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THE EFFECTS OF CHANGES IN BRAZILIAN HOUSING POLICIES IN A HOUSING PROVISION AND URBAN REGENERATION PROJECT IN PORTO ALEGRE, BRAZIL

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INTRODUCTION
In Brazil, the trajectory of housing provision has been fragmented, marked by a diversity of housing programs. This situation prompted the spraying of resources, and the frequent discontinuity of such programs.

Since 2002 Porto Alegre developed the “City Entrance Integrated Program” (PIEC in portuguese), a large housing provision and urban regeneration project, influenced by the housing program “Habitat Brasil BID”. There is evidence, also through Post Occupancy Evaluations delivered since 2006, that PIEC program produced positive outcomes, but also some shortcomings.

As the program is still in development, it will be probably influenced by the guidelines of another housing program developed since 2009 by the Central Government in the meanwhile, and named “My Home My Life Program” (MCMV - in Portuguese). This program produced more than 1 million homes on its initial phase, and 2 million homes on its second phase. Despite MCMV represents a landmark, studies have been pointing to problems to what has been produced through this program, including the lack of fulfilment of the needs of residents, mainly when one considers the common spaces.

The paper presents the results of a focus group conducted with Porto Alegre Council staff, responsible for the development of the PIEC housing projects. The results of POEs in PIEC housing projects were compared with POEs in MCMV housing projects and used as starting point to focus group. The findings indicated that the discontinuity of housing policies could affect the benefits generated by previous programs, especially related to community engagement.

THE CITY ENTRANCE INTEGRATED PROGRAM (PIEC)
In 2002, started ‘The City Entrance Integrated Program’ (PIEC in portuguese), a large housing provision and urban regeneration project in Porto Alegre, south of Brazil, which represents 1.75% of the city area (8,71km²) and 12.55% of the city housing deficit (14,700 people). It targets a large area included in the 4th District, where several irregular settlements of families coming from the countryside were already established, occupying spaces once designated to the implementation of
new roads and the enlargement of existing ones. The PIEC Program main goal is to improve the quality of life of the population. It was influenced by the housing program ‘Habitat Brasil BID’ which privileged the institutional development of municipalities and community participation in the development of housing projects.

**Post-occupancy evaluation outcomes**

From 2006 to 2015 a number of post-occupancy evaluations (POE) studies have been carried out at PIEC allowing identify good practices and problems generated by PIEC housing projects.

The POE indicates that there are features with very high levels of satisfaction: urban services (infrastructures) are the most significant, followed by urban area features and their collective equipment. There are also meaningful shortcomings related to a lack of parking spaces, problems with safety and housing unit features such as kitchen and stairs. The retention rate has also been identified as a key issue in some areas, as in some areas the retention rate has fallen significantly. There is also some evidence that preferences and satisfaction are site specific, and not shared by different areas (e.g. security).

More recent analysis delivered with the laddering techniques allowed to evidence the more abstract levels present in the perception of users residing in PIEC area. Through this search technique it was possible to identify the cognitive chain most significant to users is the urban services (infrastructure).
Similarly, PIEC location also resulted in a representative cognitive chain for users when generating the benefit of accessibility to urban equipment. The results of the laddering technique in the form of mappings also allowed comparing the benefits expected by technicians involved in the development of PIEC and users involved in their occupation. The survey results indicated that the housing unit has the highest dissatisfaction levels, the benefits and values less perceived by users, representing therefore a greater convergence between the perception of technical and users. In opposite, the urban environment showed the highest levels of satisfaction, benefits and values most perceived by users, resulting, therefore, in greater convergence between the perceptions of both spheres.

The outcomes show how PIEC has been a successful project in terms of upgrading living conditions in deprived areas. It has also to be considered that the targeted population was previously living in informal settlements, usually with no basic infrastructure and acceptable hygienic conditions. The PIEC project is subject to political decisions. With the City Council’s elections every 4 years, the PIEC is subject to political influences and recurring internal changes. The POE offers the opportunity for further develop the project and its management over time, through the better understanding of the positive outcomes to be sustained and the potential shortcomings to be reduced.

\[Figure 2 – outcomes of laddering technique analysis in Jardim Navegantes (credits: Monteiro, 2015).\]

**THE MCMV PROGRAMME AND THE CASE STUDY IN SAO LEOPOLDO**

Since 2009, the most part of investment in social housing in Brazil was made through a new program: My Home My Life Program (MCMV in Portuguese). This program represents a landmark in the
trajectories of Brazilian housing government programs due to both the large scale of funding, its coverage area - with the construction in all states of country - and the high numbers of yielded housing unit (more than 1 million homes on its initial phase, and 2 million homes on its second phase). According to program guidelines, the goal would be a high priority to low-income families, which represent the bulk of the housing deficit.

However, even considering the housing deficit reduction, studies indicate that the program outcomes are far away from those initially proposed, particularly as regards the: difficulty in serving the low-income population, peripheral location, lack of infrastructure and services, excessive standardization of buildings, unsuitable areas, and house-building projects with large dimensions\textsuperscript{13}. In addition to size of the projects, many of them are registered as private condominium (similar to gated communities), resulting in the establishment of common private areas\textsuperscript{14}.

