

Incremental housing: A participation process solution for informal housing

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Abstract

As long as there is government and regulations, there will be a system of building a shelter. There are experts who have a different perspective about technical, political, economical, aesthetical, functional, etc. issues. On the other hand, there are also individuals who have another thought of their own living-styles. The question is then more related with building a shelter but how and with what.

In “informal settlements”; settlers build their own houses, connect their utility lines and organise their physical arrangements. There are many problems in these settlements; but there is also a self-build and develop process. Thus we can also relate these spontaneously built settlements with the vernacular. Within this context, firstly the subjects informality and vernacular will be defined interrelatedly and as a solution to informal settlements, the participation process will be opened up to discussion reading through three actors which has a different role in the process. Relating these actors, the opportunities of incremental housing in informal settlements will be evaluated connectively which presents a participation process solution for informal housing.

Keywords

Incremental housing, Informality, Participation, Self-build, Vernacular.



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1. Introduction

"Building a shelter" is a subject which has underlying reasons such as living, surviving, protecting, habiting and so on. In order to understand this subject and its influences, the system of housing and housing policies become an important issue which comprises all.

Since the adoption of the Universal Declaration of Human Rights in 1948, the right to adequate housing has been recognized as an important component of the right to an adequate standard of living (Williams, 2005). However, housing in today's world is still a problematic issue considering the economical obstacles that most of the people are facing with.

One of the problems which urbanizing countries have can be mentioned as the informal settlements where the way of building an "informal" shelter becomes an important issue. The process of people building their own without any authorisation, brings many controversial topics within it. As ICF Consulting Team (2004) mentions, in order to add value to housing to be converted, the conversion program should: Increase housing affordability; add amenities to that housing; provide economic value to residents through a realizable equity stake; and/or enhance residents' lives by increasing their control over their housing and/or their housing communities (Lewis, Clamp and Jacobs, 2013). Relating with the urbanisation and modernisation, in most of the developing countries living conditions have been changed. "With urban populations commonly doubling every decade, conventional tenure concepts have proved unable to meet the needs of people with low incomes and limited, if any, savings or collateral." (Payne, 1997). Within this and its various related reasons, a new word has become a reality: the "urban poor". The characteristics of the urban poor can be categorised as the jobless, disaster victims, transients, migrants, squatters, slum dwellers, workers in the informal sector and the homelesses. These are the people who are torn between the urbanisation and modernisation having pushed to choose an illegal way of living. "Squatters" here are

the ones that live in the squatter settlements most of which are located near-by the city (in transition areas). They are built with low-income possibilities and old construction. Most of them are using the land continuously, because of owning the land and the house that they built for free. On one hand, the non-organized development of these areas have a negative effect on cities that they are appearing to be shaped by the land speculators rather than city master plans. On the other, they leave the government in a difficult situation because of various economical issues. Apart from the cities and government, other negative influence affects also the individual self; because life quality in informal settlements is also another discussion. Thus, it can be said that the informal housing brings us such problems starting from the city scale to the minimised scale: the individual.

While such problems occur, we also see a similarity with the subject vernacular and informality. Vernacular architecture is based generally on the local needs, local materials and local traditions. Looking through the informality within this subject, we can see that a self-build and develop process comes from the users' local needs. However in squatter settlements about the local materials, traditions and construction methods there is a gap which makes us to question how this kind of illegal vernacular can transform into a legal, non-problematic housing. The answer can be searched in the actors which involve in the informal housing process.







1.1. Goals / aims

This research is examining the conflict between the squatter settlers, the government and the experts. The struggle of low-income families, the difficulties that the governments have and the anxiety of the experts about this kind of living idea that make us to ask the following research questions (Table 1).

It is becoming important to understand what kind of social and economical issues are taking part in this urbanised problem. The aim of this paper is to examine the problem starting from the city level with government housing policies, continuing with the private sector where architects and other

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Table 1. The main research questions concerning social and economical issues.

