

AN EVALUATION CHECKLIST FOR HOUSING STRATEGIES TO IMPROVE LIVING CONDITIONS IN TRADITIONAL ENVIRONMENTS

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Abstract

The district of Darb al-Ahmar, located in the south-western corner of the old city of Cairo - Egypt, contains some of the poorest of the city's population suffering from high rates of unemployment, lack of fundamental community services, deteriorating buildings and low housing conditions, poor infrastructure and severe pollution.

In short, its living conditions were among the worst in Cairo. Nevertheless, Al-Darb Al-Ahmar experienced a housing intervention as a part of an integrated large project called "*Economic Revitalization and Environmental Upgrading, An Integrated Action Plan in al-Darb al-Ahmar*".

The paper introduces and explains different housing strategies and approaches adopted by different Governments of developing countries over the past decades.

Then it Proposes an evaluation checklist for housing strategies and apply it to the housing strategies in Darb al-Ahmar which were adopted to improve the living and urban conditions of this traditional area, it assesses through a field survey whether these housing strategies are applies as a curative or preventive strategy.

The paper concludes with the lessons learnt from these applied strategies and its impact on the living condition of the inhabitants.

Key words: housing strategies, historic Egyptian environments, living conditions, Darb Al-Ahmar.

1- Introduction

Improving housing conditions and basic services is a key to reduce urban poverty and improving living conditions. Before the 1970's, Governments of developing countries adopted conventional approaches to alleviate housing poverty e.g. Slum Clearance...etc.

However, the conventional approach for housing caused several social, economic, and political problems. By early 1970's, many governments in developing countries adapted innovative approaches, which allow the poor to afford better quality of housing by assisting self-help housing construction.

Governments in developing countries have found it difficult, to construct sufficient amounts of public housing and to extend community infrastructure to meet the needs of urban areas.

Not only is the cost unaffordable, but bureaucracies in many countries having insufficient managerial capacity to provide shelter and services effectively. [Randinelli, D., Cheema, G., 1986]. This paper introduces and discusses different strategies and policies through which governments of developing countries can assist to improve living conditions in traditional urban environment especially in Egypt.

The paper starts by discussing housing poverty and its effect on the universal level, followed by analysis of different trends in housing interventions. It explores Preventive versus Curative strategies and Conventional versus Innovative housing approaches.

Moreover, the paper proposes an evaluation checklist (a measurement tool) to evaluate different housing interventions, and help to identify and classify either they are innovative curative and/or

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innovative preventive strategies, or they are conventional curative and/or conventional preventive strategies, and how it could be used to improve the living conditions in traditional environments.

The proposed approach is then tested on the Aga Khan project to revitalize and improve Al-Darb Al-Ahmar district in Old Cairo.

2- Housing poverty

It is very difficult to obtain reliable estimates of the number of people in the Third World who are housed inadequately [UNCHS, 1992].

However, some attempts have been made. Various sources indicate that the proportion of inadequate housing varies between countries because each nation has its own unique, complex mix of economic, social, political, ecological, and demographic characteristics which influence the form that urbanization takes, as well as the types of housing problem that emerge [Van Vliet, W., 1987; WHO 1988].

These variations result from factors such as rate of growth, location, and functions of the city in which these settlements are located. Even within a housing settlement there are differences among the residents [Sandhu, R., 1989].

The presence of slums and squatter settlements in a society is a clear indication of the failure of a society and government to provide adequate habitat for human development.

The term “slum” is used to indicate housing which falls below a certain level which is necessary to contribute to human development.

The term “squatter settlements” is used to indicate housing that is either the result of illegal occupation or has been developed in an un-authorized fashion [World Bank, 1992].

The presence of either of these two conditions is indicative of housing poverty and deteriorated living condition.

Slums and squatter settlements are often difficult to separate. [Nagpaul, 1988].

The main characteristic of squatter housing is the lack of formal ownership of the land on which the squatters live.

The uncertainty of their tenure situation creates problems for capital improvement in the physical

structures and social commitment to the community [Angel, S., et al, 1983]. But even where government is willing to assign land or formally register it, additional problems of site improvement charges and bureaucratic/political corruption may keep people from getting adequate housing.

3 - Trends in housing intervention

3 -1- Slum clearance and public housing

Governments in developing countries have sought for long years to remove the poor from slum neighborhoods and re-house them in low-cost shelter. Such policies have exacerbated the problems of the poor.

