

论文摘要

我们生活在一个快速城镇化的世界上，据联合国统计，2014年，世界人口的54%生活在城市里，而目前世界人口的六分之一左右处于贫困中。这种情况说明在全球化的环境当中，经济增长本身是不够的，是因为一旦社会在一定程度上达到能够满足人们的基本需求的经济阈值，保持一个国家人口的幸福便应该成为可持续发展的最终目标。因此，21世纪的最重要挑战之一在于创建在社会、经济与环境三个层面上均可可持续发展的城市和社区。

那么，可持续发展这个词代表什么？在1987年公布的“*Our Common Future*”报告中，又称为布伦特兰报告，可持续发展正式地被定义为“符合当前需要且不危害后代人满足其需要的发展”。可持续发展这个概念是由三个互为因果的因素构成的，也就是说经济可持续发展、环境可持续发展以及社会可持续发展。为了塑造城市可持续发展，需要找到允许这三个元素互相支持、互相协调的一种发展方向。但事实证明，有关城镇化可持续发展以及城市规划过程的过去经验和学术文献主要聚焦在经济增长与环境保护上，而忽略了社会可持续发展的重要性。

到目前为止，社会可持续发展的概念框架仍相当模糊，并且它也是可持续发展中公共意识最低的领域。在这种概念框架模糊的情况下，可持续发展的实际和有效实施遇到障碍。Colantonio (2009)指出，尽管如此，最近这些年来，社会可持续发展的概念以及有关的可持续发展评价指标经历了显著的进化，也就是说，在社会可持续发展的概念框架中逐步增加了新元素。当社会可持续发展这个概念开始出现时，它主要包括满足人们的基本需求（住所，食物和水，衣服，基本的医疗保健），实现社会公平、社会包容和社会正义，克服广泛的城市贫困，尊重人权和性别平等这些“传统元素”。后来，社会可持续发展概念的范围开始扩大到新元素，例如人口结构的变化（也就说人口的老年化及人口的流动），有关社区凝聚力的问题，认同感与归属感，社会安全感，社会资本，宜居，公共参与生活质量和主观幸福感。

在此背景下，通过对学术文献和一些实例进行的仔细分析，我论文的核心论点为以下几个研究问题：

- **主要研究问题：**在塑造中国城镇化可持续发展的过程当中，主观幸福感的关键性在于哪些方面？
- **次要研究问题：**
 1. 什么是主观幸福感和城镇化可持续发展最终目标之间的关系？
 2. 当前在中国用于评价城镇化政策的可持续性指标在多大程度上能够掌握/把握主观幸福感这个元素？

从结构的角度来看，除了论文引言及结论之外，我论文的内容结构主要分为以下三章：

- **第一章：**第一章介绍城镇化可持续发展和主观幸福感的概念与评价方法。到目前为止，关于城镇化可持续发展，评价理论上的进化与具体实践的实现之间还存在着显著的差距，而且还没有设计可以用于在国家与国家之间或者不同时刻之间做比较的蓝图。从90年代起，随着联合国《二十一世纪议程》和欧盟《里斯本议程》的公布以及2001年在德国哥德堡欧洲理事会峰会的举行，可持续发展议程开始专注于社会元素。这些具有划时代的文件、政策与峰会强调经济可持续发展、社会可持续发展和环境性持续发展这三个结构元素之间达成平衡的重要性。

尽管如此，还有许多学者认为上述新元素的出现对决策人构成挑战，是因为他们怀疑政府在制定发展政策的过程中能够考虑到主观幸福感或类似的元素。

在第一章的第二部分，为了了解决策人在制定与城市发展有关的政策的过程中在多大程度上考虑到人们的主观幸福感以及人们对自己生活质量的感知，我分析一些在世界不同国家当前使用的可持续发展评价指标，尤其是包括社会可持续发展元素的可持续发展评价指标。城镇化可持续发展的评价指标在制定决策过程中的重要性在于它们促进不同利益相关者之间的沟通，而且有利于提高人们对城镇化导致的问题的意识。此外，城镇化可持续发展评价指标不仅是一种评价城市可持续发展的一种方法，而且也有利于实现以下几个功能：

- 预测和评价发展趋势；
- 支持决策过程；
- **制定策略及树立公共意识。**

因此，可持续发展评价指标可以用于达到三个不同的目标：

1. 将可持续发展的抽象概念改成统计工具；
2. 促进决策过程；
3. 作为评价成果的工具。

（最后，可持续发展评价指标需要具有一些不可或缺的特点，可用使用 SMART 这个缩略语来总结。）

通过对这些可持续发展评价指标进行的分析，可以说大部分可持续发展评价指标更多的强调 Colantonio 所说的社会可持续发展中的“传统元素”，而一般忽略其他元素。

幸福感的概念框架与社会可持续发展的概念框架同样模糊，因此很难测量。一般来说，构成幸福感的元素可以是客观的，也可以是主观的。前者是指可以测量的经济、社会和环境参数（例如：成人识字率），或者是指人们的感情、态度、看法和个人经验。

在此背景下，我在这一章的做后一部分对一些包括主观幸福感的领域的城镇化可持续发展的项目进行分析：

1. **欧洲共同体统计署，城市审计，欧洲城市生活质量调查：**从 2004 年起，地区司与欧盟地区与城市政策总司每三年进行这项调查，目标是调查住在不同欧洲城市与镇的人对自己生活质量的评价。
2. **思汇政策研究所，亚洲福祉指标：**这个 2012 年开始发展的项目基于测量住在上海、香港和新加坡的人对是个政策领域的满意度的民意调查。这十个政策领域为住房、医疗保健、教育、工作和商业机会、交通与基础设施、环境保护、社区归属感、公共安全与犯罪控制、娱乐以及政府质量。
3. **马来西亚城市-农村可持续发展指标网络：**2004 年，马来西亚政府中的三个部门正式的退出了这个项目。该项目旨在解决决策与城市计划数据的差距，并且通过使用这个评价指标可以评价马来西亚城市的可持续发展水平是否有进步。
4. **不丹国民幸福总值指数：**该项目

- **第二章：**在改论文的第二章，我分析现代中国城镇化与主观幸福感。

最近三个年代中国经历了前所未有的城镇化过程；中国城镇化是世界上最显著的，据统计，从 1980 年至 2015 年中国城镇化率从 20%提升到 56%，也就是说，最近两个年代，中国有了 10 百万左右新市民。鉴于中国政府将城镇化看作促进国家经济发展以及减少国家经济差异的最有效工具，因此城镇化是一种政治性、投机性、投资驱动的过程。中国城镇化过程具有以下几个特点：

- 中国城市人口不断地增多；
- 中国城镇化率的地区差别非常显著，也就是说，与中国东部地区相比，中部与西部地区的城镇化及现代化过程非常落后；
- 城市居住区和城市建筑密集区的扩张；
- 与大型城市相比，中小城市经历了更加快速得发展；

虽然从经济发展的角度来看，中国城市化毫无疑问导致了令人瞩目的进步，但是从可持续发展的角度来看，中国城镇化的发展模式在很大程度上是不可持续的。从社会的角度来看，中国的超速城镇化过程导致了一系列的急迫问题，例如地方政府在城镇建设和城镇基础设施上的过度投资行为以及违法征地、中国内流动人口与相关的问题以及中国城乡二元论结构。

通过分析 2014 年进行的一项研究，可以指出，在目前在中国使用的城镇化可持续发展的指标其中，有许多忽略了社会元素或者只涉及到一部分元素，因此这些中国使用的城镇化可持续发展的指标不能有效地支持制定决策过程。尽管如此，在过去的两年里，通过发行全国新型城市化计划 2014 - 2020 年，中国政府似乎已经取得了一些重要的步骤重新以人为中心的城市化模式。

- **第三章：**在此背景下，该论文的第三章有两种目标。一方面，它旨在提供评价在快速城市化地区的人口主观幸福感的框架，然后在中国北方的一些城镇进行小规模的投资；另一方面，通过分析这项调查的结果，在住在经历城镇化过程不同阶段的两组被访者对城镇化对主管幸福感的观感作比较。



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Subjective well-being as a component of social sustainability: assessment and evaluation in the context of China's urban development.

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1. INTRODUCTION

According to the data released by the United Nations, in 2014, 54 per cent of the world's population was living in urban areas, thus accounting for a total amount of 3.9 billion urban dwellers.¹ Furthermore, according to the results of some UN surveys, currently one billion people (that accounts for one-sixth of the world's population) live in shanty towns in conditions of poverty, and have difficulties accessing decent standards of sanitation, healthcare and adequate education. Therefore, there is an imperative demand for the implementation of sustainable patterns of urban development. Urbanism has consistently been subject to questions of sustainability² and the 21st century is faced with the impelling challenge of creating cities and communities that are sustainable in the long run on all levels, social, economic and environmental.³

It is difficult to trace the beginning of sustainability and sustainable development history to a precise moment in time. However, it can be stated that this concept started receiving international attention thanks to the report "Our Common Future", written by the World Commission on Environment and Development, also known as the Brundtland Report (1987)⁴, where a first comprehensive definition of sustainable development was given:

*"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*⁵

This definition, despite being commonly accredited, has received various critics for being excessively anthropocentric and for not precisely specifying what the human "needs" it refers to are, thus leaving room for discretion and free interpretation. Therefore, new definitions of sustainability have aroused that mainly focus on the importance of conciliating the three acknowledged dimensions of sustainability (also called the three Es, environment, economic, equity, that I will analyze in detail later) and that put a strong emphasis on the improvement of people's quality of life and well-being.⁶

For instance, more recently, sustainability was described as:

¹ UN News Center. "World's Population Increasingly Urban with More than Half Living in Urban Areas | UN DESA | United Nations Department of Economic and Social Affairs." Accessed July 10, 2016. <http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html>.

² Davidson, Mark. "Social Sustainability and the City." *Geography Compass* 4, no. 7 (2010): 872-80. Accessed July 10, 2016. doi:10.1111/j.1749-8198.2010.00339.x.

³ Woodcraft, Saffron, Tricia Hackett, and Lucia Caistor-Arendar. "Design for Social Sustainability: A Framework for Creating Thriving New Communities." London: Young Foundation, 2011. Accessed July 11, 2016.

⁴ For reference: UN Documents, Our Common Future. <http://www.un-documents.net/our-common-future.pdf>.

⁵ World Commission on Environment and Development, "Our Common Future".1987, p.41.

⁶ Gough, M. Z. "Reconciling Livability and Sustainability: Conceptual and Practical Implications for Planning." *Journal of Planning Education and Research* 35, no. 2 (2015): 145-60. Accessed July 15, 2016. doi:10.1177/0739456x15570320.

*"A dynamic process which enables people to realize their potential and improve their quality of life in ways which simultaneously protect and enhance the earth's life support systems."*⁷

Another milestone in the history of sustainability is constituted by the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, that was held in Rio de Janeiro in June 1992. The conference, which aimed at underlying the importance of enhancing and reinforcing sustainable development patterns, produced landmark documents such as Agenda 21⁸ and Forest Principles.⁹

In the past two decades, the discourse of sustainability has become the central focus of urban and regional strategies and decision-making policies. However, since its very coinage, the term "sustainability" has always been surrounded by a certain degree of ambiguity that leaves it open to various interpretations and multiple forms of criticism.¹⁰

The assumption that lays behind this imperative demand for sustainability is that, as asserted in the Brundtland Report, in an increasingly globalized world, economic growth by itself is not sufficient. In fact, many areas of the world demonstrate that high levels of productive activity and widespread poverty can coexist and this collusion constitutes a potential damage for the future of the environment and of human development. Therefore, the main goal is for a society to provide human beings with basic needs and equitable opportunities, and to fully understand their will, which may also result in the rejection of an economically advantageous opportunity if the latter is not sustainable in its broadest sense. Hence, economic growth needs to meet social and environmental sustainability standards.¹¹

Since sustainability has become the principle focus of development in many different areas, urban planning and development has also laid a strong emphasis on its implementation. Sustainability is constituted by a tripartite of levels that are intertwined with each other and cover the following domain, environmental, economic and social, that should interact and support each other in a balanced and equitable manner. However, most of the past experiences and existing literature concerning urban planning and growth have focused their core attention on implementing environmental sustainability and meeting economic needs. This is particularly evident in the vast majority of Chinese townships,

⁷ The UK Forum for the Future, 2006. <https://www.forumforthefuture.org/about/our-annual-reports>.

⁸ For reference: Official Documents System of the United Nations. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/I92/004/10/img/I9200410.pdf?OpenElement> and <https://documents-dds-ny.un.org/doc/UNDOC/GEN/I92/004/10/img/I9200410.pdf?OpenElement>.

