# Planning for a Better Quality Of Life In Cities

Edited by

# Foo Tuan Seik Lim Lan Yuan Grace Wong Khei Mie

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An Explorative Assessment of the Factors and Causes Affecting Quality of Life under the *Gender-Environmental Bifocals*: A Neighbourhood Analysis in Santiago de Chile\*

Giulietta Fadda, Paola Jirón and Adriana Allen

### Introduction

In the pursuit of improving the living conditions of urban inhabitants, various attempts have been made in Latin America in the planning and management process. However, few have done so in an integral manner, considering the diversity of actors involved in this process. In this sense, the concept of quality of life, based on its apprehension of the subjective and objective dimensions of reality, provides an innovative way of diagnosing, assessing and proposing alternatives to improve the living conditions of men and women in these areas.

Today's planning process requires the use of alternatives that can effectively improve the quality of life of those for whom it is being planned. This quality of life will depend on the possibilities people have to satisfy their fundamental needs. In this sense, the concept of *Quality of Life* represents more than the private "life standard" and it refers to all the elements of the conditions in which people live, that is, all their needs and their satisfiers (Fadda et al, 1999). This concept has been developed by social scientists to measure and evaluate people's wellbeing.<sup>1</sup>

In urban areas, this wellbeing may be defined differently depending on the context, in geographical as in social, cultural, economic, historical terms, of the individuals and collective groups. Through the use of preliminary results of the research this paper explains the theoretical as well as the methodological processes used to analyse this quality of life in a low-income urban setting. It focuses on the way perceptions can be translated into indices, in order to inquire on the difference of opinion between men and women, thus explaining why the planning and management process must recognise the gender differences, amongst other, in each community.

This paper first introduces the conceptual background relating the triad of quality of life, urban environment and gender. This theory is then translated into an operative methodology that combines quantitative as well as qualitative techniques to evaluate quality of life. It then explains the cross-analyses of the various objective and subjective factors affecting men and women's quality of life in the specific case study. These factors are then converted into quality of life indicators, which are suggested to be used both by local authorities and by the urban residents themselves in the planning management process.

# The Triad of Quality of Life-Environment-Gender

The concept of quality of life is difficult to apprehend, define and measure, due to the multiple elements that determine it. It can have various interpretations, depending on the evaluative factors used to assess the lives of persons. In its broadest sense, this concept refers to the factors that make a life better. According to Sen (Nussbaum and Sen, 1996), wellbeing is understood as those aspects relative to "the capabilities, opportunities and advantages" of persons, not merely the physical ones.

The concept is so broad and subjective that anything can be included in it, thus falling into ambiguities and loss of the real meaning of the concept in the majority of studies on quality of life. In order to precise it, some authors recommend applying sectorialist approaches (Scheer, 1980), or narrowing the studies of quality of life according to the own objectives of each specialty. In this case, the evaluation of quality of life is made from an urban environment perspective, understanding that, in its broadest sense, the environment covers everything that is outside of the person. More specifically, CONICYT (1988) has defined it as the "set of interacting natural systems - built or socio-cultural - that are historically modified by the human action and which conduct and condition all the possibilities of life on earth, in particular the human ones". Environmental problems are not only those of our physical surrounding, but in their origins and through their consequences, they are thoroughly social problems, problems of people, their history, their living conditions and their relations to the world and reality, their social, culture and life conditions (Beck, quoted by Allen, 1999).

Also many attempts to approach quality of life have been restricted to the study of objective conditions of the surroundings, excluding those related to the social or cultural relations, the development expectations and the perceptions of the individuals of their own quality of life. These are indispensable conditions for a comprehensive and actualised conception of the notion of quality of life. From this comprehensive perspective, the concept of quality of life represents something more than a private "life level" and it is referred to all the elements of the conditions in which people live, all their needs and satisfiers.

Milbrath (1978) defines the concept of quality of life as "a general feeling of happiness and wellbeing", thus, the things to which we assign a positive value to bring that value to the quality of life. Therefore, and from the moment quality of life is expressed in terms of well being, happiness or satisfaction, it is thus necessarily subjective.

happiness or satisfaction, it is thus necessarily subjective.

Furthermore, although quality of life and environmental quality overlap, they are not identical: there are elements of happiness which come from inside the individual. In other words, there are persons who are happy even in the worse environmental conditions, and others that cannot be happy even in the best ones. Milbrath (1978), makes a basic distinction between 'environmental conditions', which can be measured objectively, and 'environmental quality', which should be measured subjectively. 'Environmental conditions' include the levels of water or air cleanliness, the number of hospital beds per person, the millimetres of rain per area, the gross national product per capita, the average meters squared of housing per person, etc. On the other hand, 'environmental quality' refers to the qualitative aspects – for instance of housing, rubbish recollection, amenities, etc. -assessed by the perception of the users. This perception may and usually is different according to the actors giving an opinion on them. For instance, the opinion of users usually differs from that of specialists, as it differs among users.