The failure of such policy became clear by the early 1970s.

Among its most serious problems are: it is costly for national governments because of the high level of compensation paid to owners of demolished properties and high cost of construction; it creates social displacement; its implementation is delayed by the pressures exerted by slum residents who resist forced removal from their homes; it imposes high transportation costs on families who are relocated far from their workplaces.

The poor cannot afford much of the public housing that replaces slum dwellings and, thus, the destruction of slum communities often reduces the stock of low-income housing and worsens overcrowding in low-rent units.

Although public housing for the poor still plays an important role experience suggests that it alone is too costly to meet the shelter needs of poor households.

Public housing policies must be combined with other options if they are to have a serious impact on reducing shelter deficiencies [Kulaba, S., 1982; Aldrich, B., Sandhu, R., 1995].

3 -2- Sites-and-services and housing upgrading programs

By the beginning of the 1970s, one extensively used alternative to public housing emerged which is the provision of low-cost core housing units, which poor families can upgrade as their incomes rise.

Government-housing agencies provide with basic infrastructure, land that is divided into home

sites. Poor families build their own basic shelter, with subsidized materials or with credit provided at low rates of interest, or contract with small construction enterprises to build basic dwelling units for them. Sites-and-services policies of the 1970s and 1980s were designed to make shelter and community services affordable for the poor by introducing them standards that kept costs low, and/or by having community groups contribute labor, money and materials.

Although these approaches are more effective than slum clearance and public housing programs, there are five major obstacles: inadequate numbers of trained professionals who can design and manage such projects; difficulties in providing affordable building materials and technology; governmental reluctance for community participation in the design and implementation phase; ineffective information dissemination among countries about construction methods that work best; weak financial institutions for providing low interest loans needed for the poor.

Such programs should be combined with self-help construction policies, and must be carefully planned [Rondinelli, D., 1990; Aldrich, B., 1995].

3 - 3 - Government assisted self-help housing construction

To meet the expanding shelter needs of the poor governments started to explore policies that promote self-help by the poor on a much larger scale than the sites-and-services projects.

Experience in developing countries indicates that self-help approaches have many advantages, these include: they make shelter available for those low-income families; they reduce the cash outlays for housing construction because labor costs often account a large portion of total construction costs; they promote greater satisfaction of ownership because of direct participation in house construction; they increase the real wealth of poor families; they develop building skills among low-income people; they encourage personal interest in home maintenance and expansion [Bamberger, M., 1982; Aldrich, B., Sandhu, R., 1995].

However, heavy reliance on assisted self-help housing construction could have some disadvantages, these include: assisted self-help requires commitment of participants' time and labor for which there may be many competing demands; it

requires strong-organized, effort to maintain the enthusiasm of participants throughout the home building process; it requires the development of building skills by people who may have no future need for them, except for maintaining their homes; it can result in a lower quality of building construction than if they were built by skilled workers. Self-help housing construction should be supported by government agencies.

It also requires restructuring the responsibilities of community service delivery organizations, and strengthening linkages between public and private organizations and the informal and community groups [Rondinelli, D., 1990].

4 - Preventive versus Curative / Conventional versus Innovative

- **Preventive strategy:** is an "alternative approach which targets root causes of urban poverty to prevent proliferation of slum and squatter settlement, taking holistic and participatory and process approach which gives more sustainable and long term solution for urban poverty alleviation" [Berner, E., 1999].

- **Curative strategy:** is an "approach for the current squatter and slum problems mainly targeting the poor in slum and squatter areas by providing or improving housing, basic infrastructure, and relevant services (security of tenure in some cases)" [Berner, E., 1999; Peltenburg, M., 1999].

- **Conventional approach:** most of the housing programs provided by government are conventional, where only upper income groups can obtain housing with little difficulty.

The clearest example is Slum Clearance and public housing which the government in developing countries has sought for long years to evacuate the poor from it and re-house them in low-cost shelter [Rondinelli, D., 1990].