⁹ For reference: United Nations Documents. <http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm>.

¹⁰ Koglin, T. "Sustainable development in general and urban context: A literature review". (Bulletin 248 / 3000). Lund University Faculty of Engineering, Technology and Society, Traffic and Roads, Lund, Sweden (2009).

¹¹ World Commission on Environment and Development. *"Our Common Future"*, 1987.

where the pursuit of economic growth is still the major priority. This approach has often proven incomplete, since it leaves partially aside various important aspects of sustainable development. These aspects can be reunited under the larger category of “social sustainability”, an umbrella term that includes different parameters and which meaning is still blurred and often used rhetorically. In order to accomplish social sustainability, it is fundamental to create the social and environmental conditions that constitute the foundation for which the residents of a city would consider themselves fully satisfied: it is here that the concept of subjective well-being plays a critical role. It is arguable that, once a society has reached a certain economic threshold that guarantees that citizens’ basic needs are met, people’s well-being becomes the core object that sustainability should aim at protecting and improving.¹²

Against this background, the central aim of this work is to analyze the relevance of subjective well-being in shaping sustainable urbanization in China. In order to investigate further on this topic, two sub-questions are addressed that allow a deeper understanding of the subject. First, what is the relation between subjective well-being and the achievement of sustainable urbanization goals? And second, are to what extent are sustainability indicators currently used in assessing and evaluating urbanization and urban policies in China able to grasp the dimension of subjective well-being? Ultimately, in the last section of the work, a possible framework for the evaluation of subjective well-being in rapidly urbanizing areas is proposed and applied to a case study conducted in selected areas in Northeastern China.

With the aim of shedding light on this issue and providing valuable answers and argumentations for the above research questions, the second chapter of this focuses on the concept of sustainable development, by underlining its implications in urban settings, and concentrates mainly on the concept of social sustainability and subjective well-being. Within this framework, this work presents an analysis of the existing indicators that have been developed to measure these aspects of sustainability. Furthermore, it is important to state that even though sustainable development has become a global goal and priority, however, in implementing strategies and decision-making processes, the unique characteristics of a specific society must be taken into account in order for a certain development model to be successfully applicable. Therefore, seen the different economic, social and environmental conditions, universal blueprints and templates are not available for

¹² Gourley, Ryan, Arthur Prokosch, Sabrina Sullivan, and Chirapon Wangwongwiroj. *Supporting Urban Sustainability through Subjective Well-Being Measurement*. Distributed by the Graham Sustainability Institute at the University of Michigan, through the Dow Sustainability Fellows Program: <http://sustainability.umich.edu/education/dow>.

widespread application¹³; nevertheless, successful examples implemented in other countries that have economic or social or cultural features in common with China are worth taking a deeper look at.

In the third chapter, the main focus moves to China and its experience in this field. Therefore, it is fundamental to provide a brief historical excursus of the process that, in a few decades, has led China to accomplish a 56% urbanization rate, followed by an analysis of the state of social sustainability in China and the role that subjective well-being plays in this sphere. Following this is a review of the most important indexes and indicators that have been used in evaluating the sustainability of Chinese urban agglomerates and of the ones that were created specifically to apply to the Chinese situation.

The fourth chapter, as mentioned before, is dedicated to the application of a proposed framework for the evaluation of subjective well-being to a case study based on the analysis of some questionnaires that I submitted in five townships and two sub-districts located in Shandong Province, Tianjin Municipality and Beijing Municipality. The first part of this section focuses on a quick overview of these places, their main characteristics and an explanation of the different stages of the urbanization process they are currently undergoing. This brief introductory frame is followed by a description of the methodology used and, ultimately, by an analysis of the results. The last part is dedicated to a discussion of the results, in an attempt to provide a small contribution to shed light on the initial research questions.

1.1 Sustainability and implications in urban settings.

As previously mentioned, since sustainability has become the dominant focus of development in many different areas, urban planning and development has also laid a strong emphasis on its implementation. Nevertheless, there is still uncertainty concerning the deep meaning of this concept, the goals it aims at and the outcomes its implementation should lead to. Sustainability must be considered as a concept that goes beyond the maintenance of the *status quo* that a community or a city has achieved; in fact, it should be seen as a dynamic process that implies change and transformation¹⁴ and that fully embraces all the aspects that are relevant to its fullest implementation. As stated above, sustainability is not about economic growth for its own sake; on the contrary, it is constituted by a tripartite of levels, known as triple-bottom-line sustainability or the three pillars of sustainability, that are intertwined with each other and cover the following domains: environmental,

¹³ World Commission on Environment and Development. "*Our Common Future*", 1987.

¹⁴ Davidson, Mark. "Social Sustainability and the City." *Geography Compass* 4, no. 7 (2010): 872-80. doi:10.1111/j.1749-8198.2010.00339.x.

economic and social.¹⁵ Hence, the goal of sustainability is to reach a balanced development in which all these three aspects are equally represented.

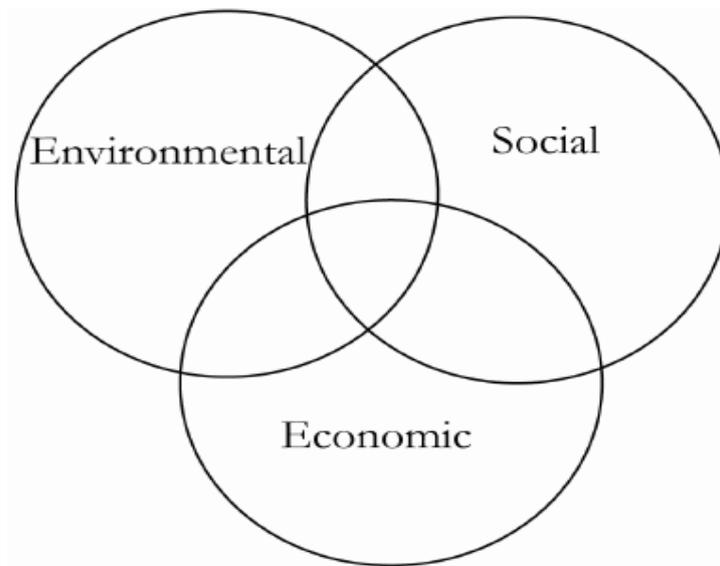


Figure 1: Balance among the three pillars of sustainability. Source: Colantonio, 2007.

These three pillars cannot be considered independently, none of them can be pursued individually without damaging the overall development. However, the concept of equity among these three dimensions is frequently merely abstract, insofar as previous experiences have often adopted an approach that tends to separate the various elements composing this tripartite, by developing policies and strategies aimed at achieving goals related to only one singular sphere.¹⁶ According to Kopfmüller et al. (2001), the international discourse on sustainability tends to underline the importance of the three-pillar development pattern. Nevertheless, the concrete enactment of sustainability-related policies and strategies is frequently based on the so-called one-pillar models, which revolve around the importance of enhancing environmental sustainability. In this kind of approach, the economic and social dimensions are only perceived as a “bridge” to the realization of fully functional ecological policies and strategies. Their implementation and the attainment of certain social (mainly linked to the elimination of widespread urban poverty) and economic standards are therefore imperative in order not to impinge on the environmental balance and in order not to undermine future generations’ opportunities.¹⁷

¹⁵ Koglin, T. “Sustainable development in general and urban context: A literature review.” (Bulletin 248 / 3000; Vol. Bulletin 248 / 3000). Lund University Faculty of Engineering, Technology and Society, Traffic and Roads, Lund, Sweden (2009).

¹⁶ Davidson, Mark. "Social Sustainability and the City." *Geography Compass* 4, no. 7 (2010): 872-80. doi:10.1111/j.1749-8198.2010.00339.x.

¹⁷ Littig, Beate, and Erich Griessler. "Social Sustainability: A Catchword between Political Pragmatism and Social Theory." *IJSD International Journal of Sustainable Development* 8, no. 1/2 (2005): 65. Accessed June 25, 2016. doi:10.1504/ijdsd.2005.007375.

In addition to this, the adoption of a multi-criteria approach will necessarily results in certain trade-offs; however the bias focus on either the environmental or the economic sphere of sustainability has generated two extremely polarized and mutually-exclusive approaches, known as “weak” and “strong” sustainability. According to Davies (2013), that bases his assumptions on Neumayer’s work (2003), the two different conceptions of sustainable development originate from different interpretations of what “capital” is. Neumayer (2003) defines capital as “stock that provides current and future utility” and indicates three forms of capital, natural capital, man-made capital and human capital (i.e. immaterial assets, such as know-how). Furthermore, natural capital is constituted by three aspects, namely “critical”, which is the dimension of natural capital that is indispensable to life in the long term, “constant”, which is an important constituent, but can be replaced, and, ultimately, “tradable”, which is not considered important and can be easily replaced.¹⁸ This division is at the basis of the still on-going debate on weak versus strong sustainability.

The former was developed in the 1970s within the framework of economic neo-classical theory, on the basis of the work of Solow (1974) and Hartwick (1977) that extended the neo-classical theory of economic growth to the domain of sustainable development. The rationale behind it is that the rents deriving from the extraction of non-renewable resources should be reinvested in man-made capital. However, even if some components of natural capital, such as raw materials destined for production, can be efficiently replaced by man-made resources, the loss of the critical dimension of natural capital that, as argued before, cannot be replaced and constitutes the *conditio sine qua non* for life, would lead to permanent and irreversible damage.¹⁹ Moreover, tightly linked to the concept of weak sustainability is the firm conviction that, through technological innovation, it is possible to replace natural capital with man-made capital in full.

Strong sustainability, on the other hand, is a principle based on the maintenance of some aggregates (which definition variates, which makes the conceptual framework of this notion quite blurred and often misconceived) of environmental capital over time. On the basis of its interpretation, the notion of strong sustainability can be generally interpreted in two main ways. The first requires that the depletion of non-renewable resources should be strongly contrasted abalanced by investing in substitutive renewable resources. However, this perspective requires an enlargement of the current base of resources through the development of additional resources or an increase in used resources regeneration rate. The other school of thought bases the notion of strong sustainability on the idea

¹⁸ Davies, George R. “Appraising Weak and Sustainability: Searching for a Middle Ground.” *Consilience: The Journal of Sustainable Development*, 10 Iss. 1 (2013): 111-24. Accessed October 5, 2016.

¹⁹ Dietz, Simon, and Eric Neumayer. "Weak and Strong Sustainability in the SEEA: Concepts and Measurement." *Ecological Economics* 61, no. 4 (October 30, 2006): 617-26. Accessed September 30, 2016. doi:10.1016/j.ecolecon.2006.09.007.

that non-renewable critical capital should be preserved in its physical terms in order to conserve its functions over time.²⁰

1.2 Social sustainability in urban context: the “forgotten” pillar of sustainability and its implications.

Whilst this work mainly aims at developing an analysis on the achievements related to subjective well-being in urban context and, especially, in Chinese townships, nevertheless, it is fundamental to briefly analyze the concepts of ecological and economic sustainability beforehand.

Ecologic or environmental sustainability constitutes the sphere of sustainability that is the most agreed upon: it is a concept that broadly refers to the preservation of the natural ecosystem, the varieties of species and a genetic stock that would guarantee resilience in response to external shocks or impacts²¹. Alongside this aspect, another fundamental factor is the implementation of policies and concrete actions aimed at preventing the depletion of those resources there are necessary to development. Therefore, it involves the implementation of new technologies capable of facing the increasing demand for sustainable urban solutions.

Economic sustainability is frequently perceived as another way of addressing economic growth. However, as Munier (2005) points out, in order to be sustainable, economic growth should be aimed at creating a more equitable and just society that also has the capabilities to invest in ecological projects and innovative technologies.²² Therefore, economic growth and sustainability pose more questions and ambiguity than the concept of environmental sustainability, insofar as it raises questions concerning the limits of economic expansion for preventing negative externalities on a social and environmental level.²³

Unlike the aforementioned environmental and economic dimensions of sustainable development, in which public awareness is increasing remarkably, social sustainability constitutes the sphere of sustainable development that is characterized by the most ambiguity and criticism and by the lowest degree of public consciousness. . While ecological key objectives seem to be the least

²⁰ Hediger, Werner. "Reconciling “weak” and “strong” Sustainability." *International Journal of Social Economics* 26, no. 7/8/9 (1999): 1120-144. Accessed September 30, 2016. doi:<http://dx.doi.org/10.1108/03068299910245859>.

²¹ Foladori, Guillermo. “Advances and Limits of Social Sustainability as an Evolving Concept.” *Canadian Journal of Development Studies / Revue canadienne d'études du développement*, (2005): 26:3, 501-510, DOI: 10.1080/02255189.2005.9669070.