MAIN QUESTIONS		
   	(1) What are the main problems of squatter settlers?	SOCIAL ISSUES
	(2) What influences do squatter settlements make to the city - government - self ?	
	(3) In what conditions do the settlers want to live?	
	(4) Where do the settlers want to live? Do they want to leave the place they live?	
 	(5) What main struggles have the settlers and government about affordability and land tenure ?	ECONOMICAL ISSUES
	(6) What can the government do about the unregulated land and utility use of the informal settlements?	

experts' point of view is taking place and resulting the user who has the struggle of making his/her own living conditions. After that the issue would be opened up to discussion how the settlers can participate in the solving process and how the informal housing be related with the incremental housing ideas.

1.2. Methodology

The methodology of the paper starts with the expressions of the main issues in a generalised introduction. After that the paper can be divided into two parts: Part one is the main theme which the theoretical background of the research is being explained. In this part the related general paradigms is being described referring to the terms such as informal housing, vernacular architecture, community participation, self-build and incremental housing.

Then in part two, the three actors which involve in the participation process for informal housing are being categorised as the individuals, public sector and private sector. Firstly, in order to look from the individuals point

of view, a case in El Salvador households, an individual self-built process will be evaluated. Secondly, a "Housing Program Alternative: Incremental Housing Program" by the government of Venezuela, will be clarified. And thirdly, a build case in Iquique, Chile that is designed by Elemental Architecture Group, will be reviewed in order to see an example of incremental housing solution which has the participation process between the government, architects and the informal settlers.

2. Main theme

The struggle of low-income families come out as a self-build but unregulated process which constitutes "squatter settlements". Thus a conflict between the squatter settlers and the government happens. Then the main theme can be figured out answering the question: How can the settlers, the government and the architect all participate in the solving process?

2.1. Theoretical background

The theoretical debates on informal settlements on research fields starts

since 1960s and 1970s when the rapid expansion of informal settlements were apparently recognised. In order to understand and connect the issue's both problems and solutions, it would be coherent first to explain the main context of informal housing; an illegal kind of vernacular architecture. Then the subjects will be related with three kind of interrelated sub-contexts which are the community participation, self-build and incremental housing.

2.2. Informal housing: An illegal vernacular architecture

Rudofsky (1965) expresses that "Vernacular architecture does not go through fashion cycles". It comprises localness; climate, local materials, location-place identity, etc. His main subject here was to talk about "Architecture without Architects" and to take notice how the process goes spontaneously. There are some user needs and the solution comes from the users with an endemic character. Kellett and Napier (1998) claims that many descriptions of vernacular environments have the potential to include spontaneous settlement and hold the promise of affording a better understanding of these people-made places.

In informal settlements, we see the process in a people-made but problematic way. Informal settlers have an important role while configuring the place they live by their own. But the process puncture because of economical reasons and this self-build process can not result with the values of vernacular. Sivam (2003) defines informal housing developments as an illegal and composed of unauthorized colonies and squatter settlement. The common characteristics of informal housing are insecurity of tenure, low standard of infrastructure and services (Ahsan and Quamruzzaman, 2009). Informal houses can be distinguish through the typologies which can be categorised as the squatter houses (defined also as *gecekondus* in Turkey), multi-storey squatter houses, slums in central city (occupying the left houses), bachelor's rooms in historical areas and quatter villages. These housing typologies differ because of the physical conditions they have. The significant character-

istics of informal development are insecurity of tenure and low standard of facilities and infrastructure. Another factor of importance is the accessibility of services such as running water supply, power, and the like (Ahsan and Quamruzzaman, 2009).

Major characteristics of informal housing in developing countries include:

- Insecure housing tenure
- Inadequate basic services
- Housing settlement that contradicts city by-laws
- Housing built on a property owned by the state or the third party instead of the owner or resident
- Insufficient access to basic urban services
- Substandard housing and inadequate building structures
- Illegal subdivision of housing
- Poverty and social exclusion and
- Unhealthy living conditions and hazardous locations (Tsenkova 2009).