For planning purposes, it is extremely important to have indicators of 'environment conditions' as they account for the physical changes that occur in our environment. They alert us of the potential damages caused by harmful substances in our natural environment, our health or the ecosystem. Informed decisions cannot be made unless there is precise information available on a broad range of these environmental conditions. Nevertheless, objective indicators do not measure the quality of the environment. Positive indices of these measures do not necessarily carry along with them a good environmental quality and vice versa. If a person believes that his or her surrounding is good, this is so for him or her, independently of what the objective measures indicate. If the aim is to measure the quality itself, then it is important to recognise that this

quality can only be measured in terms of how the person lives it. Therefore, the information on the subjective perception of the environmental quality is equally important for planning in order to properly distribute resources and attempt to improve the environmental quality.

If understood this way, the concept of quality of life is a construct<sup>2</sup>: a social construction of an object constructed by a collective observer. Rigorously, the quality of life can only exist through the observer and his or her experience. It is not a set of material conditions, or the mere satisfaction experienced by the individuals, but a dialectic between what is being observed, and what is observable by a double observer: the one who observes the observations of the one who observes his or her experience. This research attempts to do this, to observe the observations of those who observe their experiences. This is an important point for the research, as it is not only up to planners to intervene and improve the quality of life in urban areas, but the users of the city, eventual citizens, are indispensable in the assessment and improvement of the quality of life.

Additional to this, human beings perceive problems and their possible solutions from different viewpoints or according to the social roles (including reproductive, productive community based and political roles)<sup>3</sup> they play and satisfy their needs under different criteria. The same physical object or a specific experience may be perceived differently by different persons.

By using gender and the environment to "see" quality of life, it becomes apparent that its perceptions vary depending on the gender relations taking place, the needs, roles, access and control over the resources men and women have and particularly over the decision-making capacity they also have. Men and women's entitlements on community based goods and services also have implications in terms of gender. It is thus important to understand who is entitled to what and on what basis and how this entitlement is perceived (Kabeer, 1997).

The inequalities in these relations do not usually emerge when analysing quality of life for various reasons including lack of practical expertise, lack of advocacy power, inadequate methodologies or simple rejection. Although much work has been carried out to mainstream gender into policies, programmes and projects, it is still greatly misunderstood or conflated with other mainstream concerns such as poverty or the environment. Additionally, though most policies, programmes or projects consider the improvement of quality of life as

their main objective, upon analysing the interventions, the concept is rarely defined and gender implications are seldom made visible, This is so for many interventions from NGO's, Government and International Agencies although the need to incorporate the environment as well as gender to their formulation has also been considered essential to the urban planning process (SCP, 1998; SPC, 1999).

It is possible that, these interventions could contribute to overcome these inequalities if they consider that a poor quality of life does not affect everyone in a similar manner. Given that urban planning and management can help to improve the situation described above, the concept of quality of life can be a useful tool to study and evaluate the degree of wellbeing and equity of men and women living under specific circumstances. It can also serve to set up urban planning goals that aim at overcoming such critical situation.

# **Working Methodology**

At the stage of defining what aspects can be relevant to measure quality of life, expert's opinions are considered as important and relevant. However, if using a quality of life approach then different methodologies are needed to capture people's perceptions of what is important and relevant to their well being. Thus, as mentioned earlier, these aspects need to incorporate both objective and subjective methods to assess them.

The array of methods used must fit the problem at hand and must constantly be reflected upon in actu, in the very moment whereby they are deployed to resolve particular questions (Bourdieu and Wacquant, 1996). In our case, for the subjective information we selected the Participatory Research approach (adapted from PRA, Participatory Rural Appraisal)<sup>4</sup>. This approach is defined as a family of methods used to enable persons to present, share and analyse their knowledge, experience of life and their conditions (IDS, 1997). From the different methods used in this approach, those considered more relevant are the analysis of secondary sources, direct observation, conversations and interviews with key informants, meetings and group workshops and a survey.

The data related to the "objective indicators" was obtained from various sources including publications on the matter as well as data from public offices such as: municipalities, Health Services, Ministries, Environment Commission, private and public services, amongst others. It

was then processed in the form of plans, maps, graphs and tables in order

to make it analysable and comparable to the subjective information.