²² Koglin, T. “Sustainable development in general and urban context: A literature review.” (Bulletin 248 / 3000; Vol. Bulletin 248 / 3000). Lund University Faculty of Engineering, Technology and Society, Traffic and Roads, Lund, Sweden (2009).

²³ Guillermo Foladori. “Advances and Limits of Social Sustainability as an Evolving Concept.” *Canadian Journal of Development Studies / Revue canadienne d'études du développement*, (2005): 26:3, 501-510, DOI: 10.1080/02255189.2005.9669070

disputed, as well as the economic goals, there exists a lot more disagreement about the definition of the main social objectives related to sustainable development.²⁴ One of the main issues that can be observed is that there is a remarkable difference between the literature pertaining to the first two dimensions of sustainable development and the literature concerning its social features. The former are treated with a more practical approach and are more policy-oriented, while the latter is permanently the object of debates concerning its meaning and the best ways to measure it²⁵, primarily because “The ideas of what really constitutes a decent life obviously vary depending on the definition”.²⁶ Therefore, it remains difficult, if not impossible, to shape a universally accepted “best practice” template.

The concept of social sustainability in general, and in urban context in particular, being so blurred, it is difficult to identify a suitable and non-biased definition. However, the aim of this overview is to try to analyze the different points of view concerning the meaning and the implications of social sustainability, in order to reach an overall consensus on what the most dominant factors should be when applying the concept of social sustainability to urban settings. According to Colantonio, Sach’s (1999) vision of ambiguity on whether social sustainability should be considered as the *conditio sine qua non* for sustainable development or as the necessary means to sustain specific structures and customs in communities and societies is currently still valid. On the other hand, Colantonio argues that the concept of social sustainability, as well as the indicators designed for policy makers to measure it and further implement socially sustainable urban practices, has undergone a remarkable evolution.²⁷

As Foladori (2005) points out, until the 1990s, one of the main approaches to sustainability was to reduce its spectrum to the environmental dimension. The discourse concerning social sustainability was frequently excluded or, when mentioned, it was mainly concentrated on the issues concerning widespread poverty and the population boom. These issues, however, were not considered a threat to sustainability in the social realm itself, but were perceived only as a potential damage to the ecological

²⁴ Omann, Ines, and Joachim H. Spangenberg. "Assessing Social Sustainability The Social Dimension of Sustainability in a Socio-Economic Scenario." 7th Biennial Conference of the International Society for Ecological Economics, 6-9 March 2002, Tunisia, Sousse.

²⁵ Koglin, T. “Sustainable development in general and urban context: A literature review.” (Bulletin 248 / 3000; Vol. Bulletin 248 / 3000). Lund University Faculty of Engineering, Technology and Society, Traffic and Roads, Lund, Sweden (2009).

²⁶ Littig, Beate, and Erich Griessler. "Social Sustainability: A Catchword between Political Pragmatism and Social Theory." *IJSD International Journal of Sustainable Development* 8, no. 1/2 (2005): 65. Accessed June 25, 2016. doi:10.1504/ijsd.2005.007375.

²⁷ Colantonio, Andrea. “Social sustainability: a review and critique of traditional versus emerging themes and assessment methods”, Originally published in Horner, M., Price, A., Bebbington, J. and Emmanuel, R., (eds.) SUE-Mot Conference 2009: Second International Conference on Whole Life Urban Sustainability and its Assessment: conference proceedings. Loughborough : Loughborough University, 2009, pp. 865- 885.

equilibrium. Hence the concept of “bridge sustainability, that is related to a limited form of social sustainability, inasmuch as it becomes relevant only when there is a causality effect between social unsustainability and environmental unsustainability, thus making social-related achievements a vehicle for the enhancement of ecological well-being.²⁸ From this basis, it can be argued that, when compared to environmental and economic sustainability, the concept of social sustainability still lacks equitable recognition both from the scientific community and from decision-makers.²⁹

By analyzing the existing literature and examples from concrete urban practices, it can be evinced that there is, indeed, a noticeable connection between the social sphere and the ecological outcome. As stated in the Brundtland Report, people’s basic needs have to be fulfilled in order to make them actively participate in protecting and improving the surrounding environment. As some scholars point out, poverty act as a barrier in the uptake of modern and green technologies and it is naïve to believe that people would honestly be concerned about the bio-physical environment when their basic needs, such as food, shelter and clothing are not met in a satisfying manner.³⁰ As a matter of fact, the realization of environmental sustainability requires solid social foundations.³¹ However, on the basis of existing literature, it can be argued that social sustainability should not be seen as a mere vehicle for reaching environmental goals. In fact, it encompasses many other spheres.

As previously asserted, the conceptual framework for social sustainability is the object of debates among academics, institutions and policy makers and this “conceptual chaos” may impinge on the overall utility and importance of the concept itself.³² Despite this, many social scientists and scholars have provided the community with their definitions and understandings of what social sustainability implies, of what goals it should achieve and the most valuable assessment methods policy makers should resort to.

Colantonio (2009) argues that, from a conceptual point of view, there has been a significant shift from what he describes as “hard” themes towards “soft” themes concerning the social realm of sustainability. The latter have started emerging only in recent years and have swiftly become the

²⁸ Foladori, Guillermo and Humberto Tommasino. "El Concepto De Desarrollo Sustentable Treinta Años Después." *Desenvolvimento E Meio Ambiente Desenv Meio Amb* 1, no. 0 (2000): 41-56. doi:10.5380/dma.v1i0.3056.

²⁹ Omann, Ines, and Joachim H. Spangenberg. "Assessing Social Sustainability The Social Dimension of Sustainability in a Socio-Economic Scenario." 7th Biennial Conference of the International Society for Ecological Economics, 6-9 March 2002, Tunisia, Sousse.

³⁰ Vallance, Suzanne, Harvey C. Perkins, and Jennifer E. Dixon. "What Is Social Sustainability? A Clarification of Concepts." *Geoforum* 42, no. 3 (2011): 342-48. doi:10.1016/j.geoforum.2011.01.002.

³¹ Enyedi, György. "Social Sustainability of Large Cities." *Ekistics* 69, no. 412/413/414 (2002): 142-44. Published by: Athens Center of Ekistics. <http://www.jstor.org/stable/43619551>.

³² Vallance, Suzanne, Harvey C. Perkins, and Jennifer E. Dixon. "What Is Social Sustainability? A Clarification of Concepts." *Geoforum* 42, no. 3 (2011): 342-48. doi:10.1016/j.geoforum.2011.01.002.

central focus of the discourse concerning the operationalization of urban social sustainability. As pointed out earlier, when social sustainability started emerging as a concept, it mostly revolved around the satisfaction of human basic needs (shelter, food and water, clothing, basic healthcare), the achievement of social equity and inclusion, the overcome of widespread urban poverty, education, skills and employment, human rights and gender equity, social justice, etcetera. In recent years, new key themes have been gradually emerging, such as demographic change (referred to population aging, internal mobility and migration), social mixing and cohesion inside communities, sense of identity and belonging (if this lacks, residents might feel alienated from the community, thus increasing the risk of mental health diseases and impinging on the overall level of well-being³³), social security (crime), social capital, livability, well-being, happiness and quality of life. The complementation of the traditional key themes with these new “soft” key themes adds more complexity to the overall debate on social sustainability³⁴, seen that a multi-criteria approach conveys a much more complicated implementation and that the measurability of these latter parameters is much more difficult for policy makers to put into concrete action. Various scholars and institutions support this “upgraded” perception of social sustainability, which comprehends a larger spectrum of key objectives. For instance, the Oxford Institute for Sustainable Development (OISD) defines social sustainability as:

“Concerning how individuals, communities and societies live with each other and set out to achieve the objectives of development models which they have chosen for themselves, also taking into account the physical boundaries of their places and planet earth as a whole. At a more operational level, social sustainability stems from actions in key thematic areas, encompassing the social realm of individuals and societies, which ranges from capacity building and skills development to environmental and spatial inequalities. In this sense, social sustainability blends traditional social policy areas and principles, such as equity and health, with emerging issues concerning participation, needs, social capital, the economy, the environment, and more recently, with the notions of happiness, wellbeing and quality of life.”³⁵

The Young Foundation describes it as:

³³ Woodcraft, Saffron, Tricia Hackett, and Lucia Caistor-Arendar. “Design for Social Sustainability: A Framework for Creating Thriving New Communities.” London: Young Foundation, 2011.

³⁴ Colantonio, Andrea. “Social sustainability: a review and critique of traditional versus emerging themes and assessment methods”, Originally published in Horner, M., Price, A., Bebbington, J. and Emmanuel, R., (eds.) SUE-Mot Conference 2009: Second International Conference on Whole Life Urban Sustainability and its Assessment: conference proceedings. Loughborough : Loughborough University, 2009, pp. 865- 885.

³⁵ Main authors: Andrea Colantonio and Tim Dixon; Contributing authors: Robin Ganser, Juliet Carpenter, and Austine Gombe. *Measuring Socially Sustainable Urban Regeneration in Europe*. Report. The Oxford Institute for Sustainable Development (OISD), School of the Built Environment, Oxford Brookes University. October 2009.

“A process for creating sustainable, successful places that promote wellbeing, by understanding what people need from the places they live and work. Social sustainability combines design of the physical realm with design of the social world – infrastructure to support social and cultural life, social amenities, and systems for citizen engagement and space for people and places to evolve.”³⁶

Therefore, for the purpose of this work, it can be argued that social sustainability applied to urban context concerns a multi-criteria spectrum of key themes that range from tangible ones, such as the coverage of basic needs, employment, education, social security, as well as equitable access to opportunities and resources offered to all the inhabitants, to intangible features of social life, such as well-being, happiness, the degree of livability of a city and the maintenance of its socio-cultural identity, social resilience, public participation, social capital and social cohesion. In order to gain a better understanding of this multifaceted concept, it is useful to get a concise overview of the most relevant features to this specific work that can contribute to its enrichment, i.e. public participation, social capital and livability, and to analyze how these aspects can influence the overall subjective well-being of a community.

Public participation.

The origin of the emphasis on public participation can be traced back to 1979, when the United States Congress enacted the National Environmental Policy Act (NEPA). The aim of this landmark act was to ensure that all the possible environmental impact of proposed actions and plans are assessed and taken into consideration before their actual implementation. NEPA created a Council on Environmental Quality (CEQ), which established the procedure for conducting EIAs (Environmental Impact Assessment).³⁷ Within the context of the EIAs, public participation came to play a more and more relevant role, through the scoping process, which allows citizens to provide inputs on the issues that should be addressed in the Environmental Impact Statement (EIS), via various methods, such as public audiences, formal hearings, informal workshops, etcetera.³⁸ Therefore, since the early 1970s there has been an increasingly widespread consensus among scholars, social scientists, decision makers and institutions on the fact that public participation is one of the key elements that contributes

³⁶ Woodcraft, Saffron, Tricia Hackett, and Lucia Caistor-Arendar. “Design for Social Sustainability: A Framework for Creating Thriving New Communities.” London: Young Foundation, 2011.

³⁷ EPA. Alm, Alvin L. "1988 Article on NEPA: Past, Present, and Future." EPA. <https://www.epa.gov/aboutepa/1988-article-nepa-past-present-and-future>.

³⁸ EPA. "How Citizens Can Comment and Participate in the National Environmental Policy Act Process." Accessed September 2016. <https://www.epa.gov/nepa/how-citizens-can-comment-and-participate-national-environmental-policy-act-process>.

to the realization of a form of development that is “socially inclusive, equitable, participatory and empowering, and sustainable in terms of the environment and livelihoods”.³⁹ Participation, term that refers to giving residents the opportunity to take part in collective activities that influence the areas they live in, makes a community more efficient, insofar as it makes public investments more effective in the long term. In fact, neglecting or going against the opinions and suggestions of the community is highly likely to give rise to unpleasant outcomes for the policy makers and the overall well-being of the community, such as obstruction of public projects and policies, local resistance and protest movements.⁴⁰ According to Edyen, policy makers only have a partial view of what happens on a local level, mainly based on statistical data that, as precise as they might be, are not sufficient to grab hold of all the various relevant aspects. This is significant especially in those countries that are characterized by a tense and unfriendly political climate where people are mostly suspicious of political power.⁴¹ As the authors of *Design for Social Sustainability: A Framework for Creating Thriving New Communities* point out, the enhancement of public participation positively influences a community well-being.

Social capital.

