraken, Collin Ward (1996), Nabel Hamdi (1995), Cedric Pugh (1994; 2000), Mario Rodríguez and Johnny Åstrand (1996), Peter Marcuse (2007; 2009) and Susan Fainstein (2000; 2005) have been very relevant for this thesis. From John Turner (1972), I have borrowed the paradigm of housing as a process; and taken the concept of dweller-control to study its importance over the OSHH process. Paul Jenkins, Harry Smith and Ya Ping Wang (2007) have been crucial for understanding the relationship of planning and housing and their impact in urban development both in the North and the South. Richard Harris (1997; 1998; 1999 and 2003) has been the main reference of this work regarding history of aided self-help housing, tracing its origins to developed countries and linking it with how practitioners learnt about it when travelling to developing countries – mainly to India. This thesis also builds on Cedric Pugh's work on self-help housing and urban development policy (Pugh 1997; 2001); and on Rodríguez & Åstrand's (1996) position on the relevance of organized self-help housing as an efficient strategy for sheltering the poor whilst building community.

[14] This statement is based on Johnny Åstrand's observations on city planning in Manila, The Philippines; and on the researcher's observations in the city of Guayaquil, Ecuador.

Critical urbanism and critical planning

Marcuse (2009) questions the role of critical urban theory regarding how to address 'the cry and demand' from 'the alienated and the deprived' to the right to the city. After reflecting on how different planning approaches have proposed different reconstruction plans in New Orleans after huricane Katrina, Marcuse (2007) calls to a shift of paradimgs from 'sham planning' – the planning of public policy that surrenders to market forces, and the surplus interests of private developers – and 'predatory planning' – that fosters segregation, inequality, pollution, injustice – towards 'justice planning' and 'critical planning'. In Marcuse's words "critical planning looks to the roots of the problems as well as their symptoms and pursues a vision of something beyong the pragmatic". 'Justice planning' is based on the concept of the just city developed by Susan Fainstein, which proposes "democracy, equity, diversity, growth, and sustainability" as values necessary to reach the just city (Fainstein, 2005). The justice planning approach aims at the distribution of social benefits; it values participation in decision making by deprived groups, but it is also concerned with the output of planning.

Research paradigms

The thesis has a *critical urban theory character* underlying the discussion for organized self-help housing among other ways of doing architecture and as a pro-poor enabling shelter and development strategy. It questions the housing as a product paradigm and the failure of current planning theory/practice to propose/implement alternative approaches that can contribute to a shift from cities with slums to just cities in the South. The following propositions have been taken from Brenner (2009) as starting assumptions: first, "[critical urban theorists] reject intrumentalist, technocratic and market-driven forms of urban analysis that promote the maintenance and reproduction of extant urban formations". Secondly, "[they] are concerned to excavate possibilities for alternative, radically emancipatory forms of urbanism that are latent, yet systemically suppressed, within contemporary cities". The present work argues the need for overcoming the current alienation of architecture and planning practices in the South; and searching for other ways of doing architecture and planning that support the poor in accesing adequate housing and the right to the city. The thesis intends to show how the power of the people themselves when adequately supported by facilitating organizations can achieve better shelter and human settlements in developing countries. Like critical theorists, the study looks to discuss the dialectical relationship between practice and theory; recognizing that practice informs the work of theorists, and then critical theory can illuminate/reorient practice (Brenner, 2009). This work has a critical urban theory character because it is not limited to criticize the present status quo; it analyzes and discusses current organized self-help housing practice to learn lessons from current practice in developing countries, institutional approaches and at project level in an

attempt to provide evidence-based knowledge for planning theory and planning practice in the South.

The *research paradigm* that guides the thesis is *critical social science* because under 21st century conditions of "increasingly generalized, worldwide urbanization, the project of critical social theory and that of critical urban theory have been intertwined as never before" (Brenner, 2009). Critical social science shares with *critical realism* "the notion of reality as consisting of three domains – the empirical, the actual and the real. The *empirical* domain includes […] things that happen and exist according to our immediate experience. The *actual* domain […] refers to that which transpires independent of the researcher […] Finally, the domain of the *real* includes those mechanisms that are productive of different events and other surface phenomena […] The task of science is to explore the realm of the real and how it relates to the other two domains" (Alvesson & Sköldberg, 2009). For Jeppesen (2005), "epistemologically, the aim of critical realism is to explain the relationship between experiences, events and mechanisms. This perspective emphasizes questions of 'how and why'a particular phenomenon came into being". Hence, these types of questions can be answered through case study methodology, as it will be discussed in Chapter 3, Methodology. Critical social science (CSS) defines social science as "a critical process of inquiry that goes beyond surface illusions to uncover the real structures in the material world in order to help people change conditions and build a better world for themselves" (Neuman, 2011). The ultimate goal of research is not only to study the social world but to contribute towards changing it – here I mean producing knowledge that can contribute to the aim of cities without slums.

CSS recognizes that people make rational decisions; they are shaped by social structures but through their creativity construct meaning and social structures. CSS recognizes bounded autonomy, a view of how human agency and structure cooperate; in which people make decisions but restricted within boundaries – cultural or material. This understanding of human agency implies that collective human actions can improve or alter structures, as it will be discussed through this thesis. CSS "uses abduction to create explanatory critiques. […] Instead of beginning with many observations or with a theoretical premise, abduction 'tries on' a potential rule and asks what might follow from this rule. Both ideas and observations are placed into alternative frames and then examined, and the 'what-if' question is asked. A researcher using abduction applies and evaluates the efficacy of multiple frameworks sequentially and creatively recontextualizes or redescribes both data and ideas in the process. […] Explanatory critique begins with the premise that when we study social life, we study both the thing 'itself'and how people think about or understand the 'thing' we are studying." (Neuman, 2011).

From the critical social science tradition, this thesis builds on the work of Herbert Marcuse when he asserts that "late 20th century capitalism lacks any clear 'agents or agencies of social change'; in other words, the proletariat was no longer operating as a class 'for itself'. Nonetheless, [he] insists forcefully that the need for qualitative change is as pressing as ever

before […] by society as a whole, for every one of its members" (Marcuse 1964 quoted in Brenner, 2009). I agree with Marcuse regarding the need for qualitative change for society considering that around 1 billion people live in slum areas today. Moreover, in this study I intend to discuss how organized communities have become agents of change when planning and implementing OSHH for slum upgrading projects.

2.2 Conceptual framework

The thesis uses concepts drawn from different disciplines such as social theory, development, architecture, housing and community psychology that have to be defined. The need of borrowing concepts from different disciplines is explained because the way people produce 'the spatial' with technical assistance is a complex issue that needs to be addressed through multidisciplinarity and transdisciplinarity. Therefore, the following concepts respond to the multidisciplinary character of the spatial. The authors quoted in the definitions are the ones with whom the researcher shares understanding of the meaning of the concepts. These concepts have been important for analyzing Case Study 3: Hogar de Nazareth OSHH process (See Paper 3); and for conceptualizing current practice on organized self-help housing in Chapter 4, section 4.2. This thesis is a first attempt to apply Sen's capability approach to understand how dweller-control over the OSHH process contributes or not to achieve enhanced capabilities, spatial agency and collective efficacy. It also explores how the achievement of the latter individual and collective attributes contribute or not to empowerment, and to community development in the long term.

Capabilities: For Sen (1999), a person's capabilities refers to "the alternative combinations of *functionings* that are feasible for [him/] her to achieve". Sen's (1999) concept of functionings reflects "the various things a person may value doing or being". Capabilities refer to the freedom to be able to combine different functionings – in other words, the ability to achieve feasible funtionings[15]. Hence, housing functionings[16] can be understood as important things people value doing or being to enhance their freedom to access adequate housing. Sen (1999) argues that "...capabilities can be enhanced by public policy, but also, on the other side, the direction of public policy can be influenced by the effective use of participatory capabilities by the public".

Dweller-control: "when dwellers control the major decisions and are free to make their own contributions in the design, construction, or management of their housing; both this process and the environment produced stimulate

[15] "While functionings are, in a sense more directly related to different aspects of living conditions… capabilities, in contrast, are notions of freedom in the positive sense: what real opportunities you have regarding the life you may lead" (Sen, 1987 quoted in Ansari, Munir, & Gregg, 2012). Hence, a functioning is an achievement, whereas a capability is the ability to achieve.

[16] Freidiani (2007) has developed five housing functionings through participatory methods when evaluating two slum upgrading projects in Brazil. Freidiani's housing functionings are individualize and expand, afford living costs, have healthy environment, participate in decision making and maintain social networks.

individual and social well-being" (Turner & Fichter, 1972; pp 241). Turner claims the centrality of the concept of dweller-control over the self-help housing process; he relates dweller-control to freedom and to well-being. In this thesis, dweller-control is understood as a 'functioning' that the poor value 'doing' – which is achieved due to the OSHH process – to access adequate housing. Dweller-control over the OSHH process contributes in enhancing different capabilities of the households. Capabilities on planning, management and decision making – among others related to the self-construction process – are key for empowering the poor to overcome poverty and become more resilient.

Spatial Agency: For Awan, Schneider, & Till (2011) 'the spatial' is a term that goes beyond the static object-building character of the term architectural. The spatial includes aspects such as the process of the making of the built environment and its social aspect. "Agency means being able to intervene in the world…[ ]…with the effect of influencing a specific process or state of affairs…[ ]…action depends on the *capability* of the individual to 'make a difference' to pre-existing state of affairs or course of events…[ ]…agency presumes the capability of acting otherwise". Agents act as part of a mutual enterprise; hence Giddens' term 'mutual knowledge' implies abandoning hierarchies in professional relationships whilst allowing contributions from everyone due to a shared enterprise (Giddens quoted in Awan, Schneider, & Till, 2011). For this thesis, spatial agency refers to actions that individuals achieve through the OSHH process that allow them to make changes in the built environment whilst removing structural limitations to access adequate housing.

Collective efficacy: People are considered as active agents of change whose capabilities and potentials are essential for their own development (Samuels, 2005). Bandura (1998) argues, "social cognitive theory extends the analysis of mechanisms of human agency to collective agency. [Collective efficacy, which is] people's shared beliefs in their collective power to produce desired outcomes are a crucial ingredient of collective agency… [It] is not simply the sum of the efficacy beliefs of individual members [but] an emergent group level attribute". For this thesis, collective efficacy is a collective attribute that is achieved by the families through overcoming the OSHH process.

Freedom/unfreedoms: *Unfreedoms* is a term coined by Amartya Sen which refers to the constraints to ever expanding freedoms to development. For Sen, development is "the process of expanding human freedoms[17]". The process of gaining freedom is defined as "a process of removing obstructions or constraints in the lives of the slum dwellers" (Samuels, 2005). For this thesis, unfreedoms for the poor to access adequate housing are dominance of the housing as a product paradigm, lack of pro-poor housing policies; inherited building standards and regulations from developed countries; lack of finance and land tenure.

[17] Sen identifies 5 freedoms: political freedoms, economic facilities, social opportunities, transparency guarantees and protective security (Samuels, 2005). This approach recognizes the effectiveness of people's agency for achieving their own development (Sen, 1999).

Empowerment: For Rappaport (1987), "Empowerment is a process, a mechanism by which people, organizations, and communities gain mastery over their affairs. Kesby (2005) argues that "empowerment through participation takes time and will fail if initiatives do not last long enough…[ ]… participation and empowerment must be conceived as embedded in material space". This thesis claims that community emporwerment is achieved when poor communities have high degree of dweller-control over the OSHH process; as it is discussed in Paper 3.

In this thesis, dweller-control is understood as a functioning for the deprived for accessing adequate housing. When a household has dweller-control over the organized self-help housing process, he/she enhances his/her capabilities and spatial agency. The community might develop collective agency over the process due to their perceived collective efficacy. Hence, the community, architects, planners and other professionals become spatial agents for removing unfreedoms to adequate housing for the poor. The community empowers itself due to enhancing their capabilities; and developing spatial agency, collective agency and collective efficacy. The latter paragraph summarizes the main arguments underlying Paper 3 and Chapter 4, Results and discussion.

2.3 Urbanization of cities in the South

> "Today, the vast majority of slums are found in the developing world, but it is important to remember that in the early years of urbanization and industrialization in the Western world, urban conditions were at least as bad as those found anywhere today and slums were just as widespread. In the 19th century, industrialization in Europe and America led to rapid urbanization. The population of London went from about 800,000 in 1800 to over 6.5 million in 1900; during the same period, Paris grew from one-half to over 3 million; and by 1900 New York's population had swelled to 4.2 million. This explosion meant that the poor lived in dark, airless and unsanitary tenements, often without windows, where they were regularly exploited by rapacious landlords and politicians" (UN-Habitat, 2003a).

From the philosophical stands discussed in section 2.1, a broader question will frame this thesis: How can architecture and planning move from the housing as a product paradigm to other ways of producing 'the spatial' that builds on the capabilities of the urban poor to build 'the social'? How can these making disciplines support the deprived in accessing adequate housing and lead the shift from 'cities with slums' to 'just cities' in developing countries? The purpose of raising these questions is to start such a discussion from a critical urban theory perspective, but acknowledging the limitations of the current work to address it.

Housing and urban development

It is important to understand the different contexts in which urbanization occurred, its underlying mechanisms and its consequences on the spatial. The latter is important to propose housing paradigms and approaches that address more effectively the shelter needs of the poor in the South. In developed countries – or core countries – cities created during the mercantilist phase of capitalism [between 1500-1800] had rapid urban influx but not high urban growth rates due to high mortality rates. The urban influx affected negatively the provision of basic services which was addressed through stronger government intervention and institutionalization of public health measures. In the late eighteenth century, urban development accelerated because industrialization fostered the concentration of production in space with a wider and rapid expansion of urban areas. Natural growth rates rose due to improvements in health and "urban services led to the first state-decreed basic housing standards and land use controls, and the eventual emergence of land use planning" (Jenkins, Smith, & Wang, 2007). The core countries experienced rapid urbanization during colonization whilst urbanization was gradually increasing but highly controlled in the colonies. However, the same housing and planning standards from the core countries were exported to the colonies. State planning and housing were provided by the colonizing

powers but with a segregation basis between colonial and indigenous societies.

Impoverishment in the core European countries after the wars and the rise of the Unites States and the Soviet Union – as new global powers pushing to enter new markets – led to de-colonization. However, neo-colonialism from 1950s to 1970s followed because "the newly independent ex-colonies continued to be dependent on the capitalist system based in the core [countries], an produced primarily raw materials for manufacturing in these areas, importing the resulting products, with declining terms of trade" (Jenkins, Smith, & Wang, 2007). During the same period 'development' practice started with a focus on social and economic development in the ex-colonies. Development aid from a modernization perspective focused on "selective economic and technological aid for development, with related political and socio-cultural modernization". By contrast, development aid from a dependency theory and policy makers approach focused on "de-linking ex-colonies from the global system dominated by the core countries; and protected development within nation states and macro-regions, promoting revolutionary political change" (Jenkins, Smith, & Wang, 2007).

The effects of the political and economic changes were reflected in the nature of urban development in developing regions. There was high urbanization influx from deprived people from rural areas to urban areas because colonial administrative controls over labour were removed. Urban centres exerted a pull effect due to improved educational and health services; and life expectancy rose and fertility rates remained high. Thus, rapid urbanization characterized the neo-colonial period in the South[18]. The rapid urban influx led to higher demands on shelter and basic services, which produced tensions between housing and urban development in the context of poverty and rapid urbanization. Governments in developing countries were not able to mediate the impact of rapid urbanization as governments in core countries did through planning and housing – providing shelter or managing land use for collective benefits (Jenkins, Smith, & Wang, 2007). Hence, rapid urbanization in developing countries led to the development of informal settlements as the only solution of the deprived to address their shelter needs through appropriation of public or private land and spontaneous self-help housing. Approaches in governmental response to housing in developing countries have changed from provider of conventional social housing, to provider of sites-and-services, to enabler of markets to work. The following sections will develop these issues further.

[18] For a detailed account of a new international political economy analysis of urban development through different perods of global economic development See Jenkins, Smith, & Wang (2007).

Limitations of conventional social housing

> "The policy of limiting the allocation of housing units in specific projects to specific income groups – and of imposing specific housing types – naturally limits the social mix and inevitably increases the administrative costs both in the short and the long run" (Turner J. F., 1967).

The development of housing policy and practice in the North after the two World Wars influenced the policies and practice of housing in the South in the context of a rapid urbanizing world. State housing provision was implemented "as a key component within the Welfare State… large-scale 'general needs' and 'slum improvement' housing programmes were initiated, usually through local authorities with central government finance" (Jenkins, Smith, & Wang, 2007). Due to limited availability of skilled labour and material scarcity, prefabrication was developed and allowed for mass production of building components; which led to large-scale high-rise architecture.

In the South, there were two main approaches to informal settlements during the 1960s and 1970s; the first, eviction of squatter settlements; and the second, provision of complete apartment buildings – conventional social housing (Mitlin, 2012). Mayo & Gross (1987) argue that the adoption of housing solutions from developed countries failed in the South because they relied on "heavily subsidized blocks of public housing flats with high standards of construction and infrastructure, zoning and building code regulations". The same authors emphazise that these solutions were not affordable for the poor as a study in six developing countries demonstrated (Grimes, 1976 quoted in Mayo & Gross, 1987).

Turner & Fichter (1972) also contend that "conventionally built low-income housing is indeed a heavy social overhead, largely because it fails to utilize the users' own potential initiative and resources". These autors also argue that conventional social housing programmes through direct government action failed in addressing effectively the increasing demand of the deprived in developing countries. For Satterthwaite (2012), the lack of success of government-funded public housing and housing finance programmes in the South was because these programmes were addressing issues that had been ignored during colonial periods. There were several problems related to conventional social housing programmes such as expensive and heavily subsidized housing (The World Bank, 2006); and flexibility and adaptability were sacrificed in an attempt to diminish investment costs. Mitlin (2012) argues the existence of "numerous examples of the lack of success of the strategy" due to high costs of apartment units, and limited offer in number of units.

Jenkins, Smith, & Wang (2007) consider that the location of these programmes in city peripheries affected negatively households in terms of hindering job opportunities and other survival strategies. Satterthwaite (2012) hightlights that public housing programmes had problems regarding target beneficiaries – although highly subsidized units, these were not

allocated to low-income families; inappropriate location regarding jobs opportunities; and inadequated provision for maintenance, rents or service charges for the poor. Due to limitations in accessing formal credit systems, conventional social housing programmes that received governmental housing subsidies failed in targeting the urban poor as main beneficiary of these programmes (Klausfus, 2010). Considering all the arguments mentioned above, conventional social housing has not been able to address effectively the shelter needs of the deprived in the last 50 years in the context of rapid urbanization in developing regions.

A shift to a more positive view of informal settlements due to the work of Turner (1967) and Manging (1967) was influential for the World Bank to provide funding for slum upgrading[19]. From his study of the self-improving settlement of Cuevas in Peru, Turner argued the need for flexible planning to achieve progressive development and attain higher densities in settlements overtime (Turner, 1967). Approaches based on contractor-driven slum upgrading in developing countries have also been critized. Considering that conventional social housing has not been able to address the shelter needs in the context of a rapid urbanizing world, slum-upgrading approaches that have included the participation of the community have shown to be more effective. The government of Thailand has provided funding to community organizations for infrastructure subsidies and housing loans for slum upgrading from 1992 to 2007[20] (Satterthwaite, 2012). Conversely, improving individual and community agency, slum dwellers in India have shown that when "construction and cost escalations made the projects unattractive for commercial contractors... through economies of scale and self-construction and grant support for learning aspects, these projects were possible". Projects such as the in-situ incremental upgrading of Yerwada slum in Pune is an example (Sparc Samudaya Nirman Sahayak , 2012). The relevance of the work of Slum/Shack Dwellers International with technical support of SPARC in India has been identified in the international survey (See paper 1); therefore, it will be further discussed in this thesis in sections 2.7 and in sections 4.1 and 4.3.

[19] Upgrading is a term given to measures to improve the quality of housing and the provision of housing-related infrastructure and services to settlements that are considered slums (Satterthwaite, 2012).

[20] The Thai government upgrading policy has been implemented first through the Urban Community Development Office (UCDO), and then through the Community Organizations Development Institute (CODI) since 2000 (Boonyabancha, 2005). The Baan Mankong (Secure housing programme) has achieved national scale – 200 urban centres – and high degree of community involvement. It has shown that community-driven solutions with local and national government support and funding are possible (Satterthwaite, 2012).

2.4 Dichotomies in planning theory and practice

> "If [the 'progressive' development] is adopted by the planners, and its administration is given over to local authorities, there is no reason why a proportion of land should not be put in public ownership to ensure some flexibility, particularly the attainment of higher densities when circumstances justified them. In the earlier stages, for instance, a market could be a collection of stalls on an open plaza, later to be occupied by shops and apartments. Similarly, cheap one-story rental tenements, municipally owned and administered, could be later replaced by multi-storey apartments. Land values, in any case, are likely to rise as metropolitan expansion leaves the neighbourhood closer to the city" (Turner, 1967: p 178).

The development of planning in the North also was transferred to the South since the mercantilist phase of capitalism; and after the Second World War, Modernism[21] was also inherited. Fainstein (2005) argues that twentieth-century planning was deterministic and technocratic; planners developed one best solution separating different physical uses and income groups; mitigating the problems of the industrial city through efficiency but without looking for alternatives to improve the living conditions of the poor. Modernists "reacted to the squalor and congestion of the industrial city" but their urban renewal proposals contributed in evicting the deprived from central locations in the city to massive social housing programmes in the peripheries. Moving to the peripheries meant that people lost their social networks and had to commute longer to their jobs.

The modernist housing projects failed in providing diversity in social groups, mixed uses and the use of a human scale. The 'grand ensembles' were designed as object-buildings to be seen from the airplane scale; and were characterized by boredom focusing more on producing neighbourhoods for cars than for people. These grand ensembles lacked the urban diversity that Jane Jacobs[22] valued the most from neighbourhoods such as The North End in Boston – "...Mingled all among the buildings for living were an incredible number of splendid food stores, as well as such enterprises as upholstery making, metal working, carpentry, food processing. The streets were alive with children playing, people shopping, people strolling,[and] people talking" (Jacobs, 1961). The main reasons for this practice was that land in central locations was redeveloped for creating highways, businesses – such as shopping centres, office buildings – and for other efforts of beautification such as parks. The same failures of the Modernist grand ensembles in developed countries were transferred to developing countries for implementing conventional social housing. However, governments decrease the subsidies per housing unit and "what was built could only be afforded by higher-income households" (Mitlin, 2012). This situation and

[21] Modernism was the dominant planning and architectural paradigm.
[22] See *The Death and Life of Great American Cities* by Jane Jacobs (1961).

the work of Turner and Mangin influenced to a shift to sites-and-services, which was considered a more affordable and less exclusionary housing policy in the 1970s. The limitations of sites-and-services will be discussed in Section 2.5.

A more recent consequentialist planning approach, the new urbanism, has been critized by Fainstein (2000) due to its spatial determinism; although proposing a more humane scale than modernism; use of mixed zoning, variety of building types, mix of income groups, and privileging the public realm. "It merely calls for a different form of suburbia rather than overcoming metropolitan social segregation". Fainstein also critizes communicative planning because although having roots in critical theory, the critique potential of communicative planners gets lost during the planning process. "Unlike the rational modelers, the communicative theorists have found a subject, but like them, they lack an object"; because their object of analysis is the planner. Currently, communicative planners avoid enganging in deeper analysis of the relationship between planning, politics, and urban development. Hence, neither the new urbanism nor communicative planning offer a planning paradigm that can effectively deal with the complexity of improving informal settlements whilst reassembling 'the spatial' and 'the social' in a more equitative manner in developing countries.

Today, the planning practice in developing countries is mostly dominated by a hybrid approach of what Marcuse (2009) terms 'sham planning' with 'predatory planning'. This hybrid approach surrenders to the interests of market forces and fosters inequality. This practice is characterized by mass production of one to two-storey housing solutions; lower construction quality but with inaccessible costs for the deprived. This approach promotes urban sprawl due to low building heights; fails in overcoming housing segregation or integrating slum areas to the city; and it produces gated communities that fragment the city with neighbourhood design focus on the car scale instead of people. According to Pugh (2000), "the improvement of squatter settlements should be co-ordinated with new housing development and the macro-spatial planning of urban areas". Conversely, governmental agencies approach to slum upgrading lack a macro perspective that considers slum upgrading projects as a tool for reassembling the urban fabric – connectivity issues such as streets, public space and facilities – whilst improving the living conditions of the deprived at neighbourhood level.

Marcuse (2009) proposes a three step approach to critical planning as a strategy: a) *expose*, which focuses on analyzing the roots of the problems and communicating them to the people affected b) *propose*, refers to collaborative work between the deprived and the planners to formulate proposals or projects and c) *politicize*, to clarify "the political action implications of what was exposed and proposed, and supporting organizing around the proposals by informing action". However, critical planning for developing countries should include analyzing the problems by the deprived communities – as Slum Dwellers International practice does. Critical planning should not stop in politicizing, but should look for mechanisms to

improve the capabilities of poor communities and empower them. So that they could become agents of change; negotiate upgrading priorities with governmental agencies at the same level; and finally exert their right to the city.

The problem in developing countries is that planners and architects still look at cities with the lens of market alienation. When speaking about cities in developing countries "we should rethink if we should speak about rich cities with pockets of poverty or if we better talk about poor cities with pockets of wealth" (Salas, 2010). A more precise conceptualization of the nature and features of cities in the South would allow scholars/planners/architects to developing a more adequate planning paradigm based on housing as a process, which has driven the urbanization process in developing countries since the 1950s. Turner's (1967) concept of 'progressive planning' (See quotation at the beginning of this Section); and Payne & Majale (2004) pro-poor regulatory frameworks seem complementary and key for shifting from cities with slums to more 'just cities'.

2.5 From aided self-help housing to enabling housing policies

> "To my mind, we should quietly and humbly re-think our housing policy from first principles, and then consider how the circumstances we have inherited can be reshaped to fit the principles of housing. Fortunately, we have two excellent guides to the discovery of a viable philosophy of housing. One is the Dutch architect N. J. Habraken[23] and the other is the English architect, John F. C. Turner" (Colin Ward quoted in Hamdi, 1995).

A summary of the changing roles of self-help housing and urban policies in developing countries from 1950s to 1996 based on Pugh (1997) and the main ideas from John Turner are presented in Paper 2, Background Information. The following section traces the origins of aided self-help housing in the North and how it was probably transfferred to the South by Jacob Crane, who applied it first in the United States; and then in developing countries. Then, the section argues some positives aspects and limitations of sites-and-services[24] due to a limited appropriation of Turner's main ideas – mainly the paradigm of *housing as a process* and the concept of *dweller-control* .

[23] John Habraken is a Dutch architect who developed his ideas about support systems through working and writings in The Netherlands during the early 1960s.

[24] Aided self-help housing is a term coined by Jacob Crane in the 1940s. "[It] refers to the provision of building assistance to amateurs by government or nonprofit agencies, either for free or at a nominal cost" (Harris R. , 2012). In this thesis, the terms sites-and-services and aided self-help housing are used intercheangable to describe top-down approaches of self-help housing driven by governments or international cooperation agencies.

Limitations of sites-and-services

> "The only real choice that confronted such governments was either the acceptance of massive overcrowding and squatter settlement growth and the waste of resources through costly public works programmes, or the restructuring of development through cooperation with the people by mobilizing their savings and initiative: 'they should not attempt to substitute for local direct action but should support it in ways that bring it into the institutional framework of the Nation'" (Turner 1969 quoted in Burgess, 1978).

Aided self-help housing was first implemented "as a pragmatic and cheaper alternative [by] several municipalities, especially in Germany, Austria and Scandinavia to help low-income households to build their own homes" (Harris, 2012). The same author explains that the City of Stockholm implemented an aided self-help housing programme from 1920 to 1970; in which the local government provided serviced plots at no cost, technical advice using prefabricated structures, and easy finance to families who wanted to self-build their own housing. Jacob Crane[25] transferred European ideas on aided self-help housing first to the United States – applied these ideas in the Puerto Rico project in 1939; and later, to developing countries in the 1940s anticipating the ideas of Turner in the 1960s.

Rapid urbanization and the lack of capacity or will of governments to address the shelter needs derived in cities with slums in developing countries. Sites-and-services and slum upgrading programmes were attempts of governments to incorporate "the efforts that citizens put into the building and consolidation of informal settlements" since the late 1970s with funding of the World Bank. Sites-and-services provided poor families a plot with access to basic services; the possibility of delayed construction; and modified building standard regulations to ensure affordability (Mitlin, 2012). Pugh (2000) explains that "in the 1972-82, the World Bank (WB) adapted Turner's theories through advocating sites and services and in situ slum upgrading projects. The underlying principles were based upon affordability, cost recovery and replicability". However, the top-down approach of the World Bank missed to incorporate dweller-control in sites-and-services projects – which is the most important concept in Turner's theory of self-help housing (Harris, 2003; Marais et al, 2008). The paradigm of housing as a process proposed by Turner was also not addressed by the WB approach. Although the design stage of the projects assumed that core housing would grow incrementally through self-help efforts by the dwellers, there was a lack of loans or micro-credit for supporting the incremental

[25] Jacob Crane was an American planner who travelled through Europe in 1921 and witnessed the power of the people themselves in reconstruction of housing after the First World War. Crane developed his theory of aided self-help which drew on Patrick Geddes – British planner who developed his own ideas from India. "Geddes had observed that planned suburban development was easier in India, where cooperation was the norm, than in Britain, where individualism had a stronger hold" (See Harris R. , 1997). Crane became head of the International Office of the U.S. Housing and Home Finance Agency (HHFA); therefore, he could apply his ideas of aided self-help housing in a project in Ponce, Puerto Rico in 1939. Later on, Crane was also influencial in transferring aided self-help housing through international cooperation to developing countries.

growth of the houses in the medium term. Conversely, when loan schemes were provided, these schemes were not accessible enough for the deprived.

Mayo & Gross (1987) identified three types of sites-and-services projects in which shelter related services relied on the ability and willingness of payment of the beneficiary families. First, surveyed plot was the most basic level; secondly, serviced sites implied the availability of the plot and infrastructure; and finally, core housing with infrastructure and access to community-based services. These authors argue that these types of sites-and-services allowed that public resources were distributed more broadly among the deprived in comparison with conventional social housing projects. These projects managed to reduce the cost of complete houses to one-fifth of the cost of public housing in Zambia; and the cost of a complete unit was estimated to be half of a conventional housing unit in El Salvador (Ayres, 1983 quoted in Mayo & Gross,1987). The cost of public housing in comparison with units in aided self-help housing projects was four times higher in Puerto Rico during the 1950s. "Because aided self-help units are less costly, they can be provided to more households, thereby reducing horizontal inequity and the possibilities of nepotism and corruption" (Harris, 2012). Conversely, high subsidies have been identified as the main limitation for sites-and-services which hinders large-scale replication of these types of projects (Cohen, 2009).

Hamdi (1995), argues that the concern among some architects and planners about sites-and-services was mainly related with the use of coefficients of efficiency for guiding design decisions; and therefore, the lack of art and artistic design in these projects. For Pugh (2000), the failures of sites-and-services were remote location from jobs; weak instituional capability; and the lack of focus on citywide interventions. Conversely, Keare & Parris (1982 quoted in Mayo & Gross,1987) have reported several benefits of aided self-help housing such as increased production of housing and infrastructure; construction of higher quality housing than expected; allocation of plots up to the twentieth income percentile; and continued investments by the beneficiaries. Cohen (2009) has evaluated *Parcelles Assainies*, the first sites-and-services project implemented by the World Bank in Dakar-Senegal, from 1972 to 1978. The project design strategy was "to reduce costs of the project and thereby increase its affordability for low income households…[ ]…density was the decision variable which could make that possible. Reducing costs meant reducing the size of plots and the amount of plots per hectare, and in so doing, increasing the density and the number of households per hectare. Residential densities were to be increased rather than creating either public space or additional space for social facilities". Cohen's evaluation 35 year later shows the following evidence: a) despite project delays, for every $1 of public funds invested, families invested around $8,2 in housing; b) the density of the project increased 3 to 5 times the originally projected population and density per hectare; c) a high proportion of the original low-income households sold their housing units to middle and upper-income families; d) the absence of loans for construction affected poor households because some were unable to start neither sustain the construction process; e) when loans were

avaliable, their terms were not accesible for the poor but for civil cervants; f) due to the increased density, the sewerage system collapsed; g) despite high investment in individual housing units, the neighbourhood looks poor due to sandy streets; h) and lack of sufficient social services, specifically schools and clinics. Therefore, the project failed in examining the projected level of density of the project from a medium or long term time frame; and secondly, the settlement design was not considered in terms of wider patterns of land use in the city; "decisions on density were project-specific …[ ]…and disconnected from the urban context as a whole".

Further arguments about the limitations of sites-and-services implemented by the World Bank are discussed in Paper 1, Section 1.1.

Enabling housing policies

> "The enabling approach calls for policy shifts away from direct provision of housing by governments to alternative approaches to housing development and improvement involving all stakeholders (including the public, private, academic and civil society actors) and, most importantly, people themselves" (UN-Habitat, 2012a).

Pugh (1997) explains how housing and urban policies shifted from the project-by-project approach of sites-and-services and slum upgrading; to broad policy packages defined as enabling shelter strategies at the end of the 1980s. In 1988, the Global Strategy for Shelter to the Year 2000 was based on the enablement housing approach which understood housing as economically productive, and argued the need for whole-sector development instead of focusing on sporadic projects. The governement was responsible for the performance of the housing sector through policy making, providing housing-related resources – some infrastructure and utility services – and institutional reform. Morever, provision of housing was a shared responsibility of all stakeholders in the housing sector – the market, NGOs, CBOs and housholds self-help. "The enabling approach was subsequently elaborated in the Habitat Agenda, adopted in 1996" which consists of goals, principles, commitments and a global plan of action with strategies for implementation based on enablement, transparency and participation. Descentralization and partnership were identified as key issues to achieve the goal of adequate shelter for all and sustainable human settlements in an urbanizing world (UN-Habitat, 2006). Further discussion on the principles of the Habitat Agenda has been included in Paper 2, Literature Review. The Habitat Agenda.

According to an evaluation of enabling shelter strategies by UN-Habitat in 2006, the main effects of enabling shelter strategies have been the following: a) governmental attitudes towards informal settlements vary from one country to another – from forced evictions, to restricted tolerance, to acceptance; b) institutionalization of descentralization vary and it has been more sucessful in countries where traditional local leaders still are in high esteem; c) participation at all stages of the shelter development process is being achieved differently in developing regions

such as participatory budgeting in Latin America; community participation in shelter and environmental development in Asia; improved legislation to allow the participation of women in economic, social and political decision-making in Africa. Furthermore, although the enabling approach calls for partnership of all actors in the housing process, governments still struggle with : d) in organizing responsibilities among governmental agencies in order to include other actors; e) 'ill affordability' as one of the critical factors in access housing because price controls for land and housing are still under market control; f) building standards have been reviewed in an increasing number of countries; therefore inherited colonial building regulations are being replaced by performance-oriented sandards; g) providing a framework for NGOs and CBOs in the shelter process (UN-Habitat, 2006).