Kellett (1993) claims that in informal settlements the lack of official sanction usually means that activities within the settlement take place without any formal controls such as building regulations, planning controls, health and safety laws, etc. So informal settlements are configuring by their own; using their own construction techniques, materials, etc. "Informal housing as settlement units (whether slums or not) that are built outside the framework of formal law for construction of housing. By nature, the informal housing units are constructed using less expensive construction materials (i.e. mud bricks, bamboo, ordinary wood) and hence tend to have a shorter life" (Ahsan and Quamruzzaman, 2009). Thus, these formations are also discursive about the quality of life that they present to the dwellers. Within this range of informal housing types, "squatter or informal settlements" may be defined by the following characteristics: the land used has not been zoned for residential development; land tenure is insecure; the state is tolerant or ignorant of the settlement; speculative capital is involved (i.e., the land is not free); and the building process is of a self-help nature (Tames, 2004). It is at-

tempted to demonstrate that the rapid growth of informal settlements is a direct consequence of high rates of urban growth and rural urban migration, but its magnitude is also the direct result of failed approaches to housing and spatial planning policies (Arandel and Batran, 1996). Gradually, it is becoming important to see the housing policies and their affects in the housing platform.

2.3. Community participation

Sheng (1990) explains this term defining the verbs community and the participation separately: "Sociologically, "Community" is defined as a group of people with face-to-face contact, a sense of belonging together and common interests and values and "Participation" assumes an activity in which the community takes part and the involvement of at least one other party, usually a government agency or a non-governmental organization (NGO)".

The participation of the people by involving and making decisions on their own living environments can be the main statement of community participation in housing policies. Hamdi (1990) states that the trend toward "People's Participation in Housing," albeit patronizing as a slogan and began to question existing relationships among people, professionals, industry, and government authorities. As Sanoff (2000) also clarifies the participation has many benefits accruing from such an approach for the community, the users, design and the planning professionals (p.10).

According to Turner (1976), the economic desirability of local citizen's participation in housing (design, construction and management - i.e. at

the level of assembly) depends on two open questions: (1) the relative efficacy of centrally administered systems of housing provision and (2) the effects of local participation on the productivity of such systems. The community participation which brings the people, government and the experts together, has the background of deciding and providing in collaboration.

Hollnsteiner (2008) expresses the importance of people's participation that the rationale behind people's helping to formulate the kinds of homes and communities in which they will live goes beyond a simple reference to democratic ideology and he relates this issue with such reasons:

- First, program results are more successful if the intended beneficiaries take part in their design and implementation. Because, it will conform more closely to their aspirations and accustomed lifestyles.
- A second reason for people's participation is the reeducation it gives architects, planners, and administrators directly involved in the project by showing them another perspective
- A third benefit of people's participation derives from the very process itself. For if it is genuinely mass-based, it builds up the self-enabling character and cooperative spirit of the community. Facing common problems as a solidary group and finding solutions collectively leads to greater self-assurance and pride over the group's ability to act productively.
- Finally, people's participation springs from guarantees cited in most national constitutions of the world. The right of citizens to express their views and share especially in decisions that affect them is the mark of a modern society (6-8).

Imparanto and Ruster (2003) claims that it is also significant to take attention to the target group of participation processes. Questioning how participation appears in informal settlements, is that of today's much-discussed issue: How these informal settlements can be arranged and improved? How can we talk about the existential life they con-

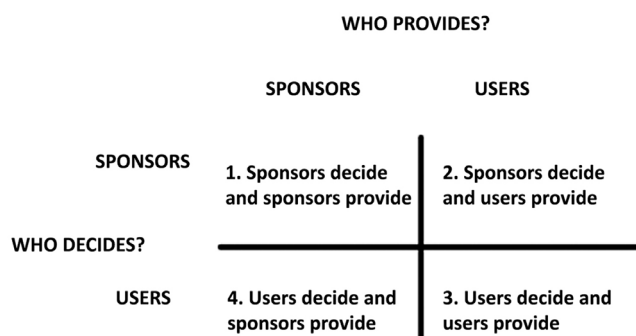


Figure 1. Participation as a function of who decides what shall be done, and who provides the means (Turner, 1976).

stitute while most of the solutions were seen as deleting these settlements and removing the settlers to other places or providing them another kind of living. In order to overcome the conflict between the informality and the vernacular living-styles of the people who live in these settlements; a collaborate participation of the two edge can be an alternative.