As many other concepts in the realm of social sustainability, there is no universally agreed upon definition of social capital, since the definition of this notion mostly depends on the field investigated; however, even though the various definitions have significant disagreement, they almost all revolve around social relations and networks that produce positive outcomes and benefits.⁴²

The OECD defines social capital as “networks together with shared norms, values and understandings that facilitate cooperation within or among groups”.⁴³ Furthermore, there exist different forms of social capital; the most recognized ones are the following:

- Bonds, i.e. links based on a shared identity;

³⁹Foladori, Guillermo. “Advances and Limits of Social Sustainability as an Evolving Concept.” *Canadian Journal of Development Studies / Revue canadienne d'études du développement*, (2005): 26:3, 501-510, DOI: 10.1080/02255189.2005.9669070.

⁴⁰ Woodcraft, Saffron, Tricia Hackett, and Lucia Caistor-Arendar. “Design for Social Sustainability: A Framework for Creating Thriving New Communities.” London: Young Foundation, 2011.

⁴¹ Enyedy, György. “Public Participation in Socially Sustainable Urban Development”. Published with the support of UNESCO/MOST Program and Centre for Regional Studies (Hungarian Academy of Sciences) with the co-operation of MTANITA Foundation (Budapest, Hungary) and the Hungarian MOST Liason Committee. Pécs (Hungary). (2004).

⁴² Social Capital Research. “Definitions of Social Capital - Social Capital Research.” <http://www.socialcapitalresearch.com/literature/definition.html>.

⁴³ OECD. “OECD Glossary of Statistical Terms - Social Capital Definition.” OECD Glossary of Statistical Terms - Social Capital Definition. Accessed August 03, 2016. <https://stats.oecd.org/glossary/detail.asp?ID=3560>.

- Bridges, i.e. links that go beyond a common identity (such as those with distant friends or colleagues);
- Linkages, i.e. links with people belonging to different levels of the social ladder.⁴⁴

The concept of social capital has started gaining an important position in the discourse concerning social sustainability only recently. Currently, it is considered as a fundamental pillar for the improvement of communities, and it is frequently seen as game-changing factor, inasmuch as it can determine the difference between a successful community and a deprived community.⁴⁵ Moreover, the notion of social capital increasingly attracts the attention of policy makers and social science researchers, due to its tight relation with core policy goals, such as social cohesion, reduction of poverty and social inequality, sustainable human development and active participation in governance decision making. Therefore, appropriate levels of social capital within a community or a society act as the engine of co-operation, mutual support, development of shared goals and collective decision-making within the boundaries of a group or a community, thus also acting as a deterrent for free riders.⁴⁶

Livability.

The concept of livability is increasingly gaining importance in the eyes of urban planners and scholars devoted to sustainability and urban studies. However, in order to fully understand the relevance of this concept in the urban setting, a prior understanding of what livability actually means is imperative. What is the meaning of “livability” and why is it important? As observed by the Young Foundation (2011), the concept of livability started emerging in response to the increasing awareness that a sustainable city should represent a place where people desire to spend their lives; it should not be their only alternative. Furthermore, concerns for urban and community livability also started arising as people began to be increasingly aware of the unsustainability of urban lifestyle and of the finiteness of the resources that are needed to support it. In 2004, Godschalk added the concept of livability to the already existing sustainability tripartite, i.e. the so-called three Es that were discussed

⁴⁴ Keeley, Brian. “OECD Insights Human Capital: How What You Know Shapes Your Life.” Chapter 6, *A Bigger Picture*. Paris: OECD, 2007.

⁴⁵ Colantonio, Andrea. "Social Sustainability: An Exploratory Analysis of Its Definition, Assessment Methods, Metrics and Tools." *Measuring Social Sustainability: Best Practice from Urban Renewal in the EU 2007/01: EIBURS Working Paper Series*, July 2007.

⁴⁶ Killerby, Paul. "Social Capital, Participation and Sustainable Development: Recent Examples of Inclusive Consultation in New Zealand." International Community Development Conference, Rotorua, New Zealand, 2001.

earlier, arguing that them alone are not sufficient for guiding urban planning to accomplish satisfying achievements.⁴⁷

Since livability is a multifaceted concept, it is difficult to come to a consensus on its definition. It is a term that encompasses various aspects, such as quality of life, the character of a place, the health of the communities and the existence or absence of all those aspects that satisfy residents' needs (on all levels), thus increasing their overall well-being.⁴⁸ Besides, "livability" implies a high degree of relativity, since its meaning varies depending on the place, the historical time, the measurement methods used to assess it, etcetera.⁴⁹ Below is an overall comprehensive definition for the concept of "livability":

*"Community livability is constructed by the sum of the physical and social characteristics experienced in places—including the natural environment and a walkable and mixed-use built environment, economic potential near diverse housing options, and access to a broad range of services, facilities, and amenities—that add up to a community's quality of life."*⁵⁰

The degree of livability of a city is also considered important in making it more or less attractive for business and skilled workers. Therefore, livability is important to governments that aspire at enlarging a city's business opportunities as well as creating strong foundations for further development.⁵¹

Urban planners and other international institutions have developed a wide variety of "livability rankings" that are mostly based on western countries' standards of livability and "good" cities. Despite the so-called "developed countries" not being the central focus of my work, it is interesting to get an overview of what the most relevant parameters used for elaborating these international rankings are. The most accredited methodology is the one developed by Mercer, an international consulting firm founded in Canada in 1945. Mercer designed the Quality-of-Living Index Calculator, stating that "To encourage mobility, reliable information is needed to help calculate fair, consistent

⁴⁷ Godschalk, David R. "Land Use Planning Challenges: Coping with Conflicts in Visions of Sustainable Development and Livable Communities" *Journal of the American Planning Association*, (2004): 70:1, 5-13, DOI: 10.1080/01944360408976334.

⁴⁸ *Community and Quality of Life: Data Needs for Informed Decision Making*. Washington, D.C.: Board on Earth Sciences and Resources, Division on Earth and Life Studies, National Research Council, National Academy Press, 2002.

⁴⁹ Pacione, Michael. "Urban Environmental Quality and Human Wellbeing—a Social Geographical Perspective." *Landscape and Urban Planning* 65 (2003): 19-30. Department of Geography, University of Strathclyde, 50 Richmond Street, Glasgow, Scotland G1 1XH, UK.

⁵⁰ Gough, M. Z. "Reconciling Livability and Sustainability: Conceptual and Practical Implications for Planning." *Journal of Planning Education and Research* 35, no. 2 (2015): 145-60. doi:10.1177/0739456x15570320.

⁵¹ Okulicz-Kozaryn, Adam. "City Life: Rankings (Livability) Versus Perceptions (Satisfaction)." *Social Indicators Research* 110, no. 2, p. 433-51. January 2013, First online: 30 September 2011. Accessed June 29, 2016. doi:10.1007/s11205-011-9939-x.

expatriate compensation for hardship locations.”⁵² As described on their official website, Mercer’s methodology is based on 39 factors that are divided in 10 categories that further show how multifaceted the concept of livability is and how many tangible and intangible aspects of urban life it covers:

1. Political and social environment (political stability, crime, law enforcement, etc.).
2. Economic environment (currency exchange regulations, banking services).
3. Socio-cultural environment (media availability and censorship, limitations on personal freedom).
4. Medical and health considerations (medical supplies and services, infectious diseases, sewage, waste disposal, air pollution, etc.).
5. Schools and education (standards and availability of international schools).
6. Public services and transportation (electricity, water, public transportation, traffic congestion, etc.).
7. Recreation (restaurants, theatres, cinemas, sports and leisure, etc.).
8. Consumer goods (availability of food/daily consumption items, cars, etc.).
9. Housing (rental housing, household appliances, furniture, maintenance services).
10. Natural environment (climate, record of natural disasters).⁵³

The most prominent shortcoming of these rankings is that they mainly measure “quantifiable” metrics, and it is arduous to agree upon metrics that can be applied indistinctly to different realities. This means that who lives in the highest-ranking cities does not necessarily conduct a happy life, in fact in these (in theory) irreproachable urban settings, rich infrastructure and adequate services can coexist with loneliness, unhappiness and dissatisfaction.⁵⁴ The main rationale underlying this course of action is that livability reflects the status of tangible and measurable factors, and is therefore considered more achievable in the short term than a more abstract and intangible concept such as subjective well-being.⁵⁵

⁵² Source: <https://www.imercer.com/content/hardship.aspx>.

⁵³ Source and further reference: <https://www.imercer.com/content/mobility/quality-of-living-city-rankings.html#list>.

⁵⁴ "The Value of Rankings and the Meaning of Livability." Home. Accessed July 01, 2016. <http://www.livablecities.org/blog/value-rankings-and-meaning-livability>.

⁵⁵ Gough, M. Z. "Reconciling Livability and Sustainability: Conceptual and Practical Implications for Planning." *Journal of Planning Education and Research* 35, no. 2 (2015): 145-60. doi:10.1177/0739456x15570320.

1.3 The object of sustainability: promoting citizens' well-being.

As Partridge (2005) pointed out, when assessing social sustainability, it is fundamental to take into account concepts related to quality of life.⁵⁶ Indeed, quality of life, well-being and happiness are frequently seen as the ultimate goals of social sustainable development, inasmuch as people, especially in developed countries, are increasingly aware of the importance of other factors, beyond material growth, to satisfy people's desire for high levels of well-being and life quality. This has led to the creation of more suitable sets of indicators capable of reflecting a society's health, not based merely on its material growth, but more on the well-being achieved overall.⁵⁷

Despite this concept being increasingly recognized and put into concrete action, however, Gross Domestic Product (GDP) continues to constitute the most relevant indicator of a nation's or a city's well-being. Without the intention of underestimating its importance as a parameter, it is important to point out that GDP, which does not distinguish between transactions that have a positive effect on human well-being and those that have a counter-productive effect, completely dismisses the role that subjective perceptions play.⁵⁸ The underlying issue is that despite the fact that the human condition has become the urban condition, contemporary cities are not seen as places in which to achieve high quality well-being. In fact, as Amin (2006) puts it "for the vast majority, cities are polluted, unhealthy, tiring, overwhelming, confusing, alienating."⁵⁹

It is self-evident that the term subjective well-being refers to people self-reported assessment of their own well-being. Usually, in order to understand the overall level of well-being of a community or of a city, citizens are asked to express their own perception about life satisfaction, happiness and other realms that the researcher considers important in that specific context. Therefore, the subjectivity of this approach is reflected by the fact that people are not asked to rely on factual information, but rather on utterly personal perceptions.⁶⁰ The subjectivity linked to this concept makes it difficult for theory to provide us with a satisfying and consensual definition of human well-

⁵⁶ Koglin, T. "Sustainable development in general and urban context: A literature review." (Bulletin 248 / 3000; Vol. Bulletin 248 / 3000). Lund University Faculty of Engineering, Technology and Society, Traffic and Roads, Lund, Sweden (2009).

⁵⁷ Pacione, Michael. "Urban Environmental Quality and Human Wellbeing—a Social Geographical Perspective." *Landscape and Urban Planning* 65 (2003): 19-30. Department of Geography, University of Strathclyde, 50 Richmond Street, Glasgow, Scotland G1 1XH, UK.

⁵⁸ Gourley, Ryan, Arthur Prokosch, Sabrina Sullivan, and Chirapon Wangwongwiroj. "Supporting Urban Sustainability through Subjective Well-Being Measurement." Distributed by the Graham Sustainability Institute at the University of Michigan, through the Dow Sustainability Fellows Program: <http://sustainability.umich.edu/education/dow>.

⁵⁹ Ash, Amin. "The Good City." *Urban Studies* 43, no. 5/6 (May 2006): 1009-023. Accessed April 25, 2016. doi:10.1080=00420980600676717.

⁶⁰ Colantonio, Andrea and Tim Dixon (Main Authors); Robin Ganser, Juliet Carpenter, and Austine Gombe (Contributing Authors). *Measuring Socially Sustainable Urban Regeneration in Europe*. Report. The Oxford Institute for Sustainable Development (OISD), School of the Built Environment, Oxford Brookes University. October 2009.

being, its components and the methods to measure it. This also leads to policy makers frequently overlooking these aspects because of the difficulty linked to the measurements of parameters, which value and weight vary depending on the context. Furthermore, it can be argued that one of the main reasons why subjective well-being is scarcely investigated is that since it takes into account individuals' perceptions, it therefore requires large-scale access to human subjects. Yet in the last decade, the concept of subjective well-being is becoming increasingly central in social studies, with many scholars dedicating their work to this topic.⁶¹

In order to better clarify the conceptual framework concerning subjective well-being, in 2013, the OECD has published a document, *OECD Guidelines on Measuring Subjective Well-being*, which aims at giving a more detailed conceptual framework of subjective well-being and the correspondent measurement methods. As observed in this document, it is misleading to consider subjective well-being as a synonym for happiness. In fact, it is a term that encompasses different aspects and is not just limited to happiness. According to OECD a sufficiently comprehensive and suitable definition of subjective well-being is:

*“Good mental states, including all of the various evaluations, positive and negative, that people make of their lives, and the affective reactions of people to their experiences.”*⁶²

It is important to acknowledge that subjective well-being does not represent the totality of individuals' well-being. Therefore, it must be linked to objective parameters of well-being, such as income, employment condition, health status, marital status and major life events. In fact, as many researches show, subjective well-being measures correlate well with objective well-being parameters.⁶³

⁶¹ Diener, Ed Christie Napa Scollon and Richard E. Lucas. "The Evolving Concept of Subjective Well-Being: The Multifaceted Nature of Happiness." In *Assessing Well-being*, 67-100. Vol. 39. Social Indicators Research. Springer Netherlands, 2009. doi: 10.1007/978-90-481-2354-4.