2.6 Rationale of organized self-help housing

> "Organized self-help housing allows one to reduce costs by people's participation and coordinating the purchase of materials and transport. Both authorities and non-governmental organizations (NGOs) active in the housing sector have increasing interest in organized self-help housing…[ ]…However the level of cost reduction depends on how the project is organized, the amount of time that the households can spend on construction, and the capacity and efficiency of the facilitating organization" (Rodríguez & Åstrand, 1996: p 4, 5).

In developing countries, conventional social housing is based on the paradigm of housing as a product, as a commodity that has exchange value. The process of mass production of housing is oriented towards maximizing profit. Burgess (1977) claims that the origin of the housing problem lies in a "the operation of a specific mode of production" –capitalist production. He argues that the high cost of production of official housing relies not only on "top-heavy bureaucratic and technological structures" but also on the profits for the construction material industry, profits for land developers, profits for labour subcontractors; and interests from finance capital in mortgages – profits for the banks. Fergusson & Navarrete (2003) argue the failure of the product approach paradigm to housing in the developing world because in practice *housing is a process*[26] from the perspective of the poor. The main consequence of following the product approach is that housing lacks different low-cost strategies to support the incremental housing process better. Housing policies fail in incorporating resources mobilized by the poor in spontaneous self-help housing such as the people's own effort, mutual-help, skills, savings, and access to social networks. Another consequence of the product approach, is that the poor cannot afford housing that accomplishes with official planning standards and regulations. Hence, recognizing the housing as a process paradigm "by which [households] obtain or improve a basic unit that they can expand and

[26] Housing as a process is the housing paradigm developed by Turner.

improve over time is a sensible approach which is widely adopted by the poor themselves" (Payne & Majale, 2004). For Rodríguez & Åstrand (1996), "building codes and regulations that prescribe high standards can hinder development of organized self-help housing". Hence, the need for pro-poor regulatory frameworks that support a) progressive development at neighbourhood level, and b) organized self-help housing and incremental growh at housing level.

The main difference between spontaneous self-help housing and organized self-help housing is that in the former "a makeshift structure of meager quality [is] transformed into something more substantial and homely through 'progressive' improvement"…[although] in principle it is also possible to add in some forms of aesthetic qualities to squatter settlements" (Pugh, 2000). Without financial and technical support, the progressive improvement takes around 30 to 35 years, affecting negatively the quality of life of one or two generations of households. In this long process of housing consolidation, families are trapped in intergenerational poverty due to poor housing conditions. Another limitation of incremental growth in spontaneous self-help housing is that due to the lack of technical assistance during the initial self-construction process the housing is limited to extend up to two or three storeys – with high risks regarding structural quality. Limits in height or the predominance of one to two storey housing imply that spontaneous self-help housing requires more land; and therefore, promotes urban sprawl due to the lack of technical capacity of the individual self-builder to propose medium-rise building solutions up to four or five storeys – which are more complex technically and require higher investment capital for construction. Burgess (1977) argues that slum dwellers can even half housing production costs due to a) minimizing costs of land – through informal occupation; b) lack of financial costs – savings in materials, or cash savings during the housing process instead of relying on a mortgage; c) avoiding building material monopolies; d) using cheap labour or their own labour; e) and choosing small-scale technology which is cheaper – or producing their own construction materials.

Rodríguez & Åstrand, (1996) compared the types of costs of a given OSHH solution with the cost of a similar solution built by the market as shown in Table 2.1. The items in the table show that labour and financial costs are cheaper in OSHH projects. This type of projects lack overhead because it is implemented by facilitating organizations such as NGOs or CBOs whose aim is not to make profit. The cost of technical assistance – advice, training and support – has been estimated in 20% in FUPROVI. In construction activities in countries like Ecuador, the overhead of a private developer can be around 30%. In developing countries, the cost of labour accounts for around 30% of the total budget[27]. Moreover, further savings in organized self-help housing projects can be achieved due to producing part of the building materials for the project; and negotiating with the government for subsidized and developed land. OSHH includes benefits such as technical assitance; savings from material acquisitions; and access

[27] These percentages are based on the author's experience in construction practice in Ecuador.

to governmental housing subsidies. These benefits are not achieved by slum dwellers when they self-build informally by themselves without any technical assistance.

Table 2.1 Comparison of investment costs for a housing unit in an organized self-help housing project and in a private development. Source: (Rodríguez & Åstrand, 1996: p 8)

Type of cost	Organized self-help housing	Private development
Land	no difference	
Materials for infrastructure	no difference	
Labour for infrastructure	cheap	expensive
Building materials	no difference	
Labour for housing	cheap	expensive
Financial costs during constr.	cheap	expensive
Overhead and management		expensive
Advice, training and support	expensive	

Ferations of slum dwellers have demonstrated how effective they are in learning from the experience developed by their peers in other countries due to exchange visits. They inmediatly apply the newly acquired knowledge and have been able to save investment costs whilst producing quality housing. Inspired by the work of the Indian Alliance, the South African Homeless People's Federation[28] managed to obtain governmental housing subsidies for their members in the mid 1990s. They were able to self-build their core houses "at a cost that was 40% lower than that of private developers" (Patel & Burra, 2001).

There are several arguments to consider organized self-help housing as an effective approach for developing new housing areas and upgrading informal settlements in developing countries. First, OSHH is a bottom-up approach that builds on the own effort and mutual help of the urban poor, and technical assistance is provided by NGOs or CBOs for planning, designing, self-building and self-managing permanent housing – which can vary from one storey housing to medium-rise buildings. Secondly, the OSHH process is powerful for resource mobilization and as a learning tool for poverty alleviation because it contributes to enhance the capabilities and skills of the community. For Sevilla (1993), the OSHH process includes the "intensive, organized and systematic participation of people…[ ]... projects and programmes should promote the mobilization of the communities' self-help potential and their local resources. In addition, they should pay attention to the development and strengthening of community and grassroots organizations".

Thirdly, OSHH projects allow to different degrees of dweller-control over the OSHH process, which is absent in conventional social housing projects;

[28] The name of this federation was changed to the Federation of the Urban Poor (FEDUP) in 2006. FEDUP is currently the South African affiliate of Slum/Shack Dwellers International.

and has lacked in sites-and-services projects that received funding of the World Bank. In the OSHH approach of FUNDASAL[29], dwellers have achieved high degree of dweller-control over planning, design, decision-making, implementation and post-project activities (Burns & Shoup, 1981). Fourth, in OSHH projects network arrangements include different stakeholders – community, NGOs, governmental institutions, local government, international agencies, volunteers, etc. – and these arrangements are key to mobilize human and institutional resources, funding, and to increase opportunities for the poor to access other income groups.

Fifth, OSHH projects are beneficial for the poor because investment costs are lower than conventional housing and discounts in construction materials are transferred from the facilitating organization to the community. When NGOs such as FUPROVI negotiate any discount related to construction materials for an OSHH project, these savings benefit the community and contribute to decrease the overall project costs (Sevilla, 1993). By contrast, conventional social housing programs implemented by the housing authority in Costa Rica had high costs and recovery of investment was low. The OSHH approach and practice of FUPROVI is discussed extensively in Paper 2, Case study: FUPROVI.

Finally, Rodríguez & Åstrand (1996) highlight that community development is achieved through the OSHH process because these type of projects build both housing and community. It is important that the facilitating organization states community development among the goals of the OSHH projects, so that the experts of the organization "define mechanisms that will make [this] possible"…[ ]… as the infrastructure for housing is built, social networks must also be built to allow the development of the community". Burns & Shoup (1981) show the direct relationship between dweller-control and residential satisfaction when evaluating one of FUNDASAL's projects. In a 'new self-help' relocated settlement, community development was achieved due to households participation in decision making for the relocation project, neighbourhood planning, self-construction activities and post-occupancy management.

Hamdi (1995) contends that Turner and Habraken[30] brought new empirical evidence to challenge public housing; and were influential in expanding the realm of architects to the social and political arena. "While Turner was driven by a concern for people, politics, and global recourses, Habraken looked to improve the efficiency of design, designer and building". For Habraken, the involvement of dwellers in housing design is important to improve the efficiency of the design process to achieve a healthy physical environment for them. Habraken's concept of supports is based on designing for uncertainty in form and function of dwelling; through two independent systems. The first system, 'supports' is the collective domain

[29] FUNDASAL is the acronym for Fundación Salvadoreña de Desarrollo y Vivienda Mínima, a NGO from El Salvador that has implemented OSHH projects since 1968. When FUPROVI received international cooperation by Sida, Manuel Sevilla, executive director of FUNDASAL, was appointed advisor of the Costa Rican NGO FUPROVI in 1987 (http://www.fundasal.org.sv).

[30] Habraken made similar conclusions to John Turner "about the failings and inequieties of housing, suggesting principles that seem appropriate across developed and developing countries" (Hamdi, 1995).

controlled by the community; whereas the second, 'in-fill' is the private domain in command of the individual family. "A support structure is a construction which allows the provision of dwellings which can be built, altered and taken down independently of the others…[ ]…a piece of complete building embodying the needs and aspirations of [the] community and enabling a wide variety of dwelling types". Habraken's vision is that the building "would grow, develop and change with what goes on inside". In the context of a rapid urbanizing world where informal settlements mushroom in developing countries, participation and flexibility are key concepts that can be efficiently addressed through organized self-help housing. As mentioned before, sites-and-services promoted urban sprawl due to promoting one-storey core housing in the 1970s. Today, in the context of costly centrally-located, land scarcity in cities, and climate change; planners need to achieve a balance between building heights and density in urban development to optimize the use of resources and produce less pollution to the environment. There is a need for developing medium-rise building solutions – five storeys or more according to the country context – for both slum upgrading and new developments. Thus, Habraken's concept of supports needs to be considered for designing medium-rise buildings to be implemented with an OSHH approach.

2.7 Current research on organized self-help housing

> "Assisted self-help housing is the most affordable and intelligent way of providing sustainable shelter. It is cheap because it is based on minimum standards and incorporates a substantive amount of sweat equity. It is useful because individuals and communities engaged in it acquire precious skills. It is practical because it responds to people's actual needs and levels of affordability. It is flexible because dwelling units are often designed to be able to expand over time. But all construction, and particularly incremental upgrading, requires a suitable supply of building materials, components and fittings" (UN-Habitat, 2005).

Paper 2, Reconsidering self-help housing, 2000-2012 reviews current research on self-help housing. Among the literature on organized self-help housing, the main reference for this thesis is the work of Rodríguez & Åstrand (1996) which is based on their experience of planning and implementing OSHH projects with the NGOs FUPROVI in Costa Rica and SADEL in Tunisia respectively. Sevilla (1993) and Andersson-Brolin (1997) evaluate the outcomes of FUPROVI and its financial sustainability. Figueroa (2001) argues the effects of adapting FUPROVI's OSHH process to suit the needs of the community in Nazareth Condominium Project. Due to a flexible approach that allowed families to perform mutual-help activities and work in their own house according to the project phase; FUPROVI achieved increase productivity. Viales (1998), studies how legal advice is given during OSHH projects; mainly during the design and production stages; and as a tool to reinforce the organization of the project to protect the weak side which is the community. The legal advice should aim at securing landownership for the community; and increasing the knowledge of the community and other actors involved in the project about the legal frameworks at national and local levels that regulate participatory housing projects.

The relevance of households control over the organized self-help housing process – decision making and involvement in neighbourhood planning, self-construction and post-management – has been shown by Burns & Shoup (1981) and Burns (1983) when evaluating FUNDASAL's projects. The study concludes that higher degree of households control results in higher residential satisfaction. Stein (1989) evaluation of households participation in FUNDASAL's projects[31] as a means to community empowerment, shows that a) the model of mutual-help and progressive

[31] Although Stein explains that FUNDASAL's projects were sites-and-services with funding from the World Bank, in this licentiate thesis the author decided to consider the practice of FUNDASAL as organized self-help housing due to two main reasons: a) FUNDASAL practice is a bottom-up approach of self-help housing in which the NGO is the facilitating organization that provides technical assistance to the community; b) the long term aim of FUNDASAL is participation as a means to empower the community; c) due to the high degree of dweller-control that the NGO provided to the community over the OSHH process.

development was replicable and relevant in comparison to the performance of governmental agencies responsible for low-income housing; b) the NGO demostrated to have had impact on provision of low-income housing at national level; c) due to expanding operations in El Salvardor, FUNDASAL contributed to social change by raising the consiousness of the community; d) national political crisis affected negatively the performance of the NGO from 1980 to 1985.

An evaluation of FUNDASAL's project made by the World Bank found that after the mutual-help process finished, the community realized that the process was key for building relationships with other people, to solve group problems; which inspired the community to continue working in groups. The latter can be interpreted that the community was aware of their collective efficacy due to mastering the organized self-help housing process. FUNDASAL (2010) describes the co-operativist approach to OSHH that this NGO has applied for the project Condominio San Esteban from 2003 to 2009 – an upgrading project for the historic centre of San Salvador. The OSHH institutional approach included direct management, mutual help and subcontract of some specialized work. The project includes mixed uses – residential and commercial – in medium-rise buildings from 2 to 4 storeys. This is the first medium-rise building for OSHH by FUNDASAL. This concept develops further in projects like Conjunto Habitacional Mayen which is also located in San Salvador's historic centre. For the Mayen project, the architectural collective Mayen and FUNDASAL developed an OSHH and incremental medium-rise building in 3 storeys (Colectivo Mayen, 2010). It seems that FUNDASAL is more concerned with density and incremental growth which are key issues in urban contexts.

USINA is a Brazilian architectural collective working with poor communities in Sao Paolo that has developmed medium-rise buildings for OSHH; which they called self-managed vertical housing (See Box 1 in this section). The Indian Alliance working in India is also among CBOs concerned with achieving medium-rise buildings that can be implemented with OSHH (See Box 2). Both USINA and SDI claim to high degree of dweller-control over the OSHH process and that the families enhanced their capabilities due to the OSHH process. However, there is the lack of a tool for evaluating dweller-control over OSHH processes from a capability approach perspective.

Habaradas & Aquino (2010) study the organized self-help housing practice of the NGO Gawad Kalinga from a city innovation systems framework. Zhu's (2006) doctoral thesis on Habitat for Humanity Florida on the relationship of the sweat equity process and human and social resource developments. Based on generalized social exchange theory and social resource development, Zhu argues that Habitat neighborhoods supports better the resources built through sweat equity in comparison with scattered Habitat houses.

Box 1. USINA: Organized self-help housing for multy-storey housing projects. Source: Prepared by the author based on (USINA, 2007); (Building and Social Housing Foundation, 2007), (USINA, 2010)

1. **Summary**: USINA (Centre of Projects for the Built Environment, Brazil) is an architectural collective that provides technical assistance to community-led initiatives for accessing housing in Sao Paolo. OSHH is a new model for urban production; enhances individuals' capabilities, empowering dwellers and helps to inform public housing policy.
2. **Conceptual model:** a mixed-model OSHH approach for multy-storey (four or five storeys.) housing projects that includes hired workers and the families. Housing units cost USD$12,000- 15,000 (excluding land costs).
3. **Project examples**: Copromo (160 families, 1990-1998); União da Junta (160 families, 1992-1998) and Paulo Freire (100 families, 1998-2007).
4. **Actors and their roles**: USINA architects and staff provide the technical assistance; the community is responsible for self-management and self-construction (16 hours per week per household) during weekends; construction workers build during weekdays; and the local government provides funding and subsidized land.
5. **Dweller-control and enhanced capabilities:** Families have collective planning meetings at the beginning and end of each day during weekends. They meet withouth the presence of USINA. Families are divided in three groups that rotate jobs to be able to learn and teach new skills: to coordinate, buy or stock materials, care for children, monitor worker safety, or to tend the kitchen and clean common spaces.
6. **Project lessons:**
   Families have high dweller-control over the OSHH process – from the design phase through implementation and monitoring.
   Development of appropriate technologies for self-construction of complex multi-storey buildings by the dwellers with support of skilled workers
   Through the strengthening of self-management, families are more integrated into the whole OSHH process, shifting control from capitalist construction companies to the families.
   Development of community facilities and income-generating activities (community bakeries, childcare facilities, training courses)
   USINA architects assume educational roles to enhance capabilities of the families.

Box 2. Slum/Shack Dwellers International (SDI): Yerwada OSHH project for in-situ upgrading. Source: Prepared by the author based on Fyhr (2012); MacPerson (2012); Design Other 90 Network (2011).

1. **Summary**: The Indian Alliance is a CBO-NGO partnership that enhances the capabilities of slum dwellers through the SDI method: savings, enumeration & mapping, horizontal exchanges and learning by doing, partnerships and slum upgrading projects.
2. **Conceptual model:** an OSHH project for in-situ slum upgrading of housing, pathways, sewage and drainage connections, public space, better streets and more green spaces. The project was driven by the slum dwellers through Mahila Milan (CBO). Two and three-story single and multiple family homes in the style of townhouses and small apartment blocks. Housing areas increased from around 25 m^2 (one storey) up to 75 m^2 (three storeys).
3. **Project examples**: Mother Theresa Nagar in Yerwada slum (510 families, 2,550 inhabitants; implemented from 2008-2012), located in Pune-India. The OSHH project was led by slum dwellers (Mahila Milan) with support of the Indian Alliance. Mahila Milan and SPARC were contracted by the government and the community to manage the upgrading project.
4. **OSHH process:** Participatory methods included surveys made by slum dwellers with technical assistance of SPARC, exhibitions of real scale cloth houses, cluster workshops, community meetings, Panchayat meetings, monitoring and follow-up.
5. **Actors and their roles**: There are stakeholders at international, national and local levels. Mahila Milan had the direct contact with slum dwellers. SPARC provided technical assistance. The government programme Jawaharlal Nehru National Urban Renewal Mission (JNNURM) provide 50% of funding; state government provide 30% of funding; Pune Municipal Cooperation provide 10% of funding; and slum dwellers the other 10%.
6. **Dweller-control and enhanced capabilities:** Slum dwellers have participated in all stages of the upgrading process – from planning to design to construction to maintenance.
7. **Project lessons:**
   - The Alliance managed to influence the procurement norms from Pune Municipality allowing NGOs to participate in the tendering process.
   - Families have had high dweller-control over the OSHH process. Mahila Milan's involvement was key due to its knowledge and contacts in the area which helped in building trust with the community.
   - Families contributed with 10% of the funding make them more involved in the OSHH process.
   - Exhibitions of real scale cloth housing were useful to get feedback from the dwellers about the housing designs they would like to have.
   - Cluster workshops for the development of houses which are located next to each other were important to organize self-construction activities and for reducing costs.
   - Dwellers did not agree on changing their footpring even architects and Mahila Milan demonstrated how small changes of footprints when working at block level could give wider streets and pathways.
   - Women participated more than men in the project.

An evaluation of two decades of implementation of enabling shelter strategies by UN-Habitat contends that Slum/Shack Dweller International (SDI), an international federation of slum dwellers, "has had a major catalytic effect on improving conditions of many of the poorest citizens living in informal settlements" (UN-Habitat, 2006). Fyhr (2012) studied the participatory process of the in-situ slum upgrading in Mother Theresa Nagar in Yerwada slum from the perspective of rationality theory. The Indian Alliance is composed by Mahila Milan[32] in Pune, SPARC[33], and the National Slum Dwellers Federation[34] which are part of Slum/Shack Dwellers International[35]. This partnership made by CBOs and a NGO has worked together for improving the living conditions of the poor in India for more than 20 years. For Samuels (2005), the objectives of SDI projects are oriented towards "empowering the individual capability of the slums dwellers to lead they life they value leading". SDI has developed its own method[36] for improving the living conditions of slum dwellers whilst promoting inclusive cities; which is based on several steps. First, *savings* groups of women which develops discipline among slum dwellers. Secondly, *enumerations and mapping* as a basis for communities to become active partners in planning their own development. Third, *horizontal exchanges and learning by doing*, where communities visit other saving networks that have implemented a specific project. Fourth, *partnerships* are built through engagement as equals with governments and international organizations[37]. Finally, *slum-upgrading projects* are the last step; starting with the design, self-construction and maintenance of *toilet blocks* to *OSHH projects* for in-situ upgrading of housing and infrastructure – like Yerwada project in Pune. In Pune, from a population of 3,150,000 people, over 1,000.000 live in 477 slums. Yerwada is a major slum located in Pune, and the Indian Alliance implemented an OSHH project for in-situ slum upgrading in Mother Theresa Nagar from June 2008 to 2012. The positive outocomes of the project is based on the long-term work of the Indian Alliance in Yerwada, which helped to develop trust with the community; but mostly due to high degree of dweller-control over the OSHH process (See Box 2). "The planner as an advocate should integrate social values and justice in planning. In the context of slum upgrading it can be seen as a planner who works for the urban poor" (Davidoff, 2007 quoted in Fyhr, 2012). Mahila Milan and SPARC were appointed contractors of this in-situ slum-

[32] Mahila Milan is a network of women which manages credit and saving activities that had worked 15 years in Pune (Fyhr, 2012).

[33] Society for the Promotiono f Area Resource Centres (SPARC) is an Indian NGO consisting of professionals with the aim of helping the urban poor in slum areas in India since 1984 (Fyhr, 2012).

[34] National Slum Dwellers Federation (NSDF) is a national CBO composed by slum dwellers in India who live and operate in slum areas in India (Fyhr, 2012).

[35] Slum/Shack Dwellers International (SDI) is an international network of federations of slum dwellers and NGOs that support them created in 1996. SDI started due to the work of the Asian Coallition of Housing Rights (ACHR) related to exploration of community exchange methodologies. Thee exchanges included the South African Homeless People's Federation in 1991.

[36] Detailed information about the SDI method can be found in http://www.sdinet.org/method-inclusive-cities

[37] SDI partners include the World Bank and UN-Habitat, and international NGOs sucha as the Gates Foundation, Rockefeller Foundation among others (See http://www.sdinet.org/method-partnerships).

upgrading project. The whole process has been participatory which contributed in enhancing the capabilities of the community. Mahila Milan and architects tried to demonstrate the community the benefits of changing the housing footprints for wider streets or walkways. However, dweller-control over the OSHH process allowed the community to make decision regarding not changing the footprints of the existing houses (See Box 2).

3 Methodology

As mentioned in 2.1, the research paradigm that guides this research is critical social science. Therefore, the research strategy follows a critical realism character in viewing "the research process as a constant digging in the ontological depth of reality" (Alvesson & Sköldberg, 2009). Case study methodology has been selected because of the possibilities it offers to understand the multy-layered nature of reality according to this research paradigm. This method also allows answering the research questions specified in section 1.3.

3.1 Research strategy

For critical realism researchers, there is scope for causal explanation and for interpretative understanding of reality. According to Sayer (2000), causation in this research paradigm differs from positivist tradition because "explanation depends […] on identifying causal mechanisms and how they work, and discovering if they have been activated and under what conditions"; instead of showing regularity in cause-effect relationships. In Sayer words, "Events arise from the workings of mechanisms which derive from the structures of objects, and they take place within geo-historical contexts". Causal responsibility in open social systems can be addressed showing examples for contrasting aetiology[38] – such as the absence of an otherwise common condition between two objects. Hence, counterfactual thinking will help the researcher in distinguishing "what *can* be the case and what *must* be the case, given certain preconditions" (Sayer, 2000).

Research design for critical realism starts with defining the nature of the object of study and what the researcher wants to learn about it. The object of study of this thesis is organized self-help housing, which is *a process* for the making of the built environment by the people themselves with technical support of facilitating organizations. The research strategy was designed to study organized self-help housing in a comprehensive manner. Firstly, it was necessary to understand and map current practice in developing countries. Secondly, it was important to relate how international discourses on housing and urban development influence the approaches of institutions that implement this type of projects. Thirdly, it was also necessary to understand how institutional approaches promote or hinder dweller-control over the OSHH process. Considering that the three aspects are interrelated, the research strategy was designed according to the following criteria: a) build knowledge in parallel at the three different levels; and b) find suitable case studies to address each level independently.

Table 3.1 shows how the research was implemented from 2008 to 2012. The fieldwork for the three case studies that compose this thesis was implemented mainly from 2008 to 2010. In that period the researcher was

[38] Aetiology is the philosophy or study of causation (Collins Dictionary, 2013)

based in Ecuador and travelled to Sweden 3 months every year. Data analysis and identification of new research issues were constant activities that allowed to a deeper understanding of each case study. Conversely, paper writing was done mainly in 2012 when the researcher was based full time in Sweden. This thesis was written during the spring semester 2013.

Table 3.1 Research strategy for studying in parallel the three cases, where Case 1: Current practice in developing countries, Case 2: Institutional approaches to OSHH, and Case 3: Hogar de Nazareth OSHH process. The three-layered arrow illustrates that data analysis was constant during the whole study. The semicircular arrows show the connections drawn from the three case studies and presented in this licentiate thesis.

Years	Case 1 Current practice developing countries	Case 2 Institutional approaches to OSHH	Case 3 Hogar de Nazareth OSHH process
2008	International survey	Field study: San José-CR, Managua-NI NGOs: FUPROVI, Habitar, snd PRODEL	Exploratory interviews
2009	International survey	Lit. review: SADEL	Field study: Guayaquil-EC: Questionnaires to households Interviews, focus group
2010	International survey		Interviews
2011			Interviews
2012	Writing paper 1	Writing paper 2	
2013		Lit. review: FUNDASAL, SDI, USINA	Writing paper 3
		Writing licenciate	

3.2 Case study methodology

For Stake (1995), 'the case' is "an integrated system" and a programme qualifies as a case. Yin (2003) highlights the use of case studies "as a [comprehensive] research strategy" and states that the case can be an individual, some event or entity – such as programmes or the implementation process. For Miles (1994), a case is a "phenomenon of some sort occurring in a bounded context", and "specific to time and space" (Johansson, 2003). For Gillham (2000), a case "can be an *individual*: it can be a group – such as a family, or a class, or an office […]; it can be an *institution* – such as a school or a children's home, or a factory; it can be a large-scale *community* – a town, an industry, a profesion." According to Yin (2003), case studies can be exploratory, descriptive or explanatory. Case study research can be used to explore or describe a phenomenon or events; and to develop or test theoretical propositions. The latter implies that "…case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes" (Yin, 2003), aiming at expanding and generalizing theories – through analytic generalization.

Gillham (2000) explains that "*specificity* of real-life phenomena [...] is key[issue for doing case study research]. In human behaviour, generalizations from one group of people to others, or one institution to another, is often suspect". Here Gillham clarifies that *data* of the case may be specific but the *theory* – explanations – developed by the researcher and rooted in the findings – grounded theory – can be generalizable and useful to understand other cases.

Johansson (2003) argues that case study is an explanatory research strategy. Case study methodology considers that the unit of analysis is 'the case'; it takes the context in account, and includes many variables and qualities. For Gillham (2000), "case study is a *main* method. Within it different sub-methods – techniques – are used: interviews, observations, document and record analysis, work samples, and so on". This author argues that different methods have different strengths and weaknesses; hence, when data gathered from different methods converge, the researcher can be confident of getting a good account of the phenomenon being studied. Trustworthiness – or validity – in case study research is achieved mainly through triangulation of data collection methods, data, theories or researchers.

Case study 1: Current practice in developing countries

Selection of case study

For this study, case 1: the current practice in developing countries is defined as bottom-up initiatives, which build on the common practice of the urban poor for sheltering themselves but with technical assistance of facilitating organizations – a phenomenon occurring in developing countries. The relevance of self-help housing among other enabling shelter strategies and the role of NGOs in providing technical assistance were agreed globally in the Habitat Agenda in 1996. Hence, the research design of case 1 was guided by the intention to understand and explain how NGOs and CBOs have planned and implemented OSHH in developing countries since year 2000.

Methods and data analysis

Case 1 is an exploratory case study aiming at update knowledge on the state of the arts of organized self-help housing in developing countries. Knowledge was built with three techniques: a) literature review, b) international survey using a questionnaire; and c) Internet survey. The international survey was implemented from October 2008 to March 2010. The research design and implementation of the international survey has been described in Paper 1, Section 2. Methodology. The main tool for collecting empirical information was the questionnaire, which was designed combining multiple choice and open questions. The following categories were included in the questionnaire: organization, project type, facilitating organizations implementing OSHH, project components or summary,

process description, actors and their roles, advantages and disadvantages, reference to other organizations. The intention of the multiple-choice questions of the questionnaire was not to treat the data with a quantitative approach, but to systematize the same type of data from respondents. The intention of the open questions was especially to capture the respondents' thoughts and experience from implementing OSHH projects to learn lessons from current practice.

Details of the answers to the international survey according to target group, date of the survey, number of responses, and countries represented in the answers can be found in Paper 1, Section 2, Table 1. In the same table, it is possible to see the percentage of answers obtained according to each target group as follows: a) OSHH alumni[39] 11.67%, b) SDD alumni[40] 32%; and c) housing experts 20%. The researcher acknowledges that the percentages of answers can be considered low if the intention was to perform statistical analysis. However, data analysis was qualitative and focused on understanding how current practice on OSHH has developed and being implemented since year 2000, its main advantages and disadvantages from the perspective of housing experts and practitioners. The questions about the process description and the role of actors were difficult to answer for respondents who were not involved in implementing OSHH projects.

Applying the three techniques – literature review, the questionnaire and the Internet survey – allowed understanding and describing qualities and trends of current OSHH practice in developing countries. The "use of multiple sources of evidence" (Yin, 2003) and interpretative understanding from the open answers of the questionnaires was used to "establish a chain of evidence" (Yin, 2003) to construct validity regarding the information of each organization within the case. Triangulation of data and techniques were performed through comparing the results of questionnaires with the information obtained through the Internet survey. Triangulation is considered "a validity procedure where [qualitative] researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (Crewell & Miller, 2000 quoted in Golafshani, 2003). Moreover, validity of the case was assessed through "structural corroboration" which is the process of "gathering data or information and using it to establith links that eventually create a whole that is supported by the bits of evidence that constitute it" (Thyer, 2001).

For the international mapping, the answers of the 84 questionnaires completed by housing experts and practitioners were first corroborated through the Internet survey to confirm the existence of the organizations and evidence of the type of OSHH projects they have implemented since year 2000. The data provided in the questionnaires and the data obtained through the Internet survey allowed the researcher to summarize the

[39] OSHH alumni: 137 professionals from developing countries who participated in the International Training Programme (ITP) Organized Self-help Housing: planning and management. This ITP was implemented by Housing Development & Management, Lund University in San José, Costa Rica from 2002 to 2007.

[40] SDD alumni: 153 professionals from developing countries who participated in the ITP Shelter Design and Development implemented by Housing Development & Management in Lund, from 2006 to 2009.

information in tables that included the name of the organization, project type, and a summary of the practice of the organization (See Paper 1, Tables 2 and 3). The latter was a requirement for including organizations in the international mapping (See Figure 4.1). The answers of the twelve questionnaires from housing experts and practitioners from Indonesia guided the researcher in obtaining futher literature on slum upgrading and reconstruction after the Tsunami 2004 in Indonesia. The information about organizations and project type where corroborated through the Internet survey and further literature review. From the questionnaires, the category advantages and disadvantages of OSHH was selected to build the case (See Paper 1, Section 3.2 The case of Indonesia: OSHH for slum upgrading and reconstruction).

The 84 questionnaires allowed identifying 75 organizations that have implemented different types of OSHH. From these organizations, the researcher selected the most influential following two main criteria: a) scope of work or potential for work replication; and b) implementation of medium-rise buildings with OSHH; in a first attempt to characterize the state of the arts of OSHH in developing countries. Finally, through triangulation of data from different techniques, the researcher was able to summarize current practice of OSHH through describing examples from organizations in Latin America and Asia (See Chapter 4, Section 4.1 State of the arts of organized self-help housing).

Case study 2: Institutional approaches to OSHH

Selection of case study

Organized self-help housing is an alternative housing delivery system to contractor-driven housing solutions that are not accessible for the poor; and it can be initiated by facilitating organizations such as NGOs or CBOs. Institutional approaches, as a case study for this thesis, are defined as the way facilitating organizations work with OSHH projects – a series of events. The latter implies how facilitating organizations understand discourses and trends in housing and urban development and apply them for planning and implementing OSHH projects. Case 2: Institutional approaches to OSHH studies the OSHH models that FUPROVI[41] has developed, tested and improved over time (See Paper 2, Section FUPROVI OSHH models 1988-2008). This case also studies the institutional approach of the Swedish Association for Development of Low Cost Housing (SADEL) for planning and implementing an OSHH project in Rohia, Tunisia, from 1980 to 1985 (See Paper 2, Section The SADEL model).

The learning by doing approach of FUPROVI and their ability to achieve institutional and financial sustainability were important reasons for selecting the institutional approach of this NGO. FUPROVI was HDM partner within the PROMESHA capacity building programme and this facilitated the access to staff, projects and information. Hence, accessibility to the institution was another reason for studying FUPROVI's institutional

[41] FUPROVI: Fundación Promotora de Vivienda, Costa Rica, http://www.fuprovi.org/esp

approach to OSHH. The selection of the institutional approach of SADEL was to show how international cooperation agencies or international NGOs could focus on capacity building when planning and implementing OSHH projects; instead of only focusing on transferring foreign technology and experts to developing countries.

Moreover, from the questionnaires of the international survey (Case 1), the researcher identified Slum Dwellers International as a CBO working with an OSHH approach for improving the living conditions of slum dwellers in India. Although it was not possible to obtain primary information from the institutional approach of SDI; a brief description of their work has been included in Section 2.7 Box 2 to discuss the advantages and disadvantages of the institutional approaches to OSHH from NGOs and CBOs in Section 4.3.

Methods

Case 2 is a descriptive case study aiming at creating understanding on how FUPROVI and SADEL have facilitated OSHH projects in order to draw lessons from their approaches to OSHH. The case also analyzes to what extent the main principles of the Habitat Agenda have influenced the approaches of these NGOs. The researcher's knowledge on organized self-help housing was based on the practice of FUPROVI from 1988 to 2002 due to participating in the course Organized Self-help Housing: Planning and Management. In March 2008, a field trip to Costa Rica and Nicaragua was implemented to study non-governmental organizations that have implemented different types of self-help housing projects with technical assistance. This field work allowed the researcher to learn more about different approaches to organized self-help housing that FUPROVI had developed until 2008 (See Paper 2, Section FUPROVI OSHH models 1988-2008). The researcher's ideas on organized self-help housing developed further from what it was observed or from what she was told about FUPROVI's practice; and also from what it was learnt from exploring the approaches of other NGOs such as Fundación Costa Rica-Canadá in Costa Rica; and the NGOs HABITAR[42] and PRODEL in Nicaragua[43]. The different institutional approaches of these NGOs to OSHH allowed the researcher to identify different models of OSHH –such as people-centred or mixed model; type of building – one storey housing and multy-storey building; actors involved and their contribution towards mobilization of resources. The analysis of the practice of several NGOs "have prompted some theoretical propositions underpinning"[44] Case study 2 and contributed to the knowledge basis for Case study 3: Hogar de Nazareth OSHH process.