2.4. Self-build

House is a place where there is a kind of different meaning that people give to; that is why it can be called as "home". There is a social and cultural appropriation which leads people to have some desire about their houses. Dayaratne and Kellett (2008) mention this as there was an unfulfilled desire that seems to have been at the heart of all motivations to make home: the desire to acquire a complete sense of home:

- (1) The desire to own through the acquisition of a piece of ground.
- (2) The desire to acquire and conform to popular images and conventions.
- (3) The desire for social acceptance, social respect and personal dignity.
- (4) The desire to order and orchestrate space to fulfill household needs.
- (5) The desire to form a community (p.58).

The desire to make a spatial structure for habitation, can be seen visually in informal settlements where people have no other option to choose a place to live. Rahman (2011) also underlines the self-build process with the residents' motivations regarding tenure change the expression of built form in squatter settlements. It is also important to understand physical and social attachment of informal settlers to their living environments. Thus, in these settlements, there is also a self-build process where the lower income people be obligated to build their own houses. It is some kind of another dilemma where in one part, these informal houses are lack of water supply, utilities and other services, etc. which reduce the quality of life while in the other part these houses are built (and also sometimes expanded) according

to the needs by the owners. Instead of a planned unity of rooms designed for different functions opening into an inner service core, it is observed horizontal additions to an initial core realized in accordance with factors itemized above. In general, foundations are not suitable for vertical expansion. Besides, extension in this dimension is more expensive and therefore attempted only when a deed is obtained. In process of horizontal extension, either new units are added to the older one from one end. It can be seen here that there is a cultural vernacular character that informal settlers build and expand by their own according to their local needs.

2.5. Incremental housing

Incremental housing approach is based upon the principle of increasing the responsibility of individual households and communities by encouraging decision making and responsibility of individual household or communities so that they take care of the aspects of housing for which they are in the best position to take (Mathabella, 1999). This can also be a kind of "step-by-step" configuration of the house in order to be build for people.

"The origin of state involvement in incremental housing strategies was therefore the reluctant acceptance that informal housing delivery systems performed much better than public attempts to build dwellings in a number of respects: they were affordable without recourse to public subsidy, they were flexible and responsive to the changing needs and unstable fortunes of poor urban families, they were self-managed and made few demands on hard-pressed public administrations, and they met the needs of the rapidly growing urban populations of developing towns and cities" (Wakely and Riley, 2011). So incremental housing comprises both the community participation and self-build processes.

Observations of what ordinary families in urbanizing countries do, when they are free to act as they will, show that they prefer to live in large unfinished houses or even large shacks-rather than in small finished ones (Turner, 2007). These houses are also called

“core-houses”. As defined by Napier (2002) “The core was to be built by formal contractors. Both the core and the extensions were to be financed. The extensions were to be built according to plans supplied by the project developer. The main innovation in practice for its time was the enablement of a limited self-help contribution by the occupying household, supported by the stimulation of the materials supplier and small contractor sectors. The financial innovation was that the form of core provided would somehow relate to levels of affordability by the household to be accommodated. Core housing was thus a highly managed and limited form of assisted self-help”. There is a strong network of this process which overcomes the financial problems of

the individual while at the same time making connections with the experts and government in order to build their own houses with their own desires.





















3. The process – three actors

The process of incremental housing takes three actors come into the stage: The individuals, public sector and private sector. Individuals are the informal settlers who has a problem about the affordability. Public sector can be defined as the government and municipalities who has also a struggle with the unregulated processes and private sector is the experts (planners, architects, etc.) who would like to make a solution to this discursive issue (Table 2).

Table 2. The actors in the incremental housing process (Adapted from the table 2 - Greene and Rojas, 2008).