⁶² OECD. "OECD Guidelines on Measuring Subjective Well-being" OECD Publishing, 2013. Accessed December 22, 2015. <http://dx.doi.org/10.1787/9789264191655-en>.

⁶³ OECD. "OECD Guidelines on Measuring Subjective Well-being" OECD Publishing, 2013. Accessed December 22, 2015. <http://dx.doi.org/10.1787/9789264191655-en>.

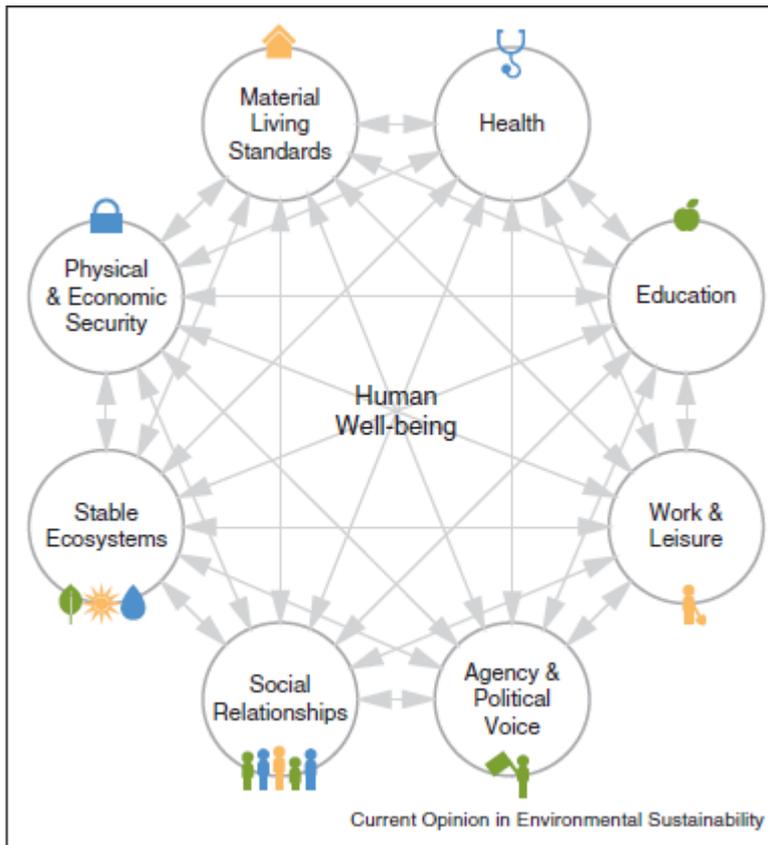


Figure 2: Human well-being as a multidimensional concept. The interconnection of objective and subjective components. Source: Rogers *et al.*, 2012.⁶⁴

Against this background, it is arguable that, once a society has reached a certain economic threshold that guarantees the full and equitable satisfaction of citizens' basic needs, well-being becomes the core objective of social sustainability. Furthermore, citizens' well-being is the main goal that sustainable development as a whole should aim at preserving and improving, stressing the importance of social sustainability-related concepts such as social equity, cities livability, public participation, social capital and social resilience. Within this framework, sustainability in urban settings, enriched by the relevance of enhancing humans' well-being, can be described as follows:

*"A sustainable city preserves and improves the well-being of its residents through environmental, economic, and social strategies, without shifting problems into the future, or disproportionately onto populations within or beyond its borders. Sustainability is a well-being issue, and tracking well-being can help ensure a more sustainable approach to decision-making."*⁶⁵

⁶⁴ Rogers, Deborah S., Anantha K. Duraiappah, Daniela Christina Antons, Pablo Munoz, Xuemei Bai, Michail Fragkias, and Heinz Gutscher. "A Vision for Human Well-being: Transition to Social Sustainability." *Current Opinion in Environmental Sustainability* 4, no. 1 (February 17, 2012): 61-73. doi:10.1016/j.cosust.2012.01.013.

⁶⁵ Gourley, Ryan, Arthur Prokosch, Sabrina Sullivan, and Chirapon Wangwongwiroj. *Supporting Urban Sustainability through Subjective Well-Being Measurement*. Distributed by the Graham Sustainability Institute at the University of Michigan, through the Dow Sustainability Fellows Program: <http://sustainability.umich.edu/education/dow>.

2. URBAN SUSTAINABILITY AND SUBJECTIVE WELL-BEING: ASSESMENT AND MEASUREMENT.

In a rapidly urbanizing world, urban sustainability has become a central focus of academic research, science and policy-making processes. This has resulted in evident efforts all across the globe aimed at reaching the aforementioned goals of creating sustainable cities, and in the development of instruments capable of tackling all the aspects and key issues of sustainable development in a balanced manner.⁶⁶ However, as I will further discuss in more details, the current developments in the realm of urban sustainability assessment still show a remarkable gap between the advancement of assessment theories and the actual implementation of concrete practices.⁶⁷ Furthermore, as of today, there are no universal blueprints able to cover all the domains of sustainability that allow for comparisons over time and for cross-country comparison.

As reiterated in the previous paragraphs, one of the major limits that urban sustainable development constantly encounters is the exclusion of social aspects and the main focus on the environmental dimension and the economic growth of urban settings. Starting from the late 1990s, the sustainability agenda has given more relevance to social aspects, following the formulation of Agenda 21, The Lisbon Strategy, also known as Lisbon Agenda or Lisbon Process, a development plan enacted by the European Council in 2000, and the European Council Summit in Göteborg in June 2001.⁶⁸ What emerges from these landmark documents, plans and summits is that, in order to achieve satisfying results, sustainability must be seen as the merging of economic enterprise, social well-being and environmental integrity, therefore the interrelation among the three pillars is imperative.⁶⁹

⁶⁶ Shen, Li-Yin, J. Jorge Ochoa, Mona N. Shah, and Xiaoling Zhang. "The Application of Urban Sustainability Indicators – A Comparison between Various Practices." *Habitat International* 35, no. 1 (2011): 17-29. Accessed July 15, 2015. doi:10.1016/j.habitatint.2010.03.006.

⁶⁷ Adinyira, Emmanuel, Samuel Oteng-Seifah, Theophilus Adjei-Kumi, Department of Building Technology, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. "A Review of Urban Sustainability Assessment Methodologies." Edited by M. Horner, C. Hardcastle, A. Price, and J. Bebbington. International Conference on Whole Life Urban Sustainability and Its Assessment, Glasgow, 2007.

⁶⁸ Colantonio, Andrea. "Social Sustainability: An Exploratory Analysis of Its Definition, Assessment Methods, Metrics and Tools." *Measuring Social Sustainability: Best Practice from Urban Renewal in the EU 2007/01: EIBURS Working Paper Series*, July 2007.

⁶⁹ Michael, Florianna L., Zainura Zainon Noor, and Maria J. Figueroa. "Review of Urban Sustainability Indicators Assessment – Case Study between Asian Countries." *Habitat International* 44 (2014): 491-500. Accessed July 15, 2016. doi:10.1016/j.habitatint.2014.09.006.

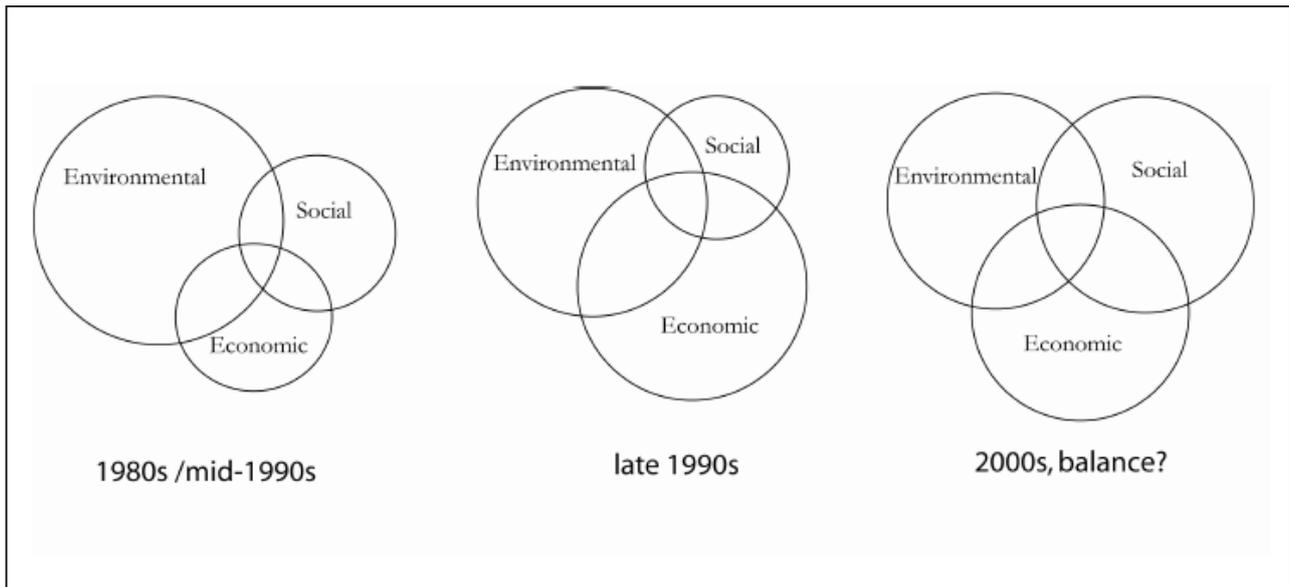


Figure 3: The evolution of the concept of sustainable development. Is the social dimension gaining more recognition ground? Source: Colantonio, 2007.

Recently, the focus on Gross Domestic Product as a proxy to evaluate the well-being and development of a nation and, on a smaller scale, of a city or a community, has been the object of various forms of criticism. For many decades, GDP has been used as the only reliable and viable instrument of measurement of well-being and development and of comparison among different realities, seen its adaptability over time and to diverse geographical contexts. However, as already analyzed in the introduction, GDP is hardly recognizable as a valid indicator of quality of life and people’s subjective well-being, and this also have resulted in policy makers taking decisions based on faulty data. Many scientists, scholars and policy makers have tried to underline its shortcomings, which can be summarized as follows. GDP is defined as the monetary value of all the finished goods and services produced within a country’s borders in a specific time period and it includes four main spheres, i.e. consumption, investment, government spending and imports/exports. The first factor is that GDP attributes a monetary value to goods and services, thus excluding those that do not have a market value but nevertheless play a fundamental role, such as domestic care, environmental services, loss of leisure time, suicide rates, destruction of natural capital, and other submerged activities or factors that contribute positively or negatively to the overall economic performance of a country or of a city. Furthermore, we have to consider that we entered an era of service driven economy, which means that services compete on the basis of the different qualities that they offer rather than on the basis of their market value and, therefore, they need different instruments of evaluation.⁷⁰ Most

⁷⁰ The Economist. "How to Measure Prosperity." *The Economist*, April 30, 2016. Accessed July 05, 2016. <http://www.economist.com/news/leaders/21697834-gdp-bad-gauge-material-well-being-time-fresh-approach-how-measure-prosperity>.

importantly, GDP does not take into account what people care about the most and which defines different perceptions of quality of life. It is self-evident that, up to a certain threshold, the economic performance has a strong influence on the perceived quality of life; however, after this has been reached, the relationship becomes evidently weaker, and there are various findings showing that, in different parts of the world, despite the GDP increasing steadily, life satisfaction levels have not improved consequently.⁷¹ This trend is common in various examples in Europe that show that a high GDP not always reflects the betterment of people's quality of life. These findings conceive the idea that there is the need to develop more holistic methods of well-being evaluation that do not merely concentrate on the economic performance, but also include subjective perceptions of the individuals.⁷²

This concept can be applied not only at a national level, but also at an urban level. Urban sustainability needs to take into account the social dimension of sustainable development, that allows the merging of traditional social objectives, such as social equity, social inclusion and equitable healthcare access, with "new" aspects, such as the ones discussed in the previous paragraphs and often defined as "soft" themes, for instance, public participation, social capital, resilience and, more recently, quality of life and subjective well-being.⁷³ Some authors, however, argue that the emergence of these new themes is somehow challenging for policy makers, inasmuch as they doubt the ability of governments to concretely take into account and achieve broad goals such as, for instance, happiness.⁷⁴

2.1 Sustainability Indicators (SIs) and urban sustainability indicators (USIs).

Against this background, uncountable numbers of indicators designed to assess and measure urban sustainability have been developed. For the purpose of this work, I will analyze different sets of urban sustainability indicators, focusing on those indicators that include and give space to the subjective dimension of social sustainable development. In doing this, I will try to answer the following questions: how much space do policymakers and researchers give to the social dimension

⁷¹ Marks, Nic. "The Power and Potential of Well-Being Indicators." *New Economics Foundation*, April 27, 2004. Accessed July 20, 2016. <http://www.neweconomics.org/publications/entry/the-power-and-potential-of-well-being-indicators>.