[42] See Centro de Estudios y Promoción para el Habitar (HABITAR) http://habitarnicaragua.org

[43] FUPROVI, Habitar and PRODEL were partners of the PROMESHA network and HDM organized the second part of the course Shelter Design & Development in March 2008 in these 2 countries. This allows the researcher to participate in field visits to self-help housing projects. I was able to interview staff from FUPROVI and Fundación Costa Rica Canadá in Costa Rica; Programa de Desarrollo Local (PRODEL) and Centro de Estudios y Promoción para el Habitar (HABITAR) in Nicaragua.

[44] This explanation follows the way Groat & Wang (2001) explain how Jane Jacob's ideas on cities developed from what she observed and was told in New York and other cities – such as Boston. "[Jacob's] observations from other cities prompted the theoretical propositions underpinning her case study research in New York".

The main theoretical proposition that the researcher developed since her first contact with FUPROVI in 2002 is that organized self-help housing projects contribute both to build housing and community; it promotes the families and develops the community. This theoretical proposition was developed from study visits to FUPROVI projects in which it was possible to meet households, from lectures and converstations with housing experts working for the NGO.

The main techniques used for Case 2 were a) literature review, b) observations, c) in-depth interviews; d) a matrix for mapping the roles of actors involved in the OSHH process; e) a questionnaire for systematizing OSHH projects; and f) an Internet survey. The methods for gathering information about FUPROVI and SADEL are described in Paper 2, Section Methodology. Observations of OSHH projects of FUPROVI were performed in Lagos de Lindora, Aquitaba project in Cartago; and Nuestra Señora del Carmen. A structured questionnaire was used to systematize key information from projects implemented by FUPROVI and SADEL; which included the following categories: technical data, project background and beneficiaries, conceptual model, actors and their roles, project implementation strategies and project lessons (See Paper 2, Box 1 and Box 2). The matrix was used for mapping the role of actors according to three different types of OSHH projects from FUPROVI – slum upgrading 1st model, slum upgrading 2nd model and new housing 4th model. The variables of the matrix followed FUPROVI's steps of the OSHH process which are initial contact, preliminary studies, studies, design, implementation, post-project. The matrix also addressed the role of actors in relation to funding and land provision (See Paper 2, Section Case Study 1: FUPROVI, Actors and their roles). Conversely, the methods for obtaining data about Slum Dwellers International were: a) reference from questionnaires of the international survey (Case 1), b) literature review; and c) Internet survey.

Data analysis

The analysis of Case 2 focused on understanding FUPROVI's and SADEL's practice in order to describe it and analize it through the lens of the principles of the Habitat Agenda. The latter considering that the practice of these NGOs started in the late and mid 1980s respectively and the Habitat Agenda was agreed in 1996.

Literature review of previous evaluations of the practice of FUPROVI was combined with empirical information collected by the author to produce Table 2 in Paper 2; which shows how the different grants provided by Sida correspond to different types of FUPROVI's OSHH models. The interviews were transcribed and analyzed with a grounded theory approach performing first level coding. Based on Grinnell (2011), the procedure for qualitative analysis included a) identifying meaning units; b) fitting meaning units into categories; and, c) assigning codes to the categories. The categories selected for elaborating the case were concepts behind the organized self-help housing process, funding sources, organized self-help housing models, actors and their roles. The matrix was important to collect systematic information about projects representing FUPROVI's organized

self-help housing models. The analysis of information through the matrix helped the researcher to understand how FUPROVI started working mainly with Sida during the first model. Conversely, for the fourth model there are more actors involved in the OSHH project. The questionnaire for systematizing information about Nuestra Señora del Carmen was analyzed with a qualitative approach. Categories selected for organizing the data were technical data, project background & beneficiaries, conceptual model, actors and their roles, project implementation strategies, and lessons learnt. Following Yin (2003), the validity of the case was achieved through triangulation of data from different techniques.

Case study 3: Hogar de Nazareth OSHH process

Selection of case study

Hogar de Nazareth is a community that achieved new housing through an organized self-help housing project implemented by the NGO Corporación Hogar de Cristo in Guayaquil-Ecuador, from 1990 to 1998. The case study Hogar de Nazareth was selected purposefully because it is information-rich, revelatory, unique [and] extreme following Johansson (2003) criteria for selecting case studies. Hogar de Nazareth is very suitable for studying the OSHH process of a project that was implemented in a developing country facing a difficult national/local economical, political and institutional context in which Pugh's (1997) second and third phases of self-help in housing and urban policies were lacking. Hogar de Nazareth was implemented in 8 phases from 1990 to 1998. The case is unique and extreme because the OSHH process worked until certain point and then technical changes affected negatively the process. Thus, lessons that support or hinder a successful OSHH process can be learned from it.

Methods

Case 3 was designed as an explanatory case study with a qualitative and quantitative approach. A case study is explanatory because "how and why questions are more explanatory...[and] such questions deal with operational links needing to be traced over time, rather than mere frequencies or incidence" (Yin, 2003). The case study addresses the following research questions: a) how was the OSHH process of Hogar the Nazareth implemented? b) how was dweller-control over the OSHH process? c) how did dweller-control over the OSHH process affect the enhancement of capabilities? d) how did technical changes affect community development?

The qualitative approach included a) systematic physical observations at neighbourhood and housing level, b) document analysis, c) 30 semi-structured interviews, and d) a focus group with community members (See Paper 3, Table 1 Empirical data sets used in Case Study 2008-2011). The quantitative approach consisted of a questionnaire applied to households with 14 questions related to the organized self-help housing process. First, three exploratory semi-structured interviews were implemented in September 2008 that helped to identify key issues that were included in the questions of the quantitative survey. Secondly, quantitative data were collected through the questionnaire applied to a random sample of 112 households living in the eight phases of the settlement from October 2009 to February 2010; in order to obtain a sample of [45]100 questionnaires. The research team included 2 main researchers and 10 students of architecture for implementing the questionnaires because it was necessary around 30 minutes per household. Students were trained in advanced regarding how to apply the questionnaire. The author accessed the quality of information. If information was incomplete or contradictory, the researcher contacted the family and asked for further information. Respondents that were not possible to contact for completing the questionnaires were considered as dropouts.

In parallel to the questionnaires, seven semi-structured interviews to key informants and a focus group to community households were implemented in 2009. The qualitative information allowed for understanding how the OSHH process was implemented for different project phases. Thirdly, the issues that were found through the quantitative and the qualitative sources were researched further through the analysis of documents, and the implementation of 10 semi-structured interviews in 2010. Finally, other 10 semi-structured interviews were implemented to key community informants from each phase in 2011 as a strategy for validation of previous information obtained through the exploratory interviews, questionnaires, document analysis, previous semi-structured interviews, the focus group, and document analysis.

[45] The main criteria for selecting the respondants for the questionnaire were a) to have participated in the OSHH process of Hogar de Nazareth; b) to agree to respond the questionnaire and provide further information if needed; and c) to continue living in Hogar de Nazareth.

Data analysis

From a critical social science research paradigm, this explanatory case study explains the OSHH process in phase 1; and the mechanisms that caused changes in the OSHH process for phases 7-8 based on a quantitative and qualitative approach. The quantitative data of the questionnaires were analyzed with descriptive statistics using the software SPSS; and the variables selected for writing Paper 3 were a) origin of families; and b) reference about the project. Incomplete or inconsistent questionnaires were completed or repeated to achieve reliability of data[46]. Conversely, paper 3 is based mostly on analysis of qualitative information obtained through the semi-structured interviews and the focus group. For the qualitative analysis, the categories selected for Paper 3 were project aims, selection of beneficiary families, families participation, the OSHH process of phase 1, housing typologies and construction systems, the OSHH process of phases 7-8. The qualitative information has been analyzed with a grounded-theory approach. First level coding was implemented with the following procedures a) identifying meaning units; b) fitting meaning units into categories; and, c) assigning codes to the categories (Grinnell, 2011). Categories emerged from the data since the three exploratory semi-structured interviews were implemented; and evolved through the analysis of different interviews and the focus group. Second level coding was implemented for identifying relationships among categories in order to draw the OSHH process for phase 1. Different degrees of dweller-control emerged as subcategories when trying to understand how dweller-control relates to decision making and to enhanced capabilities. Hence, Figure 2 in Paper 3 uses the terms 'low degree of dweller-control, medium degree of dweller-control' as a first attempt to evaluate dweller-control over the OSHH process[47]. The activities of the OSHH process of phase 1 were placed into the conceptual framework developed in Section 2.2 of this thesis to test if it was suitable or not for explaining what the OSHH process does with people – using abduction guided by 'what if'questions (See Paper 3, Figure 2). After evaluating the applicability of the conceptual framework (Section 2.2) to the conceptual model of the OSHH process of Hogar de Nazareth (Paper 3, Figure 2); the theoretical propositions of Section 4.2 were developed. This was done applying the conceptual model to other examples of OSHH projects analyzed in the thesis, such as the practice of FUNDASAL, FUPROVI, USINA, SDI among others. The use of different research techniques allowed for triangulation of data in order to validate findings and increase reliability.

Understanding the OSHH process of phase 1 helped in identifying the 'causal mechanisms' that affected the OSHH process for phases 7 and 8. The motive underlying a purposive explanation of this case study is to understand what underlying mechanisms activated decision for changing the construction system; and how these technical changes affected the

[46] It was necessary to implement 112 questionnaires to obtain a sample of 100 questionnaires.

[47] Here the purpose is to explore the suitability of relating different degrees of dweller-control over the OSHH process to the enhanment of capabilities and participation in decision making.

OSHH process and community development. For Sayer (2000), "explaining why a certain mechanism exists involves discovering the nature of the structure or object which possesses that mechanism or power". In this case study, *the NGO* is the structure which possesses *power for decision making over the OSHH project*. This decision making power probably depended on its hierarchical internal organization, the capabilities of professionals, knowledge on project formulation and implementation, and access to international funding networks. But the decision power of the NGO depended on being accepted by the families as legitimate. The hierarchical nature of the NGO might explain the hierarchical and paternalistic relation with the families; the formulation of the community living rules without involving the community; and an OSHH process that lacked flexibility. Conversely "the dependence of social structures on, inter alia, shared understandings" is evident in the families acceptance of the decision power of the NGO. Conversely, this 'dependence' was challenged by some families of phase 7; which lead to conflicts between these families and the NGO.

Regarding the "causal mechanisms" that activated the change of construction system; it has been possible to identify a) an OSHH process for phases 1-6 that implied "lot of sweat and tears" – meaning complex and demanding; and, b) pressure from international donors to complete the project. The causal mechanisms for a demanding OSHH process might have been due to a) limited number of professionals in the project implementation; b) families used to paternalistic relations; c) lack of an learning-by-doing approach to the OSHH process. A theoretical/graphical explanation of the causal mechanisms of Hogar de Nazareth OSHH process needs to be developed futher.

4 Results and discussion

This chapter includes the results and discussion of the thesis. The first section seeks to characterize and describe the current state of the arts of organized self-help housing focusing on examples from Latin America and Asia. The second section attempts at conceptualizing organized self-help housing based on the empirical findings of Paper 3 and applying the conceptual framework developed in Section 2.2. In the third section, the discussion focuses on institutional approaches to OSHH from NGOs and CBOs. The fourth section explores the links of organized self-help housing, dweller-control and community development based on the OSHH experience of Hogar de Nazareth; and the practice of FUPROVI and other NGOs and CBOs mentioned in Section 2.7.

4.1 State of the arts of organized self-help housing

The international survey implemented by the author from 2008 to 2010 has identified 75 organizations that have implemented different types of organized self-hep housing projects since year 2000. This thesis focuses on a) selected organizations working with OSHH projects or that have OSHH as part of their approach for sheltering the poor (See Table 4.1; and b) an initial mapping of organizations working in developing countries (See Appendix A: Figure 4.1). The criteria for selecting some influential organizations are a) the scope of their current work or possibility for replication of projects due to networking internationally or due to teaching activities; and b) experience in implementation of medium-rise building with OSHH. Among the selected organizations that have implemented OSHH projects are international NGOs, national NGOs; federations of slum dwellers; universities; mutual-help co-operatives and architectural collectives. Firstly, organized self-help housing has been implemented through North to South international cooperation. Some NGOs have achieved to work worldwide but with different scope in terms of number of countries like Habitat for Humanity Internationl or the Swedish Cooperative; other NGOs are more regionally focused like Homeless International. Secondly, South-South cooperation by NGOs and CBOs has been key for learning by seeing different models of organized self-help housing. Some NGOs based in developing countries have extended their work to other developing countries – e.g. FUCVAM, FUNDASAL, Gawad Kalinga, Un Techo para mi Pais. Moreover, slum dwellers federations like Slum/Shack Dwellers International has mobilized the savings and power of the people themselves with technical assistance of the NGO SPARC for slum upgrading with and OSHH approach (See section 2.7, Box 2).

As shown in Table 4.1, there is a tendency on incorporating construction systems that allow for organized self-help housing of medium-rise buildings

– between three to five storeys. This might be related to scarcity and high costs of centrally located land; and also with more awareness about negative effects of urban sprawl when designing one storey-housing – such as longer commuting time, carbon dioxide emissions due to consumption of fossil fuels, and loss of ecosystems, etc. Increasing density through medium-rise buildings whilst providing good quality public and semi-public spaces, and community facilities or services will be relevant contributions of the post-millennium organized self-help housing practice in comparison to the limitations of sites-and-services – discussed in Section 2.5. Conversely, there are organizations that still implement OSHH projects with one to two storey housing which lack an incremental growth approach.

Organized self-help housing has been applied for slum upgrading, reblocking, relocation, reconstruction after natural disasters, and for new housing (See Paper 1, Tables 1 and 2). CBOs – mainly slum dwellers – have achieved more participation in decision making since the creation of Slum Dwellers International in 1996. Slum dwellers have exerted different degree of dweller-control over the OSHH process for solving their shelter needs; and have been able to implement different approaches to OSHH whilst increasing their capabilities and collective efficacy (See Section 2.7 Box 2).

The Community Organizations Development Institute (CODI) is the only governmental agency that has been included in Table 4.1 for the implementation of the Baan Mankong programme in Thailand since 2003. Although this is an aided self-help housing programme, it has been included in the table due to the degree of dweller-control that the community has over the whole process. Baan Mankong is a national slum-upgrading programme that provides infrastructure subsidies and housing loans to networks of slum dwellers. CODI claims that the communities have high degree of dweller-control because the "thousands of community-driven initiatives within city-wide programmes [are] designed and managed by urban poor networks working in partnership with local actors" (Boonyabancha, 2005). High degree of dweller-control is achieved due to the community participation in planning, implementation and management of OSHH projects for slum upgrading. The latter enhances the capabilities of the community due to a learning-by-seeing and doing approach – starting with savings schemes, participating in exchange visits to other communities, continuing with surveys of slums at city level, planning their own upgrading projects, self-building by themselves and taking care of maintenance (For a detailed account of the work of CODI See (Boonyabancha, 2005; Boonyabancha & Mitlin, 2012).

Table 4.1 Selected organizations working with OSHH projects; where type of organizations are NGO: non-governmental organization; CBO: community based organization; Acad.: academia; Coop.: mutual-help cooperative; Arch.: architectural collective; and GAg: governmental agency. The table shows the focus country/ies, type of projects (NH: new housing, SUH: slum upgrading-housing, SUI; slum upgrading-infrastructure, ReB: reblocking, Rec: reconstruction after disasters, Rel: relocation); and the number of storeys of housing solutions. Source: Elaborated by the author based on international survey and institutional websites.

	Organization	Country	Type	Countries	Projects	Storeys
North to South International cooperation						
1	Habitat for Humanity Int.[48]	U.S.	NGO	U.S+80 c.	NH, SU, Rec, Rel	**1-4 st**.
2	Homeless International[49]	UK	NGO	18 c.	NH, SU	1-2 st.
3	GREDCH-Univ. Politécnica De Cataluña	SP	Acad.	CM[50]	SUI	-
4	ADICI-Universidad de Sevilla	SP	Acad.	MA[51]	SUH	1 st.
5	We effect[52]	SE	NGO	25 c.	NH	1-2st.
South to South International cooperation						
6	SDI-The Indian Alliance: NSDF, SPARC, Mahila Milan	IN	CBOs-NGO	IN	SU, Rel	**1-3 st.**
7	Gawad Kalinga	PH	NGO	PH, KH, ID, IN, PG[53]	NH, SU, Rec	1-2 st.
8	Habitat for Hum. Philippines	PH	NGO	PH	NH, SU, Rec, Rel	**1- 4 st.**
9	TAO-Pilipinas	PH	NGO	PH	NG, SU	**1-3 st.**
10	CODI, ACHR	TH	Gag	TH	SUI,SUH	1-3 st.
11	Federation of the Urban Poor (FEDUP)[54]	ZA	CBO	ZA	ReB	1 st.
12	USINA	BR	Arch.	BR	NH	**4-5 st.**
13	FUPROVI	CR	NGO	CR	SU, NH	1 st.
14	Un Techo para mi Pais	CL	NGO	CL+ 19c[55]	SU, NH	1 st.
15	FUNDASAL	SV	NGO	SV, GT, NI, HN	Rec, SU, NH	**1-4**
16	FUCVAM	UY	Coop.	UY+15 c.[56]	NH	1-2 st.

[48] Habitat for Humanity International works in the United States and in 80 developing countries in Africa, Asia, Latin America and Europe, see http://www.habitat.org

[49] Homeless International works in slum areas in 18 developing countries from Africa and Asia, see http://www.homeless-international.org

[50] CM: Cameroon

[51] MA: Morocco

[52] *We effect* is the new name of the Swedish Cooperative Center, See http://www.weeffect.org

[53] KH: Cambodia, ID: Indonesia, PG: Papua New Guinea.

[54] See FEDUP is the South African affiliate of Slum/Shack Dwellers International. See http://www.courc.co.za

[55] Techo works in Chile and in 19 Latin American countries See http://www.techo.org

[56] See Federación Uruguaya de Cooperativas de Vivienda por Ayuda Mutua. FUCVAM is working in Uruguay with co-operativism and mutual-help since 1970. With support of the Swedish Cooperative Centre, in 2001 FUCVAM started transferring its co-operative and mutual-help housing approach to 15 Latin American countries which are BR, PY, BO, SV, NI, HN, GT, VE, AR, CL, EC, PE, CR, HT, CU. For this South to South cooperation FUCVAM received the World Habitat Award 2012 (See http://www.worldhabitatawards.org).

Towards an international mapping

A mapping of the results of the international survey is appended as Appendix A in this thesis. Paper 1 presents results of the international survey implemented from 2008 to 2010. The paper shows information about twenty organizations implementing OSHH in Africa specifying the project type and a brief summary of the work of each organization (See Paper 1, Table 2). The paper describes the case of Indonesia as an example of how OSHH has been implemented for slum upgrading and for reconstruction after the tsunami in 2004 (See Paper 1, Section 3.2). Housing experts from Indonesia highlight how the OSHH process enhances the capabilities of the community, and how the people appropriate the houses or facilities the build by themselves and commit more to maintenance of the settlements over time. From the experience of organized self-help reconstruction after the tsunami, the surveyed housing experts emphasize how increasing capabilities related to self-construction activities will make the community more resilient when facing other natural disasters. Large-scale reconstruction after natural disasters can be done more efficiently and at lower cost through organized self-help reconstruction. The paper concludes that dweller-control over the OSHH process contribute in achieving quality settlements and homes whilst empowering the urban poor (See Paper 1, Section 4).

Latin American examples

In Latin America, the most influential organizations working with OSHH projects are located in Central America, Uruguay, Brazil and Chile. Latin American slum dwellers seem not to be as organized as their peers in Asia or Africa. Currently Slum Dwellers International is only working with slum dweller federations in Argentina, Brazil, Bolivia, Haiti and Peru.

FUCVAM is an Uruguayan collective of more than 500 housing co-operatives working with a co-operativist approach to OSHH based on technical assistance, collective property, self-management and mutual-help. For FUCVAM, important issues to improve the process are the following: a) better planning of projects to optimize mutual-help, b) adequate training for self-construction activities and for self-management, c) selection of typologies and construction systems for self-construction and mutual-help. FUCVAM highlights the need of families to enhance their self-management capabilities so that the group makes decisions; and all decisions, from selecting the professionals involved up to the colour they would paint the walls. The latter reinforces the concept of belonging and the commitment of the group with the work they are carrying out. Other experiences of self-help housing in which mutual-help is used but that lack self-management have had lower results than the ones achived by the co-operatives. Speculation of the housing units is prevented because the co-operative owns the houses. If a member of the co-operative wants to leave the housing project, the member recieves his/her social contributions – which means the payments for amortization and interests, plus the economic cost for the self-

construction and mutual-help activities that he/she performed. It is the co-operative who commercialices the vacant unit, and not the private individual. FUCVAM received the World Habitat Awards 2012 due to South-South transfer of its institutional practice to 15 Latin American countries (See Footnote 56).

The expertise on OSHH developed in Central America is unique considering that it is a small region that has been through political instability in the 1970s, and which has also been affected by natural disasters recurrently. The NGO FUNDASAL started working with organized self-help housing for reconstruction purposes in El Salvador in 1968[57]. Although the work of FUNDASAL has been considered as sites-and-services by Stein (1989); for this thesis, the work of FUNDASAL has been considered as organized self-help housing. First, due to their bottom-up approach to self-help housing in which this NGO provides technical assistance. Secondly, because of the high degree of dweller-control that the communities have achieved over the OSHH process (See Burns, 1983) – which was absent in sites-and-services implemented by the World Bank in the 1970s. Since 2004, FUNDASAL has applied the co-operativist model to OSHH developed by FUCVAM for medium rise buildings – condominium with collective property (See section 2.7).

FUPROVI, PRODEL and HABITAR are NGOs with expertise on OSHH which belonged to the PROMESHA network which was active from 1995 to 2010. These NGOs were among seven partners in Latin America that received capacity building with finantial support from Sida. When FUPROVI received support from Sida[58] in 1987, Manuel Sevilla, former director of FUNDASAL was appointed advisor of this NGO (See Paper 2, Case study 1: FUPROVI). Sida was also key for establishing PRODEL which works both with assisted self-help housing and micro-credit on a family-based level; and organized self-help housing for infrastructure improvements in slum areas in Nicaragua. The expertise of PRODEL has inspired Habitat for Humanity International for developing the concept of 'housing support systems'[59]. Based on FUPROVI's and SADEL's experience on OSHH projects in Costa Rica and in Tunisia respectively; the capacity building programme PROMESHA was also key for spreading knowledge on OSHH among 137 professionals working with housing and urban development in 34 countries from Latin America, Asia and Africa (See Paper 1, Methodology).

HABITAR is a Nicaraguan NGO working with OSHH for infratructure improvement, slum upgrading, new housing projects, and communal facilities. The NGO involves different actors such as the Municipality of Managua and the community. The municipality provides selected materials for the project and municipal trucks for communal cleaning activities. The

[57] FUNDASAL started with the guidance of Antonio Fernández Ibáñez, Jesuit Priest, as a response to a natural disaster that affected the housing of poor people in San Salvador in September 1, 1968. (See www.fundasal.org.sv)

[58] Sida: Swedish International Development Cooperation Agency

[59] This statement is based on the presentation made by Steven Weir in a network event at the World Urban Forum VI held in Naples in September 2012. The author participated in that network event.

community participates within the planning, design, self-help construction activities, monitoring, evaluation and maintenance of the project. HABITAR provides the technical assistance and funding for the project. "The [organized] self-help housing approach of HABITAR is not only building the physical space, but also building communities and contributing to the social integration of people within the community and with the city, its power organizations and economical relationships"[60]. This NGO shows both the local government and the community how to mobilize resources in terms of people, material and funds in order to accomplish incremental infrastructure improvement projects or housing projects. HABITAR is also involved in advocacy for pro-poor housing policies in Nicaragua.

Latin American NGOs implement mostly OSHH projects with one or two storey housing; which considers extensions mainly on the groundfloor. Hence, densification of OSHH projects becomes a challenge for the families in the long term, due to the lack of an incremental growth approach to self-build up to four or five storeys. The main limitation is to find affordable construction systems suitable both for organized self-help housing and for multy storey housing. However, the architectural collective USINA, from Sao Paolo- Brazil, is an important reference for other Latin American NGOs to design with density up to five storeys; and for an OSHH approach that claims to promote high-dweller control over the whole process as described in Section 2.7 Box 1.

'Un Techo para mi País' (TECHO)[61] is a NGO working 15 years in organized self-help housing projects for emergency wooden shelter and community development. TECHO is currently working in 19 Latin American countries. The institutional approach of this NGO is to mobilize human resources mainly university student volunteers and the families in need of housing for the OSHH process. TECHO has been included in Table 4.1 because they are unleashing the force of university students from different field of studies, but especially from architecture; which will be the basis for future community architects and practitioners in Latin America. TECHO received the Dubai International Award 2012, in the category Best Practice Transfer Awards. Hence, FUCVAM and TECHO are Latin American organizations working with different approaches to organized self-help housing whose transfer of experiences has been recognized worldwide through these global habitat awards in 2012.

[60] Interview to Ninette Morales, Director of Habitar, Field trip to Nicaragua in 2008.

[61] Un Techo para mi País received the Dubai International Award 2012 for Best Practices Transfer Awards, see http://www.dubaiaward.ae/web/NewsDetails175.aspx. TECHO: http://www.techo.org

Asian examples

Networking between Asian NGOs and CBOs started 36 years ago with the work of Jorge Anzorena[62], J.P. working ad-hoc for the Office for Human Development at the Catholic Bishops of Asia; and then with the work of the Asian Coalition of Housing Rights (ACHR) between 1988 and 1991. This long-term networking and later exchanges with South Africa since 1991 constituted the solid ground for the creation of Slum/Shack Dwellers International in 1996. In Paper 1, Table 3 shows key organizations implementing organized self-help housing projects for slum upgrading and reconstruction after natural disasters in India and Indonesia. As mentioned before, for Samuels (2005) and others, the Indian Alliance is considered the most advanced and organized grass root organization worldwide that works for improving the living conditions of slum dwellers in India whilst improving their capabilities (See Section 2.7 Box 2). However, it is possible to question how decision making is achieved and to what extent slum dwellers have or not high degree of dweller-control over the OSHH process.

In the Philippines, it is possible to identify three NGOs, which have developed their own approaches to organized self-help housing. These NGOs are Habitat for Humanity Philippines, Gawad Kalinga, and TAO-Pilipinas. Habitat for Humanity Philippines (HFHP)[63] has developed an approach to OSHH that includes the families and volunteers. This NGO and uses a construction system based on concrete-interlocking blocks (CIB) which is suitable for OSHH of 3 up to 4 storey-buildings. HFHP mobilizes human resources – international and local volunteers and the families – and funding. Housing units are around 24m^2, provided in two levels – living area and a loft for sleeping. An example of OSHH project implemented by this NGO is Taguig in Pasig City (See Figure 4.2). However, there is the need of studying the degree of dweller-control that the families had over the OSHH process for medium-rise building projects like Taguig – e.g. design, building materials, budget.

Gawad Kalinga (GK)[64] is a Filipino NGO that implements organized self-help housing for slum upgrading, new housing and reconstruction after natural disasters with the aim of *building communities to end poverty*. GK institutional approach to OSHH is based on a model that includes volunteers and the families for implementing the projects. GK partners with Filipino academic institutions, public and private sector. GK housing projects are based on one or two storey row housing, focusing also on the public space e.g. playgrounds for children, community facilities and greenery of the settlement (See Figure 4.3).

[62] Jorge Anzorena is an Argentinian Jesuit Priest, who holds a PhD in Architecture. When visiting Hogar de Cristo in Chile, Anzorena understood that the scale of the shelter problem in Asia was huge in comparison with Latin America. Hence, he spent time travelling around Asia, documenting the experiences of NGOs and CBOs. See http://www.achr.net

[63] Habitat for Humanity Philippines, see http://www.habitat.org.ph

[64] Gawad Kalinga (Give Care in English) was founded in , see http://www.gk1world.com

Figure 4.2 Taguig project is the first medium-rise building for OSHH implemented by Habitat for Humanity Philippines, households and volunteers. A three storey building in which each apartment units consists of two levels; the first level is for living and wet chores; the second level provides space for a loft for sleeping. Photos: Alvaro Vásquez-Esparza, Field trip to The Philippines 2011

Figure 4.3 Baseco project, an OSHH project implemented by Gawad Kalinga. One storey housing with consequent urban sprawl. Limited outdoor community space. Photos: Katharina Rabanser, Field trip to The Philippines 2011

Figure 4.4 SHEC community
Photos: Ana Arias Collado, Field trip to The Philippines 2013. Two and three storey buildings allowing for more outdoor community space.

TAO-Pilipinas[65] is a women-led NGO that started in 2000 inspired by the exchanges promoted by the Asian Coalition of Housing Rights (ACHR). These community architects belong to the Community Architects Network in Asia (CAN); and have developed expertise in participatory design, working with the poor in the Philippines. For TAO, the advantages of organized self-help housing are that it "increases the sense of ownership of community development activities; [the] cooperation among community members is easier; transfer and sharing of skills and knowledge is more plausible; dependence on outside assistance is lessened; and [the process] increases self-sufficiency, [and] encourages mobilization of local resources". Among the disadvantages of OSHH, TAO emphasizes that the time for planning and implementation can be longer if a) the local skills are limited; b) there is weak organization that will tend to break the organization and promote corruption; and c) more intensive and extensive coordination and organizing work is needed. TAO conducted the participatory design in the OSHH project SHEC Community (See Figure 4.4). This project has applied Habitat for Humanity Philippines' interlocking blocks construction system.

African examples

From the international survey, information about 20 organizations working in nine African countries is shown in Paper 1, Table 2. International organizations like Homeless International and Habitat for Humanity International have collaborated with local NGOs or worked by their own with implementing OSHH for slum upgrading, relocation, and new housing projects. There are also some national NGOs working with OSHH projects such as Jamii Bora Trust, Pamoja Trust, WAT-Human Settlements Trust among others. However, the institutionality of local NGOs in Africa is not as developed as it is in the NGOs in Asia or Latin America.

By contrast, slum dwellers federations are stronger in terms of organization and mobilization of resources than their Latin American peers. As mentioned in the previous section, networking between Asian NGOs and CBOs extended to South Africa in 1991. Currently, Slum/Shack Dwellers International (SDI) is working in19 African countries. Conversely, from the 14 mature federations in SDI, nine of these federations are African countries – Ghana, Kenya, Malawi, Namibia, South Africa, Tanzania, Uganda, Zambia and Zimbawe (See www.sdinet.org/affiliates).

[65] TAO-Pilipinas has been included in Table 4.1 because of their expertise as community architects, and the potential for replicating their participatory methods for designing OSHH projects for new housing and slum upgrading. See http://www.tao-pilipinas.org

4.2 Conceptualizing OSHH from current practice

"The participation, the technical assistance within the process of [organized] self-help housing ... [the NGO's] commitment with the community and with the objective... we are mobilizing resources around the self-help housing process…" (Interview to Eloisa Ullibari, Director of FUPROVI, Field trip to Costa Rica, 2008).

Based on Paper 3, Figure 2 Conceptual Model; the examples analyzed in chapter 2, Boxes 1 and 2; and the current practices previously discussed in section 4.1 of this thesis; the following conceptualization of organized self-help housing is proposed:

Towards redefining organized self-help housing

Organized self-help housing (OSHH) is a bottom-up, community-led process of the 'making' of the built environment in which facilitating organizations provide technical assistance with the aim of improving 'the spatial' and also 'the social'. OSHH is among other ways of doing architecture because it goes beyond the object-building paradigm of architecture and focuses on the process of producing the built environment; and how this process contributes or hinders the development of capabilities and other collective attributes. Poor communities participating in an OSHH project have capabilities, and make choices for planning and implementing the project according to the degree of dweller-control that they have over the whole process. The OSHH process contributes to improving 'the social' due to enhancing the capabilities of the poor as the basis for overcoming poverty. Due to mastering the OSHH process, people enhance their individual capabilities; and develop collective attributes such as spatial agency, collective efficacy and empowerment.

About the organized self-help housing process

The organized self-help housing process depends on how communities interpret, plan and implement it; and on the context in which the process is implemented. This context is variable and dependent on other actors' response to it – the facilitating organizations, governmental agencies, private developers, international cooperation, among others. The OSHH process is composed by three stages; which are a) preparation, b) implementation, and c) post-process. Higher degree of dweller-control over the preparation stage contributes in enhancing the capabilities of the poor on planning, self-management and decision making. Higher degree of dweller-control over the second stage also contributes in enhancing the capabilities of the individuals on self-construction activities whilst achieving spatial agency. Spatial agency is achieved when the community, professionals and other actors abandon hierarchies and produce 'mutual knowledge' that enables them to perform concrete and transformative actions for improving 'the spatial'. The implementation stage is key for the

community mutual-help experience. A community mutual-help experience based on partnership, respect and solidarity will contribute to community cohesion. The community develops collective agency and collective efficacy due to participating and overcoming the implementation stage and achievements regarding 'the spatial'. Higher degree of dweller-control over the first and second stages of the OSHH process will derive in people with enhanced capabilities and community development. Hence, high degree of of dweller-control is key for improving 'the social' because it leads to empowerment. When community members managed to be empowered through the whole OSHH process they are able to self-manage their own community and maintain the settlement over time. An empowered community continues exerting enhanced capabilities, collective agency and spatial agency to achieve futher community development and overcome poverty. They have learnt that they are capable to be agents of change of their own development. Such a community becomes a resilient community that is better prepared to face natural disasters or any other crisis.

The effects of the OSHH process

The OSHH process does not divide 'the collective' or 'the gathering'[66]it values its double output in terms of building 'the spatial' and 'the social'. The OSHH process is important for *what it does with people* in terms of enhancing the capabilities of individuals, which is related to individual wellbeing. Through participating and overcoming the OSHH process, the community develops spatial agency, collective agency and collective efficacy; which are collective attributes related to community wellbeing. Hence, the effects of the OSHH process are enhanced capabilities, spatial agency, and collective efficacy; which are key factors for overcoming poverty and increasing community resilience. In the OSHH process, 'agency' is multiple; first, the agency of architects and planners can be transferred to the community to enhance their capabilities and support them during the whole process. Secondly, 'dweller-control' over the OSHH process implies that poor families develop capabilities and become 'agents of change' of their own development. The latter enables the deprived to overcome the alienation of the market to access adequate housing and exert their right to the city. Institutions such as governmental agencies and non-governmental organizations have another type of agency that can contribute to remove structural unfreedoms to adequate housing and to the right to the city.