A post-occupancy evaluation developed in low-income projects built by MCMV in São Leopoldo (Porto Alegre metropolitan area) identified the valuation of features related to management on common areas, rather than characteristics related to constructive quality or architectural project\textsuperscript{15}. The data of the research were collected in three different projects in the years 2014 and 2015. These evaluations show that the privatization of common areas leads to a gap between public services and low-income population, which has difficulties in to manage their private common spaces. When spaces became private, the state is no longer responsible for the management and the costs of these areas, making them the responsibility of a poor population, dependent on public benefits to stay, and with little preparation for life in common.

The most valued features by users referred to the management of common areas, are: safety, cleanliness, work of the condominium manager, neighbourhood relationships, behaviour of residents, condominium expenses, and maintenance. The evaluation of safety, between low-income users, was frequently in the survey results, both with respect to the management (security service, fences, cameras), and regarding the architectural project (layout and visibility of community areas)\textsuperscript{16}. Users mentioned several times the unsafe environments related to conflicts and expulsion of residents. Regarding to architectural project of community areas, the characteristic most valued by users was the playground. This is justified, in part, by insufficient access of users to public school, and the family profile of beneficiaries - with the frequent presence of families with children. The playground was associated (by users) mainly to two factors: (a) the importance of socialization among children, with regard to their well-being and development; (b) the need for a space for children during parents' working hours.

Figure 3 – Playground in São Leopoldo (credits: Marques, 2015)

Among the main results of the mentioned evaluations, it’s observed that the social housing in the form of large condominiums is not associated by the users with positive outcomes. The aforementioned privatisation of community areas has contributed to a scenario of insecurity, conflicts between
residents and get away of beneficiaries. This could cause the loss of coordination/management over the target population (low-income families). Additionally, there is difficulty in the legal regularization of buildings made through the MCMV program for residents’ families. Many of them are not beneficiaries, and did not receive social work. It can be seen in low-income housing of MCMV a great importance of Social Work Technical accomplished, and insufficient preparation of families for the management of its community areas.

THE FOCUS GROUP

On the basis of the on-going experience with PIEC and a relevant number of post-occupancy evaluations (started in 2006), the results of the study about MCMV in São Leopoldo/RS, and the possibility of PIEC to be further developed as MCMV, a discussion of results of previous evaluations has been organized in Municipal Department of Housing, on November 20, 2015. The research technique used was a Focus Group, with three participants from PROPUR/UFRGS and seven city technicians involved in the development of PIEC’s housing projects.

For the focus group technique, the research team tried to follow the guidelines proposed by Pelicioni and Lervolino, and Ressel et al. The research team was composed of three people, one of the group moderator (who led the conversation) and the other two collaborators. Collaborators worked mainly on observation and recording of data (which were noted and recorded, with the permission of the participants).

The discussion was organized primarily around 4 topics, which are presented below:

1. The impact of post-occupancy evaluations in development of social housing, especially to PIEC.

The technicians reported that they have been unable to use the information produced in the evaluations when engaged on developing the housing projects, including to PIEC. The results from the evaluations seem to give evidence of and confirm some characteristics and problems that had already been noticed. Some of the problems tend to be more related to multi-family building typology and to housing units e.g. dimensioning housing units in general and not specifically to PIEC.

According to the technicians, one of the possible causes for the difficulty in using this information is said to be that a condition set for these projects is that they must be economically viable. The Directorate lays great emphasis on the target of producing a large number of social housing units. The sites (land) are expensive and efforts are concentrated on making housing projects financially and legally feasible.

Insistence on this has hindered giving consideration to users’ perceptions when the program's projects are being developed. The explanation for this by one of the architects is: "we are very much more than at arm’s length from the population and we are very close to the market". This fact has even been reinforced in some of the evaluations, which have shown a large gap between the perceptions of what the technicians involved in developing PIEC hope for and what the residents of housing estates actually perceive.

According to the technicians, research findings could be better used if there were methodologies that would interweave data on economic feasibility with the socioeconomic profile of the population and users’ needs. Such data could be presented to superiors (managers) in the form of argument for including information resulting from the evaluations so as to make effective use of this information to make improvements to future projects.

There is another matter that technicians have noticed. It is possible that making links between data on economic feasibility and the findings of evaluations would result in the programme changing focus. It would shift from being on the quantitative to the qualitative production of social housing, with a view, in the long run, to achieving more satisfactory results when developing the programme.

Finally, one of the architects emphasized that research on evaluating users' perceptions (bearing in mind that the team has kept in contact with the POEs’ results for several years), in addition to which
the team’s experience in developing social housing helped and led to a better understanding of the complex characteristics of the population benefited.

2. The management problems of the community areas and the impacts to social housing residents, especially the PIEC population.