Given the large amount of information gathered, the research adapted a modified version of the livelihoods approach developed by British a modified version of the fivelinoods approach developed by British DFID to proceed with the analysis. This approach was used in order to analyse the perceptions of the residents taking into consideration that this approach, like that o quality of life is "inherently responsive to people's own interpretations of and priorities of their livelihoods" (Carney, 1998). The original approach consists of five different types of assets upon which individuals draw to build their livelihoods. These include: Social Capital, Natural Capital, Human Capital Financial Capital and Physical Capital. Natural Capital is defined as the natural resource stocks useful for livelihoods. Social capital includes the social resources networks (membership to groups, relationships of trust, access to wider institutions of society) upon which people draw in pursuit of livelihoods. Human Capital includes the skills, knowledge, ability to labour and good health important to pursue different livelihood strategies. Physical capital includes the basic infrastructure (transport, shelter, water, energy, and communications) and the production, equipment and means which enable people to pursue their livelihoods. Finally, financial capital are financial resources which are available to people (whether savings, supplies of credit or regular remittances or pensions) and which provide them with different livelihood options (Carney, 1998). The pentagon they form explains the way different groups or households access each different type of asset. Access can imply anything from individual ownership of private goods to customary use right from groups. The major challenge of the pentagon is that it forces users to think comprehensively rather than sectorially about the basis of livelihood. Building up on assets is thus a core component of empowerment (Carney, 1998).

The idea of seeing reality comprehensively leads us to attempt to analyse information in such manner, however, understanding it as particular processes in themselves. According to Bourdieu (Bourdieu and Wacquant, 1996), society expresses the sum of connections and relationships in which individuals find themselves. Therefore, society is not a seamless totality integrated by systemic functions, a common culture, criss-crossing conflicts, or an overarching authority, but an ensemble of relatively autonomous spheres of play that cannot be collapsed under an overall societal logic (Bourdieu and Wacquant, 1996). This means that society cannot be attempted to be amply understood or as

reflecting complete reality, it is the processes themselves that need to be understood.

Thus, starting with the idea of capitals and complementing it with Bourdieu's definition of fields and habitus, it becomes easier to apprehend the assessment of quality of life. Bourdieu defines fields as "a set of objective, historical relations anchored in certain forms of power, while habitus consists of a set o historical relations deposited within individual bodies in the form of mental and corporeal schemata of perception, appreciation and action" (Bourdieu and Wacquant, 1996). A field in simultaneously a space of conflict and competition, in essence it is a space of power. In the course of these struggles, the very shape and divisions of the field become at central stake, because altering the distribution and relative weight of the forms of power implies modifying the structure of the field (Bourdieu and Wacquant, 1996). Habitus is the strategy generating principle that enables agents to cope with unforeseen and ever-changing situations which, while integrating past experiences, functions at every moment as a matrix of perceptions, appreciations and actions and makes possible to achievement of infinitely diversified tasks (Bourdieu and Wacquant, 1996).

Thus both concepts of habitus and field are relational in the additional sense that they function fully only in relation to one another. A field is not simply a dead structure, a set of empty places, but a space of play which exists as such only to the extent that players enter into it who believe in it and actively pursue the prizes it offers (Bourdieu and Wacquant, 1996).

By joining the concepts of field and habitus, these replace that of capital as a list of resources which individuals possess. We thus denominated each area as a field, understanding that it is more than the resources people have or lack, but as the spaces of power, relations and perceptions men and women have which make each field a process to study.

In the analysis of the information the fields used included: natural, human, physical and socio-cultural. We combined social with culture due to the idea that part of our definition of quality of life included the social networks, but also the sense of belonging, identity and cultural aspects relevant to quality of life. Also, the financial field was not included, as it was not originally considered in the study, this does not mean that it is not regarded as important but one to be considered in future studies.

As will be seen later, these fields were used as a way of organising data, however we hypothesise that the variables included in each field

may not necessarily be those that fit into those fields, and the resulting factors could even create completely different fields than those expected. In order to proceed with this analysis, we needed to find a way to correlate the variables being studied. The method would allow us both to make a qualitative analysis of the perceptions inquired in the survey and to verify if the chosen fields were indeed the correct ones.

# Multivariable Analysis for Assessment of Quality of Life

Social processes are conformed by a complex interaction of multiple variables. Therefore, most studies in the social sciences collect information on more than two variables needing to analyse both quantitative (age, income, sex) as qualitative (quality of services, satisfaction, wellbeing, etc) information in order to achieve a more comprehensive vision of these processes.