[66] The terms 'the collective' and 'the gathering' have been borrowed from Latour (2004).

4.3 Institutional approaches to OSHH

> "One of [Patrick] Geddes' characteristic suggestions, thrown off during a period in India between 1915 and 1919, was that *an effective housing policy* should utilize the resources and skills of those whom it is intended to benefit. Writing in a context where most families were building their own homes, Geddes argued that, instead of planning 'puka' public housing, the state should help people build for themselves 'kucha' homes, modest and impermanent, but appropriate to their needs" (Geddes quoted in Harris, 1997).

Geddes, Crane, Abrams and Turner among others have inspired NGOs, CBOs, housing co-operatives, architectural collectives and the academia in developing institutional approaches for planning and implementing organized self-help housing projects. Incorporating Turner's approach of 'progressive planning' in planning paradigms for the South will allow for a planned attainment of higher densities when the settlement requires growing over time (See Turner's quotation in section 2.4). Such an approach will prevent that the settlement infrastructure and services collapse in the long term due to increase of population; allowing for different types of land tenure; mixed uses and limiting urban sprawl due to increasing building heights.

One of the critiques I might receive on this thesis is that there is a fine line that divides the different types of self-help housing mentioned in section 1.2. However, from a capability approach perspective the differences become clearer and more evident. In *top-down approaches* to self-help housing – such as aided self-help housing, or sites-and-services – in which the government has been responsible for establishing the self-help housing process, people have been merely considered as beneficiaries and cheap labour that lacked influence on decision-making. These projects have focused on improving 'the spatial' through producing more affordable housing incorporating the self-help housing power of the poor but not on improving 'the social'. Enhancing the capabilities of the families or strengthening community organization was not among the goals of top-down approaches to self-help housing. This results evident considering that Sen's work *'Inequality reexamined' and 'Development as Freedom'* are dated 1992 and 1999 respectively; long after aided self-help housing and sites-and-services were implemented[67]. By contrast, bottom-up approaches to self-help housing with technical assistance – namely assisted self-help housing and organized self-help housing – led by NGOs and CBOs have been encouraged by the Habitat Agenda since 1996. The institutional approaches of these organizations have shifted in considering the families as partners with influence on decision-making. Some organizations have developed institutional approaches more oriented to enhance the capabilities of the poor, as it is argued in this thesis.

[67] Aided self-help housing or state assisted self-help was implemented in Europe around the 1920s; and later in the Puerto Rico project in 1939. Sites-and-services were implemented in the 1960s by U.S. Aid, and from 1970 to 1982 by the World Bank (See section 2.5).

Based on the findings of the current practice of NGOs, CBOs, and co-operatives from the international survey; this thesis presents a first attempt to classify and describe different institutional approaches to OSHH: people-centred OSHH, mixed-model OSHH, co-operativist OSHH, volunteer-assisted OSHH; and, community-empowered OSHH. The following definitions try to summarize the main features of each type of institutional approach to OSHH.

People-centred OSHH: a process in which the families are considered beneficiaries, implementing all self-construction activities by themselves with technical assistance of facilitating organizations; but without participating in decision-making. The facilitating organization is in control of the OSHH process – e.g. FUPROVI first model; Hogar de Cristo OSHH model in Hogar de Nazareth.

Mixed-model OSHH: a process that includes paid labour for the construction of urban infrastructure; and the families implement self-construction for the houses. The process aims to decrease the time for self-construction activities, focusing also in developing the self-management skills of the community – e.g. FUPROVI fourth model; SDI.

Co-operativist OSHH: a process based on co-perativist values such as collective property, solidarity and mutual help. Members of housing co-operatives of previous projects trained new members and support them during the OSHH process. The process focuses also in developing the self-management capabilites of the new co-operativist group – e. g. FUCVAM; We Effect (former Swedish Co-operative Center).

Volunteer-assisted OSHH: a process in which the families have the support of volunteers for self-construction of the houses with technical assistance of facilitating organizations. The process aims at mobilizing resources around the OSHH project and bridging the gap between the wealthy and the deprived. The facilitating organization organizes the involvement of volunteers and it is in control of the OSHH process – e.g. Habitat for Humanity International; Un Techo para mi Pais; Gawad Kalinga.

Community-empowered OSHH: a process in which the families are considered partners with decision-making power; and have dweller-control over the OSHH process with technical assistance of facilitating organizations. The community is in control of the OSHH process – e.g. FUNDASAL, USINA, CODI, SADEL, SDI.

The institutional approaches of the NGOs FUPROVI and SADEL have been discussed in Paper 2. Based on a learning-by-doing approach, FUPROVI has been able to improve its own institutional approach to organized self-help housing. In FUPROVI's first model – *people-centred OSHH* – the community lacked dweller-control over the process and it was mostly considered as self-construction labour. The OSHH process lasted around 2.5 years, families were exhausted and reluctant to continue participating in post-project activities. FUPROVI learnt that higher degree of dweller-control over the OSHH process was important so that the

families become more committed in self-management and maintenance of the settlement. Hence, in FUPROVI's fourth model – *mixed model* –, paid labour was incorporated for the construction of the infrastructure; and the community was involved in the OSHH process of the housing units. The latter helped to complete projects between 6 and 12 months, according to the scale of the project. In the Rohia project, SADEL's institutional approach was an OSHH model in which the families participated in the design, management and implementation of the project – *community-empowered OSHH*. SADEL was able to enhance the capabilities of the community on self-construction activities, which helped them to build extensions and maintain their house; build housing extensions for relatives; and to use these skills for generating income.

Paper 3 explains the OSHH process of Hogar de Nazareth, implemented by the NGO Hogar de Cristo in Guayaquil, Ecuador. The paper shows that the institutional approach of this NGO was similar to the institutional approach of FUPROVI's first model – *people-centred OSHH* – because families were considered beneficiaries and mostly cheap labour. The families had to do all self-construction activities by themselves with technical assistance of the NGO. The contribution of international organizations was restricted to funding the project, but there were no volunteers involved; neither were governmental agencies involved. Due to changes in the construction system to a prefabricated housing, the OSHH approach changed to a mixed-model OSHH. Families of phases 7-8 implemented self-construction activities for excavation, building foundations, and casting a concrete floor; on which skilled paid workers assembled the prefabricated housing unit. Conversely, changing the institutional approach from people-centred to mixed-model improved the construction time, but affected negatively the enhancement of capabilities and community development (See Paper 3, Dweller-control over the OSHH process of phase 1). Conflicts between families from phases 1-6 and families from phases 7-8 of Hogar de Nazareth and between families from phases 7-8 with the NGO; made the NGO reluctant to continue implementing any other OSHH project.

Slum/Shack Dwellers International claims to have a flexible institutional approach that adapts to the needs of the communities. The OSHH project is identified, plan, implemented and self-managed by the people themselves with technical assistance of NGOs – *community-empowered OSHH*. The OSHH process for community toilet blocks is community-empowered but the OSHH for in-situ slum upgrading has been implemented on a mixed-model basis – incorporating skilled paid labour. The success of the institutional approach of SDI might be because slum dwellers initiate, plan and implement the OSHH project. By contrast, in institutional approaches from some NGOs, the facilitating organizations are mostly the driven force in OSHH projects. Hence, institutional approaches of NGOs should foster that the poor exert high dweller-control over the whole OSHH process. The latter will enhance the capabilities of the deprived, and empower them over the project; which will derive in better self-management and maintenance of their settlements over time.

The institutional approaches of organizations like FUCVAM, FUNDASAL, USINA, SDI and Habitat for Humanity Philippnes is also important because they have developed construction systems for organized self-help housing and medium-rise buildings. The latter is key for limiting urban sprawl whilst providing quality public and semi-public space; which frequently are lacking in public housing projects. There is a need of studying dweller-control over the OSHH process for medium-rise buildings and the construction systems that have been implemented by these organizations. The latter will contribute to improve the practice and institutional approaches of other organizations working with OSHH projects in developing countries.

4.4 Effects of the OSHH process on community development

> "The impact of housing improvement is not only a physical space but also a positive impact on people's dignity... although the same clothing, now the housing environment is a sign of better quality of life and maybe that will lead to new improvement actions in order to get better income." (Interview to Ninette Morales, Director of HABITAR, Field trip to Nicaragua, 2008)

Burgess (1977) has critized Turner for expecting governments in capitalist countries to "intervene to guarantee local access to raw materials, finances and land". The latter has not been achieved due to the 'housing as a product paradigm' that constitutes the basis of the profit-oriented interests of the current market-driven society. Burgess' critique is important considering that slum dwellers are expected to increase to 2 billion by 2030. In the context of global capitalism, slum dwellers federations and social movements with the support of critical planners, urbanists, architects and social scientists have the challenge to develop planning and housing paradigms for a shift from 'cities with slums' to 'more just cities' in the South. Such paradigms need to build on the capabilities, self-building effort, mutual-help, self-management and empowerment of poor communities. High degree of dweller-control over the OSHH process is key for enhancing the capabilities of individuals, the community spatial agency, and its collective efficacy; which are attributes leading to community empowerment. From the policy and regulatory contexts, it is necessary to remove unfreedoms such as market-driven housing policies, access to funding, land, materials and inherited building standards; which hinder the poor in accessing adequate housing and to exert their right to the city. Therefore, the potential of organized self-help housing as an enabling shelter and development strategy to build better housing, better communities, and better settlements.

Dweller-control and enhancement of capabilities

Paper 3 has shown that low dweller-control over the first stage of the OSHH process limited families' development of capabilities on planning, self-management and decision-making; which are essential for the next two phases of the process (See Paper 3, Dweller-control over the OSHH process of phase 1). However, the families achieved spatial agency, collective agency and collective efficiency as a result of participating in the OSHH process of phase 1. The paper also shows that the OSHH process worked successfully regarding the double output of building 'the spatial' and 'the social' until phase 6. However, Hogar de Cristo considered that the process was too long, complex and demanding for the families. The paper argues that due to low and medium dweller-control over the OSHH process of phases 1-6, the families developed limited capabilities and empowerment; which affected negatively their participation in decision making over the OSHH process of next phases. The NGO decided to change the construction system without including the families of phases 1-6 in this decision. Hence, these families could not propose or plan strategies for integrating the 89 new families that the NGO incorporated to Hogar de Nazareth in phase 7. The latter could have prevented conflicts among families of different project phases.

By contrast, the importance of dweller-control over the OSHH process as the basis for empowerment is clearly identified within the practice of FUPROVI (See Paper 2, Case Study 1: FUPROVI). "[The OSHH process implies] shared responsibility and the fact that families are the main actors within the process and they have to make decisions about their needs"[68]. In the case of FUPROVI and HABITAR (See section 4.1 Latin American Examples) both NGOs focus on developing the community self-management capabilities during the whole organized self-help housing process. Thus, the community approaches institutions and learns how to obtain other services or facilities to improve the settlement, fostering its own development. High degree of dweller-control over the OSHH process has also been achieved in the practices of FUNDASAL, USINA and SDI (See Section 2.7); and FUCVAM (Section 4.1).

FUPROVI's fourth model of OSHH shows the positive effects of high degree of dweller-control on community development. "It seems that the neighbourhood exists before the houses have been built, people know each other because they see each other working during the week"[69]. The project Nuestra Señora del Carmen shows that high degree of dweller-control contributed on enhancing capabilities of the community on acquisition of construction materials, fundraising, participation in the housing construction and supervision of housing construction quality. This project also highlights that women were key for the project, and from 220 people participating in the OSHH process, 45% were women. Regarding the effects of the OSHH process, it contributed in strengthening the community organization. The community mutual-help experience contributed in developing solidarity between the families. They learnt how to work

[68] Interview to Eloisa Ullibari, Director of FUPROVI, Field trip to Costa Rica in 2008.
[69] Interview to Eloisa Ullibari, Director of FUPROVI, Field trip to Costa Rica in 2008.

together to achieve the common goal of obtaining their own houses. The OSHH process had a positive effect on community development because the community was well organized after the project finished (See Paper 2, Box 1).

5 Conclusions and propositions

Slums or informal settlements are the physical expressions of the inequality of societies that have prioritized the profits of the market over the wellbeing of people. Cities without slums would not be achieved by only addressing the physical matters of facts, but through addressing the underlying matters of concern. This includes the need of finding a planning paradigm that builds on the diversity and the sturdy social relationships that characterize slums. Such a paradigm should enhance the capabilities of the deprived whilst empowering them. When the poor are empowered they become agents of change of their own development; and constitute a unique force to improve their living conditions in slums. Architecture and Planning have indeed the capacity of open a space of freedom to contribute in overcoming spatial and social inequalities. Spatial agency would allow for the development of mutual knowledge from community architects and planners, slum dwellers, and many other actors. A planning paradigm based on enhancing the capabilities of the poor, spatial agency and collective efficacy can be the basis for shifting to more 'just cities' in the South.

5.1 Current practice in developing countries

The current OSHH practice in developing countries shows that since year 2000 there are many new bottom-up approaches and experiences; and more action in terms of testing different types of OSHH than academic debate. NGOs, COBs, the academia, housing co-operatives, among others have implemented different types of institutional approaches to OSHH in developing countries. What OSHH does with the lives of people is better understood from a capability approach perspective than only considering cost reduction or housing affordability.

The importance of shifting to the paradigm of *housing as a process* is that this paradigm suits better the shelter problem of the deprived. Shifting to such a paradigm would imply the development of pro-poor housing and urban development policies that minimize profit making over social housing. Through developing pro-poor regulatory frameworks it would be possible to support the incremental housing process better; making land accessible as the basis to the right to adequate housing; and allowing for different housing support tools – such as micro-finance, land development, communal land ownership, community savings, small-scale prefabrication of building components, etc. The paradigm of housing as a process underlies organized self-help housing.

From a capability approach perspective, South-to-South international cooperation seems to be more efficient than North-to-South international cooperation because it contributes in building 'the spatial' and 'the social'. Such an approach to OSHH contributes in enhancing the capabilities of the poor whilst empowering them. North-to-South cooperation should aim at supporting slum dwellers federations and building capacity among NGOs and CBOs; and considering counterparts in developing countries as partners instead of beneficiaries. Partnership implies that all actors have equal power on decision-making; which is essential for breaking hierarchical and paternalistic relationships. The tendency of the post-millennium OSHH projects is planning and implementing medium-rise buildings up to 4 or 5 storeys for in-situ slum upgrading, relocation, reconstruction or new housing projects. This tendency has been found in the work of Habitat for Humanity Philippines, The Indian Alliance, USINA and FUNDASAL. Incorporating density through medium-rise buildings will contribute to provide better public and semi-public space, and community facilities; which are currently lacking in most one to two storey public housing areas.

One important lesson from sites-and-services today is the issue of settlement obsolescence and its inability of progressive development. The same applies to the limitations of core housing to grow incrementally up to 4 or 5 storeys. Post-millennium OSHH projects should consider that the settlement might increase its density up to 5 times in a 35-year lifetime; and therefore, prevent water and sewage infrastructure that could respond to such increase of population. The structural design of housing units should consider that in the context of a rapid urbanizing world, land use has to be optimized and this implies designing housing structures that would allow densification in height – up to 4 or 5 storeys – whilst guaranteeing structural quality.

International networking of NGOs and CBOs in Asia and between slum dwellers federation between Asia and Africa has been strategic for learning-by-seeing and for learning-by-doing. Latin American NGOs, CBOs and architectural collectives would gain experience and learn from large scale OSHH for slum upgrading and reconstruction if networking with Asian slum dweller federations and with the community architects network in Asia. Morever, networking with organizations like FUCVAM (Uruguay), FUNDASAL (El Salvador) and USINA (Brasil) within the Latin American region, would be very important for learning about OSHH for medium-rise buildings, collective property, self-management and dweller-control over the OSHH process.

5.2 Institutional approaches to OSHH

CBOs with the support of NGOs, the academia, architectural collectives, and mutual-help cooperatives can remove unfreedoms for slum dwellers to access adequate housing through pro-poor housing policy that allows for OSHH projects. Governmental agencies need to provide enabling shelter and development policies, which aim at enhancing the capabilities of the

poor; and at supporting grass root organizations to develop their spatial agency and people's collective efficacy.

As an enabling shelter and development strategy, organized self-help housing should aim at enhancing the capabilities of the poor on planning, implementation and self-management of projects oriented to improve the living conditions of the poor. The Thai Government through CODI, to my knowledge, has implemented a unique enabling pro-poor shelter policy in which CODI provides the funding; and networks of poor communities have high degree of dweller-control over planning, implementation and self-management of citywide housing and infrastructure improvements in slum areas.

Federations of slum dwellers have demonstrated that through enhancing their capabilities – starting with saving schemes that helped them to organize themselves, build trust and manage funding – they have been able to plan, implement and self-manage slum-upgrading schemes at city level in partnership with local government, NGOs, and other actors. The work of Slum/Shack Dwellers International in the last 17 years supports this statement.

For describing current OSHH practice in developing countries, this thesis has classified the institutional approaches in a) people-centred OSHH, b) mixed-model OSHH, c) co-operativist OSHH, d) volunteer-assisted OSHH and e) community-empowered OSHH. *People-centred OSHH* is an approach in which the families are considered beneficiaries and mostly cheap labour with technical assistance of facilitating organizations. This approach lacks the participation from other external human resources – as it was the approach in Hogar de Nazareth in phases 1-6. By contrast, *community-empowered OSHH* is an approach in which the families are partners who become empowered during the OSHH process whilst enhancing their capabilities. This approach corresponds to the practice of FUNDASAL, USINA, CODI, SADEL and SDI.

Another institutional approach is *mixed-model OSHH*; in which the families plan, implement, and self-manage the process with technical assistance of facilitating organizations; with the contribution of skilled paid workers – as it was the case in Nuestra Señora del Carmen (FUPROVI). *Volunteer-assisted OSHH* which corresponds to the practice of Habitat for Humanity International or Un Techo para mi Pais involves volunteers. This approach mobilizes more resources – human, institutional and funding. It also contributes to mix different income groups, e.g. slum dwellers, university students, professionals, workers from private corporations, etc.

Institutional approaches of NGOs to organized self-help housing need to be developed on learning-by doing basis, considering cultural aspects and the national housing policy. The most influential organizations working with OSHH have tested and improved their own approaches in a long term. FUNDASAL has 45 years of experience; FUCVAM, 43 years; Habitat for Humanity International, 37 years; FUPROVI, 26 years; Gawad Kalinga, 18 years. Therefore, one-time trials on OSHH projects like the work of Hogar de Cristo in Hogar de Nazareth, are most likely to encounter difficulties. Instead of being discouraged of the complexity of OSHH processes, NGOs

and CBOs should value the positive effects of the OSHH process in the lives of the deprived.

5.3 The OSHH process

Slum dwellers can develop spatial agency, improve their capabilities and become empowered during the organized self-help housing process if they have high degree of dweller-control over the OSHH process. The people themselves with adequate technical assistance and access to different housing support tools are able to achieve a better built environment whilst enhancing their capabilities and improving 'the social'. The latter is essential for overcoming poverty and becoming more resilient communities.

In the OSHH process, the poor achieves spatial agency when working in partnership. The community develops collective agency and collective efficacy through the community mutual help experience; and the physical achievements in the built environment – building 'the spatial. Due to high degree of dweller-control over the OSHH process, the deprived enhances their capabilities; and, therefore become empowered and agent of change for their own development. The latter implies that the OSHH process contributes also to building 'the social'.

The agency of planners, architects and other professionals is needed to enhance the capabilities of the poor providing a kind of technical assistance that empowers the poor over the OSHH process. The aim of technical assistance should be to support the poor in enhancing their functionings to access adequate housing. Enhanced capabilities will help the poor to overcome poverty and lead to communities that are more resilient.

There is not equal leading force than the power of people's collective action for planning, implementing and self-management OSHH projects, when people have enhanced their capabilities. Communities need technical assistance of NGOs, architectural collectives, the academia and mutual-help housing co-operatives. Professionals and governmental agencies need to understand how the OSHH process contributes to enhance capabilities among the poor; and therefore, building better housing and settlements. When the deprived enhances their capabilities and developed collective efficacy, they are able to overcome poverty by breaking intergenerational poverty. High dweller-control over the OSHH process leads to enhance capabilities in planning, implementation and self-management; which are key for any challenges in life, making communities more resilient for the future. What is needed now is political will to include OSHH among other pro-poor enabling shelter and development policies in developing countries.

5.4 Future studies

Further studies in the field of organized self-help housing are needed to develop a theoretical framework for organized self-help housing from a capability approach perspective that can be used by governments for formulating enabling shelter and development policies; and by facilitating

organizations for designing OSHH projects that would contribute to enhance the capabilities of the poor more efficiently.

There is the need of developing a theoretical framework for evaluating dweller-control over the organized self-help housing process, specialy for medium-rise buildings. This would provide feedback to NGOs and make them aware of institutional approaches or OSHH processes that empower the poor or not.

It would be important to continue research on organizations working with organized self-help housing for slum upgrading, reblocking and relocation and their institutional approaches. The OSHH process for slum upgrading and reblocking need to be studied in depth considering that these might be the most complex processes. Making knowledge accessible for slum dweller federations, NGOs, architectural collectives, and the academia would help in improving current practice.

Further studies are needed on the organized self-help housing process for medium-rise buildings – up to 4 or 5 storeys. It would be relevant to study the OSHH process for medium-rise buildings and evaluate which institutional approaches are more suitable for this process. There is a need of studying construction systems available for incremental growth of apartment units in medium-rise buildings that can be implemented with organized self-help housing.

Understanding if there is a link between enhanced capabilities achieved due to participating in an OSHH project and resilience towards natural disasters would be important, in the context of climate change and the increased frequency of natural disasters. Moreover, creating understanding on how the capabilities achieved in a first OSHH process would help the community to carry out organized self-help reconstruction.

Further studies that create knowledge on the process of organized self-help reconstruction and evaluation of how effective this approach is in comparison with contractor-driven reconstruction are needed. It would also be relevant to study if the affected communities enhanced their capabilities when undertaking organized self-help reconstruction (OSHR); and what capabilities were enhanced during the OSHR process. Moreover, it would be important to evaluate previous organized self-help reconstruction projects to find if the families are using their enhanced capabilities, spatial agency, and collective efficacy to self-manage and maintain their settlement; or even to self-build extensions.

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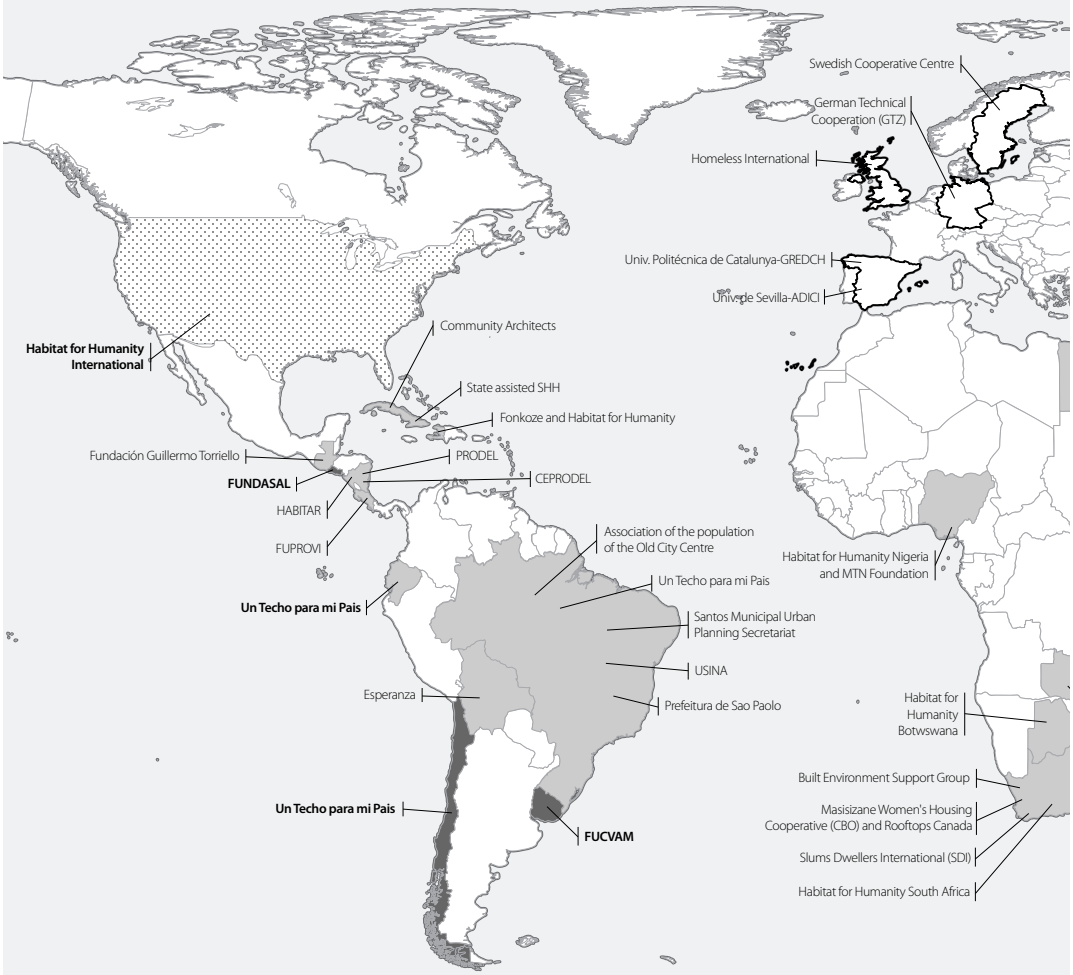
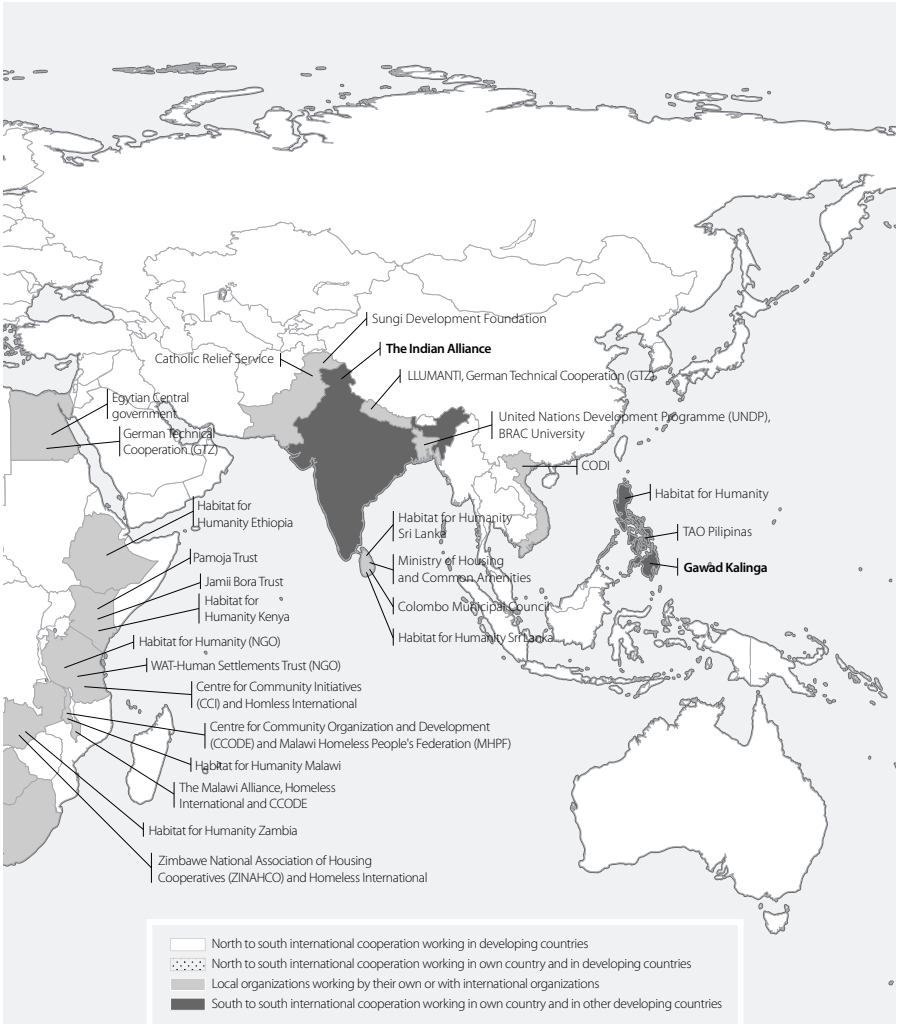
Appendix A

Figure 4.1 International mapping of organizations working with OSHH since year 2000 in developing countries; where developed countries that have worked in developing countries are highlighted with bold boarders. NGOs from developing countries that have extended their practice to other developing countries are coloured with dark grey; and NGOs from developing countries working in the own countries have been highlighted with gray. Source: Elaborated by the author based on international survey.

Source: Prepared by the author based on results of the international survey.
Graphic design by John Pablo Andaluz, Ecuador.

Figure 4.1 International mapping of organizations working with organized self-help housing since year 2000 in developing countries.




Sungi Development Foundation
The Indian Alliance
Catholic Relief Service
LLUMANTI, German Technical Cooperation (GTZ)
Egytian Central government
German Technical Cooperation (GTZ)
United Nations Development Programme (UNDP), BRAC University
CODI
Habitat for Humanity
Habitat for Humanity Ethiopia
Habitat for Humanity Sri Lanka
TAO Pilipinas
Pamoja Trust
Ministry of Housing and Common Amenities
Gawad Kalinga
Jamii Bora Trust
Habitat for Humanity Kenya
Colombo Municipal Council
Habitat for Humanity Sri Lanka
Habitat for Humanity (NGO)
WAT-Human Settlements Trust (NGO)
Centre for Community Initiatives (CCI) and Homless International
Centre for Community Organization and Development (CCODE) and Malawi Homeless People's Federation (MHPF)
Habitat for Humanity Malawi
The Malawi Alliance, Homeless International and CCODE
Habitat for Humanity Zambia
Zimbawe National Association of Housing Cooperatives (ZINAHCO) and Homeless International
North to south international cooperation working in developing countries
North to south international cooperation working in own country and in developing countries
Local organizations working by their own or with international organizations
South to south international cooperation working in own country and in other developing countries

Paper 1

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Organized self-help housing: lessons from practice with an international perspective

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Abstract

There is an urgent need to address the goal of improving the lives of 100 million slum dwellers until year 2020 as stated by the Millennium Development Goals. Self-help housing has been identified among other enabling housing strategies in The Habitat Agenda in 1996. This paper focuses on mapping key organizations and identifying different project types in which organized self-help housing (OSHH) has been implemented since the year 2000. The aim of the paper is to analyze important lessons from the current practice of OSHH. An international survey was implemented to selected housing experts and practitioners from developing countries, and qualitative data analysis was conducted. Results show that practitioners/organizations from Africa and Asia value positively OSHH as a method to develop human skills and strengthen community development. Technical assistance to households and communities during the OSHH process contributes in achieving better quality settlements and homes; and helps to improve local construction techniques. Asian CBOs and NGOs have implemented OSHH to slum upgrading and reconstruction after natural disasters. Organized self-help housing has been combined with other support tools such as micro-credit or organized savings, production of construction materials, training and community capacity building. OSHH housing has the potential for fostering the development of social, technical and financial sustainability in human settlements in developing regions.

Keywords: Self-help housing, slum upgrading, reconstruction, community development

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1. Introduction

There is an urgent need to address the goal of improving the lives of 100 million slum dwellers until year 2020 as stated by the Millennium Development Goals. In developing countries, governments have not been able to cope with rapid urbanization and housing needs (Jenkins, 2007). The poor have managed to solve their housing needs through spontaneous self-help housing without any technical assistance producing shelter that has been highly affected by natural disasters in the last decade. Since the 1980s, Kreimer has highlighted the vulnerability of people living in informal housing due to the lack of resources and opportunities (Lyons & Schilderman, 2010). Kreimer's argument is confirmed when comparing the damage of a 7 magnitude earthquake in Haiti with 80% of population living below the poverty line (Thurman, 2010), with the damage of a 8,8 magnitude earthquake in Chile[2] where only 20% of the population are considered poor.

Harris (1999) has tracked the history of aided self-help housing to Sweden in 1904 and then to other European countries for reconstruction purposes after the First World War. Geddes[3], Crane (Harris, 1997), Abrams (Abrams, 1969) and Turner (Turner, 1972; Turner, 1976) have argued the importance of two main features of housing and urban development in the rapid urbanizing South; firstly, incremental growth, and secondly, self-help housing. John F.C. Turner proposes three main issues based on his experience in the barriadas in Lima. First, the concept of "housing as a verb" in which he emphasizes the importance of the housing process. Second, he highlights the importance of "what housing does for people" over its physical characteristics. Third, Turner proposes that the value of housing was related to "dweller-control" more than to its physical features; hence, people deserve "freedom to build" (Turner, 1972; Turner, 1976; Marais, 2008). Organized self-help housing (OSHH) has been implemented by CBOs and NGOs as a way of addressing the housing needs of the poor as stated by the Habitat Agenda in 1996 (UN-Habitat, 1996). OSHH as a process has the potential to develop human skills and strengthen community development. The OSHH process is important for what it does with people because it also contributes in building the capacity of the community; and therefore, in increasing their resilience when facing natural disasters. There are different terms used to describe organized self-help housing such as community-led housing, community-driven housing, community-driven development, assisted self-help projects, etc. The information regarding OSHH is scattered in different organizations which affects negatively the learning process by different stakeholders. This paper is an attempt of mapping key organizations and identifying the project types in which OSHH has been implemented since the year 2000. The aim of the paper is to analyze lessons learnt from the current practice of OSHH.

[2] The 8,8 magnitude earthquake in Chile in 2010 demonstrated good anti seismic practice, and less than a thousand deaths. In Haiti, "1,5 million people were left homeless...27% of the houses in Port-au-Prince [were destroyed] (Chege, 2012).

[3] Patrick Geddes developed his "holistic view of cities as growing entities" after his stay in India from 1915 and 1919 (Harris, 1997; Harris, 1998; Turner, 2000).

1.1 From aided self-help housing to organized self-help housing

Sites-and-services implemented by the World Bank around the world lack "dweller-control" which is considered the most novel contribution of Turner (Harris, 2003). These projects have been structured around state control and not on dweller-control – recently in South Africa (Marais, 2008); and also miss the potential of community development through the process. They are based on a top-down approach in which the community only participates in self-construction activities. There are three negative aspects of the site-and-services approach of the World Bank. First, sites-and-services have promoted urban sprawl due to minimizing investment costs in building one storey core housing. Secondly, core housing needed to be built incrementally, but microfinance for subsequent housing improvements has not been available. Finally, the self-help housing process of sites-and-services is focussed on participation as an end – producing core housing – instead on participation as a means of improving the skills and capability of the community. Hence, these projects have not been efficient in terms of environmental, financial and social sustainability.

