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Quality of life and gender: a methodology for urban research[1]

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I. INTRODUCTION

AS IN THE rest of Latin America, the Chilean urbanization process is characterized by a high concentration of population and economic activities and by an urban development pattern which has had a negative effect on environmental conditions. Although cities are the main centres for promoting economic development, the failure to manage the impacts of rapid urbanization threatens, amongst other things, the environment, human health, equity, urban productivity and thus the quality of life. These costs impact more on those living in lower-income neighbourhoods, affecting men and women, girls and boys in a differentiated manner.

Because men and women have different roles and different access to and control of resources, they also have different needs. For this reason, improving basic services in low-income urban areas may lead to more gender equity and to a more egalitarian development strategy. Through the gender perspective, this can be achieved if potentials are maximized, participation is strengthened and gender options and autonomy are broadened.[2] A study of the perceptions, practices and decision-making processes of men and women in low-income urban settlements is a step towards this.

Some of the visible negative effects of urbanization include: segregation and isolation; overcrowding; deficient or mis-allocated facilities and services; and poor quality of construction, housing design and infrastructure. All contribute to urban space that is inadequate for human life. Other effects include: deficient foundations; inadequate urban transport planning; inadequate treatment of solid and liquid waste; air and water pollution; and risks of flooding and landslides. These are part of what has been called the “Brown Agenda”[3] which is concerned with unsustainable development in our cities, in contrast with the "Green Agenda" which concentrates on the global problems of the Earth. The poor environmental quality in low-income neighbourhoods has been acknowledged as one of the most urgent and greatest problems of cities because of the risk they represent to their inhabitants’ health.[4]

Despite macro-economic improvements within Chile, habitat conditions are becoming one of the most serious problems affecting the lives of its urban population. In addition, various studies[5] have identified the differentiated impacts of these conditions on men and women, differences that are often neglected in the planning of human settlements. In response, the present government intends to implement policies that overcome poverty and raise the quality of life in these social sectors. Given that urban planning and management can help improve the situation, the concept of "quality of life" can be a useful tool in studying and evaluating the degree of well-being and equity for men and women living under specific circumstances. It can also help set up urban planning goals that aim to overcome such a critical situation.

This paper develops a theoretical framework around the concept of quality of life, and seeks to delimit its scope with the aim of deriving a gender aware methodological instrument for research which could help to improve the quality of life in urban settlements. In this case, the instrument is applied to the Chilean context, recognizing that gender relations are context specific as is the quality of life.

II. THEORETICAL BACKGROUND

THE CONCEPT OF "quality of life" represents more than the private “living standards” and refers to all the elements of the conditions in which people live, that is, all their needs and requirements. This concept has been developed by social scientists to measure and evaluate people’s well-being, satisfaction and happiness. It demands, amongst other things, available and accessible social and public infrastructure to satisfy the needs of those involved and affected by it as well as an environment without serious deterioration or pollution. Such conditions are not generally met in our cities, since a large part of the inhabitants live in dwellings and neighbourhoods lacking basic facilities and services.

Milbrath[6] states that “...if quality of life is defined as happiness or well-being or satisfaction, it is necessarily subjective”, thus, the objects which we value as positive provide that value to our life quality. Rapoport[7] points out that the evaluation we make of the environment involves more than a detailed interpretation of it, it is a global and affective reaction which is strongly influenced by ideal images that are of a subjective nature. Although the concept of quality of life and environmental quality show considerable overlap, they are not identical: there are elements of happiness that have their origin in the individual. There are people who are able to feel happy even in the worst environmental conditions, while others cannot be happy even in the best environmental conditions.

Human beings perceive problems and possible solutions from different viewpoints or according to their social roles (including reproductive, productive, community based and political roles)[8], and define their basic needs with different criteria. The same physical object or specific experience may be perceived differently by different persons. Thus, a house may be perceived by some people as being of high quality whilst for others, it may be of lower or no quality at all. For some social groups, one environment may seem ideal yet, for others, it may hardly be acceptable or definitively unacceptable. This means that a certain environmental quality may imply contents, images, perceptions which vary for different people depending, among other things, on their gender, age, culture, ethnicity and religion.