⁷² Eurostat. "Quality of Life Indicators - Measuring Quality of Life." *Eurostat - Statistics Explained*. Accessed July 23, 2016. http://ec.europa.eu/eurostat/statistics-explained/index.php/Quality_of_life_indicators_-_measuring_quality_of_life.

⁷³ Colantonio, Andrea. "Social Sustainability: An Exploratory Analysis of Its Definition, Assessment Methods, Metrics and Tools." *Measuring Social Sustainability: Best Practice from Urban Renewal in the EU 2007/01: EIBURS Working Paper Series*, July 2007. Accessed July 12, 2016.

⁷⁴ Neamtu, Bogdana. "Measuring the Social Sustainability of Urban Communities: The Role of Local Authorities." *Transylvanian Review of Administrative Sciences* 37 (e/2012): 112-27. Accessed July 23, 2016.

of sustainable development when implementing urban sustainability measurement tools? To what extent are people's subjective well-being and quality of life taken into account in these indicators?

In order to gain a better understanding of the issue, a brief overview of the development and the importance of sustainability indicators is fundamental. The development of Sustainability Indicators (SIs) dates back to the Earth Summit held in Rio de Janeiro in 1992, after which various organizations, governmental policy makers, scholars and research centers have started developing a copious literature concerning SIs. Between 1995 and 2000, the United Nations Commission on Sustainable Development (UNCSD) developed and tested a set of 134 indicators in 22 countries, as a response to Chapter 40 of Agenda 21 that calls for more coordination and integration among the different spheres of sustainable development:

40.3. *“There is a general lack of capacity, particularly in developing countries, and in many areas at the international level, for the collection and assessment of data, for their transformation into useful information and for their dissemination. There is also need for improved coordination among environmental, demographic, social and developmental data and information activities.”*

40.4. *“Commonly used indicators such as the gross national product (GNP) and measurements of individual resource or pollution flows do not provide adequate indications of sustainability. Methods for assessing interactions between different sectoral environmental, demographic, social and developmental parameters are not sufficiently developed or applied. Indicators of sustainable development need to be developed to provide solid bases for decision-making at all levels and to contribute to a self-regulating sustainability of integrated environment and development systems.”⁷⁵*

In the UNCSD document titled *Indicators of Sustainable Development: Framework and Methodologies* (UNCSD 2001), which constitutes the result of a Work Program on SIs that was developed between 1995 and 2000, the CSD states that the main goal is to provide policy makers with indicators of sustainable development, “by defining them, elucidating their methodologies and providing training and other capacity building activities.”. Furthermore, the document contains a detailed description of the key issues concerning sustainable development and their assessment methods.⁷⁶ When analyzing the social dimension, the themes and the sub-themes it covers, one can

⁷⁵ United Nations Conference on Environment & Development. *Agenda 21, Chapter 40*. Rio de Janeiro 3-14 June 1992. Accessed July 5, 2016.

For further reference and full text of Chapter 40 of Agenda 21: <http://www.un.org/earthwatch/about/docs/a21ch40.htm>.

⁷⁶ Commission on Sustainable Development. *Indicators of Sustainable Development: Framework and Methodologies*. Background Paper N° 3. CSD Ninth Session, 16 -27 April 2001, New York. Accessed July 5, 2016.

evince that the major emphasis is on the aforementioned “traditional” themes of social sustainability, such as poverty, inequality and coverage of basic needs, while the so-called soft themes such as well-being and perceived quality of life are not included in the list of indicators:

SOCIAL		
Theme	Sub-theme	Indicator
Equity	Poverty	Percent of Population Living below the Poverty Line
		Gini Index of Income Inequality
		Unemployment Rate
	Gender Equality	Ratio of Average Female Wage to Male Wage
Health	Nutrition Status	Nutritional Status of Children
	Mortality	Mortality Rate Under 5 Years Old
		Life Expectancy at Birth
	Sanitation	Percent of Population with Adequate Sewage Disposal Facilities
	Drinking Water	Population with Access to Safe Drinking Water
	Healthcare Delivery	Percent of Population with Access to Primary Health Care Facilities
		Immunization Against Infectious Childhood Diseases
Contraceptive Prevalence Rate		
Education	Education Level	Secondary or Primary School Completion Ratio
	Literacy	Adult Literacy Rate
Housing	Living Conditions	Floor Area per Person
Security	Crime	Number of Recorded Crimes per 100,000 Population
Population	Population Change	Population Growth Rate
		Population of Urban Formal and Informal Settlements

Table 1: UNCSD Indicators of Sustainable Development, Social Dimension. Source: UNCSD, 2001.

The proposed set of indicators has undergone two revisions, until its last finalization in 2006 (50 core indicators, which are part of a larger set of 98 indicators of sustainable development). This effort by the UNCSD has been followed by a conspicuous amount of attempts at creating comprehensive sets of indicators of sustainable development. For instance, the International Institute of Sustainable Development⁷⁷ reports more than 600 leading initiatives concerning sustainable development that have been developed and tested worldwide. The majority of these initiative have one thing in common, i.e. a major concentration on environmental issues and monetary evaluation of growth, reflecting the different importance attributed to the different dimensions.⁷⁸

⁷⁷ For further reference: www.iisd.org.

⁷⁸ Colantonio, Andrea. "Social Sustainability: An Exploratory Analysis of Its Definition, Assessment Methods, Metrics and Tools." *Measuring Social Sustainability: Best Practice from Urban Renewal in the EU 2007/01: EIBURS Working Paper Series*, July 2007. Accessed July 12, 2016.

This relates to the core issue concerning the development of indicators for urban sustainability assessment and measurement, which can be understood through an analysis of the following questions. What are the sustainable development indicators (SDIs) in general, and more specifically the urban sustainability indicators (USIs)? Are there completely comprehensive sets of indicators? Are there blueprints available that can be applied at city and community level and that can be used for comparisons over different geographical settings and over time? How to choose the most suitable indicators to apply to a certain context?

The OECD defines an indicator of sustainable development as “a statistical measure that gives an indication on the sustainability of social, environmental and economic development.”⁷⁹ A set of indicators is defined as a group of non-aggregated indicators that are usually organized based on an indicator framework, i.e. a conceptual structure that facilitates the selection, the development and the interpretation of various indicators for a certain project.⁸⁰ When defining a framework, there are two main approaches; the top-down approach that mainly consists in experts, researchers and policy makers defining both the framework and the set of indicators, while the bottom-up approach requires the engagement and the participation of the public sphere of stakeholders.⁸¹

Urban sustainability indicators are fundamental in the decision-making and management processes, inasmuch as they facilitate communication among the various stakeholders and help focalizing on the core goals. Furthermore, they help create or increment awareness among people concerning urban issues.

One aspect that needs to be taken into consideration when discussing USIs is the definition of urban sustainability that strongly influences the different emphasis put on different domains or key-themes. In the following table (Table 2), which reports various definitions of urban sustainability, I have underlined the parts that refer to the social dimension of urban sustainability, and in particular those of well-being, quality of life and citizens' participation, in order to demonstrate how the concept of urban sustainability has evolved through the integration of new concepts that are increasingly becoming crucial:

⁷⁹ Source: OECD Glossary. <https://stats.oecd.org/glossary/detail.asp?ID=6586>. Accessed July 7, 2016.

⁸⁰ Huang, Lu, Jianguo Wu, and Lijiao Yan. "Defining and Measuring Urban Sustainability: A Review of Indicators." *Landscape Ecology Landscape Ecol* 30, no. 7 (May 08, 2015): 1175-193. Accessed April 13, 2016. doi:10.1007/s10980-015-0208-2.

⁸¹ Singh, Rajesh Kumar, H.r. Murty, S.k. Gupta, and A.k. Dikshit. "An Overview of Sustainability Assessment Methodologies." *Ecological Indicators* 9, no. 2 (2009): 189-212. Accessed July 22, 2016. doi:10.1016/j.ecolind.2008.05.011.

Definition	Source
Five goals that make city sustainable: “minimizing the consumption of space and natural resources; rationalizing and efficiently managing urban flows; protecting the health of the urban population; ensuring equal access to resources and services; maintaining cultural and social diversity”	European Environment Agency (Stanners and Bourdeau 1995)
“Sustainable development of human settlements combines economic development, social development and environmental protection, with full respect for all human rights and fundamental freedoms, including the right to development, and offers a means of achieving a world of greater stability and peace, built on ethical and spiritual vision. Democracy, respect for human rights, transparent, representative and accountable government and administration in all sectors of society, as well as effective participation by civil society, are indispensable foundations for the realization of sustainable development”	United Nations Human Settlements Programme (UN-Habitat) (1996)
“A sustainable city is a city where achievements in social, economic, and physical development are made to last and where there is a lasting supply of the natural resources on which its development depends. Further more, a sustainable city maintains lasting security from environmental hazards that may threaten development achievements by allowing only for acceptable risk”	United Nations Centre for Human Settlements (Habitat) (1997)
“Sustainable urban development may be defined as a process of synergetic integration and co-evolution among the great subsystems making up a city (economic, social, physical and environmental), which guarantees the local population a non-decreasing level of wellbeing in the long term, without compromising the possibilities of development of surrounding areas and contributing by this towards reducing the harmful effects of development on the biosphere”	Camagni (1998)
“A sustainable city is one which succeeds in balancing economic, environmental and socio-cultural progress through processes of active citizen participation”	Mega and Pedersen (1998)
Urban sustainability is “the process of developing a built environment that meets people’s needs whilst avoiding unacceptable social or environmental impacts”	Hamilton et al. (2002)
“A city moving toward sustainability improves public health and well-being, lowers its environmental impacts, increasingly recycles its materials, and uses energy with growing efficiency”	Worldwatch Institute (2007)
“A sustainable city is one in which the community has agreed on a set of sustainability principles and has further agreed to pursue their attainment. These principles should provide the citizenry with a good quality of life, in a livable city, with affordable education, healthcare, housing, and transportation”	Munier (2007)
“A sustainable city is one that can provide and ensure sustainable welfare for its residents with the capacity of maintaining and improving its ecosystem services”	Zhao (2011)
Urban sustainability is “an adaptive process of facilitating and maintaining a virtual cycle between ecosystem services and human well-being through concerted	Wu (2014)

Table 2: The evolution of the concept of urban sustainability. Source: Huang, Wu and Yan, 2015.

In addition, when developing new sets of indicators it is imperative to have a clear vision of the goals that a certain city or community aims at achieving in the realm of sustainability, inasmuch as sustainable development must always be considered as a long-term project.⁸² Therefore, they also

⁸² Sustainable Measures. “Sustainable Measures | We Are What We Measure. It's Time to Measure What We Want to Be.2 Accessed July 23, 2016. <http://www.sustainablemeasures.com/>.

need to include a certain degree of flexibility, in order to be able to adapt to variations in the urban context.⁸³

Indicators of urban sustainable development are not merely a way to measure the sustainability of a certain urban setting or community; in fact, they can facilitate the performance of multiple functions, such as:

- Anticipate and assess certain conditions and trends;
- Provide information about potential upcoming damage in any of the spheres considered in the realm of urban sustainability;
- Help elaborate strategies, conceive ideas and build public awareness;
- Support decision- and policy-making.⁸⁴

Therefore, indicators can be applied with three main different goals: 1) as explanatory tools to translate the concepts of sustainable development into statistical tools; 2) as pilot tools that facilitate decision-making processes; 3) as performance assessment tools, which is considered as the most relevant role they can cover.⁸⁵

Urban sustainability indicators are extremely diversified, since they are designed to tackle certain aspects of urban sustainable development according to specific needs. However, there are certain characteristics that indicators should comprehend in order to be effective and to permit concrete advancements. According to the United Nations Statistical Institute for Asia and Pacific (2007) effective indicators should be SMART, i.e. Specific, Measurable, Achievable, Relevant and Time-related, therefore in the process of developing indicators it is fundamental to achieve an equilibrium among all these aspects.⁸⁶ Furthermore, the vast majority of experts argue that indicators should be locally relevant and that the framework chosen for the project should reflect the local necessities, in order to be fully effective when applied to a specific setting. As FAO (2002) points out, indicators must take into account the different geographical, cultural, social and institutional

⁸³ Michael, Florianna L., Zainura Zainon Noor, and Maria J. Figueroa. "Review of Urban Sustainability Indicators Assessment – Case Study between Asian Countries." *Habitat International* 44 (2014): 491-500. Accessed July 15, 2016. doi:10.1016/j.habitatint.2014.09.006.