The multivariable data analysis has greatly contributed towards understanding these processes. One of its fundamental contributions is related to the possibility to work with complex mathematical problems due to the number of variables that intervene in it. Since the incorporation of computers, pertinent statistical programmes have been developed with this objective, allowing for the possibility of studying complex social phenomena today.

Two sets of techniques for multivariable analysis can be distinguished. The first is Explorative Analysis in which the relationships between various variables are examined without determining the extent to which the results fit a particular model. Some techniques used here include principal components, factorial, log-lineal, amongst others. The second is Confirmatory Analysis, and it compares the solution found against a hypothetical one (Brymans and Cramer, 1998).

In our case, we chose the Principal Component Analysis (PCA), which mainly analyses multivariable variance and covariance matrixes with the aim of discovering the main components or implicit variables that have a greater explanatory power in the total variation of the system. The original variables being studied can thus be reduced to these components or new variables, omitting the rest without losing a great quantity of information. This presents the possibility of information analysis using a quantitative method of analysis and a qualitative analysis of information, maintaining the richness of the complexity of the phenomena (Sierra Bravo, 1995).

One of the statistical prerequisites to apply this technique is that the variables need to be metric and of lineal co-relations. However, given that, in general, the reality of the data collected in social processes does not meet this particularity, there is the possibility to consider ordinal variables levels of measure, allowing for the application of this technique to classical instruments of data collection such as opinion surveys.

When using these statistical techniques, it is important to consider that the aim of formalising concepts constitutes an operation where information may be lost, this occurs from the moment that reality is frozen representing it in specific dimensions. The purpose is not to exhaust the multidimensionality of the concept but to reveal some of its important characteristics (PNUD, 1998).

As mentioned earlier, one of the instruments constructed in the research "Quality of Life and Gender" to learn about the opinion of persons regarding some aspects of their quality of life was an opinion survey. Using the analytical framework, four fields were defined to analyse the information: natural, physical, socio-cultural and human fields.

Part of the analysis of information considered the creation of subindices describing each field and a global index gathering all of these to find out the quality of life perceived by the population studied differentiating between men and women. For this, the technique of Principal Component Analysis appeared as the best method of analysis as it allows for a reduction of information and permits for an explanation of the social phenomena being studied, while losing a minimum amount of information.

The factors or dimensions obtained with this technique were determined considering (1) those which present their own values as higher than 1; (2) the sedimentation graph of the variables which compose each factor; and (3) its theoretical consistency.

An analysis of the available information in the instrument was made identifying the variables that best inquired the way in which the diverse aspects of each field were defined. Additionally, socio-demographic variables such as sex and age were studied. Some of these variables were re-coded after a statistical analysis due to their low frequency in some alternative or because on their own they did not represent the field in question wanted to measure. This allowed for a more precise future analysis of the information.

Through an analysis and simulation process, the following factors were obtained to define each field:

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<b>3</b>	· · · · · · · · · · · · · · · · · · ·		
	Natural Field	Quality of Neighbourhood	Aspect of neighbourhood, noise level, quality of air, flooding soils.
ļ.		Quality of Housing	Temperature, noise levels
		Quality of Environmental Hygiene	Are there problems with plagues, river pollution
	Human Field	Social problems affecting the community	Do social problems affect you. drug addiction, alcoholism, teenage pregnancy,
		Quality of sports and health services	Health services, sports centres, emergency services, recreation, sports
ļ		Recreation and Leisure	Leisure, time to reach parks
		Time spent to reach schools	Time to school and childcare centres
		Time spent to reach health services	Time to health services
		Quality and capacity of schools	Perception of quality of schools and child care centres
	Physical Field	Quality of Housing	Aspect of housing, state of construction, size, privacy
1		Improvements made to the housing	Improvements to your housing
		Sense of improvement compared to previous housing	Comparison to previous housing
		Quality of Services	Gas, electricity, water, rubbish, sewerage, rain collection
life 		Sense of improvement compared to previous neighbourhood	Comparison to previous neighbourhood
Quality of Life		Access to the city and district	Access to activities outside and inside the district
\$	Socio-cultural Field	Access to recreation	Access to sports, green areas, centres of worship
		Desire to move or change neighbourhood	Desire to change neighbourhood, are you thinking of moving
		Perception of neighbours	neighbourhoods Friendliness, solidarity, respect, dangerous.
		Citizen Security	Perception of police protection, street security
		Participation and sense of isolation	Do you know and do you participate in mother centres, parents associations, students associations, sporting clubs, political parties, etc.; installation of gates
		Empowerment	Degree of influence in the decisions making; pride of
		!	living in neighbourhood; perception of municipality (is it
			concerned, interested in community, does it offer
			solutions, does it inform)
		Perception of disaster prevention capacity	Perception of fire fighters, disaster prevention
		Sense of isolation from the city	Do you feel isolated from the rest of the city