This is where the gender perspective becomes useful, in evaluating how the gender relations that occur in a determined context affect quality of life.[9] In most of the literature relating to quality of life, "human beings", "people", "communities" and "households" are treated as homogeneous groups when, indeed, they contain a diversity of relations that cannot necessarily be classified as having the same needs. Gender cuts across all other social relations such as class, ethnicity, age and religion[10] and all types and/or spheres of activity: productive, distributive, organizational, political, technical and research.[11] It also cuts across all institutional structures, organizational procedures and practices in all social sectors such as health, employment, education, transport, environment and housing.[12]

The analysis of quality of life from a gender and an environment perspective shows that perceptions may vary according to gender relations, needs and roles; to access to resources; and to decision-making processes within the household. Moreover, based on Levi and Anderson’s [13] concept of quality of life, Iñiguez and Pol[14] state that above a minimum living standard, a fundamental determinant of the individual life quality is the adjustment or coincidence between the characteristics of the situation (demands and opportunities) and the expectations, capacities and needs of the individual as he/she perceives them. These concepts, as well as the ones mentioned above, imply the need to evaluate how satisfied the different users and those affected are with their habitat. This can provide criteria to design instruments in order to obtain direct, subjective and objective information.

Haramoto et al[15] refer to "residential quality" as part of a wider concept of quality of life, as a more specific way of assessing the distinctive features of housing and its surroundings. Haramoto[16] states that housing quality depends, on the one hand, on the characteristics and properties of the dwelling and, on the other, on the demands and valorizations people make of it.

Residential quality can be understood as the perception and the assessment made by different observers and participants of the component factors of a human settlement in their interaction with each other and with their environment. Here, they establish different hierarchies according to social, cultural, economic and political variables.[17] According to Levy, these "hierarchies" or variables can also depend on age, ethnicity, religion, class, etc. The factors in human settlements include allocation, infrastructure, urbanization, physical, social and cultural environmental factors, and design.

Although the concept of quality of life can be seen as all encompassing, covering a large part of people's lives, it can also be delimited according to the objectives of the research.[18] In our case, it will be restricted to the disciplines dealing with the neighbourhood environment, that is, the external habitat of a community settled in a public housing programme.

In order to develop a methodological tool, it is interesting to recall the distinction Milbrath[19] makes between "environmental conditions" which can be measured objectively and the "environmental quality" which is measured based on subjective perceptions. Some examples of environmental conditions include the levels of air and water quality, the number of hospital beds per resident, mean temperature or rainfall for an area, gross national product per capita, average level of education for a region and average area of indoor housing space per person. "Environmental quality", on the other hand, deals with such aspects as the quality of housing, waste management and urban infrastructure measured through the user's perception. Such perception may be, and usually is, different for the men and women expressing their opinions on the topic, according to the variables expressed above.

Both environmental conditions and environmental quality become crucial if urban planning and management aim towards sustainable development. It is obviously important to have indicators of environmental conditions that can measure the physical changes occurring in our environment. They can alert us to the potential damage that harmful substances (undetectable by human senses) can have on human health or ecosystems. Planners and managers need a wide range of precise information on environmental conditions to be able to fulfill their responsibilities. Nevertheless, these objective indicators cannot measure environmental quality even when they are positive, as they do not necessarily entail a good environmental quality. For instance, a person may believe that his or her surroundings are good or bad, regardless of what the objective indicators show. Thus, information on the subjective perception of environmental quality and its role in distributing resources and trying to improve environmental quality is as important for planners as objective information.[20] Despite some confusion about terminology, there is agreement amongst authors that indicators of quality of life must take into account qualitative as well as quantitative aspects.[21] Table 1 presents a scheme which we believe is useful as an indicative pattern in data collection regarding quality of life.[22]

INSERT table 1

Moreover, Milbrath[23] conceives the environment as a collection of elements or stimuli that impact on the individual. The author proposes a scheme with approximately 130 specific elements to be included in the definition of environment. For each of these, it is possible to make a diagnosis of the conditions as well as an evaluation of the quality. We plan to use this scheme as a way of complementing the list with the UNESCO methodology described above. For fieldwork purposes, the author advises shortening the list by selecting categories according to the desired objectives. Solomon et al.[24] distinguish several levels of analysis for the design of an investigation on quality of life, including individuals, groups, strata**,** community, regional, global and cultural-transversal. Here, we will work at a community level with a poor urban neighbourhood[25] and, following Iñiguez and Pol,[26] people's participation will be a fundamental element.

Studies of quality of life imply comparisons between the ways of life of different groups. In our case, the comparison is between men and women in the community. According to their needs, they will perceive and be affected by their neighbourhood habitat in a differentiated manner. A second, less explicit, comparison is that of real quality of life of the residents, with respect to the desirable acceptable levels.