⁸⁴ Singh, Rajesh Kumar, H.r. Murty, S.k. Gupta, and A.k. Dikshit. "An Overview of Sustainability Assessment Methodologies." *Ecological Indicators* 9, no. 2 (2009): 189-212. Accessed July 22, 2016. doi:10.1016/j.ecolind.2008.05.011.

⁸⁵ Science for Environment Policy. "Indicators for Sustainable Cities." In-depth Report 12. Produced for the European Commission DG Environment by the Science Communication Unit, UWE, Bristol. November 2015. Accessed July 24, 2015. <http://ec.europa.eu/science-environment-policy>.

⁸⁶ Shen, Li-Yin, J. Jorge Ochoa, Mona N. Shah, and Xiaoling Zhang. "The Application of Urban Sustainability Indicators – A Comparison between Various Practices." *Habitat International* 35, no. 1 (2011): 17-29. Accessed September 10, 2016. doi:10.1016/j.habitatint.2010.03.006.

realities that they are designed for.⁸⁷ The company Sustainable Measures, that until 2014 provided consulting services to governmental agencies, businesses and NGOs, reports on its website a checklist for evaluating indicators (not their effectiveness, but rather their viability as indicators of sustainability). This checklist is constituted by 14 questions that, despite not being universally applicable, can be used to evaluate the effectiveness and viability of a certain indicator in assessing and measuring sustainability. The 14 questions provided address the various spheres of sustainable development and the interlinkages among them.⁸⁸

However, the process of selecting the most suitable set of indicators for a certain urban setting is frequently guided by a subjective evaluation of the aspects involved and the subjective weights attributed to them. In order to partially weaken and marginalize the role of subjective impulses in the process, Huang, Wu and Yan (2015) recommend resorting to the Pressure-State-Response (PSR) or to the theme-based frameworks.⁸⁹ The Pressure-State-Response framework was first developed by the OECD in 1993, and various versions of it were then elaborated (for instance, the DSR, by the UNCSO, 1996). This framework model focuses on the impacts, positive and negative, of human activity on the environmental system and sustainable development, thus considering environmental changes only as a result of human-induced pressures. This model was subject to various forms of criticism, due to the difficulty of assigning indicators to specific categories (driving forces, state and response) and the complexity of the linkages among these spheres. Furthermore, the main emphasis being on the environmental changes and pressures, it is arguable that the PSR framework is more suitable for developing environmental sustainability indicators. In order to attribute equal relevance to all the pillars that constitute the concept of sustainable development, the theme- or issue-based framework, a more flexible model that focuses on sustainability-related themes, is more appropriate, inasmuch as indicators are developed around key-issues and according to policy relevance.⁹⁰ The best-known example of this model is the UNCSO theme-based framework developed in 2001 and revised in 2007 that was discussed earlier.

The same concepts presented and discussed so far can be applied to the elaboration and development of urban sustainability indicators. Despite the conspicuous and diversified amount of

⁸⁷ Science for Environment Policy. "Indicators for Sustainable Cities." In-depth Report 12. Produced for the European Commission DG Environment by the Science Communication Unit, UWE, Bristol. November 2015. Accessed July 24, 2015. <http://ec.europa.eu/science-environment-policy>.

⁸⁸ For the detailed checklist, visit: <http://www.sustainablemeasures.com/node/94>.

⁸⁹ Huang, Lu, Jianguo Wu, and Lijiao Yan. "Defining and Measuring Urban Sustainability: A Review of Indicators." *Landscape Ecology Landscape Ecol* 30, no. 7 (May 08, 2015): 1175-193. Accessed April 13, 2016. doi:10.1007/s10980-015-0208-2.

⁹⁰ Madu, Christian N., and Chu- Hua Kuei, eds. "Handbook of Sustainability Management." Singapore: World Scientific Publishing Co. Pte. Ltd., March 2012. Accessed July 24, 2016.

USIs, there are various problems and shortcomings related to their development and application. The most remarkable issue is that the vast majority of USIs do not capture the complex linkages among the various spheres of sustainability.⁹¹ In fact, the integrated approaches that have been developed mostly fail to concretely provide an integrated and holistic approach, in favor of a vision that considers each dimension of sustainability independently and addresses the trade-offs among them rather than the linkages that constitute the basis for the actual implementation of sustainable development. This is mainly due to the difficulties linked to aggregate different metrics into a composite index suitable for comparisons over space and time.⁹²

This tightly relates to another important issue when discussing about indicators to assess, measure and evaluate urban sustainability-oriented performance, i.e. a vast number of national initiatives still put the main emphasis on environmental themes and issues, which therefore constitute, alongside with economic considerations, the core of many sets of USIs. Social sustainability is increasingly recognized as a driving dimension for the assessment and measurement of urban sustainability by policy-makers, scholars and other experts that therefore declare the importance of developing truly comprehensive sets of indicators. Nevertheless, the three dimensions of sustainability sometimes do not support one another but do, in fact, collide with each other. As of today, there are no blueprints available for comparisons at both spatial and temporal levels. As Delai and Takahashi (2001) point out, “there is no single initiative that tackles all sustainability issues and there is no consensus around what and how should be measured, mainly regarding the social and economic aspects of sustainability”. Against the background of different necessities, priorities and values among different countries, cities, and communities, it can be argued that full effectiveness of indicators can be achieved only when acting on the local level.⁹³

Ultimately, indicators for urban sustainability have a large potential to function as proxies for the measurement and assessment of certain aspects or conditions that are not directly obtainable through statistical data and that therefore require survey and interaction. The best example is probably the measurement of conditions related to quality of life and subjective well-being. Despite these aspects being fundamental when measuring sustainability, the issue related to their assessment and

⁹¹ Science for Environment Policy. “Indicators for Sustainable Cities.” In-depth Report 12. Produced for the European Commission DG Environment by the Science Communication Unit, UWE, Bristol. November 2015. Accessed July 24, 2015. <http://ec.europa.eu/science-environment-policy>.

⁹² Colantonio, Andrea. "Social Sustainability: An Exploratory Analysis of Its Definition, Assessment Methods, Metrics and Tools." *Measuring Social Sustainability: Best Practice from Urban Renewal in the EU 2007/01: EIBURS Working Paper Series*, July 2007. Accessed July 12, 2016.

⁹³ Michael, Florianna L., Zainura Zainon Noor, and Maria J. Figueroa. "Review of Urban Sustainability Indicators Assessment – Case Study between Asian Countries." *Habitat International* 44 (2014): 491-500. Accessed July 15, 2016. doi:10.1016/j.habitatint.2014.09.006.

measurements in that it is difficult to find available data. Therefore, many cities and communities have frequently resorted to traditional sets of indicators, for which data are available and easily accessible, and allow for comparisons. This way of approaching the selection of sustainability indicators endangers the whole process, inasmuch as it fails to include the aspects that are the most relevant to the implementation and promotion of long-term well-being and welfare.⁹⁴

This being said, it is undeniable that there have been remarkable transformation in the most recently developed indicators concerning the social dimension. In the first place, as argued before, new themes are increasingly included, such as participation, governance and well-being. In the second place, the original focus on a national-scale has been redirected to the implementation of the sustainability agenda at a city or community level. Ultimately, later indicators tend to include both quantitative and qualitative data in a more representative system, despite the methodological difficulties in aggregating indicators of different nature.⁹⁵

2.2 Subjective well-being: measurement and limitations.

As in many parts of the world new and enlarged urban settings are mushrooming, urbanization continues to have a positive effect on economic progress, but in many cases, this has been achieved at the high price of socio-environmental depletion. When discussing about suitable tools for urban sustainability assessment and measurement, people's subjective well-being must be taken into consideration as an important parameter of the degree of sustainability of a certain urban setting, but also as an anchor goal and priority that sustainable development aims at achieving and as a tool for enhancing civic engagement, civic awareness and for shading light on policy flaws.

As previously stated, the notion of well-being is surrounded by a chaotic conceptual framework that makes it difficult to assess it or measure it. The dimensions that constitute well-being are often classified as either objective or subjective. The former indicates social, economic and environmental parameters that can be measured by attributing weight to them and gathering the necessary data (for instance: "Adult literacy rate" or "Household below poverty line", etcetera). The latter refers to people's feelings, attitude, perceptions and individual experiences. Therefore, subjective well-being is defined as a multidimensional concept, and a very complex one, that encompasses all spheres and

⁹⁴ Sustainable Measures. "Sustainable Measures | We Are What We Measure. It's Time to Measure What We Want to Be.2 Accessed July 23, 2016. <http://www.sustainablemeasures.com/>.

⁹⁵ Colantonio, Andrea. "Social Sustainability: An Exploratory Analysis of Its Definition, Assessment Methods, Metrics and Tools." *Measuring Social Sustainability: Best Practice from Urban Renewal in the EU 2007/01: EIBURS Working Paper Series*, July 2007. Accessed July 12, 2016.

dimensions of human life and therefore, frequently, in order to assess and measure subjective well-being through surveys, respondents are asked to give an overall evaluation of their life, by answering questions such as: “Overall, how satisfied are you currently with your life? Very happy, pretty happy, not very happy, very dissatisfied?” or “On a scale from 0 to 10, where 0 represents the worst possible and 10 the best possible, how satisfied are you with your life as a whole?” (The Cantril Self-Anchoring Striving Scale, Cantril, 1965).

The overall life evaluation question can be seen as the core question, after which the survey should be adapted in relation to its necessities, addressing different domains. For instance, when analyzing subjective well-being in urban settings, a question-model would be asking respondents to evaluate their level of satisfaction with various relevant domains, such as access to healthcare, education, job opportunities, governance, green areas, etcetera. Furthermore, it can be extremely relevant to researchers and policy makers to formulate questions that require respondents to make a comparison between different moments in time, in order to gain a better understanding and a full picture of people’s subjective well-being at different stages of urban development.⁹⁶ In addition, the notion of subjective well-being is also designed to measure people’s perception about the meaningfulness and purpose of life⁹⁷, a concept that can be applied to the relation between subjective well-being and urban development. Therefore, in order for well-being indicators to become a tool of civic engagement and awareness and to shed light on research and policy shortcomings, it is imperative to always aim at a comprehensive vision that encompasses all these dimensions.

Measuring subjective well-being is a complex process that faces numerous obstacles. In the first place, according to the *OECD Guidelines for Measuring Subjective Well-being*, the survey questions should be easy to understand for different kinds of respondents, not excessively burdensome and they should avoid wording ambiguities; otherwise, the error margin and the respondents’ bias would systematically increase. Furthermore, in order for results to be fully comparable, different groups of respondents need to understand the questions in a similar way, both in terms of different linguistic or cultural groups, and in terms of different social and age groups. This leads to another significant limitation related to people’s subjective well-being in relation to the rapid development of the urban setting they live in, which is the difficulty of implementing cross-country comparison, due to value and cultural differences, and to remarkable differences in stages of development and economic growth. As stated by the OECD, for instance, respondents might be bias

⁹⁶ Pedro Conceição and Romina Bandura, “Measuring Subjective Wellbeing: A Summary Review of the Literature”, United Nations Development Programme, May 2008. Accessed July 15, 2016.