- **Innovative approach:** when conventional approaches are supplemented by programs that reduce the costs of housing construction and increase the participation of communities, non government organization NGOs, the informal sector, and private enterprises in providing low-cost housing or providing a minimum shelter package to make the product affordable [Siddiqui, T., Khan, M. 1994]. (Fig.1)

5 - Proposed evaluation checklist for housing strategies and approaches

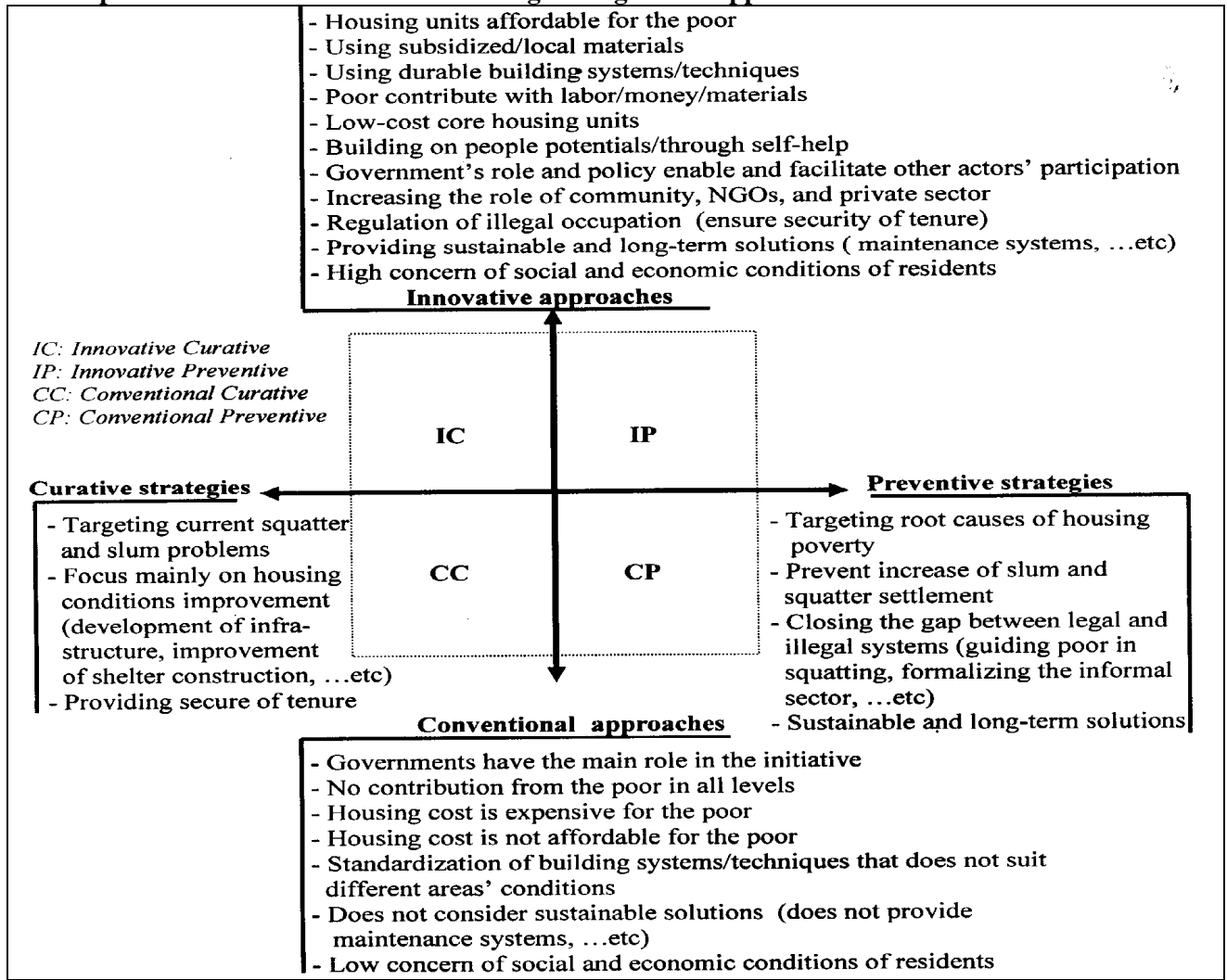


Fig.1- Proposed evaluation checklist (measurements) for housing strategies and approaches.

Source: Author, (2008). Based on [Berner, E., 1999], [Rondinelli, D., 1990], [Siddiqui, T., 1994], [Peltenburg, M., 1999].