ACTOR	TYPE	ACTIVITIES
Individuals	Households/ users	<ul style="list-style-type: none"> •Involve in the design/planning process •Help with labour in construction •Provide a finance to expand the core
	Relatives	<ul style="list-style-type: none"> •Use the houses •Expand the houses according to the needs / additions to family members
Public Sector	Government	<ul style="list-style-type: none"> •Provide technical assistance •Facilitate the supply of land for residential uses •Supervise compliance with land use and building regulations
	Municipalities	<ul style="list-style-type: none"> •Provide health, education and social services to households • Manage sanitation services (directly or through concessions) • Define the regulatory framework for the housing and financial sectors • Provide financing to municipalities to improve infrastructure and urban services • Provide direct subsidies to low-income households • Study and disseminate good practices in incremental house building • Undertake comparative housing sector studies • Provide technical assistance for reform and development of housing sector
Private Sector	Planners	<ul style="list-style-type: none"> •Sub-directory in the process (interrelate in city level)
	Architects	<ul style="list-style-type: none"> •Plan and design with the individuals
	Engineers	<ul style="list-style-type: none"> •Help with developing the core •Construct with the help of the individuals
	BuildingMaterials Suppliers	<ul style="list-style-type: none"> •Supply building materials
	Construction Industry	<ul style="list-style-type: none"> •Develop new materials to use

Table 3. User extensions in El Salvador squatter settlement (Galtoni, Goethert and Chavez, 2011).

	Sites and Services (Legal)	Illegal Settlements			Projects		CLIMATE	LOCAL MATERIAL	PLACE-IDENTITY
Types Compared	Services Plots & Core Units	Upgraded Slums	Un-Upgraded Slums	Illegal Subdivisions	Public Turnkey Housing	Private Developer Turnkey Housing			
Settlements Surveyed	El Pepeto Sensunapan	Las Palmas	Jardines Del Boulevard	Nouve Trinidad	Nouve Hozionte	Altavista			
STARTING POINT*							Tropical	Brick, Stucco, Corrugated Sheet	Shape, According to Minimum Local Needs
FUNCTIONAL*							Tropical	Brick, Stucco, Corrugated Sheet	Shape According to Functional Local Needs
COMPLETE*							Tropical	Stucco, Paint, Corrugated Sheet	Shape According to Maximized Local Needs
EXPANDED*							Tropical	Paint, Decorated Element, Corrugated Sheet	Shape According to Personal Addings

3.1. Individuals

Individuals that is mentioned here are informal settlers who live in the squatter areas located nearby the city. The reason why to call these settlers as “*individuals*” is to emphasise the self being of their own. These settlers, relying on various reasons, mostly come to the city and start to build their own house without authorisation. In order to develop the spatial qualities of the primary unit or to expand the use of space by adding rooms, etc. some transformations in these settlements can be apparently seen. Nglumu (2003) defines the underlying factors of these transformations are economic reasons, socio-cultural reasons and the aspiration to live in a modern house. The transformations are a kind of reality that the settlers willing to use the land continuously and maybe enlarging the houses while introducing other relatives to the city. Nevertheless, it is also another point of view that these individuals are mainly in the progress of the self-build

process which can also be related with the incremental housing as a solution of developing the houses “*step-by-step*”.

A case in El Salvador squatter settlements can be an example how informal settlers can participate the process of incremental housing. Main principles of incremental housing is figured out in this project that how the individuals involve in the process and what transformations do they have made in accordance with their own personalised conditions. A survey of 210 households documented the strategies and processes from occupation to the present – most of the cases spanning three decades. Seven settlements were surveyed, representing three predominant types of low-income housing in El Salvador – illegal settlements, ‘sites-and-services’ projects, and ‘turnkey’ housing projects by government and the private sector (Galtoni, Goethert and Chavez, 2011).

It has seen from the results that all incrementally developed settle-

ments have a range of buildouts/ improvements. Within this group some households make few investments even years on, so houses remain with minor improvements (characterized in this study as *Functional*). Others expand rooms and amenities in a matter of several years to meet household space needs, functional priorities, and aesthetic preferences to a satisfactory point of *completion*. These households stop expanding at this point. A third group *invests* more (often sooner) to add rooms, second and third stories, and often upgrades services, kitchen and baths for a fully *expanded* house. Galtoni, Goethert and Chavez (2011) categorises the main findings of case at the start up, during construction and after completion which also figures out the stages of the incremental housing (Table 3).

3.2. Public sector

The process of overcoming problems which informal settlements create is the major problem of the governments since the subject is becoming a visibly conflict. The government and relatedly the municipalities work on various strategies on the purpose of resolving the unregulated actions. Thus, issue's second part can be defined as the *public sector* realizing also the institutional context.