It is also important to consider the role of the state, in environmental institutions because the persistence of many environmental problems is related to unsatisfactory management by different government institutions. This institutional framework must be taken into account in any research on quality of life. Levy[27] proposes the "web of institutionalization" framework, whereby institutions account for the practices of organizations in all sectors and at all levels of society. The concepts of "room for manoeuvre" and of "sustained change" challenge the idea of institutionalization as static. To determine the scenario where institutionalization as a process takes place, Levy developed a diagnostic tool to identify elements of power[28] in social relations and to analyze them according to gender roles, resources and needs. This and the interrelation between the elements generate a hierarchy of problems and potentials to enable the definition of action areas. In our case, the different elements of the context will be examined using the gender/environment duality.

III. METHODOLOGY

THE CONCEPT OF quality of life is understood as a construct,[29] that is, a social construction or a constructed object which does not exist except through the observer and her or his own experience. It is not a set of material conditions. It is not the mere satisfaction experienced by an individual but, rather, a dialectic between what is being observed by two actors: one who observes the observations of the one who observes her/his experience. The purpose of the study is to observe the observations of those who observe their own experience.

From the theoretical discussion, a number of theses were developed which, together, form the methodological instrument to be used in quality of life research. They are as follows.

1. The nature of the knowledge about quality of life is interdisciplinary by nature since it includes all aspects of life. Some authors recommend carrying out sectoral research[30] using an interdisciplinary approach. Following this criterion, our research is restricted to the urban environment, specifically the neighbourhood habitat.

2. In order to achieve better and more equitable living standards for the poor and to give priority to the problems described in the Brown Agenda, we focus on environmental problems in poor settlements including services, infrastructure, quality of housing construction and equipment, use of spaces unsuited to human life, good quality foundations, waste management, air and water pollution, runoffs and risk of floods.

3. As part of the data collection and as a way of gaining an overall view of the national reality, a diagnosis of the institutional situation is made. This is based on gender planning[31] instruments, more specifically on Levy's[32] "web of institutionalization" which can be used to review policies, programmes and projects which affect the quality of life in urban areas in Chile.

4. Quality of life research implies comparisons between different groups. In our case, we have two types of comparison: an implicit one between the objective quality of life of the inhabitants with regard to desirable and/or acceptable levels, and a second, explicit, one between different effects and perceptions of quality of life by men and women.

5. A case study method is used to allow for in-depth observation and case selection is based on the objectives of the research. Eventually, the methodology applied in the first case study, with the corresponding adjustments, can be used as a model experience to be repeated in future research in order to have a more representative sampling and more general conclusions.

6. A participatory research approach is used to allow for the conjugation of observing the observations of those who observe their own experience (adapted from PRA, Participatory Rural Appraisal). This is a family of methods used to enable persons to present, share and analyze their knowledge, experience of life and conditions,[33] and which generally differs from that of "experts". This method was chosen for its flexibility and adaptability. The tools used are the analysis of secondary sources, direct observation, conversations and interviews with key informants, meetings and group workshops, and a survey.

   An important aspect of the approach is discussing the collected information with the community, which involves a participatory analysis of the data in the field. Triangulation, that is, the use of different sources and methods for obtaining information, is one of the most important aspects of the analysis. When it reveals an inconsistency in information, this should be examined more closely and possibly linked directly to problems and opportunities. This information can also be useful in monitoring and evaluating activities and services.

7. The global evaluation of quality of life is based on both objective-quantitative aspects (environmental conditions) and subjective-qualitative aspects (environmental quality). The scheme proposed by UNESCO (see Table 1) shows the direct observations and the verbal reports of the inhabitants as the two ways of collecting objective information (column 2) as well as subjective information (column 3).

8. In order to select and evaluate meaningful environmental elements included in the UNESCO chart**,** the factors pointed out by Haramoto et al.,[34] as well as the checklist proposed by Milbrath,[35] can be taken into account. The elements selected for the research are shown in the synoptic chart in Table 2.

INSERT TABLE 2

The synoptic chart shown in Table 2 is the synthesis of the proposed methodology and describes the main topics of investigation. It is designed for the Chilean reality but we believe it can be adapted to other local contexts.

The first column corresponds to the environmental elements selected as most significant at the neighbourhood level. Columns two and three correspond, respectively, to the environmental conditions and quality of the case study. Information was gathered for each of them, using objective and subjective methods of measurement. In the latter, the perceptions of women and men were disaggregated.

The criteria for selecting the neighbourhood studied included: a concentration of low-income population within the metropolitan region; the presence of a government housing programme, given the impact which public policy has on the construction of the surroundings and thus on the quality of life of the population; a consolidated level of social organization in the neighbourhood, built within the first democratic transition period (1990-1994); and the existence of community based organizations. After analyzing statistical information from the National Statistics Bureau the Ministry of Housing and other social indicators, the team selected two neighbourhoods, namely, the *poblaciones* Estrella Sur and Roberto Matta in the district of Pudahuel in Santiago.