UN-Habitat (2005a) recognizes several qualities of self-help housing with technical assistance such as its potential for saving investment costs, how communities acquire important skills through the process, its financial affordability and housing flexibility for incremental growth. For Rodriguez & Åstrand (1996), OSHH is important because "it promotes the enhancement and organization of the resources of the community and institutions involved, to make community development possible". Bredenoord & Van Lindert (2010) argue for new pro-poor housing policies that include the power of self-help efforts of the poor; and provide the institutional, financial and technical framework. Some of the most active organizations internationally that have implemented different approaches to OSHH in the last decade are Slum/Shack Dwellers International, Habitat for Humanity International, Homeless International, and Gawad Kalinga among others. These organizations have been inspired by Crane, Turner and others. In this paper, organized self-help housing is defined as a process that involves the community's active participation and decision making in planning, design, self-construction, and post-project activities with the technical assistance of a facilitating organization.

2. Methodology

An exploratory international survey was conducted to establish the state of the arts of organized self-help housing in developing countries. The study included the following research strategies: a) literature review b) test of a pilot questionnaire c) questionnaire to Housing Development & Management (HDM) alumni[4], other housing experts and practitioners, d)

[4] Housing Development and Management (HDM) alumni network is composed by more than 1,000 professionals from developing countries. The sample selected for the international survey included alumni from shelter courses during the period 2002 to 2009 which are: Organized Self-help Housing

and Internet survey of shelter federations/organizations. The questionnaire contained questions about organization details, project types, the organized self-help housing process, actors and their roles, advantages and disadvantages of OSHH, identification of good practice in developing countries. For this paper, three categories were selected: organization, project type and lessons learnt. The main criteria for the first selection of housing practitioners and experts from developing countries was to have participated in the International Training Programme (ITP) *Organized Self-help Housing: planning and management*[5]. The 137 alumni of this course are professionals working with housing and urban development in 34 developing countries from Latin America, Asia and Africa; and share concepts and approaches to organized self-help housing. A pilot questionnaire was applied to this target group. Then, a snowball sampling was applied for distributing an improved version of the questionnaire and for the Internet survey. The summary of how the questionnaires have been applied to different target groups from 2008 to 2010 is shown in Table 1. It was possible to obtain primary information from 29 different developing countries through 84 questionnaires. The Internet survey aimed at a) obtaining further information about the organizations and projects referred by the respondents to the questionnaire b) and as validation of the primary information obtained through the questionnaires. This survey focused also on sites such as UN-Habitat, Habitat Awards, Asian Coalition of Housing Rights, Slum Dwellers International, Homeless International, and Habitat for Humanity International among others.

Considering that this study is still ongoing, it will lead to more organizations and other types of OSHH projects, approaches and lessons. For the analysis of primary information, the questionnaires were classified by country; and qualitative data analysis was conducted on the following categories: organization, project types, lessons learnt. Questionnaires that failed in providing information about organizations and types of projects were left out of the analysis. The results and discussion section focus on a) discussing the results of the international mapping with an emphasis on lessons learnt from organizations working in Asia and Africa; and b) the case of Indonesia. There were two main criteria for selecting Indonesia as a case. First, questionnaires have been mostly collected from this country. Second, the scale of destruction of the 2004 tsunami had affected Indonesia heavily and the government supported a people-centred reconstruction process.

(2002-2007) and Shelter Design and Development (2006-2009) with a total of 290 alumni for both courses.

[5] This ITP was implemented by Housing Development & Management-Lund University and Fundación Promotora de Vivienda (FUPROVI) from 2002 to 2007 in San José, Costa Rica. The course was part of the activities of the Programa de Mejoramiento Socio Habitacional (PROMESHA), a capacity building programme for the improvement of low income housing in Latin America with financial support of the Swedish International Development Agency (Sida) and implemented by HDM from 1995 to 2010 in 7 Latin American countries (See www.hdm.lth.se)

Table 1: Details of the international survey

Description	Target group	Date	Number of responses	Percentage	Number of countries	Countries
Pilot questionnaire	137 alumni OSHH course	October 2008	16	11,67%	12	Bangladesh (2), Bolivia, Brazil, India, **Indonesia** (2), Nepal, Sri Lanka (2), Swaziland, Tanzania, Venezuela, Vietnam and Zambia (2)
Questionnaire	153 alumni SDD course	April 2009	49	32%	22	*Latin America 9 Q*: Bolivia, Brazil, Cuba (2) , Ecuador (2), El Salvador, Nicaragua and Uruguay; *Asia 16 Q:* **Indonesia** (6) , Nepal, Sri Lanka (3), The Philippines (5), Vietnam; *Africa 24 Q:* Botswana, Egypt (2), Ethiopia (2), Kenya (3), Malawi (4), South Africa (2), Swaziland, Tanzania (4), Tunisia and Zambia (4)
Questionnaires	93 housing experts and practitioners	January 2010	19	20%	12	Brazil, Colombia, Cuba, Chile (3), El Salvador, Guatemala, **Indonesia** (4), Nicaragua (2), Nigeria, The Philippines (2), Tunisia, and Uruguay
Total of questionnaires			84			

3. Results and discussion

3.1 OSHH with an international perspective

The international survey has identified 75 organizations that have implemented different types of OSHH projects; 33 organizations in Asia, 20 in Africa and 16 in Latin America. Organizations such as Habitat for Humanity (United States), Homeless International (United Kingdom), Swedish Cooperative Center (Sweden), German Technical Cooperation (Germany), Universidad de Sevilla and Universidad Politénica de Catalunya (Spain) have supported other CBOs or NGOs in implementing OSHH projects in developing countries. In Latin America, Federación Uruguaya de Cooperativas de Vivienda por Ayuda Mutua (FUCVAM), Fundación Salvadoreña de Desarrollo y Vivienda Mínima (FUNDASAL) and Un Techo para mi País have transferred their experience to other countries in the region. Fundación Promotora de Vivienda (FUPROVI) in Costa Rica and Programa de Desarrollo Local (PRODEL) in Nicaragua have inspired many organizations internationally.

3.1.1 OSHH in Africa

In Sub-Saharan Africa, 62% urban residents live in slum-like conditions (Acioly, 2012). A summary of 20 organizations working in 9 countries, from which 7 are Sub-Saharan Africa is shown in Table 2. From the 20 organizations, 11 work with slum upgrading and relocation projects for slum dwellers. These CBOs and NGOs implement approaches that include OSHH in combination with other support tools like organized savings, micro-finance, community capacity building, production of construction materials, etc.

Table 2: Key organizations implementing OSHH projects in Africa where the source of information is specified (Q: questionnaires; and I: Internet)

Organization	Project type	Project summary	Source	Website
Botswana				
Habitat for Humanity Botwswana	New housing	New housing for improving overcrowding (A Hand Up…not Hand Out)	Q	http://adloc.com/hfhb/facts.html
Egypt				
Central government	Aided SHH	Aided self-help housing (Build your Home!-Ibny beetak)	Q	http://www.gopp.gov.eg
German Technical Cooperation (GTZ)	Slum upgrading	Self-help inrastructure improvement (Manshiet Nasser Upgrading Project, Cairo)	Q	http://egypt-urban.pdp-gtz.de1.cc/wp-content/uploads/2010/06/Decision-makers-Guide-for-Action.pdf
Ethiopia				
Habitat for Humanity Ethiopia (NGO)	New housing	New housing, renovations and repairs, water and sanitation.	Q	http://www.habitat.org.et
Kenya				
Pamoja Trust (NGO)	Slum upgrading	Slum upgrading (Huruma Kambi Moto upgrading)	Q	http://www.pamojatrust.org
Jamii Bora Trust	New housing	Micro-finance for new incremental housing, production of construction materials and self-help housing (Kaputiei New Town),	I	http://www.jamiibora.se/
Habitat for Humanity Kenya	Relocation	Resettlement of internal ly displaced persons (Maai Mahiu Project), new incremental housing, organized savings, micro-credit for housing.	I	http://www.hfhkenya.or.ke/
Malawi				
Centre for Community Organization and Development (CCODE) and Malawi Homeless People's Federation (MHPF)	Slum upgrading	Slum upgrading and new housing, organized savings, community capacity development, composting toilets and adobe and compressed earth blocks	Q	http://www.ccode-mw.org
Habitat for Humanity Malawi	Slum upgrading / Rural improvement	Improvement loans for rural and urban housing, new housing for orphans and vulnerable children.	Q	http://www.habitat.org/where-we-build/malawi
The Malawi Alliance, Homeless International and CCODE	Relocation	Relocation housing of slum dwellers, production of bricks (CLIFF Blantyre Project)	I	http://www.homeless-international.org/Files/HOM/PDF/A/A/F/hmint107_cliff_ar12_final_lr_43783_1.pdf
Nigeria				
Habitat for Humanity Nigeria and MTN Foundation	New housing	New apartment units with two bedrooms, self-construction, community capacity building (Karu Project).	I	http://www.habitat.org/lc/theforum/spanish/urbano/Viviendas_urbanas_en_Nigeria.aspx
South Africa				
Built Environment Support Group	Slum upgrading	Slum upgrading and community capacity building.	Q	http://www.besg.co.za
Masisizane Women's Housing Cooperative (CBO) and Rooftops Canada	Slum upgrading / Aided SHH	Housing co-operative for housing improvement in slums, production of construction materials, transfer of skills and community capacity building. This CBO worked in partnership with South African central government to implement one pilot project for the People's Housing Programme -an aided self-help housing programme. (Project Ivory Park Ward in Mindrand, 2002).	I	http://rooftops.digcanada.com/CMSImages/file/Emerging%20Coop%20Housing%20Models%20in%20South%20Africa.pdf
The SDI South African Alliance: Federation of the Urban and Rural Poor (FEDUP), The Informal Settlement Network (ISN), The Community Organisation Resource Centre (CORC), uTshani Fund.	Slum upgrading	Organized savings, enumerations and mapping, self-construction of community toilets, and slum upgrading. (Victoria Mxenge Housing Development)	I	http://sasdialliance.org.za
Habitat for Humanity South Africa	Slum upgrading / New housing	OSHH, organized savings, community capacity building, volunteer management of projects (Employers-Employee model, Orphans and Vulnerable Children Programme)	I	http://www.habitat.org.za
Tanzania				
Habitat for Humanity (NGO)	Slum upgrading / New housing	Micro-credit for housing improvement (Makazi Bora house improvement loan) for supporting incremental housing improvement and/or incremental construction.	Q	http://www.hfhtanzania.org/contact.html
WAT-Human Settlements Trust (NGO)	Slum upgrading / New housing	Micro-credit for incremental construction and/or housing improvement, Housing Support Services (technical assistance for self-construction such as client/artisans technical capacity building); community mobilization and community capacity building for regularization projects.	Q	http://www.wat.or.tz
Centre for Community Initiatives (CCI) and Homless International	Relocation	Relocation project of evicted slum families, housing co-operative, self-construction and mutual help (Chamazi Resettlement Project)	I	http://www.homeless-international.org
Zambia				
Habitat for Humanity Zambia	Slum upgrading / New housing	New housing, renovations and rehabilitation, community capacity building, and the Vulnerable Group Housing (VGH) program for orphaned and vulnerable children and their caregivers.	Q	http://www.habitatzam.org.zm/index.htm
Zimbawe National Association of Housing Cooperatives (ZINAHCO) and Homeless International	Relocation	Relocation housing for slum dwellers, training in loan management and construction to the cooperatives (CLIFF Mutare Project, Masvingo Project, Kariba Project, Harare Project, Chitungwiza Project and Bulawayo Project)	I	http://www.homeless-international.org/Files/HOM/PDF/A/A/F/hmint107_cliff_ar12_final_lr_43783_1.pdf

South Africa has implemented an aided self-help housing programme as part of its housing policy since 1994, and slum dwellers have participated since 1991 in exchanges with Asian Coalition for Housing Rights (ACHR), which has contributed in strengthening their own federations. Hence, it is possible to compare the results of a top-down approach with the achievements of the bottom-up approach of the South African Homeless People's Federation. Mandela's housing programme accomplished the goal of building 1 million housing in 5 years, but the housing backlog of 4 million houses in 1994 has been addressed only by 2001. Governmental core houses are overcrowded and sometimes 9 people share one room. Conversely, for the Victoria Mxenge Housing Development , women have set their own saving scheme since 1991; they have produced their own blocks and self-built masonry houses up to 72 m2 with 3 bedrooms according to their saving capacity. The size of their houses is 2 or 3 times bigger than the housing provided by the government. By 2001, the federation has self-built 10,000 new houses (South African Homeless People's Federation, 2001).

3.1.2 OSHH in Asia

The results of the international survey show that organized self-help housing has been implemented mostly for re-construction after natural disasters such as tsunamis, earthquakes, volcano eruptions, tornados and floods in Asia. South East Asia Region (SEAR) countries have the larger number of people killed in natural disasters for the period 2000 to 2009[6]. A summary of 17 organizations implementing OSHH for slum upgrading and reconstruction after natural disasters in India and Indonesia is shown in Table 3. The experience in India regarding approaches and tools developed, and the scale of slum upgrading projects led and self-built by the people themselves with technical assistance of NGOs is remarkable. The 12 questionnaires from Indonesia provided information about the work of 11 organizations whose experience on slum upgrading and organized self-help reconstruction will be discussed further in section 3.2.

Asian CBOs and NGOs have been networking more than 30 years[7]. This exchange extended to South Africa and in 1996 originated the creation of the international network Slum/Shack Dwellers International (SDI) with the aim of stressing grassroots democracy and challenge existing paradigms of development[8]. The effect of long-term networking is reflected in a continuous learning process based on development-trial-improvement of different tools for poverty reduction.

[6] The 11 member countries of the South East Asia Region (SEAR) comprised 62% of the total deaths globally, which means 679,294 people. SEAR countries are Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste. The figures for number of people killed in natural disasters are 4% for Africa and 3% for the Americas (World Health Organization, 2011).

[7] Networking in Asia started with the work of Father Jorge Anzorena, PhD in Architecture, J.P. His work has been continued then by the Asian Coalition for Housing Rights (ACHR).

[8] The exchanges of grassroots organizations and NGOs within the ACHR constituted the basis for the creation of Slum Dwellers International (SDI) in 1996. For a detailed description of the origins and development of SDI see (Patel & Burra, 2001).

Table 3: Key organizations implementing OSHH projects in India and Indonesia where the source of information is specified (Q: questionnaires; and I: Internet)

Organization	Project type	Project summary	Source	Website
India				
The Madurai Corporation (NGO)	Slum upgrading	Slum upgrading (housing and infrastructure)	Q	www.maduraicorporation.in
Hunnarshala Foundation	Reconstruction	Reconstruction after natural disasters (in India and Indonesia)	I	http://hunnar.org/cdh.htm
UNNATI - Organisation for Development Education	Reconstruction	Reconstruction after natural disasters in Western India	I	http://www.unnati.org
Prasanna Desai Architects, Urban Nouveau, the Society for the Promotion of Area Resource Centres (SPARC) and the National Slum Dwellers Federation (NSDF)	Slum upgrading	Incremental Slum Upgrading (Incremental Housing Strategy, Yerawada slum, Pune, India)	I	http://openarchitecturenetwork.org/projects/dlygad2_insitu_rehabilitation
The Indian Alliance: The Society for the Promotion of Area Resource Centres (SPARC), National Slum Dwellers Federation (NSDF) and Mahila Milan	Slum upgrading	In-situ incremental slum upgrading (Yerwada Slum Upgrading: savings, participatory surveys, design and construction, community capacity building, incremental housing with technical assistance in the plots where shacks are located)	I	http://www.sparcindia.org
The Indian Alliance and Homeless International	Slum upgrading	Slum upgrading, research on incremental upgrading, (CLIFF: Bhubaneshwar, Puri, Pune)	I	http://www.homeless-international.org/Files/HOMPDF/A/A/F/h
Indonesia				
Ellacuria Foundation (NGO)	Slum upgrading	Slum upgrading, participatory desigh and organized savings	Q	www.ellacuria.org
Habitat for Humanity Indonesia (Faith based NGO)	Reconstruction	Post-tsunami reconstruction , microfinance for incremental construction (Save and Build Program).	Q	www.habitatindonesia.org
Yayasan Griya Mandiri (Griya Mandiri Foundation)	Slum upgrading / New housing	Slum upgrading and new housing (Community Based Initiative on Housing and Local Development-CoBILD	Q	www.ygmdiy.org
Yayasan Pondok Rakyat (Action Research Group on Urban Development)	Infratructure improvement	Incremental infrastructure improvement	Q	http://ypr.or.id/en
The Neighborhood Upgrading and Shelter Sector Project (NUSSP)	Slum upgrading	Slum upgrading (NUSSP project)	Q	http://www.adb.org/publications/neighborhood-upgrading-and-shelter-sector-
UN-Habitat and United Nationes Development Programme (UNDP)	Reconstruction	Post-tsunami community-driven approach to reconstruction (People's Process) and Integral slum upgrading (Slum Upgrading Facilities).	Q	http://www.unhabitat-indonesia.org/video/video_anssp.html
TRIACO Consultants	Relocation	Integrated slum redevelopment (Mojosongo Riverbank Project, Central Java)	Q	http://faculty.washington.edu/jhou/rim/2004/papers/AntonioRisianto.pdf
Urban Poor Linkage (UP-Link)	Reconstruction	Post-tsunamy reconstruction, community capacity building (23 Villages in Aceh)	Q	http://uplink.atspace.org/
Government of Indonesia Java Reconstruction Fund (JRF)	Reconstruction	Post-multiple natural disasters reconstruction, paid self-built housing, community capacity building (Rekompak Project or Community-Based Settlement Rehabilitation and Reconstruction-CSRRP)	Q	http://reliefweb.int/sites/reliefweb.int/files/resources/650390WP0JRF0P00Box361555B00PUBLIC0.pdf
Catholic Relief Service (CRS)	Reconstruction	Post-tsunami reconstruction	I	www.crs.org
JUB Uplink	Reconstruction	People-driven post tsunami reconstruction	I	http://www.youtube.com/watch?v=nx-Dm57aqNE&feature=endscreen&NR=1

The SDI method includes organized community savings, enumerations & mapping, self-construction of toilet blocks, slum upgrading. Community-driven development has been key to develop the capacity of grassroots organizations – through the whole project cycle: planning, implementation (including self-construction), decision making and maintenance. The SDI approach has also improved the position of national slum dwellers federations when negotiating with local governments.

Due to the scale of slums in Asia, CBOs and NGOs have developed expertise in in-situ slum upgrading projects with an OSHH component with the main aim of community empowerment and capacity building. The Indian Alliance composed by the Society for the Promotion of Area Resource Centers (SPARC), the National Slum Dwellers Federation (NSDF) and Mahila Milan have implemented successfully in-situ incremental slum upgrading (See Table 3) when "construction and cost escalations made the projects unattractive for commercial contractors. Through economies of

scale and self-construction and grant support for learning aspects these projects were possible". The in-situ incremental upgrading of Yerwada slum in Pune is an example (Sparc Samudaya Nirman Sahayak, 2012).

3.2 The case of Indonesia: OSHH for slum upgrading and reconstruction

Slum dwellers are still threatened to eviction from informal settlements despite the right to adequate housing is included in the Indonesian Constitution of 1945 (Centre on Housing Rights & Evictions, 2012). Market forces behind urban redevelopment projects are still stronger that human rights and "over 100,000 people were evicted or threatened with eviction" in Jakarta from 2003-2004 (Du Plessis, 2005). The latter although slum upgrading practice in Indonesia has provided basic services such as water, sanitation, shelter and roads; improving the living conditions of 15 million people through the Kampung Improvement Program (KIP) (World Bank, 1996). Conversely, community-driven housing processes have been found to be more effective than contractor-led housing in the last decade. The achievements of bottom-up approaches to slum upgrading projects based on community dynamic planning and organized self-help housing have been shown in projects such as Mojsongo Slum Upgrading Project in Central Java (Risianto, 2004). A key respondent to the questionnaires highlights some benefits of OSHH; "...[it] creates jobs, sense of belonging/ownership, creating an ACTIVITY that develops community cohesion...OSHH is easier and better in slum upgrading mutual-help activities".

Mobilization of community resources, seed capital for establishing a revolving fund and community professionals for supporting participatory processes are vital for the work of CBOs and NGOs when implementing slum upgrading with an OSHH component. Ellacuria Foundation integrates housing and economic development through community organized savings and OSHH for housing renovation (SELAVIP, 2009). From the questionnaires, a housing expert argues that "...the fluctuation of building material prices due to global recession [2007-2008] has significantly affected the continuity of this project. Finding and adhoc funding scheme is a currently major concern of Ellacuria [Foundation]". Griya Mandiri Foundation is the local partner of UN-Habitat and United Nations Development Programme (UNDP) working with "community-based housing" and micro-credit for slum upgrading and new housing. Another key informant from the questionnaires explains some advantages of OSHH "... [it] is effective and efficient; the cost is much reduced if all works are organized by local people. They feel that the facilities that construct by themselves are owned by them. [OSHH is] integrated and comprehensive in terms of money and the duration of works. However, [there can be] difficulty in coordination in the beginning, and [there can be] social complications between communities that are not involved directly in terms of works for cash [–working for money]". Another Indonesian housing expert provides data through the questionnaires that support the argument

for an organized self-help housing approach in slum upgrading as an effective tool for overcoming poverty: "I think that many cases in Indonesia show that slum-upgrading and self-help housing can improve the social capital, productivity and health. In Pekalongan, two years after the slum upgrading/self-help housing program was launched, poverty rates reduced by 27%. There was a significant improvement in health and productivity due to better quality homes. The poor could utilize part of their house to support productive home activities. In addition, self-help housing through micro-credit or rotating funds can improve the community's self-esteem and confidence by providing the opportunity for them to pay back and not a charity case. The participation of the community in the project can also support the sustainability of the program, as they have larger commitment to maintain the housing environment".

The 2004 Indian Ocean Tsunami following a 9.1 magnitude earthquake killed approximately 129,775 people in Indonesia (Doocy, et al., 2007); with a scale of damages that has had no precedent. In Aceh, this worsened due to another earthquake on March 2005 and from both disasters 167,000 people were reported dead or missing, 500,000 people were made homeless, 120,000 houses were destroyed or severely damaged and 25% of the population lost their livelihood. The approaches to reconstruction from international agencies ranged from delivering turnkey houses to housing by people. Reconstruction after natural disasters has shown to be more complex than slum upgrading. The six first months after the tsunami have evidenced the lack of local institutional capacity for coordinating more than 100 local NGOs and international agencies participating in housing reconstruction (Da Silva & and Batchelor, 2010); and also bureaucracy and corruption in managing huge financial resources from international aid. Through a people-centred and participative process led by the government, 125,000 permanent houses have been built. According to UN-Habitat (2005b), the physical reconstruction by the affected families has contributed to their social recovery because it has fostered community cohesion and development; and it has strengthened networks due to mutual help, which is a key aspect to sustainable recovery. Conversely, some international agencies have implemented contractor-build programmes in Aceh arguing that contractor manage speed better than communities self-building by themselves. Da Silva & Batchelor (2010) argue that self-build programmes in Aceh have shown the following advantages: affected families have initiated earlier the recovery process with a sense of ownership and purpose; the process has promoted dwellers control for housing and settlement design, and construction; and, the reconstruction process has contributed to overcome trauma sooner. From the questionnaires, a housing expert emphasizes that "at the end of the [reconstruction] project, the locals had acquired and remained with all these skills inter alia [make fire cured clay bricks... bend reinforcement bars... set levels... basic carpentry and bricklaying techniques]. They will use [these skills] to repair and renovate their houses, or to outsource their skills for income generation and poverty alleviation... in case of another Tsunami, they could handle their own reconstruction with very little assistance."

There are several important lessons from post-disaster reconstruction in Indonesia after the 2004 tsunami. First, the recognition of the power of people themselves and the technical assistance have been key resources for reconstruction. Secondly, the magnitude and recurrence of natural disasters has shown the need of local capacity for more coordinated multi-stakeholder partnerships among government, CBOs, NGOs, international and multilateral agencies. Thirdly, the Asian Development Bank highlights that the need of improving the capacity of local communities to provide fast relief and cope more efficiently when facing natural disasters has to be prioritized (Jayasuriya, 2010). Finally, a European survey on the Rekompak project shows that dwellers control provides higher satisfaction because affected families have contributed to housing design, procurement and self-construction process achieving better quality housing (World Bank, 2012).

4. Conclusions

This paper concludes that in the last decade, there are many new experiences on organized self-help housing in developing countries. Hence, the need for more systematic research on the OSHH process to provide feedback to the urban planning practice and policy makers in developing countries. The scale of intervention of organized self-help housing projects has increased in the current practice in Asia, demonstrating that 'scaling up' slum upgrading is possible when the processes are led and organized by the people themselves with technical assistance of NGOs. There has been more action in terms of testing different types of OSHH projects than academic debate. This reaffirms the need for generating more systematized knowledge that allows drawing theory from empirical based knowledge, to propose ways of improving current practice and influencing housing policy. The paper has shown that the type of OSHH projects has shifted from new housing for a non-predetermined community to slum upgrading and relocation projects of specific slum dwellers who lead the OSHH process. In a slum, the community has already developed their social capital and networks – social, business, political activities – and this contributes to community empowerment of the OSHH process. Slum dwellers are more affected by natural disasters; but when they are organized and have developed their capabilities, they are able to mobilize their own resources to lead and implement organized self-help reconstruction (OSHR) processes more efficiently. Investing in slum upgrading programmes with an organized self-help housing component or approach will contribute in strengthening the capabilities of the communities making them more resilient when facing natural disasters.

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Paper 2

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Organized self-help housing as a method for achieving more sustainable human settlements

Lessons from two non-governmental organizations: FUPROVI and SADEL

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Abstract

This paper focuses on the experiences of two Non Governmental Organizations (NGOs), FUPROVI in Costa Rica and SADEL in Sweden in facilitating organized self-help housing projects. The aim of the paper is to analyze the OSHH approaches of FUPROVI[2] and SADEL[3] and establish the connections of their practice with key issues of the Habitat Agenda. The conceptual model regarding the roles of the different actors within OSHH projects, specifically the responsibilities and roles of the households, the facilitating organization and the authorities, is analyzed with focus on how to achieve sustainable human settlements. Results show that the OSHH processes implemented by both NGOs are based on the main principles of the Habitat Agenda such as solidarity, partnership, community participation, social-technical assistance, capacity building and innovative approaches towards resource mobilization. These are the key aspects for long-term development of sustainable human settlements. The paper concludes with recommendations on the planning and implementation of OSHH projects and presents insights on institutional development for facilitating organizations. The main contribution of the paper is to reinterpret the role of organized self-help housing and its role to the further development of enabling shelter strategies in developing countries.

Keywords: Organized self-help housing, Habitat Agenda, sustainable human settlements, enabling shelter strategies, Costa Rica, Tunisia

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Introduction

Slums are the consequence of unequal distribution of resources, rapid and unplanned urbanisation, inadequate policies, and inefficient urban governance and management. According to UN-Habitat (2011), in the last decade the absolute number of slum dwellers has increased from 776,7 million to 827,6 million. Governments in some developing countries believe that the distribution of housing subsidies for acquiring a housing unit within conventional social housing projects built by private construction companies is still a good solution for housing the poor. However, due to formal requisites, such as, land ownership, the target group that mostly benefits from these subsidies are low medium income families and not the urban poor (Klausfus, 2010; World Bank, 2006). The poor in informal settlements are often excluded from financial systems in addressing their housing needs since they are considered high-risk money borrowers (UN-Habitat, 2005). Hence, as a response to rapid urbanization and the lack of adequate social housing provision, informal settlements have mainly developed in risk prone areas or in the city periphery, and built incrementally through spontaneous self-help housing[4].

John Crane in the 1940s (Harris, 1997), Charles Abrams (Abrams, 1969) and John F.C. Turner (Turner & Fitcher, 1972; Turner, 1976) in the 1960s have been key advocates of theoretical developments of incremental construction and self-help housing. However, Turner's theories were highly criticised by neo-Marxists and dependency theorists, such as, Rod Burgess among others (Pugh, 2001)[5]. Conversely, the World Bank adopted Turner's main principles of self-help housing for the implementation of sites-and-services in developing countries. Hence, aided self-help or state-assisted self-help housing became central to housing policies in the 1970s.

Recently, the expert group Task Force 5 – appointed by UN-Habitat – has highlighted that organizations of slum dwellers use external resources more efficiently because they often include their own *sweat equity* (Garau, 2005, p.22). The positive contribution of community people to address their own housing problems was first recognized by Crane in the late 1940s, and then by Turner in the late 1960s. Actually, it was one of Turner's main arguments in *Freedom to build*, where he argued that "the best results are obtained by the user who is in full control of the design, construction and management of his own home" (See Turner & Fitcher, 1972, p. 58)[6].

NGOs and Community Based Organizations (CBOs) are playing an important role in promoting bottom-up approaches whilst implementing organized self-help housing[7] projects focused on the poor in developing

[4] Spontaneous self-help housing (or 'unaided self-help housing'): the process in which local communities self-build their housing without any kind of technical assistance from architects or any institution.

5 The Turner-Burgess debate will be briefly explained in the Background Information section.

6 "Low-income owner-builder in the United States often achieves first cost savings of 50 percent or more, and these savings are proportionally matched by many very low-income squatter-buildings in countries such as Peru" (Turner & Fitcher, 1972).

[7] Abrams (1969: 169-170) distinguishes three types of owner-built housing: self-help housing, aided self-help and organized self-help housing. Self-help housing is described as the earliest form of construction by communities. Aided self-help housing refers to official self-help programs implemented by governments in developing countries. Organized self-help housing are mutual aid projects

countries, as the Habitat Agenda anticipated in 1996[8]. In this paper, organized self-help housing is defined as a process that involves the community's active participation and decision making in planning, design, self-construction, and post-project activities with the technical assistance of a facilitating organization.

In the context of a rapid urbanizing world, we agree with the Task force 5 group when recognizing that "the foundation of almost any solution to the problems of the urban poor lies in their potential to organize themselves, to make effective decisions, and to negotiate and collaborate with local government and other partners" (Garau, 2005). In order to address the shelter needs of the poor and scale up the improvement of slum areas, there is the need of incorporating the skills and mutual effort of communities living in them. Therefore, building on Pugh's (1994) work, "the roles of self-help housing need to be reinterpreted" and it should be included among other enabling strategies in housing policies and sustainable urban development. We consider OSHH as an important tool for *slum upgrading* and new *incremental housing programs* in developing countries because the OSHH process can build and strengthen community capacity in organization, decision making and working in partnership – which are key concepts of the enabling approach of the Habitat Agenda. Hence, we argue the need for NGOs and CBOs in improving their OSHH models and involving different actors for delivering more sustainable human settlements from a bottom-up perspective.

Background information

The changing roles of self-help in housing and urban policies, 1950s-1996

Harris (1999) argues that aided self-help housing – or state-assisted self-help housing initiatives – started in Europe in 1918 as a consequence of housing reconstruction after the First World War; and not in developing countries as stated by other authors. Conversely, sites-and-services projects were first introduced in South America by U.S. AID as a strategy for avoiding the spread of communism in the region after the Cuban revolution in 1959 (Abrams, 1969).

According to Pugh (1997), the role of self-help in housing and urban policies can be divided in 3 phases. The first phase – 1950 to 1971 – refers mainly to the shift to a positive view of informal settlements due to the work of Manging and Turner. Mangin (1967) demystified negative views about informal settlements. From his empirical experience in the *barriadas* in Lima, he explained the ways informal settlers contribute to solve their

implemented by the third sector –NGOs or charities – in which self-builders are taught building skills and they work in all houses of the project without knowing which one will belong to them.

[8]See D. Chapter IV-Global Plan of Action: Strategies for Implementation. B. Adequate shelter for all. 2. Shelter policies 65, page 24; 73 & 74, page 27; 91, page 39; 98 c, page 42; 116 b, page 48 of the Habitat Agenda (United Nations, 1996).

housing needs and to the job market, develop capital on their own, and build intangible social capital. The qualities identified in the barriadas support Mangin's main thesis that informal settlements "represent a solution to the complex problem of rapid urbanization and migration, combined with a housing shortage".

The second phase of policies – 1972 to 1985 – addresses the top-down and project-by-project approach of state-aided policies promoted by the World Bank. Turner's ideas were very influential in the implementation of sites-and-services and in city slum upgrading schemes in developing countries. Turner's point of departure is the concept of *housing as a verb* – a process – emphasizing the effect that the housing process has on people. Hence, the importance he gives to what *housing does* for people instead of *what housing is* – normally defined as a noun or a commodity. Turner has an existential view of housing inspired from his empirical experience in the barriadas in Lima and he argued for "the human or existential and nonquantifiale functions or roles which the housing process can play". He witnessed the power of the poor in solving their needs by building both housing and community when they are *in control* of the housing process. Turner was able to define the *significance of autonomy* and the *value of housing* specifically for poor people. Recognizing the importance of *housing as an activity* – as a process – is essential to understand Turner's arguments regarding standards and their inadequacy as only measurement of housing value. Turner also advocates for standardized games which he describes as open service networks in the housing sector from which the user should be in control and choose services to build its own house (Turner, 1972).

However, the World Bank "deviated significantly from Turner's ideas" (Ntema, 2011), emphasizing affordability and cost-recovery issues for sites-and-services projects through loans to the poor – instead of providing governmental subsidies. Another aspect that differs from Turner's principles is that the State should have a supporting role instead of being *in control* of the aided self-help housing process. Turner's theories were drawn from unaided self-help housing processes in the barriadas and he valued highly the user's autonomy and control over the self-help housing process. Turner acknowledges the user's autonomy, control and freedom over the housing process as key issues for achieving individual and social well-being; and, hence, personal fulfilment. The absence of these fundamental issues in sites-and-services implemented by the World Bank might have affected people's lack of commitment to developing further their settlements and the maintenance of their housing – which are frequently problems in social housing programmes.

Finally, the third phase 1986 to 1996 – focuses on enabling shelter strategies that replace the project-by-project approach as an attempt to develop the whole housing sector and contribute to economic growth and social development. The enabling approach to housing and sustainable urban development implies the need for governments to change their role from housing providers to whole housing sector enablers. Hence, governments should provide "alternative approaches to housing

development and improvement involving all stakeholders and, most importantly, people themselves" (UN-Habitat, 2012). Therefore, as it will be discussed later in this paper, organized self-help housing is a key issue in the enabling approach proposed by the Habitat Agenda in 1996.