6 - Case study of Darb Shoughlan at Darb Al-Ahmar district and the proposed checklist

The initiative by AKTC and the Governorate of Cairo to transform the former dumping site, called Darassa Hills, into an urban park has promoted parallel rehabilitation efforts in the areas neighboring the future Al-Azhar Park, among them conservation of the historic Ayyubid city wall, adaptive re-use of the former Darb Shoughlan School, and restoration of the historic Qaytbey complex. Relevant to this pilot project are the efforts to implement rehabilitation projects in smaller neighborhoods, Darb Shoughlan, in which the use of appropriate conservation methods, community participation, and institutional coordination are seen as fundamental components of the process. This paper presents an investigation of housing inter-

vention of Darb Shoughlan neighbourhood, which although represents a small portion of Darb Al-Ahmar district, it provides an accurate indication of the housing and urban conditions prevalent in the area along the historic city wall. This neighbourhood is notable for its turn-of-the-century architecture and its role as a hub of artisanal activities. Although Darb Shoughlan is a residential area, it also contains a fair amount of commercial activity such as shops and workshops at the street level located under the residential units, the buildings are built on narrow plots of land and are 2-3 storeys high. Although several of the buildings have deviated from Islamic architecture with a European-influence, the neighborhood has short

and highly irregular streets, which often zigzag into innumerable dead ends, with the exception of a few thoroughfares; (Fig. 2) [AKTC, 2000].



Fig.2-Darb Shoughlan neighborhood housing and urban condition. Source: Milad Moawad, (2000)

Darb al-Ahmar has experienced a decrease in population over the last 15 years; this is due to the 1992 earthquake and to the poor condition of housing stock and the difficulties of improvement. This is due to limited access to housing finance, unrealistic rent control, out of date planning const-

¹It is a Joint intervention by AKTC and the Center For Development services CDS

rains and insecure tenure. Those forced to abandon their building cannot find affordable alternatives in the same area. This condition will deprive the inhabitants needed to sustain the area's social and economic life. For these reasons, Darb al-Ahmar Housing Rehabilitation credit scheme¹ facilitated the disbursement of housing loans to residents who are unable to take advantage of loans provided by mortgage banks. Residents, many of which are artisans, suffer from current mortgage bank policies in Egypt that favour individuals employed in large well-established enterprises. Loans provided by Darb Shoughlan housing credit scheme, are based on residents level of cooperation and their willingness to invest, the historical and architectural importance of the building, and the worthiness of the applicants [AKTC, 2001].

6 -1- Darb Shoughlan Housing Strategy Intervention - Innovative and/or Conventional?

The intervention started with a social and physical survey in the targeted area. Before launching any activity, the program was promoted by local staff from the targeted area in order to establish a strong relationship between the program and the residents. *The following is an analysis of the intervention in terms of where it lies in the innovative /conventional approaches, curative/ preventive strategies.*

- *Affordability and cost of rehabilitation/upgrading.* The intervention made the upgrading cost in affordable installments for residents of Darb Shoughlan area. The financial system includes a loan risk assessment process so the intervention can be considered innovative. At the beginning the program decided to support the cost by covering all the cost of the facade of the building because of the nature of the historic area. The residents had to cover the cost of upgrading structures and internal work of the building. But this was not affordable by most of the residents, so the program decided that each resident would pay 10% of the total cost upfront, and the remaining installments would be paid over (3-5 years). This reduced the targeted number of houses and could affect the sustainability of the program. Hence, considering affordability, the intervention is not innovative in this respect.

- *Role of the community and participation level.* Residents participated only by contributing money to the upgrading design of their houses. Due to the

historical characteristic of the area, residents are not allowed to participate in the design of the façade or material selection. Using reinforced concrete is forbidden since all these houses are close to the historic monuments. However, residents are not forced into joining the program and can choose among several options for paying installments. Sometimes they took initiative in asking the site engineer about the practicalities of the new design, and in some cases they were able to change the design. In the next phase, the program management decided to have a participatory designing session to solicit the residents' vision about their houses' new design. One of the residents complained that "the side wall of his house next to his neighbor is too wide reducing the internal area of his house" (Fig.3), not knowing that the program can not use modern reinforced concrete structures for historic reasons. This intervention cannot be considered totally innovative in terms of community participation, which was limited due to the historical nature of the area.



Fig. 3- The wide sidewalls between houses
Source: the Author, (2003-2004)

- **Building techniques and Material used.** The technical team was in critical conflict between using techniques that appropriate the historical area with high costs, and using techniques that make the cost affordable for the poor residents of Darb Shoughlan. The former option was chosen, since this was the interest of AKTC and it became their responsibility to cover the cost difference. However, the technical team searched for techniques that could reduce the cost. At the beginning, the architects used wooden beams in roof construction covered by a highly effective humidity insulator for the wet areas of the houses (e.g. W.C./Kitchen). Later on the wooden beams were replaced with

prefab reinforced concrete beams. Brick constructed on a convex-vaulted shape filled the spans between these beams (Fig 4). Most of the materials used are local materials and could be offered by any contractor.