Interviews were held with municipal staff on the socio-economic, environmental, housing and organizational situation of the selected communities. The objectives of the research were explained to them through the interviews, joint field visits and group discussions. Also, given the novelty of the subject to be studied and the benefits to local government in terms of future planning, different forms and dialogues were set to share the findings, including formulating indicators of quality of life. A key to good local planning is to have well-defined objective as well subjective indicators. Table 3 shows the main types of information and the sources.

INSERT Table 3

Using this information as reference, group discussions were held. Three workshops took place to identify the main elements which residents of the *poblaciones* considered important to their quality of life. Notification of these workshops was made first by contacting the neighbourhood leaders, sport clubs, active youth, mothers clubs, elderly groups, parents, owners of shops, etc. A great diversity of people was invited in order to collect information on different points of view from men and women of different ages. The workshops were carried out on two Saturdays, in a neighbourhood club close to both *poblaciones*, after agreeing the best time and date with most of the participants. The interventions were registered using tape recorders, photography and video, with both researchers acting as facilitators and observers.

In the first workshop, two activities were held. First, “cognitive maps” were made and the participants were separated into two groups: men and women. The maps were used to identify, analyze and discuss the places where the residents frequently went to classify how they influenced their daily lives and the quality of their lives, and to discuss the problems and conflicts in relation to space.

The second activity, the "organization game", was conducted with men-only and women-only groups. The aim of the game was to define the neighbourhood's historical and cultural identity through the personal experiences and knowledge of the participants. Discussion issues included the origins of the neighbourhood's name, what was most liked about the neighbourhood, what the community was like at the beginning, what are the main celebrations and how do people participate.

In a second meeting, and after systematizing the information gained from the first, "organization roulette" was played. Men and women were divided into three groups and the objective of the game was to identify situations which the participants considered relevant to their quality of life, for example analyzing the problems which affected the neighbourhood and seeking possible causes. Using a board, dice and cards with statements about their quality of life, the groups discussed whether these were true or false, then prioritized the elements they considered most important. Based on these elements, a survey was designed to measure their relation to the quality of life of the residents. The sample of 220 respondents was determined using data from the population census, where men and women are distributed according to sex and age.

The questionnaire focused on the perception of quality of life and on the different needs and requirements of men and women of different ages. The questions had to be set specifically, to evaluate the level of satisfaction, happiness, etc. with regard to their habitat. Enquiries included: socio-demographic characteristics; previous housing, characteristics and perception of current housing; perception of the housing unit and the neighbourhood environment (location, infrastructure and services); community environment (protection, participation, social environment); final balance (possibilities of election, identity, advantages, problems and priorities); and income. A full analysis of this survey is programmed for the second stage of the research and will be undertaken with the community.

To sum up, the synoptic chart will provide a general view of the situation and will enable us to draw conclusions and evaluate the quality of life of men and women under the urban

aspects selected according to specific objectives. We believe that it is important to seek some kind of feedback from the community involved as well as from some level of policy makers, so that they can be taken into account as part of future community development plans. We also believe that this instrument is applicable to other research on the quality of life, as long as context specificities are considered.

1. This paper is based on research project no. 1980865/98 financed by FONDECYT. A large part of the bibliography used to prepare this document is based on both authors' research and study at DPU, University College London.

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20. See reference 6.

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22. See reference 21, UNESCO (1978), page 91.

23. See reference 6.

24. Solomon, E., N. Bouchouchi, V. Denisov, E. Hankiss, C. Allmann and L. Milbrath (1980**),** “UNESCO policy-relevant quality of life research programme” in Szalai and Andrews (see reference 18), pages 223-233.

25. However, given the gender emphasis in the research methodology, the case study group will be differentiated by sex, age and any other significant differences we may encounter.

26. See reference 14.

27. Levy, C. (1995), “The process of institutionalizing gender in policy planning. The web of institutionalization", *DPU working paper* No. 74, Development Planning Unit, University College, London.

28. Including: the elaboration of theory and knowledge; research; methodology; implementation of programmes and projects; technical and professional development; procedures; localization of responsibility to promote gender perspective; policies and planning; resources; political will and compromise; representative political structures; political pressure from grassroots; and

experience and interpretation of reality from men and women.
29. The term is frequently used in sociological discourse when referring to the logical construction used to indicate entities whose existence is believed to be confirmed by the hypothesis or linguistic systems to which they refer but that are never directly observable or directly inferred from observable facts (Abbagnano, N. (1987), Dizionario de Filosofia, Torino.