Governing the regulatory framework for housing and financial sectors, public sector has a main heading in the process. The great deal of challenge that government is facing is how to resolve this problematic either in a strict or in a flexible way. Choosing a flexible way comprises an empathetic content while understanding the social and cultural issues of the problematic informality. Kanogo (1987) states that

one way of trying to understand how squatters perceived their own situation is to look at them in their role, as they understood it, in their own society. Then the way of governing for habitability can be also in the way of paying attention to all.

Meanwhile the debates continue in 1960s and 1970s, Venezuelan government implemented an incremental housing program. The National Housing Institute (INAVI) published "a booklet" in 1984 with construction guidelines for incremental housing (Vivienda Progresiva) and self-construction techniques. This is a different way of government corresponding the problem in an informational support. Goal was to help poorest families that could not afford to buy public housing, because housing demand was so high that most of the subsidized housing was taken by middle class. The booklet was a construction guide to help people build their own houses according to basic construction norms in a given parcel of land. At the same time INAVI offered technical and financial support to assure that houses were well build. Half of the booklet is dedicated to incremental housing and different ways that a "core unit" can grow in a given parcel respecting urban guidelines. They define the basic spaces needed: bathroom, kitchen and bedroom and flexible spaces that will transform through time such as social space. The rest of booklet explains with diagrams construction process with basic concrete and masonry blocks. Sanitary and electrical measures are explain thoroughly specifying that sewage must be connected to public sewage and if not available a septic tank must be build (Fiji Incremental Housing Workshop). This action of government is apart from operational solutions; however it is also a starting point of incremental housing that government is showing up the support to individuals (Figure 2).

3.3. Private sector

The problem of informal settlements that have negative influences on starting from city to life quality of the individuals configure such a discussion in the platforms of experts. Planners,

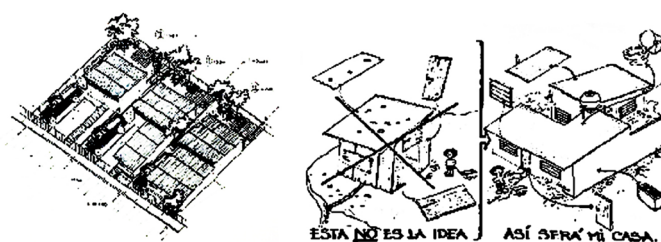


Figure 2. Booklet of construction guidelines for incremental housing by Venezuelan Government (Fiji Incremental Housing Workshop).



Figure 3. Quinta Monroy housing units: Before the project -After the project- After the settlers expansions (Moma Exhibitions, 2010).

architects, engineers, etc. who involve in private sector are the third actors in process. Perlman (1976) explains how settlers appear while looking through a point of an architect "Dotting the area are permanent brick structures that represent the accumulated savings of families who have been building them little by little, brick by brick". These perceptions that architects be aware of is making a bridge with informal settlers and architects. Such incremental housing projects that private sector also involve, connects public sector and individuals.

A Case in Iquique, Chile is a sample from the private sector which uses the program of incremental housing. "Quinta Monroy was a 5,000m² site illegally occupied by 100 families in the center of Iquique, a city in the Chilean desert. A labyrinth of structures, settlement was unsafe and difficult to police; however, residents were adamant – likely due to site's central location—about remaining there" (Open Architecture Network, 2012). Chilean Government asked Elemental Architecture Group to resolve the following equation: "To settle the 100 families of the Quinta Monroy, in the same 5,000 sqm site that they have illegally occupied for the last 30 years which is located in the very center of Iquique, a city in the Chilean desert".

Architects were to work within the framework of current Housing Policy, using a US\$ 7,500 subsidy with which they had to pay for the land, infrastructure and architecture. Considering current values in Chilean building industry, US\$ 7,500 allows for just around 30 sqm of built space. And despite site's price (3 times more than what social housing can normally afford) aim was to settle families in same site, instead of displacing them to the periphery. In the

end, when the given money is enough for just half of the house, key question was, which half to do. Then architects choose to make half that a family individually will never be able to achieve on its own, no matter how much money, energy or time they spend.