According to the interviewees' responses, these indices were categorised as very poor, poor, good or very good. In the overall index of quality of life most interviewees rated their quality of life as poor or very poor. The only field in which the interviewees' perception was positive was in the physical field. However, the majority of interviewees indicated that if presented with the possibility they would leave the neighbourhood. These results can be explained by the responses in the other three fields, all of which were rated as poor or very poor. When the differences in responses are analysed closely, it is possible to distinguish the areas where women's opinion mostly differs from that of men. In most cases, these differences can be explained by the different roles men and women play and to their differentiated access to and control over resources in society.

These differences of opinion can be found in the socio-cultural, natural and human fields. In the socio-cultural field, most interviewees considered their socio cultural quality as poor, though women's perception was worse than men's. The subindex which mostly influences this poor perception is access to recreation, and women rate it as poor while men rate it as regular. This can be explained by the type of activities and availability of places to carry out these activities, most of them are related to football teams where spaces for women are limited. The only area in which women participate and consider it a sense of recreation is in church and, in some cases, in social work. Additionally, as most women living in these neighbourhoods are housewives, their time is limited to childcare and taking care of the household.

Additionally, both men and women rate the quality of their neighbours as poor. However, women rate this quality worse than men do. This might be related to the fact that women spend more time in the neighbourhood and thus might have more opportunity to encounter and socialise with their neighbours.

In terms of isolation to the city, the responses of men and women were disperse. Most men felt there was no sense of isolation while women rated it as poor. This could be hypothetically related to the fact that it is men who use transport on a daily basis more than women. Moreover, the reasons for this tardiness are considered to be caused both by the distances to the rest of the city as well as by the traffic congestion which is considered as the main difficulty to access work.

The natural field was perceived by the interviewees as poor and very poor. Such is the case for lack of cleanliness, water pollution, flooding and plagues present in the neighbourhood. In most cases, women

perceive them as being in worse conditions and in detriment to the health of their family. This is mainly because it is them who are in charge of taking the children to the health services in case of illness, or in constant contact with the daily problems related to rubbish collection and flooding. This is due to the fact that, as mentioned previously, over 60% of the women work as housewives and thus spend more time in the neighbourhood.

Finally, and in relation to the hypothesis that the fields might not necessarily be those most important to the community when analysing their quality of life, when all the variables were an together the original fields were modified. The results obtained via the factorial analysis indicate that the variables behaved very different than the fields that had been originally selected to analyse the data. In fact, the aspects that are indicated as relevant to people's perception of their quality of life are very different from what was originally designed. The main areas of importance to determine their quality of life included: social problems, quality of neighbours, participation and leisure time, improvements and gate protection, time to daily activities and services and time to distant activities and parks.

### Conclusion

In the urban planning and management process it is important to recognise that the mere intervention in the city, particularly in lower income areas, requires a deeper assessment of the processes taking place and their relation to the residents, than only the physical needs which are estimated as necessary. This is especially so because the social needs are constructed over time and vary according to the place, time and perception that those experiencing their reality might have. In this sense, the concept of quality of life, using its objective-subjective dimensions, its context specificity and considering the environmental dimension and gender implications, can greatly contribute to understanding the processes taking place. Though the results presented in this paper are preliminary and require further analysis and cross analysis, with age and type of housing, for instance, it is possible to conclude that alternative methods for urban planning and management are required. This is particularly so for methods which incorporate not only the participation of the users but also their assessment of their needs and ways of satisfying them. This is so because in some cases the objective

assessment of information might lead to think that the quality of life is positive, however the perception of this assessment might lead to completely different conclusions.

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#### **Notes**

- 1. See Nussman, M. and A. Sen, 1996
- 2. The term is frequently used in the sociological discourse referring to the logical construction used to indicate entities whose existence is believed to be confirmed by the confirmation of the hypothesis or the linguistic systems to which they recur, but that are never directly observable or directly inferred from observable facts (Abbagnano, 1987:230).
- 3. For additional literature on this see: Moser, C. (1994) and Beall, J. (1993).
- 4. For further detail on this methodology see IDS, 1997
- 5. Livelihood is understood as the capabilities, assets (including material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance capabilities and assets both now and in the future, while not undermining the natural resource base (Carney, 1996).
- 6. The study was carried out in a low-income neighbourhood located in the periphery of Santiago and built under the Chilean public housing system in 1992.

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