The self-help housing academic debate

In parallel to the contribution of self-help to urban and housing policies, the topic was the subject of extensive academic research. Harris (1997, 1999) tracks the history of aided self-help housing back to 1907 in Stockholm, highlights the contribution of John Crane, and argues the originality of John Turner's ideas of self-help housing. Other important academic contributions to theoretical propositions and pragmatic experiences of aided self-help housing include *Self-help Housing A Critique* (Ward, 1982); *People, Poverty and Shelter* (Skinner, 1983); *Beyond Self-help Housing* (Mathey, 1992) (Mathey, 1992); *Self-Help Housing, the Poor, and the State in the Caribbean* (Potter, 1997); and From Self-Help Housing to Sustainable Settlement (Tait, 1997); among others.

The academic debate on self-help housing focused on ideological ideas and perspectives from both neo-liberal and neo-Marxists contributors[9] – having Turner and Burgess as main actors and ideological opponents. Neo-Marxists argued that "artisanal self-help housing becomes commercialised within exploitative class relations in capitalist development" (Pugh, 2001). Another neo-Marxist argument proposed by Pradilla was that self-help housing implied double exploitation of the households (Ward, 1982). Burgess proposed that problems of low-income people could be addressed only within socialism through eliminating class exploitation of capitalism. However, further evaluations of housing practice in socialist countries implemented by Mathey in the 1990s have shown also "shortages, economic inefficiencies and policy compromises in favour of homeownership" (Pugh, 2001). Pugh also argued that social criticism to ideological advocacy of neo-Marxists to self-help housing have limited relevance due to the good housing practice that exists in all types of regimes – authoritarian, militarist, social democratic and conservative. Despite its neoliberal connotation, governments and international agencies in open-market economics as well as socialist ones, such as, Cuba in the 1970s and India (before 1990) have implemented or supported any type of *aided* or *state-assisted self-help housing* – with a top-down approach – within the last century (Harris, 1999; Ntema, 2011). Mathey's (1992) work about the contribution of the 'microbrigadas' to shelter improvement in Cuba in the 1970s adds evidence that confirmsthat successful approaches to aided self-help housing are independent of the political regime. Finally, Tait (1997) explains the shift from theoretical to pragmatic aspects of self-help housing as a consequence of depolitization of developmental theory in the late 1980s.

[9] For deep discussions about neo-Marxists arguments on self-help housing see Ward (1982), Burgess (1977), Burgess (1978), Burgess (1982), Tait (1997) and Pugh (2001); among others.

Reconsidering self-help housing, 2000-2012

In the last decade, self-help housing has been reconsidered by many researchers in both developing countries and developed countries. Yengo (2008) and Ntema (2011) have evaluated the limitations of the People's Housing Process (PHP) in which the government uses housing subsidies to support an aided self-help housing programme in South Africa. Results show that the aided self-help housing process is dominated by the state control instead of the users. Joshi & Khan (2010) argue the success of the decentralized implementation and support mechanisms of the aided self-help housing Sri Lankan Million Houses Programme implemented in the 1980s. Tunas & Peresthu (2010) describe the self-help housing process and the qualities of the urban kampongs in Indonesia. They also analyze how the kampongs have been affected by housing policies. Sengupta (2010) argues for the need of reconsidering self-help housing as an option for housing delivery supported by housing policies for Kolkata. Fernández-Maldonado & Bredenoord (2010) discuss how housing policy reforms oriented to whole sector development since 2006 addressed subsidies also for supporting progressive housing approaches. Bredenoord & Verkoren (2010) argue for the need of re-evaluating the need of including assisted self-help in housing policies to address the shelter needs of the poor that have not been met by Mexico's subsidized housing delivery system. Bredenoord & Van Lindert (2010) state that there is the need for new pro-poor housing policies that include the power of self-help efforts of the poor, but that also provide the institutional, financial and technical framework that are needed to implement assisted self-help housing initiatives successfully. These authors discussed issues related to different types of self-help housing, such as, spontaneous self-help housing, and aided or state-assisted self-help housing. However, sometimes it can be difficult to understand if some of them support approaches, such as, spontaneous self-help housing that has shown to have negative consequences after earthquakes, such as, Haiti in 2010. Moreover, for a few authors the discussion is still focused on *aided* or *assisted self-help housing* which promote top-down approaches leaded by governments, whilst the community lacks control over the whole process. Here we argue that there is a need for studying organized self-help housing at three different levels. First, at policy level it is important to develop theoretical frameworks to incorporate OSHH in developing enabling housing strategies; secondly, at institutional level, the lessons from the practice of NGOs and CBOs will inform how to improve the approaches to OSHH and to establish the institutional framework needed at local level to support the implementation of this housing delivery system; and finally, at project level, it would be important to focus on how to improve the OSHH process. Both the project and institutional levels should aim at providing feedback to the policy level.

Reinterpreting the role of organized self-help housing from project to policy level

There are several key aspects related to aided self-help housing that are also key for organized self-help housing.[10] In the 1920s, Crane[11] witnessed housing self-construction as means for reconstructing housing in the main European capitals. Then, he recognized the importance of "the manpower of the people themselves [and] developed his theory of aided self-help which drew on [Patrick] Geddes" (Harris, 1997) anticipating Turner's ideas from the 1960s – who was also inspired by Geddes (Pugh, 2001). Crane developed both theory and practise of aided self-help housing during the 1940s and early 1950s (Harris, 1998). His main principles to aided self-help housing are "planning as loosely as possible to allow for changes", the potential for technical assistance within self-help housing towards community development, the importance of "the manpower of the people themselves", and the use of "local native materials" (Harris, 1997). These key issues are present in the current approach to organized self-help housing projects of some NGOs in developing countries. Considering that Crane lacks as many publications as Turner has, it is easy to understand why Turner's theories of self-help housing have been more known and influential both to housing policies and within the academia.

Rodriguez & Åstrand (1996) highlight that organized self-help housing is not only important for meeting the housing needs of the poor, but also because "it promotes the enhancement and organization of the resources of the community and institutions involved, to make community development possible". From an evaluation of organized self-help housing projects implemented by the NGO FUNDASAL in El Salvador, Burns (1983) shows the link between users' control and housing satisfaction. From the same study it is also possible to state that the OSHH model developed by FUNDASAL is based on "a process offering [families] substantial control" in decision making during planning, housing design, self-construction and settlement management after occupancy. Hence, the families that participated in FUNDASAL's OSHH projects value positively both their self-built projects and the "supportive services provided by the sponsor" (Burns, Self-help Housing: an Evaluation of Outcomes, 1983). Hence, NGOs have the potential of developing approaches to organized self-help housing that promote the principles of autonomy, control and freedom proposed by Turner. NGOs can contribute in strengthening human and social capital when introducing community capacity building in their projects.

In this context, we take a stand for organized self-help housing and argue that there is the urgent need of incorporating this housing delivery system to strengthen the organization, capabilities and skills of the

[10] Organized self-help housing: it is a housing process implemented with a bottom-up approach where Non-governmental organizations (NGOs) or Community Based Organizations (CBOs) provide technical assistance to communities during the whole project cycle. Communities participate actively within the planning, decision making, self-build, management and post-project activities.

[11] As Director of Project Planning for the United States Housing Administration, John Crane was influential in introducing aided self-help housing in Puerto Rico in 1939.

community; and as an effective way of scaling up the provision of both new housing and slums upgrading. Organized self-help housing has been incorporated in the practice of different NGOs in developing countries in Latin America, Asia and Africa. However, there is a gap in the literature related to the analysis of approaches to organized self-help housing by non-governmental organizations and how their practices can contribute to develop housing policies further. The contribution of such an analysis will be twofold. First, it would contribute to spread knowledge among other NGOs regarding how to implement organized self-help housing projects more efficiently. Second, it would contribute to reinterpret the role of organized self-help as an enabling shelter strategy. Hence, the need of learning from successful organized self-help housing practices of NGOs that have developed their own approach to organized self-help housing; and reinterpret the current role and potential of this housing delivery system to enabling shelter strategies for developing countries.

The Swedish contribution towards housing for the poor

The Swedish contribution to improve housing conditions for the poor provides valuable lessons. An approach that focuses on mutual-help, use of local resources and capacity building might have it roots in the historic fact that almost 100 years ago Swedish people lived in substandard housing and participated in do-it-yourself building programmes to improve their own living conditions. According to Harris (1999), *"Sweden was the first country to offer a programme of aided self-help, this being embodied in the national 'Own Homes' Loan Fund of 1904"*. Moreover, the Swedish International Development Cooperation Agency (Sida) has contributed with funding and institutional development to different programmes and non-governmental organizations such as the Swedish Association for Development of Low Cost Housing (SADEL) in Sweden in 1980; the Housing Promotion Foundation (FUPROVI) in Costa Rica in 1988 and other institutions in Central America. These two NGOs have been selected as case studies for this paper.

Problem statement and aim

As stated by Skinner and Rodell (1983), "the self-help housing framework lends itself to far more variation in practice than one is likely to find among conventional programmes". This framework allows to different types of self-help housing such as *spontaneous* or *unaided self-help housing*, *aided* or *state-assisted self-help housing*, *assisted self-help housing*, and *organized self-help housing*[12]. Moreover, these different types of self-help housing have been implemented worldwide regardless economical or cultural background, including the active participation of women. Within the

[12] Organized self-help housing: it is a housing process implemented with a bottom-up approach where Non-governmental organizations (NGOs) or Community Based Organizations (CBOs) provide technical assistance to communities during the whole project cycle. Communities participate actively within the planning, decision making, self-build, management and post-project activities.

context of *enabling housing policies* and the work of NGOs in providing technical assistance to communities for implementing self-help housing projects, the potential contribution of organized self-help housing to housing policies have not been discussed to our knowledge yet. Neither has been discussed how some NGOs have effectively incorporated issues of the Habitat Agenda within their approach to OSHH and how this can contribute towards achieving more sustainable human settlements. The aim of the paper is to analyze the organized self-help housing approaches of the non-governmental organizations FUPROVI[13] and SADEL[14] and establish the links of key issues of the Habitat Agenda in their projects. The lessons learned from the practice of these NGOs will contribute to reinterpret the role of organized self-help housing and to the further development of enabling shelter strategies in developing countries. The conceptual model regarding the roles of the different actors within OSHH projects, in particular concerning the responsibilities and roles of the households, the facilitating organization and the authorities is analyzed in the light of the Habitat Agenda with focus on how to achieve more sustainable human settlements.

Literature review

The Habitat Agenda

In 1996, Habitat II, the second conference on "living, human settlements and town planning" addressed the debate regarding these issues globally towards decent housing for all and sustainable human settlements development in the context of a rapid urbanizing world. One of the documents that resulted from this conference is the Habitat Agenda "which describes the principles and goals, as well as a global action plan of strategies to implement actions agreed upon during the conference" (Granvik, 2005). The global strategy of the Habitat Agenda is based on the principles of "enablement, transparency and participation" (UN-Habitat, 1996, Ch IV No 59) and encourages government to formulate shelter policies that "support the people who, in many countries, particularly developing countries, individually or collectively act as important producers of housing" (UN-Habitat, 1996, Ch IV No 65). Moreover, UN-Habitat has recognized the many advantages of assisted self-help housing[15] as a "way of providing sustainable shelter" due to its affordability, the flexibility of shelter provision for changing over time, and the potential of the process towards community capacity building (UN-Habitat, 2005, p.166).

[13] FUPROVI: Fundación Promotora de Vivienda, Costa Rica, http://www.fuprovi.org

[14] SADEL: Swedish Association for Low-cost Housing, http://www.hdm.lth.se/publications/sadel_publications

[15] Aided self-help housing or assisted self-help housing: it is an incremental housing process that is implemented with a top-down approach where the State provides site-and-services to the poor. Communities have no control over planning or decision making within the process, but they are responsible for the incremental construction of their own housing over time.

The main concepts related to housing that are included in the Habitat Agenda are poverty[16], shelter for all, adequate shelter, sustainable human settlements and sustainable development. In addition, strategies such as an enabling approach[17], partnership and self-help housing or community-based housing have been identified among the key tools for achieving shelter for all and sustainable human settlements. NGOs and CBOs, among other stakeholders, are expected to contribute with technical assistance to poor communities in housing delivery.

Sustainable human settlements

Firstly, we have summarized the definition of sustainable human settlements that is proposed through different chapters and statements of the Habitat Agenda; secondly, we introduce UN-Habitat's definition of sustainable housing; third, we discuss the link between these concepts and Turner's ideas; and finally we acknowledge organized self-help housing as an efficient method for the paradigm of housing as a process and for contributing to the development of more sustainable housing and human settlements.

According to the Habitat Agenda (1996, Ch II, No 32), "sustainable human settlements are those that, inter alia, generate a sense of citizenship and identity, cooperation and dialogue for the common good, and a spirit of voluntarism and civic engagement, where all people are encouraged and have an equal opportunity to participate in decision-making and development". Human health and quality of life are the goal for sustainable human settlements. The main components are economic and social development and environmental protection, which are interdependent and mutually reinforcing. Hence, the need for "the use and transfer on environmentally sound technologies" (Ch IV, No 205). The strategies for achieving this type of settlements require "cooperative and complementary actions among interested parties" (Ch IV, No 100), as well as empowerment, engagement of civil society organizations and participation of all people.

UN-Habitat (2012) states that housing is a system of "social and material relationships" that take place at different scales in the territory – housing units, neighbourhoods, settlements, regions and countries. The first function is "*housing as physical structure* – residential buildings/shelters, their design, material qualities, their arrangement in space, and their ecological interactions with the physical environment"; and the second dimension is "*housing as a social structure* – residence-based activities, their character, social qualities, and their socio-economic interactions in space with the immediate communities and wider society". This definition of sustainable housing recognizes that housing has another value than just material value and that its values rely in *what it does* for people and not only in *what it is*. Hence, this concept identifies a vital aspect of housing, which is the social value of housing for people that

[16] Poverty is understood as a deprivation of basic needs in The Habitat Agenda.

[17] The Habitat Agenda mentions repeatedly the need for an enabling approach regarding people, structures, institutions, policies and regulatory frameworks, funding, housing markets, practices, etc.

contributes to satisfy their existential needs. Here we discover several connections with Turner's ideas regarding to the importance of *housing as a process*; and when he states, "when dwellers control the major decisions and are free to make their own contributions in the design, construction, or management of their housing, both this process and the environment produced stimulate individual and social well-being. When people have no control over nor responsibility for key decisions in the housing process, on the other hand, dwelling environments may instead become a barrier to personal fulfilment and a burden on the economy" (Fichter & Turner, 1972). Organized self-help housing is a housing delivery system that addresses better the previous definitions of sustainable human settlements and sustainable housing. These issues will be further discussed when analysing the case studies of the present study.

Methodology

The present paper focuses on the experience of two NGOs that have developed their own approach towards implementing organized self-help housing projects in developing countries. The authors have been involved with these NGOs by participating in training, research or technical assistance. Hence, it would be necessary to describe the methods applied to each case study and also explain the involvement of each author with the practice of both organizations.

Selection of case studies

The selection of the two cases for this research was done considering that SADEL is a good example of how international cooperation can foster technical sustainability, capacity building when implementing OSHH projects with a bottom-up approach; and how NGOs can influence national housing policy positively. On the other hand, FUPROVI is an NGO that has achieved institutional and financial sustainability, and developed different OSHH models successfully over time. These models have not only met the specific needs and capabilities of a community, but also resulted in efficiency regarding cost and time. Both SADEL and FUPROVI received funding from the Swedish International Development Cooperation Agency (Sida) at the beginning and at the end of the 1980s respectively. The Swedish approach towards capacity building and collaborative work are two common features that were implemented as the working approach of these NGOs. In addition, the NGOs were selected because the department of Housing Development & Management (HDM) at Lund University has cooperated with both NGOs over a period of 32 and 25 years respectively.

Methods in case study 1: FUPROVI

The main author attended the course "Organized self-help housing: planning & management" implemented in San José in 2002[18], which allows for observation of several projects implemented by FUPROVI and to get a broad understanding of the working methodology of this NGO. In 2006, within the framework of an exploratory study on organized self-help housing in Latin America, a structured questionnaire was submitted to the technical project manager of FUPROVI as a tool for systematizing primary data from the implementation process of the project *'Nuestra Señora del Carmen'*. Later on, FUPROVI was selected as case study within the framework of the main author's doctoral research in 2008. A field study[19] was implemented in San José, Costa Rica at the beginning of 2008. The research methods used for obtaining empirical information were qualitative methods such as observation, twelve in-depth interviews and a matrix for mapping how actors were involved in the organized self-help housing process and their roles. It was possible to interview 6 FUPROVI staff, 2 FUPROVI ex-staff and 4 experts in low-income housing from Costa Rica. Each interview lasted around 40 minutes and was recorded with permission of the interviewees. The analysis of empirical information focuses on categories, such as, concepts behind the OSHH process, funding sources, OSHH models, actors and their roles. The intention is not to generalize the findings, but to build knowledge that can be useful to other NGOs. In addition, the co-author has followed FUPROVI's work since the late 1980s. This long-term involvement with the NGO's work allowed him to visit different projects, study their working methods and evaluate more organizational aspects that are related to the OSHH process.

Methods in case study 2: SADEL

The co-author was a member of the team of architects that developed the concept for organization and design of the pilot project here described and was also one of the founders of the Swedish Association for Development of Low-cost Housing in 1980. The co-author worked as a project manager for the implementation of the pilot self-help housing project in the Rohia area, Tunisia, in the period 1980-85.

The experience from the organized self-help housing project in Rohia was recognised by the Tunisian government when launching the national program for elimination of unhealthy housing in April 1986 (Ministère de l'Equipement et de l'Habitat, 1986). For the implementation of this national programme in the region of Siliana an advisory group was created with the objective to give technical assistance to the self-builders. This group operated in 1986-88 as a joint project SADEL, ASDEAR and Ministry of Infrastructure and Housing (Cheniti, 1989). The co-author was the project manager for this advisory service. Thus, the co-author has carried out

[18] The course included site visits to FUPROVI's organized self-help housing projects and this first experience helped to get a general perspective on the work methodology of this NGO.

[19] The field study in Costa Rica and Nicaragua was implemented in parallel of the activities of the second part of the course Shelter Design & Development, between February 28th and March 15th /2008.

continuous observations, questionnaires, interviews and focus group discussions with involved actors in the period 1979-1988. Thereafter observations and a limited number of interviews of key actors have been carried out at two follow up visits to the region in 1997 and 2009.

The method for the research on the SADEL experience can be described as action research. Action research is "a comparative research on the conditions and effects of various forms of social action and research leading to social action" that uses "a spiral of steps, each of which is composed of a circle of planning, action; and, fact-finding about the result of the action" (Levin, 1946). Although the involvement of 32 years with the project, as a result of architectural practice and research, the co-author does not claim to have implemented a longitudinal study for the case of SADEL.

Case study 1: FUPROVI

The *Foundation for the Promotion of Low-cost Housing* (FUPROVI)[20] received three grants from The Swedish International Development Cooperation Agency (Sida) for implementing different OSHH programmes in Costa Rica. FUPROVI has been successfully assessed by different international evaluators (Sevilla, 1993; Andersson-Brolin, 1997). The NGO received the World Habitat Award in 1998, the UNCHS Best Practices Award in 2000, and has achieved 25 years of experience in June 2012. More recently, Imparato and Ruster (2003) highlight that FUPROVI is an example of an institutional arrangement that was created to meet local conditions and expectations due to a combination of political will and social vision of different actors. These authors also identify that "intense capacity-building and socio-technical support" constitute two key aspects of the organized self-help housing approach of this NGO.

Housing situation in Costa Rica

According to Andersson-Brolin (1997), the housing deficit in Costa Rica was around 280,000 units in 1988 – equivalent to 55% of the total housing stock. From this total, there was a need of 24% of new housing at that time. Hence, FUPROVI was created when Costa Rica was facing serious problems regarding addressing the needs of low-income families and people living in informal settlements (Sevilla, 1993). In addition, aided self-help housing with governmental support had negative results due to inefficiency and misused funding (Andersson-Brolin, 1997).

[20] FUPROVI is a Costa Rican NGO that was created on June 16th 1987 to channel the first bilateral housing programme between Sweden and Costa Rica.

Table 1 Housing Tenure in Costa Rica in 1984 and 2000 based on Morgan (2007)

Year	Owners of dwellings	Renters	Informal settlers
1984	64%	21%	15%
2000	71%	16%	13%

Morgan (2007) highlights households in Costa Rica are predominantly homeowners rather than renters[21]. Data in Table 1 illustrate that housing ownership increased 7% in 16 years period, whilst rental housing decreased by 5%. However, only 2% of informal settlers shifted to another type of housing tenure. The same author states that the current National Housing System (NHS) has common features with the one created in 1988. The primary actors within the NHS are the Banco Hipotecario de la Vivienda (BANHVI) – the primary financial institution; and within the bank the fund for housing subsidies is provided by Fondo de Subsidios de la Vivienda (FOSUVI). The central government provides poor people a housing subsidy of $5,000 and a special housing loan[22]. However, the housing subsidy is not enough to build a house and many poor families are excluded from the State social housing policy. Hence, FUPROVI has been a good option for poor families to obtain both an economic loan for the house and also technical assistance during the whole project cycle (Figueroa, 2001).

Concepts and approaches to OSHH

Important *concepts* that constitute the basis for FUPROVI's approach to organized self-help housing are solidarity, commitment, self management, responsibility, community participation, technical assistance, shared decision making; and to be able to offer quality products with better costs than the conventional housing market. This NGO has worked with the approach of social production of habitat using *organized self-help housing* – mutual help and own effort – as an innovative and alternative construction method for addressing the needs of new housing and slum upgrading for the poor in Costa Rica. Their main objective is to build communities, so that the housing units or the improvements of habitat are means for the families to strengthen their skills, capabilities and obtaining a better quality of life. Two housing experts highlighted in the interviews that organized self-help housing has a twofold objective "building community whilst building the physical human settlement". FUPROVI focuses on projects that range from

[21] The housing policy established in 1986 focused on turnkey housing solutions accessible for medium income families.

[22] Costa Rica was the first Central American country that implemented a housing subsidy policy based on "demand-driven and focalized state subsidies that would be complemented with self-help efforts from participating families and mortgaged loans from formal regulated banks" (Stein and Vance, 2008).

50 to 300 families – most common housing projects include 100 or 150 families – and each family has to work around 30 hours per week in the OSHH project.

Funding sources and allocation

FUPROVI received long-term international financial support from Sida during 8 years with a total non-reimbursable grant of $18,7 USD million (See Table 2). The cooperation focused both in funding OSHH programmes, but also on FUPROVI's institutional development (Andersson-Brolin, 1997). Housing programmes have been implemented mainly in urban areas, both new housing and slum upgrading; therefore, management and funding are project oriented; and the community organization and participation are also project oriented. The NGO has developed a sustainable revolving fund when recovering the investments made in organized self-help housing projects through obtaining the governmental housing subsidy for poor families and also from recovering loans[23] made to the community.

FUPROVI OSHH models 1988-2008

According to Andersson-Brolin (1997), FUPROVI's main achievement within technical aspects is to have developed an alternative model to deliver good quality housing that is accessible for the poor. This achievement was possible due to the organizations *learning by doing* approach to organized self-help housing. From the field study, it was possible to identify four OSHH models developed by FUPROVI in a 20-year period. These findings are similar to the results of the evaluation made by Sida in 1997 (Andersson-Brolin, 1997). However, this paper analyzes FUPROVI's OSHH models until 2008 in terms of the actors involved and their roles, and also how issues of The Habitat Agenda have been incorporated in the work of this NGO.

The *first model* – implemented from 1988 to 1991 – is used in FUPROVI's first projects and focuses on incorporating the community only in self-construction activities for both the infrastructure and the housing units. One of the problems of this model is that project implementation is very long, between 1.5 to 2.5 years. At the end of the OSHH project, families are exhausted to participate in post-project activities. Table 3 shows how different actors contributed to a project within the framework of this model. From the first model, it is possible to conclude that families lack control over the OSHH process and their contribution is mainly as self-construction labour. The lack of control over the OSHH process might have affected negatively the interest of families in participating in post-project activities.

In the *second model* – from 1992 to 1994 – the community not only participates in self-construction activities, but it is also involved in self-

[23] FUPROVI provides long term loans and bridge loans. Bridge loans are used by families whilst they are waiting to obtain the governmental housing subsidy.

management aspects such as the management of the warehouse, security, and the control of the hours for self-construction activities per family (See Table 3 and Figure 2). FUPROVI learnt that families need to have more control over the OSHH process to become more committed in the management and maintenance of the settlement in the long term.

The *third model* – implemented from 1995 to 2000 – is known as communal management, because the organizational structure of the community grows in order to accomplish self-management activities within their project. In the third model, FUPROVI focuses on developing the leadership skills of community members so that they can lead and manage the OSHH project during its implementation and after the NGO leaves the community. Activities such as warehouse keeping, materials provision and acquisition, construction system selection, cooking committee, and children day care have been considered as counterpart activities within the organized self-help housing process. Skilled workers are also hired for some construction work, people from the community that have already worked their thirty hours could gain money doing the work of another family that is not able to do it because of other working obligations. The disadvantage of this model is also that the project time can last up to 3 years. Too long OSHH processes have a negative impact on financial costs and community participation due to people's fatigue.

Finally, *the fourth model* or *mixed-model* – from 2000 to present – includes paid labour for the construction of the infrastructure (e.g., a contractor or a construction enterprise) and the community is involved within the organized self-help housing process for the housing units (See Figure 3 and Table 3). The main advantage of the mixed-model is that the project implementation lasts around 6 to 12 months. In the mixed-model the management and the construction of the project is implemented involving different actors in order to optimize time and costs. FUPROVI manages materials acquisition because they can achieve lower prices. The warehouse management depends on who owns the land, but sometimes it is a shared responsibility between a member from the community and a member from FUPROVI. Infrastructure works are built by construction enterprises, and community participation is focused on self-management activities – security, control of working hours within the project, fundraising activities – and self-help construction for the housing units. This is to avoid people's fatigue, so that they also participate in post-project activities. FUPROVI managed to develop a model that addresses both community control over the OSHH process and efficiency regarding time and building costs. Projects, such as, Nuestra Señora del Carmen reported savings up to 20% of the original budget.

Figure 2: Example of FUPROVI OSHH 2cond model, Project in Cartago, Costa Rica
Source: Johnny Åstrand, Field study in 2008

Figure 3: OSHH Project Nuestra Señora del Carmen, Costa Rica
Source: Israel Figueroa, Civil Engineer, FUPROVI, 2006

A small variation of the mixed-model has been introduced, allowing FUPROVI and the families to sit *face to face* and plan the investment and the incremental housing design according to the family income. Then, the community could decide whether they help a specific family that is not able to afford the housing construction and they are more aware of the implementation of different kind of activities for fundraising.

Table 2 shows how FUPROVI's OSHH models have changed over time as a consequence of a continuing learning by doing and evaluation process within the organization related to the amount of control that the community should have in the OSHH process. The NGO changed its role of full managers of the whole process towards becoming facilitators of the process. On the other hand, the community changed its role from participating only in self-build activities towards co-managers of the OSHH project – and self-build work is among the different activities needed for the whole process. FUPROVI learnt that they should focus on developing the skills and capabilities of the community; so that the active participation of the families within the decision-making at all stages of the OSHH process leads to sustainable community development in the long term. Table 2 also illustrates the optimization of the project timing to the different grants provided by Sida according to changes in the OSHH model. The process has been optimized so that in the fourth model FUPROVI is able to implement OSHH projects between 6 to 12 months to avoid both community fatigue and higher investment costs due to longer time for paying loans.

When analyzing if Turner's main principles of autonomy, control and freedom have been incorporated in FUPROVI's OSHH models, the issues of control and freedom have been better achieved in the third and fourth models. However, due to the nature of organized self-help housing that is based on the principles of solidarity and mutual-help, the principle of autonomy should be understood as the 'own effort' provided by each family member, but within the project framework and common community goals.

Actors and their roles

Actors' involvement and their roles in FUPROVI's organized self-help housing projects have changed over time according to the different OSHH models and also according to the type of project – slum upgrading or new housing.

Table 3 illustrates the role of actors according to different stages of the OSHH process with examples of the three different OSHH models developed by FUPROVI. In the *first example*, a slum-upgrading project sponsored by Sida, stakeholders included FUPROVI as the OSHH facilitating organization, the community that was involved only in self-build activities, governmental institutions for providing land, organizations from the national financial system for providing the housing subsidy for the families, and an international advisor for supporting the institutional development of FUPROVI. The *second example* from Table 3 is the slum upgrading of San Juan and has been implemented using the FUPROVI's *second model* of OSHH. The main actors are FUPROVI, the community, the

Ministerio de Vivienda y Asentamientos Humanos (MIVAH) and the local government. MIVAH is responsible for the settlement design, housing relocation and providing the housing subsidy. FUPROVI is responsible for the studies, part of the funding, community organization, capacity building and post-project activities.

Table 2 Sida funding, number of beneficiaries, type of OSHH model and average time for project implementation based on Andersson-Brolin (1997) and field study in Costa Rica in 2008.

Sida Grant/Period	**Amount in US$**	**No beneficiaries** (per grant)	**OSHH models** (Field study 2008)	**No years OSHH model** (project time)
1st grant 1 July 1988 to 30 June 1990 Families per project: 200-300 families	$6 million	1,000 houses built of upgraded	*First model* (1988-1991): community only for self-build activities	2 years
2cond grant 1 July 1990 to 30 June 1993 *Extended until Dec. 1993 Families per project: 50 families	$9 million	1,200 households	*Second model* (1992-1994): community co-management of OSHH project	2 years
3rd grant January 1994 to December 1998	$3,7 million	Not available	*Third model* (1995-2000): Communal management of OSHH project.	2 to 3 y.
Revolving fund Developed due to recovering loans and funding from housing subsidy	Around $19 million	Not available	*Forth model* (1997-2008): Mixed-model: urban infrastructure built by private enterprise, community management of OSHH project with FUPROVI as a facilitator, shared responsibility.	6 months to 1 year

Box 1 summarizes key information of the *project Nuestra Señora del Carmen* as an example of the fourth model of OSHH developed by FUPROVI. The information in the box describes technical aspects, actors' involvement, implementation strategies and lessons learned. In addition, Table 3 shows the actors and their roles according to each step of the OSHH process in the same project.

The evolution of the different OSHH models of FUPROVI also reflects changes in the actors involved. In the first model, the actors are FUPROVI, the community and the international cooperation. By contrast, the fourth model includes FUPROVI, the community, central government agencies and local government. Hence, FUPROVI has succeeded also in increasing partnership and mobilize resources from different actors.

Table 3 Roles of actors within different OSHH models of FUPROVI, based on field study 2008

OSHH models	ROLES OF ACTORS								
	Within the organized self-help housing process:						Other:		
	Initial Contact	**Preliminary studies**	**Studies**	**Design** (settlement / housing unit)	**Implementation**	**Post-project**	**Funding**	**Land provision**	**Notes**
Slum upgrading: first programme sponsored by ASDI within the metropolitan area (1st model)	FUPROVI	FUPROVI	FUPROVI	FUPROVI	FUPROVI: technical assistance / Community: self-help construction	NO	ASDI / Organizations from the national financial system	Governmental organization	Institutional advisor for FUPROVI: Manuel Sevilla
Slum upgrading: (e.g., San Juan) (2cond model)	**FUPROVI** / **Community**: communal organization	FUPROVI	FUPROVI	**FUPROVI** / **MIVAH**: design for settlement improvement and housing relocation	**FUPROVI**: training / **INA**: training / **MIVAH**: project leader / **Community**: self-help construction of the houses	FUPROVI	FUPROVI / **MIVAH:** housing subsidy	INVU	**FUPROVI**: managers of the project / Municipality of San José
New housing: (e.g., Nuestra Señora del Carmen) (4th model)	**FUPROVI** / **Community:** administrative proceedings with other organizations	**FUPROVI** / **Mutual Alajuela**: organization from the national financial system that qualifies community for the housing subsidy	FUPROVI	FUPROVI	**FUPROVI:** technical and social assistance / **Community:** self-help construction / **Compañía Nacional de Electrificación:** electricity	FUPROVI	**FUPROVI** / **MIVAH**: housing subsidy	**Community:** land acquisition	**Local government of Alajuela:** support for administrative proceedings and mobilization of **Compañía Nacional de Electrificación**

Box 1. Nuestra Senora del Carmen: an organized self-help housing by FUPROVI based on questionnaire completed by Israel Figueroa in 2006 and field study in 2008.

1. **Technical data**: Location: San Diego de la Unión, Cartago, Costa Rica. Example of 4th model of OSHH. Settlement infrastructure and 87 houses were built from April 2005 to March 2006; Project cost: USD $ 1.200.000; plot: 125 m^2, housing area: 45 m^2. Construction materials: Slab foundation, metallic structure for roof type RT, walls of concrete blocks, concrete floor, metal roof (HG-28) and aluminium windows.
2. **Project background & beneficiaries**: This housing cooperative composed by 87 low income families, approximately 305 people, organized themselves 5 years before starting the OSHH project. They contacted FUPROVI due to their own initiative. 30% of female-headed households and 50% of the community with low educational level.
3. **Conceptual model**: a mixed-model OSHH project where the community participated both in the project management and the project implementation; with qualified construction labour for the urban infrastructure and concrete walls of housing.
4. **Actors and their roles**:
   - **The community**: acquisition of construction materials, fundraising, participation in the housing construction and supervision of housing construction quality. From a total of 220 people participating in the OSHH process: 45% men, 45% women and 10% adolescents (13 to 17 years).
   - **FUPROVI**: the NGO was the project developer and the facilitating organization for the organized self-help housing process. Partial funding of the construction work and plot acquisition. Technical assistance and capacity building. Assistance to the families in obtaining the central government housing subsidy as part of the funding strategy. Organizational structure for the project: FUPROVI's executive manager, 4 area managers, project managers, office staff, construction staff.
   - **Mutual Alajuela de Ahorro y Préstamo**: complementary funding for construction work.
   - **Central government**: provision of the electrical infrastructure of the settlement and 87 housing subsidies.
5. **Project implementation strategies**: The project was implemented with 3 different working schedules for self-housing construction. Qualified construction labour was contracted for building the infrastructure and the concrete walls for the houses as a way for optimizing construction time and reducing costs.