Then architecture group's decision of collaborating the government, individual and architects serves the solution of incremental housing. Elemental have identified a set of design conditions through which a housing unit can increase its value over time; this without having to increase the amount of money of current subsidy while following such aims:

- to achieve enough density, (but without overcrowding), in order to be able to pay for site, which because of its location was very expensive
- to develop the provision a physical space for the "extensive family"
- to allow each unit to expand within its structure, due to the fact that 50% of each unit's volume, will eventually be self-built, the building had to be porous enough
- to provide a middle-income house instead of designing a small house

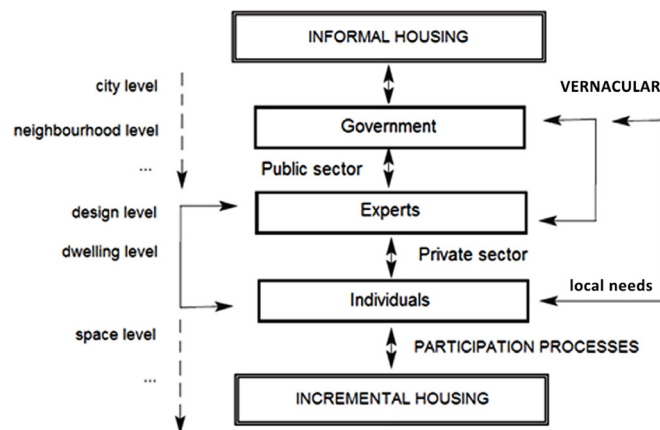


Figure 4. The structure of participation process solution for informal housing: incremental housing.

(in 30 sqm everything is small), out of which the architects were giving just a small part now. This meant a change in the standard: kitchens, bathrooms, stairs, partition walls and all the difficult parts of the house had to be designed for final scenario of a 72 sqm house (Moma Exhibitions, 2010).

So the core of housing units are made by architects while overcoming financial and social problems of the settlement. Individuals also participate in planning, design and construction of the project with the help of government support. After core houses are produced in an organised settlement, settlers start to expand their houses according to their needs (Figure 3).

4. Findings and discussion

Research focused on incremental housing solution while understanding community participation and self-build processes in the informal settlements. It is seen that informal settlements have a vernacular character; thus a strong relationship between the three actors should be attached together. The process of incremental housing can be summarised and opened up to discussion as to enable the participation of three actors presenting a solution for all: government, experts and individuals (Figure 4).

5. Conclusion

The problems of informal settlements comprise many discussions starting from the past while still continuing in today's modern world. In most of developing countries the change of living conditions and such related progresses, the struggle of urban poor, trying to live in the city, configured such a dilemma in different platforms. Informal settlements are problematic in many ways: Governments pay a price for these unregulated processes, there are also negative affects in cities which make the city develop in an unpredictable way. In addition, there is a suffer from poverty, disease, and political unrest. In most of informal settlements, it can be visibly seen that the quality of living conditions reduce and relatedly, the quality of individual life also suffer which are derived from low-income

built old construction.

In this research, the vernacular character of informality is investigated and incremental housing is served as a solution to unregulated conditions. It is seen that solutions that is offered to informal settlement problematics, look just one point of view; sometimes just from point of government or sometimes just by a professional. Nevertheless, incremental housing solution for informal settlements has a three-sided connection that enables the three actors in process. It appears that the stages of incremental housing provide the actors in a more active way and organise relations in a more coherent method. Within this housing opportunity, three different platform which involve in process can participate together and this participation results more associated. While government, which can be defined as the public sector, provide technical assistance for reform and development of the housing sector; private sector as mentioned planners, architects, engineers, etc. configure the design and construction processes. Both two provide support to informal settlers; they also involve individuals in process in order to understand what they want and how do they want to live. Thus in this way, incremental housing is not just solving a physical matter, it also constitutes a solution understanding cultural and social patterns in informal settlements. By involving the individuals in design process, community participation and by involving them in construction and development of their living environments, self-build processes occur. Consequently, incremental housing as a participation process for informal housing can be a multi-sided solution concerning both social and economical issues.

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