According to the technicians, the common areas of PIEC housing estates are configured as public areas and not like those of a gated community, which in fact sometimes is the case under MCMV. The technicians reported that closed-in community areas tend to not work properly in this type of project due to the users themselves having difficulties in managing such areas. Moreover, the technicians that design aspects of the common areas of PIEC ventures can give users a higher level of security. The layout of these spaces, for example, may favour being able to keep an eye on and subsequently to monitor activities taking place in them, if they are located centrally. The technicians also state that the form of open condominium PIEC estates when integrated with public spaces in the city, such as streets and squares, has led to estates having a higher level of security. The technicians claim that while the way that PIEC is managed is being changed, the community areas of housing estates will continue to be public spaces. Once again it was emphasized that public spaces are the responsibility of the Municipal City Hall of Porto Alegre (PMPA), which oversees the management and maintenance of these areas.

3. The impact of the discontinuity of public policies and housing programmes on the production of social housing and on its users.

According to the technicians, the discontinuities of public policies tend to have a direct effect on the results hoped for from PIEC. Changes to the guidelines of Brazilian housing programmes directly affect how institutions such as city halls provide housing. After implementing MCMV, the City Hall was left with virtually no sources of funding for housing. In addition, there were timing issues among the projects that make up the PIEC, especially the housing and social projects. As a result, users were not duly monitored with regard to the educational activities they needed before they occupied the new housing area. This resulted in spaces being inadequately occupied and even to users leaving the estates.

4. The impact on users of mass production logic in large social housing estates
According to the technicians’ point of view, the logic of mass production tends to affect the users of the programme. The technicians reported that the purpose of the programme is precisely that this production should be more personalised, which to some extent may make it possible for users to feel they own it. Up until now, the program has offered three housing typologies: single-storey homes; two-storey family homes; and units for people with special needs (handicapped people).

<table>
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<tr>
<th>Housing typologies of PIEC</th>
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<td>Single-storey homes</td>
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**Figure 5** – (a) housing typologies (adapted from Prefeitura Municipal de Porto Alegre, 2013), (b, c and d) Pictures of Housing typologies (credits: Monteiro, 2015).
A point raised in the discussion is the fact of the very users customizing the housing units, as can be seen in Figure 5 (b, c and d). The evaluations conducted demonstrated that these users tend to make numerous changes in their housing units as a form of appropriating the spaces, which also influences how long they remain in the housing units. Therefore, the possibility of users’ customizing their housing unit could be put at risk if the logic of mass production and verticalised multi-family buildings is implemented. Among the consequences, users’ higher level of dissatisfaction and even moving out of the units due to the difficulty of adapting the units may be mentioned.

CRITICAL REFLECTIONS AND PERSPECTIVES

The reflections generated in the focus group appear to support the hypothesis that mass production, traditionally used by the MCMV, tend to potentiate the negative impacts in the development of PIEC. Among these negative impacts could be mentioned the distance of the project to the real needs of its users, as shown in post-occupancy evaluations performed on the project MCMV. In addition, the mass production disseminated by the MCMV program tends to negatively affect the guidelines of customization (also in consideration of the low-income population needs) implemented since the early design PIEC. Even if the customisation/flexibility could be improved as shown by recent projects and precedents in South America (e.g. Monterrey Housing by Elemental), PIEC is not properly considered a mass building programs such as MCMV, as it has enabled according to the user’s needs (e.g. the choice of different housing units).

The current form of housing provision through programs such as MCMV tends to disregard the different family arrangements since the program’s focus becomes the densification of housing. Therefore, it is possible that the problems already identified in the housing units program, such as dissatisfaction with the physical space of the housing unit and the lack of environmental comfort, would become more evident when the housing is mass produced (quantitatively). Meaningful social housing case studies could be implemented so that to balance housing density with housing typologies (“Low rise, high density”), so that to safeguard cultural, social and environmental conditions. In addition to the impacts on the housing project, the changes in Brazilian social housing policies also tend to enhance negative impacts on community areas of the estates. Among the main negative impact on community areas PIEC is the gated communities’ typology that result in fragmented and unsafe urban space. Again, starting from the legacy of the Modern Movement experience, housing typologies could be mixed or variously composed in order to facilitate visual connections and community safeguard (e.g. Figin-Pollini project for Harar district in Milan, Italy).

Another aspect for discussion is the difficulty of community areas’ self-management by the residents. If gated the community areas would become under the responsibility of the residents: this would tend to enhance the internal conflicts and the inappropriate use of spaces. The new configuration of community areas delivered by the MCMV program seems to negatively affect the PIEC specifically with regard to the management and quality of such spaces.

On the basis of the evidence provided it may be deduced that the discontinuities of Brazilian housing policies tend to directly affect the benefits generated by the previous programs. Moreover, negative outcomes and impacts that have been identified in PIEC could be amplified by the adoption of such policies. Thus, the use of systematic evaluations (e.g. also through specific set of indicators) of housing projects carried out by different housing programs can help in monitoring and managing such interventions, so that to reduce some of the issues for the further development of such programmes.
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