Fig. 4- Roofs construction materials

Source: Hassan Hussein, (2003)

- **Role of the government.** The government's participation was secured through the housing program committee that meets monthly. Although, according to the law of monuments, the government issued a clearing decision for all houses along the historical wall (including the upgraded houses), it encouraged the program through verbal support and promised not to stop the upgrading and conservation process. The government role here is enabling due to the historic value of the area and the power posed by AKTC towards the government in implementing a large project (Al-Azhar park and conserving the historic wall).

- **Providing practical skills training.** Through the apprenticeship program the housing program used 80% of labor force from Darb Al Ahmar area. They are not particularly from Darb Shoughlan and they are not from the residents of the targeted houses, but the program was able to provide new techniques and skills for the design and implemen-

tation phase. The apprenticeship program established a carpenter workshop where they can upgrade and design the windows and doors of the targeted houses.

- **Regulation of illegal occupation.** Tenure insecurity prevails in Darb Shoughlan. Since most of the buildings have existed for over 100 years, most of the tenants do not have contracts or any documents that legitimize their occupation. This is because most of them became tenants through cohabitation with their older relatives who are the original tenants. The program was able to secure the legal situation of all tenants by issuing new contracts between the owner and the tenant as a condition for starting the building upgrading process. The program was innovative in terms of regulating the illegal occupation.

- **Sustainability and Maintenance system.** The contract between Darb al-Ahmar Development Company (CDC) and the client stated that any repairs or maintenance should be under the supervision of the CDC. In addition, the client cannot make any changes in the internal structure of the housing for the next ten years. Last of all, the client cannot make any changes in the façade because of the historical nature of the area. However, the sustainability for this intervention is associated with the existence of Darb al-Ahmar Development Company. As long as this company is supported by AKTC and other donors, it can provide the maintenance for the upgraded housing units.

6-2- Darb Shoughlan Housing Strategies Intervention - Curative and/or Preventive?

Darb Shoughlan intervention seems to be more curative than preventive. It targeted the current housing units to improve the housing conditions (Fig.5) and providing security of tenure. The intervention did not target directly the root causes of housing poverty. However, in one way or another, it prevented the increase of slum and squatter settlements by enticing the residents to stay in their improved houses and saving them from having illegal houses in another area.

7- Conclusion and Recommendations

Finally, we can conclude that the housing intervention of Darb Shoughlan neighbourhood could be classified as an *innovative curative approach*, and could be located on the (IC) quarter of the proposed evaluation checklist of housing strate-

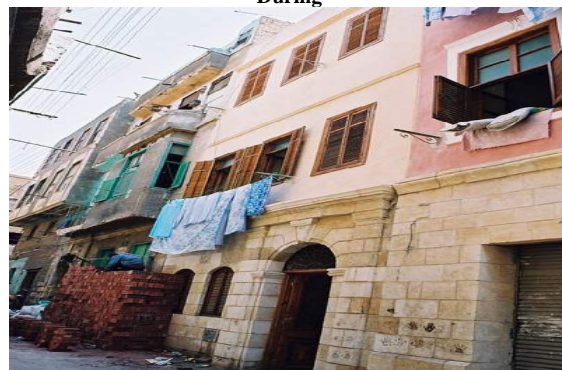
gies. But *it is not considered purely innovative* due to the reasons mentioned at the previous section of the paper. Also, we can conclude that the proposed and tested evaluation checklist is considered as a useful checklist for evaluating different housing interventions, strategies and approaches, and help to identify and classify either they are innovative curative and/or innovative preventive strategies, or they are conventional curative and/or conventional preventive strategies.



Before



During



After

Figure 5: Improvement of housing conditions
Source: the Author, (2003-2005)

Moreover, the paper recommends that: residents of historic areas need technical awareness in order to explain that some technical processes of the upgrading (cost, building material and tech-

niques, maintenance) is justified by the historical value of the area. Moreover, residents need more room to participate in the designing phase of their houses. Analyzing the power structure among actors, especially between government and

implementing agencies, is important in order to regenerate the role of the government to become enabling; developing local institutions to be responsible for the maintenance systems is a major factor of sustainability.

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