6. **Project lessons:**
   - The experience of self-help housing contributed towards strengthening the community organization because families learnt how to work with solidarity among them for the same common goal of obtaining their own house; women were key in the project and the community was well organized after the project finished.
   - The development of the skills of self-management and mutual help
   - Reduction of around 20% of construction costs from the initial total budget

Case study 2: SADEL

The *Swedish Association for Development of Low Cost Housing* (SADEL)[24] has the aim of collaborating to the development and implementation of housing projects in developing countries by providing financial and technical support. SADEL's activities include development and implementation of appropriate and resource-conserving materials and techniques for building construction in developing countries; documentation and communication of current experiences in the field of resource-saving building construction; organization of seminars and exhibitions to facilitate sharing experiences (NGO-EU Network, 2004). SADEL implemented an organized self-help housing project for 50 families with funding from the Swedish International Development Cooperation Agency (Sida) in Rohia, Tunisia, from 1980 to 1984 (Andersson et al, 1986). In 1987, this NGO was commissioned by the Swedish Mission Council to undertake a study of successful housing projects with an international perspective. The eleven selected projects showed how organizations have managed to use available resources, self-help housing and use of local building materials (Johansson et al, 1990).

Housing situation in Tunisia

In Tunisia, the housing policy of the 1970 has prioritized turnkey housing solutions both in urban and rural areas. According to Hardoy and Satterthwaite (1981), the result of this policy was very clear. "A third of all families in Tunis live in temporary shelters or dwellings with no public utilities and with three to five persons in a single room. In other urban areas, around half the population lived in what were defined as temporary or substandard units; 45 percent of urban dwellings were not tied into a water supply system. In rural areas households also lacked access to basic services."

In 1957, SNIT (Societe Nationale Immobiliere de Tunisie) was created as a governmental housing agency with the main objective to satisfy the needs of the low-income population. The agency delivered about 200 000 housing units/apartments in the period 1953-1986. In 1973, AFH (Agence Fonciere d'Habitation) was created by the government to prepare site and service projects. In the period 1973-1986, the agency implemented 161 projects in a total of 3,600 hectares. The National Savings Bank for Housing (CNEL) was created in 1973 and the National Agency for Urban Rehabilitation (ARRU) was created in 1981. In spite of this efforts the Tunisian government identified 135 000 housing units with unhealthy conditions, of which 95 000 housing units needed to be replaced and 40 000 housing units could be improved. The national program for elimination of unhealthy housing was launched in April 1986 with the aim of constructing 95 000 housing units in the period 1986-1988. The total cost was estimated

[24] SADEL is a non-profit-making association that was founded on February 12th 1980 in Lund, Sweden. The members of the NGO have been linked to the Institute of Science and Technology at Lund University.

to 200 million Tunisian Dinars of which 160 million to be covered by the central government and 40 million corresponded to the value of self-help construction carried out by the families (Ministère de l'Equipement et de l'Habitat, 1986).

Concepts and approaches

In the field study on housing in the Rohia region carried out by a team of architectural students from Lund University it was concluded that the rural inhabitants with their livelihood based on agriculture lacked the financial resources to pay for housing improvement made by local builders or to purchase new housing. The rural population in Rohia lived in very cramped housing conditions, without access to sanitation and often in very bad technical conditions. Thus, it was necessary to develop housing solutions based on self-help construction and to use of locally available building materials in order to achieve the goals of social and economical sustainability (Andersson et al, 1980).

Based on the field study the concept of "Developing a solution to the housing problem in the Rohia region based on local available resources and respecting the local lifestyle of the inhabitants" and "Starting a susceptible construction process that can develop in the entire region". Organized Self-help housing, respect for traditional architecture, improved comfort and hygiene, simple technology and use of locally available building materials were the principles for developing the concept of the pilot project (Andersson et al, 1980).

The operational objective of the organized self-help housing project in Rohia was:

1 "To produce dwellings of a minimum standard which entails improved climatic shelter, better hygienic conditions and less cramped living.
2 To produce dwellings with a life expectancy of at least 25 years.
3 To realize dwellings which result in a living cost which can be met by the poorest families' financial means" (Andersson, et al., 1986).

The SADEL model

The pilot project was developed step by step and in continue dialogue with the participants in the project. This was made possible due to the experience of the Tunisian NGO ASDEAR[25] in the region. The time spent on understanding socioeconomic conditions, customs, existing housing conditions and the gap to the construction industry and national housing policies and institutions allowed SADEL to develop a process and housing solution accepted by the local population (See Box 2).

In an interview in 1984, the French Catholic priest Philippe Lebatard, project manager of ASDEAR, stated that: "The self-help housing project has had considerable effect on the families' standard of living, and this is clearly apparent from the care devoted to keeping the home clean, from attempts to

[25] Association pour le Développement et l'Animation Rurale

decorate the rooms, purchase of furniture such as beds, tables, chairs, cupboards, gas stove, curtains and so on. Not only is the house itself better managed, but also its immediate surroundings, such as the courtyard, outhouse and entrance. Certain families have painted the rooms in different colours in order to make them more pleasant. If the family has several rooms, one of them is reserved for guests. There is now a marked tendency on the part of most of the families to acquire furnishings and household appliances a little at the time. When the house is finished, electricity is first installed and then the families buy a television and gas cooker, and finally beds, bedding and furniture. The families with grown daughters have particularly well kept houses, with the result that the various rooms in the home can be better utilized (Lebatard, 1984)."

One of the self-builders was asked in 1984, *if he together with other families, started any other work based on the experience gained from the self-help housing project?* He responded then "I built a new living room for one of my brothers with the help of my neighbours. I have also bought a tractor together with my two brothers. I had never thought about such cooperation before. I would also like to mention the case of my neighbours, who are also self-help builders, who made a new well with our help." On the question, *do you have enough skill and experience to cope with the future maintenance of the house?* he responded: "I can look after the maintenance of the house without any difficulty. The advice I have been given has made it quite clear to me that the house need maintenance to be kept in good condition" (Self-builder, 1984), (See Figure 4).

In 2009, the same self-builder and his family was visited by the co-author, 29 years after the family completed their first self-built house with an indoor area of 60m^2. The family explained that the housing loan was successfully repaid more than ten years ago. The family was still ´satisfied with their house and had extended it with a new and bigger living room. However, in the last year, the self-builder was ill and his income was considerably reduced. Therefore, he was not happy with the maintenance of the house as before, especially for not having white washed the walls lately. His main source of income since 1980 was based on construction work, since he specialized as a mason after having participated in the organized self-help housing project. His wife has worked for many years in their small agricultural field and looked after the children that now are adults. The family has grown since some of the children have their own families. They all live in the same house, three generations together. The original self-builders have now become grandparents and take care of their grandchildren in their home (Self-builder, 2009) (See Figure 5).

Figure 4: Construction of flat roof by self-builder with instructor
Source: Johnny Åstrand, 1981

Figure 5: Self-built house in Rohia project after 29 years of use
Source: Johnny Åstrand, 2009

Box 2. Rohia: an organized self-help housing project by SADEL based on Johnny Åstrand's participation in project implementation.

1. **Technical data**: 54 houses were built in four phases from December 1979 to September 1985; Project cost: TD 20 to 40/m^2 housing area including walls; location: adjacent to the families agricultural land, housing area: 21 - 70 m^2, in proportion to the size of the household. Construction materials: Concrete foundation, walls of natural stone, flat roof of prefabricated concrete beams and cement stabilised soil blocks/vaulted roof of cement stabilised soil blocks on ring beam of concrete, concrete floor, wooden doors and windows.
2. **Project background & beneficiaries**: The housing project was composed by 54 low income families, approximately 250 people. Most of the families were farmers and participants in a rural development program implemented by ASDEAR. A few families were landless and classified as "social cases".
3. **Conceptual model**: An organized self-help housing project where the families participated both in the design, management and implementation of the project.
4. **Actors and their roles**:
   - **The community**: approval of individual housing design, distribution of construction materials, participation in the housing construction and supervision of housing construction quality.
   - **ASDEAR**: the Tunisian NGO was the locally responsible facilitating organization for the organized self-help housing process. Project management including legal issues, purchase of materials and distribution and collection of credits to families. Organizational structure for the project: ASDEAR's area manager, one project manager, four construction staff.
   - **SADEL**: the Swedish NGO was the international responsible facilitating organization for the organized self-help housing process. Concept development, project design, technical assistance, capacity building, follow up and documentation. Financial management and intermediary between Sida and ASDEAR. Complementary funding of staff cost on a sweet equity basis.
   - **Sida:** Project funding of maximum 80% of costs.
   - **Regional government**: provision of building permit and inspection.
5. **Project implementation strategies**: The project was implemented with. Local masons were contracted as instructors for the families organises in building teams.

6. **Project lessons:**
   - Localization of the house on agricultural land was important.
   - Flexible housing solution in relation to family size and quality of existing dwelling.
   - The development construction skills allowed families to do extensions and maintenance.
   - The experience of self-help housing contributed to strengthen the community organization.
   - Reduction of around 50% of construction costs as compared to conventional social housing.

Planning and implementation of sustainable human settlements

The Habitat Agenda in FUPROVI's and SADEL's work

FUPROVI and SADEL are good examples for other non-governmental organizations in terms of how to incorporate key issues of The Habitat Agenda in their approaches to organized self-help housing. Table 3 shows how FUPROVI and SADEL have applied some of these issues in their OSHH projects. The cases show how the principles/strategies proposed by The Habitat Agenda related to self-help housing have been achieved by these NGOs in the context of housing the poor in a rapid urbanizing world.

From the analysis of the approaches to organized self-help housing by FUPROVI and SADEL, we claim that OSHH constitutes an enabling approach for housing the poor. These NGOs have shown that the principles of solidarity, mutual-help and partnership have been incorporated in their practice. Their OSHH approaches have also succeeded in community capacity building, an issue that in combination with *control* over the OSHH process leads to community empowerment. Transparency – another principle of the Habitat Agenda – has been also been achieved through of co-management of the projects. The participation of the community has been improved from self-builders to partners in decision making and shared responsibility over the OSHH process.

Propositions on the planning and implementation of organized self-help housing

Turner's vision of *housing as a verb* and the effects of the implementation process of housing on developing the skills of households and providing fulfilment to the poor is still valid nowadays (Turner & Fichter, 1972). FUPROVI and SADEL have shown that non-governmental organizations can implement successfully OSHH projects and are key actors regarding community capacity building – which is maybe one of the main failures of aided self-help housing approaches implemented by governments. Hence, based on the case studies of FUPROVI and SADEL, the authors propose the following propositions for planning and implementing OSHH projects.

1. Organized self-help housing address two different dimensions of housing, namely *housing as a physical structure* and *housing as a social structure*; hence, the importance of OSHH to the development of sustainable housing and sustainable human settlements.
2. Organized self-help housing needs to be recognized by national housing agencies as a key enabling housing strategy in order to become more efficient.

Table 3 Issues of the Habitat Agenda in FUPROVI's and SADEL's approach to OSHH

Issues of the Habitat Agenda	FUPROVI	SADEL
Solidarity and cooperation among community members	These principles are considered in all projects implemented by FUPROVI	These principles were implemented in the OSHH project in Rohia (Tunisia)
Partnership among actors	FUPROVI, the community, central and local government, other governmental institutions – it varies according to the OSHH model.	SADEL, the community, Sida, central government, other NGOs
Promotion of locally available, appropriate, affordable, labour intensive sustainable construction methods and technologies	FUPROVI has not yet developed its own construction technology for OSHH	SADEL developed a construction technology that used cement-stabilised torba BTS (Béton de Terre Stabilisée) and natural stone for the Rohia project
Approach to OSHH aimed at community capacity building	For self-construction, co-management of projects	For self-construction
Improvement of SHH standards due to technical assistance	OSHH standards in FUPROVI's projects are considered of good quality	SADEL influenced positively local construction standards and national housing policy
Innovative approaches for mobilizing resources in shelter development for the poor	Mobilization of human resources; mobilization of institutional resources; mobilization of funding from different sources; savings due to improved OSHH model.	Mobilization of human resources, mobilization of institutional resources; and mobilization of international cooperation funding.
NGO provision of technical assistance for self-help housing	FUPROVI provides capacity-building and socio-technical support (Imparato, 2003)	SADEL provides capacity-building and technical assistance.

3. Facilitating organizations need to undertake a *learning by doing approach* to develop their OSHH models that respond to specific local contexts.
4. Evaluation and adaptation of the OSHH model over time is important.
5. Capacity building and technical assistance are important tools for improving the living conditions of the poor.
6. Technical assistance contributes to improve the standards for self-built housing .
7. Development of appropriate local construction methods and technologies contribute to improved housing quality and feasibility.
8. OSHH is an innovative approach for funding adequate shelter and mobilizing resources.
9. OSHH can improve access by those belonging to vulnerable and disadvantaged groups to shelter and decision-making processes.
10. Organized self-help housing develops capacity and skills that are key to enhance people's resilience and adaptation towards the impacts of climate change.

Conclusions and implications

The Costa Rican NGO FUPROVI is a good example of *institutional, financial and technical sustainability* over a 20 years period. FUPROVI has developed four different planning models for implementing organized self-help housing projects due to learning by doing and constant evaluation practice. The NGO has developed its own expertise over time and has managed to become independent from international cooperation agencies for funding sources. FUPROVI has also had a positive impact on the housing policy for the poor in Costa Rica.

The Swedish NGO SADEL is an example of an approach towards organized self-help housing that achieved *technical sustainability and capacity building* with a long-term perspective. The NGO has implemented sustainable housing projects focused on using values from traditional local architecture, improving local building materials, introducing new building methods and incorporating the families' own labour capacity. The work of SADEL was considered as pioneering ecological building at the beginning of the 80s, but its approach continues to be an important contribution towards the development of sustainable human settlements within the context of developing countries. The work of SADEL influenced that the Tunisian government incorporated organized self-help housing in the housing policy at the end of the 1980s. The new construction materials and construction method developed for organized self-help housing implemented by SADEL have been further applied in different buildings and the capacity built in some local people has helped them to continue working as construction workers independently in the region.

The approach to international cooperation of Sida and SADEL share the emphasis on capacity building of local organizations or/and the capacity building of the community. The OSHH approaches of SADEL and FUPROVI have contributed not only to solve the physical dimension of

housing, but also to address the social function of it. Organized self-help housing is based on solidarity, mutual-help, partnership, transparency, affordability and capacity building. Hence, the OSHH projects implemented by FUPROVI and SADEL have also contributed to the dimension of housing as a social structure because *the OSHH process builds both housing* and *community* at the same time. Finally, we conclude that the main achievement of the OSHH approaches of these NGOs is their contribution to the social dimension of sustainable human settlements. Conversely, theoretical propositions about the social dimension of sustainable human settlements will be addressed in future work.

FUPROVI and SADEL are among many non-governmental organizations that are implementing effectively bottom-up approaches to organized self-help housing in developing countries. There is the need for further studies, which focus on evaluation of OSHH projects with a long-term perspective. It is also important to study the implementation of OSHH projects in depth to identify how the selected construction systems affect positively community development.

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Paper 3

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Organized self-help housing: lessons for improving the process

Dweller-control and community development in Hogar de Nazareth, Guayaquil-Ecuador

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Abstract

This paper focuses on the organized self-help housing (OSHH) process of Hogar de Nazareth, a project implemented with the technical assistance of a non-governmental organization in Guayaquil-Ecuador during the 1990s. The aim is to understand how the OSHH process was implemented, and to discuss how dweller-control over different stages in the process affected the enhancement of capabilities and community development. Empirical information was drawn through an explanatory case study conducted from 2009 to 2011 with a quantitative and qualitative approach. One hundred questionnaires were introduced to households, which were analyzed with descriptive statistics. Thirty semi-structured interviews to key informants and a focus group with community members were conducted. Qualitative analysis was performed using a grounded theory approach. The results show that low degree of dweller-control over the first stage of the OSHH process limited the development of capabilities. Families of phase 1 developed limited capabilities on planning, management and decision making which are essential for the next two phases. However, these families achieved spatial agency, collective agency and collective efficacy due to the OSHH process. Lack of dweller-control over changes in the housing construction system for phases 7-8 affected negatively the OSHH process, and created tensions between different project phases. Unequal distribution of self-construction work among families of different phases, and the difference in community mutual-help experience affected negatively community development in the long term.

Keywords: Organized self-help housing, dweller-control, capabilities, spatial agency, collective efficacy, community development

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Introduction

The Ecuadorian housing sector 1970-1990

Around 60% of the housing stock in Ecuador has been self-built without any technical assistance[2] by low-income families in informal settlements since the 1950s (De Guzmán, 2008). Housing programmes have been implemented following the political economic context, the own interests of state housing agencies, and as means of obtaining political power since the 1970s (Klak, 1993). Although the country had a yearly economic growth of 8,7 percent from 1965 to 1980 due to oil revenues, political instability has affected negatively the development of housing policies since the country returned to democracy in 1979 (Acosta, 2009). Despite of economic growth, inequality in the distribution of wealth extended poverty and the basic salary covered only 25% of family basic needs (Klak, 1992). From 1988 to 1992, the State maintained its role as provider of housing and the left wing government of Rodrigo Borja built 84,000 houses for the middle class (Acosta, 2009). The first housing policy[3] – formulated in 1994 – was oriented only towards turnkey housing construction for the middle class; and lacked any pro-poor housing alternatives.

At the beginning of the XX century, migration intensified to Guayaquil as a consequence of the cocoa boom[4]. In the 1950s, migration influx to the coastal region increased due to the banana boom[5]; and the urban growth in Guayaquil was 5% at that time. In the 1960s and 1970s, two agrarian reforms were formulated as a capitalist strategy to penetrate the agricultural society of the highlands. In this context, urban influx to Guayaquil increased partially because indigenous population migrate from the highlands to the coastal region for obtaining better income opportunities (Fernández, 2006). Hence, the physical urban growth of the city of Guayaquil has developed based on three types of migration flow. First, external migration characterized by people coming from other provinces of the country – especially from the highlands; secondly, internal migration mainly by people moving within the city; and thirdly, natural population growth (Huerta, 2011). In this city, housing conditions worsened in the 1980s due to corruption and inefficiency from the local government

[2] For the present paper 'spontaneous self-help housing' or self-help housing is the process in which a poor family builds its own house with its own effort and resources – sometimes with the help of relatives/friends – but without any kind of technical assistance from NGOs, international agencies or the government.

[3] The Ministry of Housing and Urban Development (MIDUVI) was created in 1993 and incorporated previous housing agencies such as Junta Nacional de la Vivienda (JNV), Banco Ecuatoriano de la Vivienda (BEV), Instituto Ecuatoriano de Obras Sanitarias (IEOS) and Dirección Nacional de Avalúos y Catastros (DINAC). JNV disappeared between 1992-1993 (Acosta, 2009).

[4] Cocoa boom: There were two cocoa booms in Ecuador; the first. From 1840-1890 when the country exported cacao to Spain which was its main market; then, during the second cocoa boom from 1890-1910 Ecuador exported cacao to France and Germany; and the country was incorporated into the global market economy (Maiguashca, 2012).

[5] Banana boom: Due to improvements in agricultural technology Ecuador increased its production of bananas and entered the global export markets. There have been two banana booms; the first, from 1948-1965; and the second from 1985-1991 (Maiguashca, 1992).

regarding tax collection and management whilst more low-income working class immigrated to the city. The population living in inadequate shelter in Guayaquil grew from 43,6% in 1985 to 57,6% in 1989 (Klak, 1992). According to INEC[6] (2002), the population of Guayaquil was 1'199,344 in 1982 and 1'508.444 in 1990. Hence, the population living in inadequate shelter might have been around 800,000 inhabitants at the beginning of the 1990s. As city major, Febres Cordero[7] worked in modernizing and improving the efficiency of the local government and in starting the city urban regeneration from 1992 to 2000. The legal mandate of providing low-income housing was responsibility of the central government in that decade.

Organized self-help housing in Guayaquil in the 1990s

Only a few organized self-help housing[8] projects for new housing were implemented in Guayaquil by non-governmental organizations (NGOs) in the early 1990s. One of these projects is Hogar de Nazareth, which was implemented by Coorporación Hogar de Cristo[9] from 1990 to 1998. The economical, political and institutional context during the implementation of Hogar de Nazareth was critical both at local and national level. Hence, the project was the result of the vision and effort of Hogar de Cristo, with funding from the Spanish international cooperation and the participation of the households. This project has sometimes been criticized in a superficial way for not working. However, not external evaluation has been done of the OSHH process from the perspective of the users. Currently, different organizations within the Ecuadorian social housing sector have different stances regarding the possibility of including OSHH as part of the national housing policy. Hence, it is important to study the effects of different degrees of dweller-control over the OSHH process in projects like this based on the paradigm of *housing as a process*[10] . In the case of OSHH projects, the process is essential to understand what housing does with people and how it contributes or hinders community development in the long term.

The aim of the paper is to understand how the organized self-help housing process of Hogar de Nazareth was implemented; and to discuss how

[6] Instituto Nacional de Estadística y Censos (INEC) is the governmental agency responsible for the statistical information in Ecuador.

[7] As former right wing president, Leon Febres-Cordero's government built 104,000 new housing units at national level (Acosta, 2009). As major of Guayaquil he started the urban regeneration of the city building Malecon 2000 which was the strategy from the local government to recover the trust of the population.

[8] 'Organized self-help housing' is a bottom-up approach "that involves the community's active participation and decision making in planning, design, self-construction, and post-project activities with the technical assistance of a facilitating organization" (Arroyo & Åstrand, 2013a). This process implies own effort and mutual-help among community members and a partnership relationship with the facilitating organization.

[9] Corporación Hogar de Cristo (http://www.hogardecristo.org.ec) is a Jesuist non-governmental-organization working with the poorest of the poor in Guayaquil since 1971 under the supervision of SELAVIP (Servicio Latinoamericano y Asiático de Vivienda Popular) (INBAR, 2002).

[10] Here we refer to the paradigm of housing as a process based on Turner & Fichter (1972).

dweller-control[11] in different project phases affected the development of capabilities, other collective attributes and community development. The paper focuses on a) households' degree of dweller-control over the OSHH process; b) how the degree of dweller-control contributed or not to enhance households' capabilities, spatial agency; and collective attributes such as collective agency and collective efficacy; and c) the effects of technical changes on community development. This study combines both a quantitative and a qualitative approach. This research strategy allowed for a better understanding of the lessons that can be transferred to future projects. It is important to understand better the link of OSHH processes with community development in order to establish the necessary institutional, legal, financial and social framework needed to foster it in the Ecuadorian housing policy – and also in other developing regions.

Housing as a process and community development

Housing paradigms and policy implications

In Ecuador, housing as a product – a commodity that has exchange value – is the established paradigm and it has constituted the basis for developing housing programmes since the 1940s and housing policies since the 1990s[12] . This paradigm does not consider that the urban poor build their housing incrementally in informal settlements whose consolidation periods range between 15 to 30 years, without support from the government, non-governmental organizations or international cooperation. For Turner & Fichter (1972), Ferguson and Navarrete (2003) among others, the product approach to housing has failed throughout the developing world because in practice housing is a process from the perspective of the poor. The main consequence of following the product approach is that housing policies lack different low-cost strategies to support the incremental housing process better (Ferguson, 2003). Conversely, housing policies also fail in incorporating resources mobilized by the poor in spontaneous self-help housing such as the people's own effort, mutual-help, skills, savings in construction materials, and access to social networks. The lack of pro-poor housing policy affects negatively the "right to decent and healthy housing"[13] and "the right to the city" as stated by the Ecuadorian Constitution since 2008.

[11] Dweller-control is a concept that highlights the importance of the involvement of low income households during the whole housing process. Turner (1972, 1976) argues the link of dweller-control over the housing process with individual and social well-being.

[12] De Guzmán (2008) states that Ecuador lacked explicit housing policies until the 1990s. He distinguishes three periods within the Ecuadorian housing programmes and policies: a) the period of low urbanization, b) the period of the State intervention and c) the period of the openness.

[13] Ecuadorian Constitution 2008, Art. 66 and Art. 31

Self-help housing and urban policies

From 1950 to 1996, Pugh (1997) identifies three phases of the role of self-help in housing and urban policies in developing countries. The first phase – from 1950 to 1971– was characterized by the work of Mangin (1967) and Turner (1967) towards a positive view of spontaneous self-help housing and informal settlements. Their work laid the ground for the second phase – from 1972 to 1985 – in which the World Bank implemented 'sites-and-services'[14] projects in developing countries. Finally, in the third phase – from 1986 to 1996 – community-based self-help contributed to neighbourhood infrastructure improvement with a bottom-up approach within the international political economy of 'enablement'. Klaufus (2010) states that the Ecuadorian housing sector has had little experience regarding the aided self-help housing[15] projects that were implemented by the American Alliance for Progress[16] in other South American countries addressed to the urban poor because since the middle 1960s Ecuadorian housing policies have shifted towards benefiting middle-income groups. Klak (1993) argues that oil revenues have subsidized bureaucracies of housing agencies in Ecuador from 1972 to the mid 1990s, which have been inefficient in terms of housing output. The same author claims that Ecuadorian elites have benefited from positions of control within the market-oriented housing sector; and that housing agencies have had a patronage-based[17] system of resource allocation – benefiting the middle class with turnkey housing and mortgages instead of focusing on the poor.

In Latin America, non-governmental organizations such as Fundación Promotora de Vivienda (FUPROVI)[18] in Costa Rica, Fundación Salvadoreña de Desarrollo y Vivienda Mínima (FUNDASAL)[19] in El Salvador, Centro de Estudios y Promoción para el Habitar (HABITAR)[20] in Nicaragua among others have achieved institutional and technical sustainability for implementing organized self-help housing as a method that supports the poor in building housing and community. Fundación para

[14] Sites-and-services (1970s to mid 1980s) is the top-down approach to self-help housing implemented by the World Bank in collaboration with governments to provide site and services and materials for the poor; the most basic programme was surveyed plot and the most advances was the plot with a self-build chore housing and community services. In sites-and-services schemes the family/community has no control over planning or decision making within the process, but each family is responsible for the incremental construction of its own housing without further technical assistance or funding over time.

[15] Aided self-help housing' is an incremental housing process implemented with a top-down approach in which the United States provided site and services programmes and materials for the poor as a strategy for pacifying Latin America after the Cuban revolution in the 1960's. The family/community has no control over planning or decision making within the process, but each family is responsible for the incremental construction of its own housing without further technical assistance or funding over time.

[16] The American Alliance for Progress was a program from the United States government for international cooperation with Latin America in the 1960s.

[17] Regarding patronage, Peattie (1979), argues that "for a government in search of legitimacy, a conspicuous attack on the housing problem through the building of dwelling units is a uniquely appropriate vehicle… it permits the exercise of patronage towards specific target groups in a context socially defined as one of general betterment".

[18] See Fundación Promotora de Vivienda (FUPROVI) http://www.fuprovi.org/esp

[19] See Fundación Salvadoreña de Desarrollo y Vivienda Mínima (FUNDASAL) http://www.fundasal.org.sv

[20] See Centro de Estudios y Promoción para el Habitar (HABITAR) http://habitarnicaragua.org

el Desarrollo Local (PRODEL)[21] in Nicaragua and Centro de Estudios y Promoción del Desarrollo (DESCO)[22] in Peru have contributed to infrastructure upgrading and incremental housing construction through family-based assisted self-help housing[23] . Ecuador has very limited experience regarding bottom-up approaches to self-help housing with technical assistance. Despite the historical Andean indigenous tradition of communal work[24] of self-construction for shelter or communal facilities; and the cooperative work of 'Solidaridad' in the project Paseos del Pichincha in Quito[25] ; organized self-help housing has not been included in the Ecuadorian housing policy probably due to the lack of in-depth knowledge regarding the process of how to plan and implement this type of projects efficiently.

Organised self-help housing, dweller-control and community development

Turner argues the importance of 'housing as a process' over the approach of housing as a product based and valued only for achieving high construction standards. For Turner, housing as a process is important for "what housing does in the lives of its users – of the roles which the process plays in their life history" (Turner & Fichter, 1972: p. 159). The experience of NGOs like SADEL and FUPROVI has shown that organized self-help housing is a suitable approach for building both housing and community (Rodríguez & Åstrand, 1996), because it enhances the capabilities of the poor – confirming Turner's theory. Sen's concept of functionings reflects "the various things a person may value doing or being". Thus, a person's capability refers to "the alternative combinations of functionings that are feasible for [him/] her to achieve". People are considered as active agents of change whose capabilities and potentials are key for their own development (Samuels, 2005). Based on Sen (1999), this paper will focus on the capabilites that households of Hogar de Nazareth developed during the OSHH process; and Turner's concept of dweller-control will be considered as a 'functioning' for accessing adequate housing.

For Harris (2003), dweller-control over the self-help housing process is the most innovative contribution of Turner but sites-and-services programmes implemented in the 1970s lacked it.

[21] See Fundación para el Desarrollo Local (PRODEL) http://www.prodel.org.ni

[22] See Centro de Estudios y Promoción del Desarrollo (DESCO) http://www.desco.org.pe

[23] 'Assisted self-help housing' is a process in which technical assistance is provided to individual families or communities for improving the family house or developing new infrastructure in a community. Technical assistance includes not only detailed plans for incremental construction, but also micro-credit.

[24] In the Andean region of Ecuador, communal work or mutual help is called "minga".

[25] For information about organized self-help housing projects implemented in Quito such as "Solidaridad" and "Paseos del Pichincha" see (Andino, 2008).

> "When dwellers control the major decisions and are free to make their own contributions in the design, construction, or management of their housing, *both this process and the environment produced stimulate individual and social well-being*. When people have neither control over nor responsibility for key decisions in the housing process, on the other hand, dwelling environments may instead become a barrier to personal fulfilment and a burden on the economy" (Fichter, Turner & Grenell quoted in Turner & Fichter, 1972: p. 241)

Dweller-control was an important concept for the Rohia project implemented by the Swedish Association for Development of Low Cost Housing (SADEL) in Tunisia from 1980 to 1984. The beneficiary families influenced the housing design, project location, and the cost of the house by choosing the number of rooms. Dweller-control has allowed for better housing maintenance and post-project community management of the housing and surroundings (Arroyo & Åstrand, 2013b). Burns have showed the benefits of dweller-control in an evaluation of FUNDASAL's organized self-help housing projects. Burns (1983) shows that families have had 'substantial control' during the OSHH process because they were truly involved in decision making from the very beginning – from self-construction to resettlement and management over time. The OSHH process has had a positive effect on overall satisfaction with the self-built project. The solidarity within the communities in FUNDASAL's OSHH projects is a consequence of the involvement of the participants in the complete OSHH process and the level of control they have had over the process. Burns work shows the positive effects of dweller-control over OSHH processes on community development.

'Spatial agency' is a concept proposed by Awan, et al. (2011) to explain actions that individuals are able to perform to make changes in their built environment; following Giddens, "agency means being able to intervene in the world…[ ]…with the effect of influencing a specific process or state of affairs…[ ]…agency presumes the capability of acting otherwise". In the context of organized self-help housing, we consider 'spatial agency' as transformative actions agreed and developed by the households and the facilitating organization[26] when planning and implementing OSHH projects. Spatial agency is achieved when the households and the NGO are able to produce 'mutual knowledge' due to abandoning hierarchies in professional relationships; and incorporating contributions from the poor to be able to find other ways of making the spatial.

Collective attributes that can be developed during an OSHH process are collective agency and collective efficacy. Bandura (1998) argues, "social cognitive theory extends the analysis of mechanisms of human agency to collective agency. [And explains that collective efficacy which means] people's shared beliefs in their collective power to produce desired outcomes, is a crucial ingredient of collective agency… [which] is not simply

[26] Facilitating organizations for OSHH projects include NGOs, CBOs, mutual-help co-operatives, architectural collectives and the Academia.

the sum of the efficacy beliefs of individual members [but] an emergent group level attribute". Through mastering the OSHH process, it is expected that families of Hogar de Nazareth would have increased in their collective power to change their living conditions and overcoming poverty.

From Turner's definition of dweller-control quoted above, we argue that dweller-control, capabilities and spatial agency are linked among each other and relate more to individual wellbeing; whereas collective agency and collective efficacy are achieved through mastering the OSHH process, and contribute to community wellbeing. An explanatory case study was designed to address the following research questions: a) how was the OSHH process of Hogar the Nazareth implemented?; b) how was dweller-control over the OSHH process; d) how did dweller-control contributed or not to enhance capabilities, spatial agency and other collective attributes; e) how did technical changes affect community development?

Methodology

Case study selection, design and implementation

The case study Hogar de Nazareth[27] was selected purposefully as an information-rich, revelatory, unique [and] extreme [case] following Johansson (2003). This case study is unique and extreme because the OSHH process worked for dwellers of the first phases (1 to 6); but technical changes for phases 7 and 8 affected negatively the OSHH process. Therefore, the relevance of the case is to extract lessons that will contribute to the practice of other NGOs or CBOs in Ecuador and other developing areas. Based on Yin (2003), this case study is explanatory due to the type of how questions mentioned above which are more explanatory. "Purposive explanations...[ ]...depend on individual goals or motives or serve some function" (Kaplan quoted in Miles & Huberman, 1994). In this paper, the motives that underlie the 'purposive explanation' of the case Hogar de Nazareth is to understand how dweller-control over the OSHH process contributed to enhance capabilities, spatial agency and other collective attributes; and how technical changes affected community development. Hence, following Miles & Huberman (1994), we will try to link the explanations given by the people in Hogar de Nazareth with explanations we develop as researchers. The present case study includes both a quantitative and a qualitative approach. The empirical data set for this case study has been summarized in Table 1. From the 3 exploratory semi-structured interviews implemented in 2008, the key issues to be included in the questionnaire have been derived. The quantitative approach consisted of a questionnaire with 14 questions related to the OSHH process, which was applied to 100 households[28] ; and this paper analyzes two of those questions. The qualitative approach included systematic physical observations at neighbourhood and housing level, document analysis, 30 semi-structured interviews; and a focus group with community members.

[27] In this paper we refer to Hogar de Nazareth as 'the case study', 'this case study' or 'the community'.

[28] In order to achieve a sample of 100 households, it was necessary to conduct 112 questionnaires. If questionnaires were incomplete, the researchers contacted the family to ask missing questions; and if the family was not possible to reach, a new questionnaire was conducted to another family.