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35. See reference 6.

Table 1: Types of Facts and Data

Type of facts - Type of data	Objective facts on material things	Things people do, say or believe
Direct observation by the researcher	Counting, measuring or illustrations of physical things (CLEARLY OBJECTIVE)	Observation of behaviour
Verbal reports of people	Verbal reports about things	?Answers to questionnaires ?Content analysis ?Discussion (CLEARLY SUBJECTIVE)

SOURCE: UNESCO (1978), "Final report. Expert meeting on indicators of environmntal quality and quality of life", *Reports and Papers in the Social Sciences* No.38, page 91.

Fig 2. SYNOPTIC CHART

Source: SYNTHESIS OF MILBRATH, UNESCO AND OTHER AUTHORS MENTIONED IN THE THEORETICAL BACKGROUND

1. **ENVIRONMENTAL ELEMENTS OF QUALITY OF LIFE**	2. OBJECTIVE INDICATORS (COUNTING , MEASURING, ILLUSTRATIONS AND REPORTS ENVIRONMENTAL CONDITIONS AND FACTS)	3. SUBJECTIVE INDICATORS (OBSERVATION, QUESTIONNAIRES AND DISCUSSIONS)	
		Women	Men
I.- PHYSICAL ENVIRONMENT			
TOPOGRAPHY			
AIR CLEANLINESS			
WATER CLEANLINESS			
NOISE LEVELS			
SOILS			
II.- BUILT ENVIRONMENT			
ROADS			
VEHICLES			
PUBLIC TRANSPORT			
HOUSING			
CONSTRUCTION QUALITY			
CONFORT			
PRIVACY			
SECURITY			
SPACIOUSNESS			
NOISE LEVELS			
LOCATION			
III.- ACTIVITY ENVIRONMENTS			
SCHOOLS			
RECREATION SITES			
SHOPPING SITES			
IV. OVERALL COMMUNITARY ENVIRONMENT			
HEALTH SERVICES			
SECURITY SYSTEMS			
RECREATIONAL SYSTEMS			
GREEN AREAS			
COMMUNICATION SYSTEMS			
UTILITIES			
ELECTRICITY			
GAS			
WATER			
SEWAGE			
SOLID WASTE MANAGEMENT			
FRIENDLINESS			
SENSE OF IDENTITY AND BELONGING			
PHYSICAL BARRIERS			
LEVELS OF ENVIRONMENTAL PROTECTION			

Table 3: Objective Information to Collect

	INFORMATION	SECONDARY SOURCES	PRIMARY SOURCES
1	**Socio-economic:** population, demography, income, employment, services and municipal spending.	Municipality, National Census	
2	**Housing Conditions**: property tenure, basic services, size, and marginal units	Municipality, Ministry of Housing	Survey
3	**Health Conditions**: basic information, mortality rates	Health Services	Survey
4	**Natural Environment**: location, type of ecosystem, meteorological information, drainage conditions, topography, and environmental dangers	Municipality, Meteorological Service	Survey
5	**Land Use:** urban land use, land ownership, land use law, and land value	Municipality	
6	**Urban Transport**: basic information, automobile ownership, type of motorized trips, emissions, accidents, private transport restriction (flows, stops, scheduling)	Transport and Infrastructure Ministry, Police	
7	**Energy Use:** gross annual energy consumption, combustion emissions, interconnected electric network, electric energy provision, self-generated urban electricity, domestic usage, and energy prices	Electric Company Municipality, Health Service	
8	**Air Contamination**: air pollutant concentrations, emission control policies, quality of air, environmental monitoring, environmental health	Health Services and Municipality	Survey
9	**Noise Pollution**: Noise levels, noise pollution control.	Health Services	Survey
10	**Water and Sanitation**: Water resources, underground water extraction, future water resources, supply and provision, domestic sanitary installations, sewerage system, industrial waste, water related contamination policies, water quality monitoring, cost, drainage	Health Services, Municipality, Water Company	Survey
11	**Solid Waste**: total solid waste generated, municipal waste, removal, municipal expenditure on waste management, waste deposits, infrastructure for dangerous waste treatment, waste management policies.	Health Services and Municipality	Survey

SOURCE: Adapted from World Bank/UNDP in ICLEI/PNUMA (1996), *Manual de planificación para la Agenda 21 Local. Una introducción a la planificación para el desarrollo sostenible*, pages 69-73.

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