Table 1 Empirical data sets used in Case Study (2008-2011)

Inquiry	Approach	Empirical data sets	Techniques	Year
Case study	Qualitative	2 interviews with community key informants 1 interview with HDC staff	Semi-structured interviews Semi-structured interviews	2008 2008
	Quantitative	100 questionnaires to households	Multiple choice and a few open questions	Oct-2009 to march-2010
	Qualitative	Document analysis	Publications, newspapers, project agreements with families	2009-2010
		2 interviews with project management 2 interview with external key informants	Semi-structured interviews Semi-structured interviews	2009 2009
		3 interviews with community key informants	Semi-structured interviews	2009
		Focus group with 7 households	Predetermined list of issues/questions and open discussion	2009
		1 interview with staff from international NGO-funding provider	Semi-structured interview	2010
		9 interviews with community key informants	Semi-structured interviews for confirming technical data	2010
		8 interviews with community key informants per phase	Semi-structured interviews to sub-sample for confirming the OSHH process	2011
		2 interviews with community key informants	Semi-structured interviews for confirming the OSHH process	2011

Analysis of quantitative and qualitative data

The quantitative data of the questionnaires were analyzed with descriptive statistics using the software SPSS. The variables analyzed were origin of families and reference about the project. Incomplete or inconsistent questionnaires were completed or repeated to achieve reliability of data. The quantitative data have been complemented with the analysis of qualitative information obtained through the semi-structured interviews and the focus group. For the qualitative analysis, the categories selected for this paper were project aims, selection of beneficiary families, dweller-control, the OSHH process of phase 1, housing typologies and construction systems, changes in the OSHH process of phases 7-8. The qualitative information has been analyzed with a grounded-theory approach. First level coding was implemented with the following procedures a) identifying meaning units; b) fitting meaning units into categories; and, c) assigning codes to the categories (Grinnell, 2011). Categories emerged from the data since the 3 exploratory semi-structured interviews were implemented, and

evolved through the analysis of different interviews and the focus group. Second level coding was implemented for identifying relationships among categories in order to draw the OSHH process for phase 1 (See Figure 2). Then, 'causal mechanisms' that affected the OSHH process for phases 7 and 8 have been identified and analyzed. The use of different research techniques allows for triangulation of data in order to validate findings and increase reliability.

Results and discussion

Project background

Hogar de Nazareth is a settlement located in the Northwest periphery of Guayaquil, Ecuador[29] . The settlement consists of 231 houses self-built by the community (González, 2001). The project was implemented in 8 consecutive phases from October 1990 to November 1998 with technical assistance of Coorporación Hogar de Cristo (HDC). This organized self-help housing project was co-funded by SECIPI[30] from the Spanish government and the international NGOs INTERMON[31] and Acción para el Tercer Mundo (DOMUS, 1992). The third phase was founded by SELAVIP[32] (Costa, 1998-1999). Hogar de Nazareth was the first and only experience of Hogar de Cristo[33] on OSHH. The aims of the project were a) to provide shelter to the homeless, b) to consolidate the families; and c) the integral promotion of the families both regarding human and spiritual realms (Costa, 1998-1999). Quoting the project leader, in an interview made in October 2009[34] : "We wanted the integral development of the place; so, when we implemented Hogar de Nazareth we did not only want to build housing, but to build a paradigm community that could be an example for other communities in Latin America and worldwide. It is possible to do low income housing for the poor with planning and organization, and that was the mission and vision of Hogar de Nazareth; the neighbourhood as built environment worked; however, the community did not worked". However, this statement does not necessarily consider that the reasons for limitations in community development are related to the degree of dweller-control over the OSHH, which affected the enhancement of capabilities, as it will be argued in this paper.

[29] The project is located in the kilometer 26 of the 'Perimetral' highway and it was considered part of the outskirts of the city when the project started in 1990

[30] Secretaría de Estado para la Cooperación Internacional y para Iberoamérica (SECIPI)

[31] See Intermon http://www.intermonoxfam.org

[32] SELAVIP: Servicio Lationamericano, Africano y Asiático de Vivienda Popular (See http://www.selavip.org).

[33] This NGO started producing pre-fabricated temporary bamboo shelter for the poor in Guayaquil in 1971; and currently continues providing this emergency shelter for the poor with other social services and micro-credit.

[34] Interview to Roberto Costa implemented by Paola Siclari and Ivette Arroyo in Corporación Hogar de Cristo, October 2009.

Origin and selection of beneficiary families: phases 1 to 8

Most of the families of Hogar de Nazareth phase 1 met for the first time during the project meetings leaded by Francisco García J.P.[35] before the project started in October 1990. From the total sample of 100 families in the quantitative survey, 93% families came from the Coastal Region – provinces of Guayas, Manabí, Los Rios, Santa Elena, Esmeraldas – and 7% came from the highlands – provinces of Bolívar, Tungurahua, Pichincha, Loja and Sto. Domingo. From this sample, 58% family heads were born in Guayaquil. This multi-ethnical background explains the complexity of Hogar de Nazareth as a human settlement regarding social, cultural and educational background that reflects the socio-economic dynamic of the city of Guayaquil.

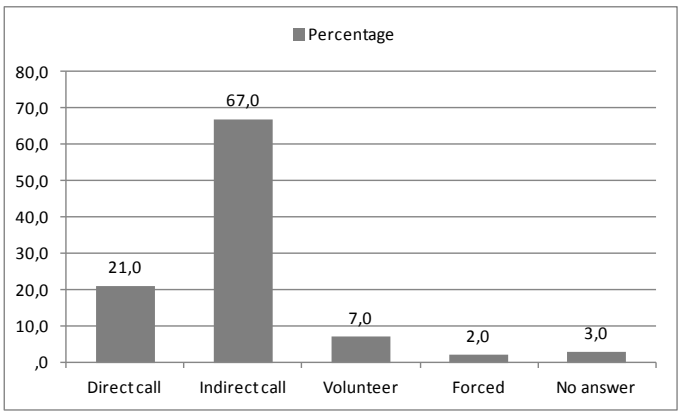

Figure 1.Reference about Hogar de Nazareth project where "direct call" means beneficiary families informed by the housing department of Hogar de Cristo or the project management; and "indirect call" means beneficiary families informed about the project through different social networks by people related to Hogar de Cristo, the Parish of San José or first beneficiary families.

This OSHH project originated because poor people who did not possess a plot applied without success for a bamboo house at Hogar de Cristo. The NGO wanted to help poor people with a project in which they could access both land and housing; and therefore they announced the idea of the project to find candidate families – which is named 'direct call' in the paper (See Figure 1). When the opportunity of participating in an organized self-help housing project was offered in 1989, people related to the Parish of San José and the beneficiary families of earlier project phases spread the news within their social networks composed by poor relatives, friends and acquaintances which is considered as 'indirect call' in this paper (See Figure 1). Results from the quantitative survey show that 67% of the respondents participated in the project due to 'indirect call' as shown in Figure 1. Only

[35] Francisco García Jiménez was a Jesuit Priest who lived in the Parish of San José, located downtown in Guayaquil.

21% of the respondents received a 'direct call' from Hogar de Cristo housing department and project management. Qualitative data confirm the efficiency of the indirect call in comparison with the direct call. "I found about the project thanks to a friend of my sister…" (Community member phase 1). "...we came here because my father in law knew about the project..." (Community member phase 1).

As part of the selection process, the social workers visited the places where families rented a room or lived with relatives. From the semi-structured interviews, a community member explains how the visits were implemented. "The social workers asked if we were poor, the family situation, and if you had colour TV you were out of the project. The families had to be poor in order become project beneficiaries" (Community member phase 1). For the selection of families for phases 1-2, the community committee visited first the candidate families to evaluate their living conditions; and then the social worker did a second visit to validate the information. It seems that selection criteria of beneficiary families started very strict; and were modified for later project phases. "I had bed and a TV and I did not have any objection to be selected for the project ...it was important to have children. I had two daughters..." (Community member phase 4). The parameters for selecting beneficiary families were living conditions, family income, number of children and lack of own housing for phases 1 to 6. Families from phase 7 highlight that priority was given to families without housing and with at least 2 children. "You have to be a family with children if you want to live in Hogar de Nazareth" (Community member of phase 7). According other key informants from the community, the emphasis in the selection process for phase 7 was placed also on the ability of people for paying for the housing. Conversely, some families of phase 8 did not receive the visit from the social workers. "The requirements were to lack own housing and plot, we lived with my mother in law and other relatives. Another requirement was to have children. We did not receive any visit from the social workers; we showed documents such as birth certificates".

Dweller-control over the Organized Self-help Housing process of phase 1

A conceptual model illustrating the double output of the organized self-help housing process of phase 1 in Hogar de Nazareth is shown in Figure 2. The outputs are building housing/the settlement – the spatial – whilst building community – the social. The OSHH process of this phase is composed by 3 stages: a) preparation, b) implementation and c) post OSHH process. Each stage includes specific activities, which have contributed to the making of 'the spatial' and for shaping 'the social'. These activities were performed by the NGO and the families with different degree of dweller-control over the OSHH process. Men, women and children over 13 years participated mainly during the second and third stages of the OSHH process.

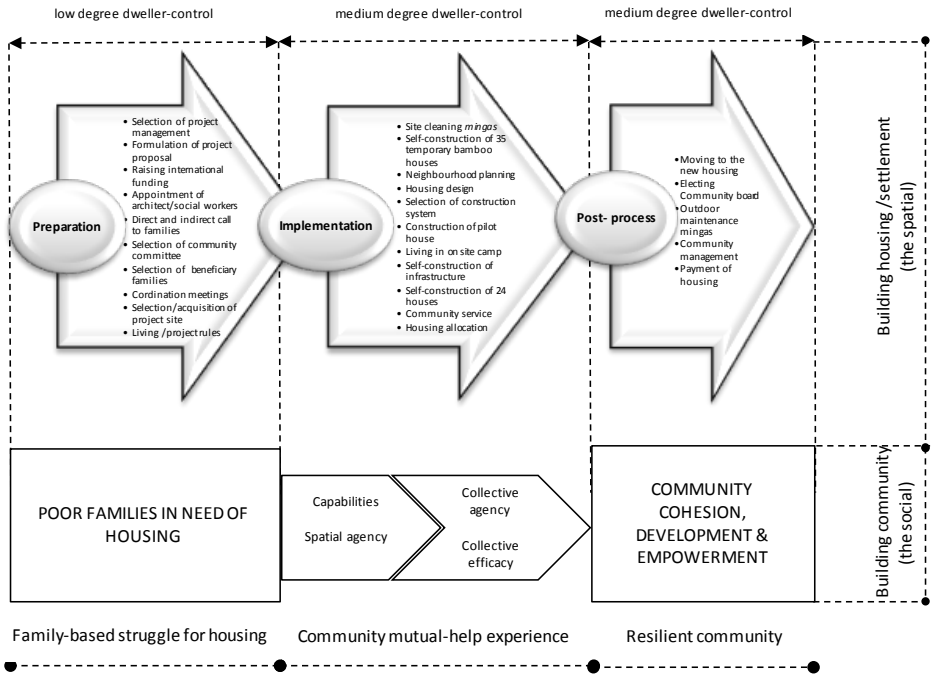

Figure 2.The OSHH process from phase 1 classified in 3 different stages: preparation, implementation and post OSHH process and degree of dweller-control per stage where the double output of the process is building housing/the settlement -'the spatial'- whilst building community - 'the social. Source: Elaborated by the author based on semi-structured interviews to households and the focus group

Stage 1: Preparation of OSHH process

Hogar de Nazareth was initiated and formulated by the NGO Hogar de Cristo as an alternative for poor families in need of housing but did not own a plot. During the first stage – preparation of the OSHH process – most activities and decisions were made by the NGO because the community needed to be formed through selecting the beneficiary families for phases 1 to 8. However, a community committee was appointed from the people who attended preliminary coordination meetings for working with the NGO during the first stage. The committee was composed by 11 women and 8 men; and they participated actively in searching a suitable site for acquisition and in visiting candidate families. The struggle for housing during the first stage was mainly family-based because the families needed to collaborate with each other to become a community. Dweller control during the preparation of the OSHH process has been assessed low because the committee was mainly informed by the decisions made by the NGO such as selection of project management, formulation of project proposal, fund raising, appointment of architect and social workers, and the

formulation of the community living rules. Most activities of the first stage are related to planning, management and decision-making; and the low involvement of the families in this stage hindered their opportunity in developing such capabilities. One goal of the project was "to improve the living conditions [of the families] through participation in the construction of the houses with the aim that, due to the group work, a process of constant mutual knowledge of each other and social relationships, would consolidate the group and the formation of a new communal organization with clear and precise functions and responsibilities" (DOMUS, 1992). Hence, although community strengthen and empowerment was stated as project goals, the NGO did not emphasize that enhancing individual capabilities on planning, management and decision making were relevant to achieve these goals. The NGO initiated the project but the community was not given equal power over the process because they were considered 'beneficiaries' instead of 'partners' – a paternalistic approach to development cooperation.

Stage 2: Implementation of OSHH process

For the second stage – implementation of OSHH process – the families started doing 'site cleaning mingas'[36] and they have had a first common achievement which was finding a site for the project. Hence, the struggle for housing shifted from family-based to community-based at this stage. During the second stage, the 'community mutual-help experience' included activities such as 'site cleaning mingas', self-construction of 35 temporary bamboo housing, living in the on-site temporary camp for protecting the site from informal settlers, self-construction of infrastructure for water and sanitation, self-construction of 24 permanent houses, and community service (See Figures 3, 4). "A group of women prepared the food because for the 'cleaning mingas' or 'self-construction work' we did groups. There was a group in charge of planting trees, the group responsible for the food, the group that made excavations" (Community member phase 1). The participation in all these activities contributed in developing capabilities mostly related to the making of 'the spatial', which were relevant for the community to develop 'spatial agency' and 'collective agency'. Spatial agency has been achieved because due to the capabilities of the families, the architect and the social workers; it was possible to 'make a difference' from people's previous homeless condition to achieving their own housing. The degree of dweller-control over the OSHH process is related to the capabilities of the community but also to their collective agency, and their belief of collective efficacy. Collective agency was achieved due to overcoming successfully a physical demanding but positive community mutual help experience for two years.

During the first year, the families of phase 1 – men, women and children over 13 years – participated in all the activities of the second stage (See Figure 2) on Saturdays and Sundays from 8.00 to 17.00 with one hour break for lunch. After the families moved to the site in 1990, they continued

[36] Minga (Spanish) is the translation of the word mink'a from quichua language, which means collaborative work for a common benefit.

working during the weekends; but the women also worked on weekdays from 14.00 to 17.00. Conversely, the community mutual-help experience was regarded as positive according to the semi-structured interviews, although they have had more intense and longer participation in the OSHH process.

> "It was nice because people came Saturday and Sunday… I was part of the group for preparing the food and I had to pick up what every family has brought for that day... a little meat, a little rice, some lemons… Manuelito did not bring food but he gave 500 sucres and others gave 200 sucres. Children came on Saturdays and Sundays for playing not for working. First, we serve food to the children… it was a big table near the tree (See Figure 3)… there was a fire for cooking… After the children, the adults had lunch… it was nice like a family in the countryside eating from the same pot" (Community member phase 1).

Figure 3.Temporary bamboo houses for families of phase 1.
Photo: Arturo Robles, project architect

Figure 4. A view of the site before self-construction.
Photo: Arturo Robles, project architect

> "The selected families lived in a camp made of bamboo houses so that they could have an experience of living in community... we gave talks to the husbands for teaching them values... we planned the activities and made groups for accomplishing the activities of the weekend. We taught the women how to build walls..." (Project architect for phases 2 to 8).

Self-construction of infrastructure – water and sanitation – and housing were also organized in groups; and another group was responsible for a day-care for the smaller children. For participating in self-construction activities, the first families received a course in masonry building, but most people learnt building by doing it.

> "The groups were formed according to the activities. There was a group of women, who worked very hard; they even self-build walls. There were groups for cutting iron bars, for painting the metallic structures, for preparing concrete. If it was necessary, the NGO brought carpenters or plumbers to teach the teams. The engineer gave a course on masonry construction, how to build walls, how to prepare cement mortar" (Community member phase 1).

> "… I remember I had training for working with cane and doing the concrete floor…. We also made the metallic trusses for the houses…" (Community member phase 1).

> "… There was a group that prepared the concrete… there were women who do masonry work assembling the blocks with cement…" (Community member phase 1).

For the families of phase 1, the OSHH process was longer – more than 2 years – because they cleaned and prepared the whole site for construction, self-build the temporary camp, self-build most of the infrastructure for water and sanitation; and self-build their permanent housing. Therefore, these families were able to decide the location of their phase in the settlement plan; and they chose to settle next to the highway Via Perimetral considering that this location would be strategic regarding commercial activities. During the OSHH process, the social workers kept a strict control of the participation of phase 1 families in the OSHH process with the help of a community member who was responsible for registering assistance daily. As recognition of high participation in the OSHH process and collaboration with the community and project objectives, a few families were given the opportunity for selecting the location of their houses in phase 1. The common way of deciding the distribution of houses was to raffle them among the families.

The implementation of the OSHH process showed medium degree of dweller-control due to several reasons. First, the housing design was not participatory and the beneficiary families were not able to provide insights about their needs; and final decision making of the first housing typology was made by the engineer of phase 1. Second, the families were considered

mostly labour for self-construction of infrastructure and housing instead of partners with equal decision power over the OSHH process. Hence, medium degree of dweller-control limited the households in enhancing other capabilities through participating in activities such as neighbourhood planning, housing design, management and decision-making; which were implemented by the NGO in the second stage. Dweller-control has been considered medium also because families were not in an equal power position than the NGO. Power differences on decision-making are confirmed mainly due to a) the community living rules[37] that were formulated and decided by the NGO; b) a hierarchical relationship between NGO staff and the families that sanctioned lack of participation or mistakes[38] ; c) the community did not participate in the decision of changing the construction system for phases 7 and 8. Conversely, due to a positive – although physically demanding – community mutual-help experience, the community was also able to achieve collective efficacy; which is the belief in their capacity as a community to achieve things together – specifically their own housing and settlement. Hence, dweller-control over the OSHH process was the trigger to achieve spatial agency, collective agency and collective efficacy, which lead to community cohesion and community development among the families of phase 1 over time.

Stage 3: post OSHH process

During the third stage – post OSHH process – all activities were implemented by the community with support of the NGO. As shown in Figure 2, families of phase 1 built 35 temporary bamboo houses – from 1989 to 1990; and then they built 24 permanent one-storey housing – from 1991 to 1992. Hence, the 24 families of phase 1 had lived as a community on site for 2 years when they moved to their permanent housing; and the community cohesion and development they achieved constituted the basis for their participation during stage 3. The election of the community board was hosted by the NGO to guarantee "a serious process". The families followed the rules of keeping clean empty plots and doing 'cleaning mingas' for the parts of the site that was still being developed. "There was not rubbish, if a plot in front of my house was empty; my duty was to keep that plot clean" (Community member of phase 1). "We were motivated to accomplish with the living rules to achieve that everybody lives healthy, in a settlement without alcohol or drugs, even without cigarettes. I am still following the rules and I do not sell alcohol in my store" (Community

[37] Community living rules: from a document signed by the Mejía family in 1994, the living rules can be summarized in living in harmony promoting solidarity among families, avoiding parents struggles and humiliating punishments to children, respecting neighbours, drinking alcohol without making scandals, avoiding excessive noise, taking care of the community, cleaning the sidewalks, adequate waste disposal, good care of animals and participating with the family own effort and mutual-help work. It seems that households did not take part in decision making about the living rules. Families were expected to live according to these rules or they would be 'sanctioned' first verbally, then by letter; and finally, they should be separated from the project.

[38] From the interviews, some households considered that sometimes they were not well treated when verbally corrected – or sanctioned – by some NGO staff. For other households it was necessary a strict working environment due to the lack of commitment of some families. Hence the need to state clear aims regarding what capabilities should be reinforced as part of organized self-help housing projects.

member of phase 1). The community committee was able to manage the community, supporting the NGO in taking care that the families accomplished the community living rules. The community had coordination meetings twice a month, organized raffles and celebrations; and relationships among neighbours were based on communication and mutual respect. The houses cost around 12'000.000 sucres[39] – equivalent to $2,680 US dollars in 1993. Most of the families of phase 1 have paid their houses but today there are still a couple of families who have not finished paying the houses to the NGO.

Changes in the OSHH process and effects on community development

Original proposed housing typology

The original housing typology proposed for Hogar de Nazareth by Francisco García, J. P. was based on the paradigm of housing as a process. This proposal followed the vernacular architecture tradition in the coastal region used by low-income families in the countryside. According to DOMUS (1992), the incremental growth approach for the original typology consisted of a first wooden and bamboo house elevated 2,40 from the plot level with an area of 25,6m2 (4 m x 6,40 m), similar to the image shown in Figure 5. From the interviews, it was possible to find that Garcia's intention was to build a permanent structure. "The NGO considered to build with metal structure for two storeys, the upper walls with cement [masonry block walls], and the walls of the ground floor with bamboo…so families could change the bamboo walls with cement walls when they have money" (Community member phase 1).

[39] Sucres was the official currency in Ecuador until year 2000 in which the country adopted the American dollar as official currency.

Figure 5.Hogar de Cristo Bamboo house where the structure is made in wood and the walls are pre-fabricated bamboo panels. The design is based on the vernacular house of the Coastal Region in which the second storey is elevated 2,40 m from the ground floor to allow for shaded outdoor activities. Photo: Ivette Arroyo, 2011

According to DOMUS (1992), in a second step, families were expected to close the ground floor self-building masonry block walls obtaining two-storey housing – keeping the wooden structure with bamboo walls in the upper floor. In the third step, the families would replace the wooden and bamboo housing for a permanent masonry house. It seems that there was disagreement among the NGO staff regarding this original typology; and the project engineer proposed another option based on the criteria that the complete wooden and bamboo house would be discarded in the incremental growth process. When comparing the budget of the first two steps of the proposed original typology with the budget of a one storey and permanent masonry block walls housing (See Figure 6), the project management decided to build the latter. This would not have been the case if the NGO had compared the two storey metal structure, bamboo walls for the ground floor and masonry block walls for the upper storey with the one-storey masonry block walls. Such a construction system would have allowed for higher dweller-control because the two storey metal structure would have given more freedom to the families to replace bamboo walls with masonry block walls when they could afford it.

The first housing typology: phases 1 to 6

The project management selected the masonry one storey housing instead of the original housing typology suggested locally by García[40] – metal structure and bamboo walls.

[40] The project engineer for phase 1 worked at Hogar de Cristo Chile and it seems that he was not familiar with the vernacular house of the coastal region in Ecuador (See Figure 5). This might be the reason why he did not realized that Francisco García J.P. suggested a more suitable housing typology and construction system.

Figure 6.First housing typology for phases 1 to 6 where the construction system consisted of clay block walls and metal framework.
Photo: Ivette Arroyo, 2009

Good qualities of the design of the first typology were the provision of a plot per family (115 to 120 m2), natural crossed ventilation and the selection of clay blocks that had good thermal performance. "The engineer designed a complete one storey housing to give another option to the NGO...he wanted a finished unit for the families...they would extend the metal structure themselves for a second floor...he designed the roof for improving air in the house" (Community member phase 1).

Figure 7. Prototype of the first housing typology showing that this typology could be extended vertically through self-construction of a second wooden floor. Photo: Ivette Arroyo, 2009

Dweller-control over the implementation of the OSHH process for the first typology consisted mainly on the participation of the families for self-construction activities described in the previous section – as labour for decreasing investment costs. The families lacked control over the decision for changing the original typology with the first typology or for suggesting an alternative housing design. It was expected that this typology would incrementally be built by the families using the skills learnt in the OSHH process. During a second step, the families would expand the initial core housing with extensions on the ground floor. In a third step, the families would self-build a wooden second storey to increase the housing area as it is shown in Figure 7. However, the strategy for incremental growth has not been achieved as expected in the last 15 years since the project finished. When families decided to extend their houses, they have preferred to build a reinforced concrete structure and masonry block walls or make extensions in the ground floor instead of a second wooden storey as proposed in the prototype house.

Hogar de Cristo tried to transfer control over the OSHH process to families from phases 1 and 2 after the process of their own phases finished. These families were responsible for organizing the collaborative work of the second stage for phase 3 by their own. Dweller-control was not transferred for key activities such as the selection of new beneficiary families – as the community committee did for their own phase – neither for decision-making. The community was not ready for high degree of dweller-control over the OSHH process so that the frequency and efficiency of 'site cleaning mingas', self-construction of infrastructure, self-construction of housing, and community service decreased. Families of phase 1 had low degree of dweller-control over the first stage and medium degree of dweller-control over the second stage of the OSHH process of their own phase. Limited dweller-control affected negatively development of capabilities and empowerment over the process. Families of phase 1 did not develop capabilities on planning, management and decision making which are skills that would have helped them to be able to plan, manage and make decisions for the implementation of the OSHH process for phase 3 more efficiently. Hence, the inability of families of phases 1-2 to lead phase 3 by themselves was a consequence of the lack of development of adequate capabilities and empowerment during the different stages of the OSHH process of their own phases. Finally, for avoiding the failure of the project, the NGO had to continue leading the process of phases 3 to 8.

The second housing typology: phases 7 and 8

Due to delays in project implementation of previous phases, the project management decided to change the housing construction system for phases 7 and 8. The second housing typology was smaller than the first typology with an area of 30,25 m2 – which measurements of 5,50m by 5,50 m – but the plot remains the same size – 8 m by 15 m. The construction system of this typology was composed of pre-cast concrete panels with light metal profiles (See Figure 8).

Figure 8. Second housing typology where the construction system is precast concrete panels and light metal profiles which is not suitable for incremental growth and self-construction of a second storey. Photo: Ivette Arroyo, 2009

The permanent 36 m2 masonry block walls housing – which measures were 6m by 6 m – was designed without internal divisions, only with the walls for the toilet and for self-construction by the people themselves through own-effort and mutual help with technical assistance of the NGO. This typology was built in phases 1 to 6 of Hogar de Nazareth and an example of it is shown in Figure 6.
Families were only responsible for partially self-building activities like excavation, building foundations and casting a concrete floor on which skilled workers assembled the pre-fabricated house. The families of phase 7 worked 8 months during Saturdays and Sundays from 7.00 to 19.00; and minimum three days during weekdays from 13.00 to 18.00. Families did not receive any technical training for self-construction activities, only some talks about living in community.

> "I was a seamstress and I had my own job; my husband asked for permission at his job but he got it only for the weekends...there was many people that lost their job, because it was the house or the job they [the NGO] said. And because we wanted a house, a lot of people preferred the house and lost their jobs. Other people had to leave the project so that they did not lose their jobs because it was also necessary. There were people who had a good job in industries from long time ago, and they decided to leave the project. There were some families that left, but others replaced them" (Community member phase 7).

The pre-fabricated unit also lacked acceptable qualities regarding thermal comfort; and families reported that these units were too hot for the hot and humid climate of Guayaquil. The typology follows the paradigm of housing as a product which for mass production and building; but lacks structural qualities for incremental growth over time. This prefabricated

construction system was selected mainly for increasing construction speed but without considering negative social effects. It has shown not to be suitable for incremental growth and self-construction of a second storey; and families that wanted to improve their house had to disregard completely the prefabricated unit and build a concrete structure with masonry block walls (See Figure 9). The house was built in a couple of days, and this allowed for incorporating a higher number of families in shorter time – phase 7 consisted of 89 families, and phase 8 of 18 families. There were 136 families living in phases 1 to 6 when, as a consequence of changing the construction system, 89 new families were incorporated to the settlement in less than 6 months. The effects on the changing the construction system due to lack of dweller-control of families of the previous phases on this specific issue will be discussed in the next section.

> "The families of phases 1-6 did not like us too much, they said we were spoiled because the NGO did not make as work hard; and there were problems between them and us. It was a mistake to change the type of housing because we were not benefited from that change. The families from previous phases still have their houses, but our houses were not able to last longer, the floor lasted only 2 years. Our house is smaller 5,50 m by 5,50 m; the other houses are 6 m by 6 m (Community member phase 7)."

Only 11 houses – equivalent to 4,5% of all houses in the settlement – have been replaced with a reinforced concrete structure for two or three storeys and masonry block walls after 15 years (See Figures 9 and 10). Hence, the incremental growth strategy for neither of the two housing typologies was suitable enough for self-construction by the families over time. First, the construction systems did not support the incremental growth of the houses; and second, there was a lack of different low-cost strategies to support the incremental growth such as land tenure, micro-credit or further technical assistance. Although the neighbourhood plans of Hogar de Nazareth have been approved by the Municipality of Guayaquil; most families have not obtained legal title of the houses because a) some of them have not finished paying for the houses – this problem is more acute in phases 7 and 8; and b) families need to pay around $700 for obtaining the plot deed. Lack of land ownership hinders the possibility of the families to apply for governmental housing subsidies to be able to improve their houses.

Figure 9. New housing replacing second housing typology in phase 7 with reinforced concrete structure and masonry block walls. Photo: Ivette Arroyo, 2009

Figure 10. New housing replacing first housing typology in phase 3 with reinforced concrete structure and masonry block walls. Photo: Ivette Arroyo, 2009

Effects of technical changes on the OSHH process

The decision of changing the housing construction system from the first typology to the pre-fabricated house was done by the project management due to the need of increasing the speed of the implementation process. Both the NGO and the dwellers of phases 1-6 feared that informal settlers invaded the empty plots; and the NGO had pressure from the international organizations that provided the funding because the project was behind schedule. As further explained by the project leader:

> "We changed the housing typology to increase the project speed because it was a lot of sweat and tears... we wanted to do it fast, all prefabricated. Then, the families did not live in the on-site camp and lacked the community experience. When the families of the first phases got the houses, they said they were the founders so they would manage [the community]. But it was during the selection of families [for the last phases] that people who [were not poor and] had work infiltrated the project… one of them had a truck for transportation" (Project leader).

> "We were 10 or 12 women who worked in self-building activities [for preparing, filling and building the floor], there were other 6 or 8 women who had a job and they could not participate in self-construction activities. They sent relatives to work or paid others to come and work for them" (Community member phase 8).

The prefabricated construction system changed the OSHH process that worked from phases 1 to 6 – both for making the spatial and for shaping the social. Differences in self-construction work for different phases also caused problems among project phases. "The NGO explained us that we were going to self-build the houses.... but we did not have community experience of living together because there were only 35 temporary bamboo houses and we were more than 100 families. The previous phases were able to live another type of community experience, with us there was no sharing experience with other phases" (Community member phase 7). Dwellers of the phases 1-6 lacked dweller-control over this decision and it seems that the NGO took the decision without considering the effects on building the community. Technical changes regarding the construction system of the second typology and lack of communication between the NGO and the community of phases 1-6 were the causal mechanisms that affected other sub processes such as a) the type and speed of self-construction activities, b) the selection of beneficiary families, c) the community mutual-help experience, and d) the enhancement of capabilities during the second stage of phases 7-8. It seems that families from phases 7-8 had better incomes than families from previous phases because the organized self-help housing during weekdays interfered with some of their jobs as will be discussed in the next section.

Effects of technical changes on community development

The families for phases 1 to 6, which account for the 56% of total beneficiary families, were included progressively in groups no bigger than 31 families per phase during 7 years of project implementation. When Hogar de Nazareth was composed by 136 families, the project management team incorporated 89 new families for phase 7 in 8 months. Hence, due to the technical changes of the houses, the number of families for phases 7-8 was increased drastically without considering the effects on building the community.

> "Well, for me regarding the material help to the families… for the 4 first phases [the project] was a success. The project started having problems when families that were not very good selected entered it. They made problems regarding waste disposal and everything, they were not used to have someone telling them what to do… for example what time they should take out the rubbish… still today they take out the rubbish when they want (Community member 4).

> "There were people in phase 7 that knew about politics and they fought openly with the previous phases to become in charge of the community committee. They said they knew more than the others did. There was a woman who had always been the president and she had support from all previous phases; but in our phase, there were teachers with university degree, and they did not accept that she continued as president. In my phase, around 12 men were abusive. One of them managed to be elected president in the elections, they did not listen to others, only their opinion was right" (Community member phase 7).

After 15 years, the community of Hogar de Nazareth is still divided between phases1-6 and phases 7-8. A couple of years ago, potable water was connected to the water system of the settlement and now each family has an own water meter; they also have public electrical power; they got a new chapel four years ago; and they will have sewage soon. However, due to the division among project phases, there is a group of families who want to organize themselves to continue working as a group for the community; and another group who lives inside the walls of their houses.

> "...[today] differences among the families who self-built 100% [of infrastructure and housing] and the ones who self-built 50% [pre-fabricated housing] still exist. Families [from phases 7 and 8] did not live in the on-site camp because it was disassembled for building the last phases, and because we wanted to be fast, we chose the prefabricated housing and there was not community experience... (Project leader).

In an interview to Jose Van der Rest J.P. from SELAVIP – the organization that provided funding for phase 3; he states that "the housing change morally the whole life of a person. If you have a house, you can

educate your children. What one expects is that the social organization is maintained while the people is still poor; but when the people become rich, each one lives in its own world. The poor live in community". From the experience of Hogar de Nazareth, we conclude that the poor live in community when they are able to achieve capabilities that help them to live in harmony; and become really agents of change in their own development. When NGOs leave the projects, it is only the community that will remain on site and paternalistic and hierarchical approaches to organized self-help housing hinder opportunities to overcome poverty and to become a more resilient community.

Conclusions

Families with low dweller-control over the first stage of an organized self-help housing process miss developing capabilities on planning, management and decision making which are needed for the next two process stages; and which would be important for maintaining and improving their settlements in the long term.

A hierarchical and/or paternalistic approach to any OSHH process where the poor families are not considered partners for the whole process leads to low degree of dweller-control; and this limits the possibilities of the families to enhance their capabilities.

When people are not considered equal partners during the three stages of the OSHH process, they do not master the OSHH process neither exert dweller-control; which hinders them to develop collective agency and collective efficacy.

The case of Hogar de Nazareth has shown that due to low dweller-control during the first stage and medium dweller-control during the second stage of the OSHH process; dwellers of phase 1 had low decision-making power. The latter was crucial when decision was made related changing the housing construction system for phases 7 and 8.

Hierarchical and/or paternalistic relationships between NGO staff and the families, which sanctioned lack of commitment or mistakes instead of encouraging more commitment and participation; do not empower people over the OSHH process. Then, the process becomes a burden to their self-esteem.

According to the conceptual model, the second stage – implementation of the OSHH process is key for enhancing capabilities, spatial agency, collective agency and collective efficacy; but capabilities are not fully enhanced when families fail in participate in planning, management and decision making of the first stage.

The OSHH process requires planning, management and decision making during all three stages of the process; hence, one of the aims of an OSHH project should be to enhance these capabilities in the families through the community mutual-help experience.

Housing typologies and construction systems that limit the community mutual-help experience are likely to have a negative output regarding building community as shown in the case of Hogar de Nazareth.

The project and community living rules for any organized self-help housing project should a) be agreed with the community based on a partnership relationship with equal level of control over the OSHH process, b) promote a rewarding system for the families that accomplish the agreed rules, c) empower the communal directive for decision making in co-responsibility with the facilitating organization during the OSHH process.

Decision-making regarding technical and social changes during the OSHH process need to be agreed with the community. Facilitating organizations should analyse the effects of any technical changes on community development to avoid that savings in investment costs compromise community development in the long term.

Due to low and medium dweller-control during over the OSHH process of phases 1-6, the families developed limited capabilities and empowerment; which affected their participation in decision-making. The latter was crucial when decision was made related changing the housing construction system for phases 7 and 8.

The degree of dweller-control following the paradigm of housing as a process and the capability approach, leads to sustainable human settlements. Further research is needed to develop a framework to assess the degree of dweller-control over organized self-help housing processes.

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