⁹⁷ M. Brezzi and M. Diaz Ramirez, “Building subjective well-being indicators at the subnational level: A preliminary assessment in OECD regions”, *OECD Regional Development Working Papers*, 2016/03, OECD Publishing, Paris (2016). Accessed July 15, 2016. <http://dx.doi.org/10.1787/5jm2hhcjftvh-en>.

for a series of cultural or linguistic reasons, thus compromising the result of the survey. Therefore, particular wordings and linguistic differences may systematically bias respondents' responses towards a specific answer, thus undermining the possibility and the validity of cross-country comparison. Some researchers have hypothesized that people belonging to different cultural, political and social backgrounds tend to give different values to the range of options they are given, and this could, to a certain extent, explain different perceptions on well-being and quality of life among countries. Many factors can influence the tendency towards giving more modest or more polarized responses, such as religion, the need the respondents feel of depicting themselves as high-achievers, the social stigma on complaint in certain cultures, and the "benchmark" definition of ideal quality of life. However, as of today, there are no clear findings indicating to what extent these differences have an impact on the evaluation of one's subjective well-being.⁹⁸ Therefore, since a full comparability among data gathered in different countries is still difficult, the OECD relates on the Gallup survey⁹⁹ for various subjective indicators included in the Better Life Index^{100,101}. A detailed description of all the aspects that can possibly influence the likelihood of error and response bias are enlisted in the following table:

⁹⁸ OECD. "OECD Guidelines on Measuring Subjective Well-being" OECD Publishing, 2013. Accessed December 22, 2015. <http://dx.doi.org/10.1787/9789264191655-en>.

⁹⁹ For reference: <http://www.well-beingindex.com/about>.

¹⁰⁰ For reference: <http://www.oecdbetterlifeindex.org/>.

¹⁰¹ Brezzi, M. and M. Diaz Ramirez (2016), "Building subjective well-being indicators at the subnational level: A preliminary assessment in OECD regions", *OECD Regional Development Working Papers*, 2016/03, OECD Publishing, Paris. Accessed July 15, 2016. <http://dx.doi.org/10.1787/5jm2hhcjftvh-en>.

Factors associated with the underlying construct of interest	Survey design factors	Respondent factors
Task difficulty <ul style="list-style-type: none"> How easy or difficult is it for respondents to think about the construct or recall it from memory? 	Question wording <ul style="list-style-type: none"> Is the wording complex or ambiguous? Can it be easily translated across languages and cultures? Is the tone of the question sufficiently neutral, or does it suggest particular answers should be favoured? 	Motivation <ul style="list-style-type: none"> Are respondents equally motivated? Fatigue <ul style="list-style-type: none"> Are respondents equally alert and engaged?
Translatability <ul style="list-style-type: none"> How easy or difficult is it to translate the construct into different languages? 	Response formats <ul style="list-style-type: none"> Is the wording complex, ambiguous or difficult to translate? Can the response options be easily remembered? Can respondents reliably distinguish between response categories? Are there enough response categories to enable views to be expressed fully? 	Susceptibility to social pressure, norms or demand characteristics <ul style="list-style-type: none"> Do respondents vary in terms of their susceptibility to social pressure/or their likelihood of responding in a socially desirable manner?
Risk of social norms <ul style="list-style-type: none"> How likely is it that there are social norms associated with the construct, i.e. normatively "good" and "bad" answers? 	Question order <ul style="list-style-type: none"> Do preceding questions influence how an item is interpreted and/or prime the use of certain information when responding? 	Language differences <ul style="list-style-type: none"> Do language differences between respondents influence how respondents interpret questions and response formats?
Risk of influence by momentary mood <ul style="list-style-type: none"> How likely is it that respondents' momentary mood can influence how they remember/assess the construct of interest? 	Survey source/introductory text <ul style="list-style-type: none"> Does the information provided to respondents suggest that a certain type of response is required (demand characteristics) or promote socially desirable responding? 	Cultural differences <ul style="list-style-type: none"> Do cultural differences affect the type of response biases or heuristics that might be seen when respondents are satisficing?¹
Risk of respondent discomfort <ul style="list-style-type: none"> How likely is it that respondents will find questions irritating or intrusive? 	Survey mode <ul style="list-style-type: none"> Does the survey mode influence respondent motivation, response burden (e.g. memory burdens) and/or the likelihood of socially desirable responding? 	Knowledge <ul style="list-style-type: none"> Do some respondents lack the knowledge or experience to be able to answer the question? (but attempt to do so anyway).
Respondent interest/engagement <ul style="list-style-type: none"> How relevant or interesting do respondents find the construct being measured? 	Wider survey context <ul style="list-style-type: none"> Does the day of the week or the time of year affect responses? Could day-to-day events (such as major news stories) or the weather influence responses? 	Cognitive ability <ul style="list-style-type: none"> Do respondents vary in their ability to understand the question and/or in their memory capacity?

1. Satisficing is when a respondent answers a question using the most easily available information rather than trying to recall the concept that the question is intended to address. A satisficing respondent may make use of a simple heuristic to answer the question or draw on information that is readily available in their mind rather than trying to provide a balanced response.

Table 3: Factors increasing the error margin and the likelihood of response bias. Source: OECD, 2013.

2.3 Urban sustainability indicators and initiatives in practice: a review of projects including subjective well-being.

In this paragraph, I will analyze some of the existing urban sustainability indicators, while aiming at answering the following questions: Are there strong initiative on both global- and national-scale that focus predominantly on the social dimension of urban sustainability and, especially, on the evaluation of subjective quality of life and well-being, or are they mainly environment-centered? In order to provide an answer for these quandaries, I will review some of the most significant initiatives that were developed for implementation on a global-, sub-regional or city-scale with a major focus, where possible, on the developing areas of the globe.

2.3.1 Survey on Quality of Life in European Cities, Urban Audit, Eurostat.

The Survey on Quality of Life in European Cities is a survey conducted by the European Commission Directorate-General for Regional and Urban Policy (DG REGIO) every three years since

2004, which allows for comparisons among cities and over different years. The survey inquires the satisfaction of people in various European cities and towns, by addressing different domains related to the three dimensions of sustainable development¹⁰², thus complementing the projects implemented by Urban Audit.¹⁰³

The survey, in its last edition (Quality of Life in European Cities 2015: Flash Eurobarometer 419) was conducted in 79 cities and in 4 greater cities (“Greater Paris”, “Greater Lisbon”, “Greater Athens” and “Greater Manchester”), with a total of more than 40.000 respondents. The respondents were asked to evaluate their degree of satisfaction in relation to some specific urban services and to assess whether they agree or disagree with certain statement concerning, for instance, the environmental quality or the quality of urban infrastructures and services. The survey contains five main sections, namely people’s satisfaction with living in their city, people’s views about their city, people’s satisfaction with their city in relation with environment, people’s satisfaction with their personal situation and the three most important issues facing their city, each including various indicators, and it is structured as follows:

1. People’s satisfaction with living in their city.

- Respondents were asked whether they strongly agree, somewhat agree, somewhat disagree or strongly disagree with the statement “I am satisfied to live in my city”.
- Respondents were asked to rate their overall satisfaction (very satisfied, rather satisfied, rather unsatisfied or not at all satisfied) with a series of issues related to services and infrastructures, i.e. public transport, health care, sports facilities, cultural facilities, schools and other educational facilities, the state of streets and building in their neighborhoods, public spaces and the availability of retail shops.

2. People’s views about their city.

Respondents were asked whether they strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statements:

- “It is easy to find a job in my city”.
- “It is easy to find good housing at a reasonable price in my city”.
- “The presence of foreigners is good for my city” and “Foreigners who live in my city are well integrated”.
- “I feel safe in my city”, “I feel safe in my neighborhood”, and “Generally speaking, most people in my city can be trusted”.

¹⁰² European Union. "Your Key to European Statistics." Perception Surveys. Accessed July 30, 2016. <http://ec.europa.eu/eurostat/web/cities/perception-surveys>.

¹⁰³ For further information on Urban Audit: <http://ec.europa.eu/eurostat/web/cities>.

- “The administrative services of my city help people efficiently” and “Generally speaking, the public administration of my city can be trusted”.
3. People’s satisfaction with their city in relation with environment.
Respondents were asked whether they strongly agree, somewhat agree, somewhat disagree or strongly disagree with the statement “My city is committed to fight against climate change (e.g.: energy efficiency, green transport)”.
 4. People’s satisfaction with their personal situation.
Respondents were required to answer the following question “On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with....?” the following domains: the life they lead, the place where they live, the financial situation of their household and their personal job situation.
 5. The three most important issues facing your city.
In the last section, respondents were given a list of ten domains (safety, air pollution, noise, public transport, health services, social services, education and training, unemployment, housing and road infrastructure) and were asked to individuate the three most issues that are the most relevant to their cities.¹⁰⁴

The Survey on Quality of Life in European Cities offers a very unique insight on quality of life in European cities. In addition, the project also allows for comparisons over time and among different cities in the same country and cities in different countries, thus enabling cross-country comparison that is an important goal in the overall discussion on subjective well-being. The results of the survey can be extremely enlightening for policy makers and organizations to address the issues that the citizens in the different cities have shown the greatest level of dissatisfaction about, and to make efforts to fill the policy and administrative gaps that have been emphasized by the respondents.

The structure of the survey is partially based on the guidelines for measuring subjective well-being provided by the OECD, and addresses all the most relevant domains concerning urban sustainability and development. Therefore, the set of indicators and key-themes is very comprehensive and can serve as a template for other regions to develop their own by structuring it around the local necessities and priorities.

It is interesting and relevant to gain a better understanding of what influences people’s subjective well-being and perception of quality of life, to analyze some correlations that have been identified in the last edition of the Survey on Quality of Life in European Cities 2015. For instance,

¹⁰⁴ European Union. *Quality of Life in European Cities 2015. Flash Eurobarometer 419*. Luxembourg: Publications Office of the European Union, Printed in Belgium, January 2016. Accessed July 29, 2016. http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/urban/survey2015_en.pdf.

the report shows that the correlation between satisfaction with living in a certain city and satisfaction with public spaces (such as markets, pedestrian areas, etc.), is positive and high, with only few exceptions registered. The same is valid, with a higher correlation coefficient, for the feeling of safety in the city and for satisfaction with the place the respondents live in, and, with a lower correlation coefficient for the satisfaction with green spaces such as parks and gardens. In addition, it is worth pointing out that the aggregated majority of respondents indicated healthcare, unemployment and education and training as the three main issues facing their city.¹⁰⁵

2.3.2 Asian Urban-Wellbeing Indicators, Civic Exchange

In 2012, Civic Exchange, a Hong Kong-based public policy think tank, launched an urban indicators initiative that later developed into the Asian Urban-Wellbeing Indicators, that was designed in order to provide an alternative tool to GDP that, as analyzed before, was never intended to assess progress in the social dimension. The project is based on a public opinion survey aimed at measuring the degree of people satisfaction in relation to ten policy domains, i.e. housing, medical care, education, work and business opportunities, transportation and utilities, environmental protection, community and belonging, public safety and crime control, recreation and personal time, and quality of government.¹⁰⁶

The survey is intended to be city-oriented and therefore not to be applied on a national-scale, and it is designed to be inclusive, i.e. to reserve a special quota (based on census) for migrant workers in those cities where they constitute a large percentage of the total population. In various different surveys, they are frequently not included, due to supposed political or market irrelevance, limited telephone access, and dormitory living arrangements. Furthermore, differently from other urban quality of life indicators, the Asian Urban-Wellbeing Indicators project focuses on individual perceptions and experiences as a complement to objective data, thus representing a springboard for civic awareness and engagement, which is what makes it of extreme relevance to this work.

¹⁰⁵ European Union. *Quality of Life in European Cities 2015. Flash Eurobarometer 419*. Luxembourg: Publications Office of the European Union, Printed in Belgium, January 2016. Accessed July 29, 2016. http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/urban/survey2015_en.pdf.

¹⁰⁶ Civic Exchange, “Design and Construction of the Asian Urban-Wellbeing Indicators Survey”. HKU-USC-IPPA Conference on Public Policy, Hong Kong, 9-10 June 2016. Accessed July 30, 2016. http://civic-exchange.org/materials/publicationmanagement/files/20160612WellbeingComparativeReport/20160611Carine_HKUConferencePresentation_en.pdf

National Level		City Level
Objective Data	UN Human Development Index	EIU's Global Liveability Rankings Mercer's Quality of Living Rankings
	OECD Better Life Initiative Legatum Prosperity Index	AT Kearney's Global Cities Index
Subjective Data	Gallup World Poll Asian Barometer	Asian Urban Wellbeing Indicators

Table 4. Asian Urban-Wellbeing Indicator: A comparison with other initiatives. Source: Carine Lai and Michael Michael E. DeGolyer, 2016.

In addition, the survey covered diversified domains, thus allowing for a comparison among different priorities expressed, but at the same time, it also included more in-depth questions about specific domains selected by the different respondents. Ultimately, the survey was designed to be flexible, inasmuch as it can be modelled according to each city's different degree of telecommunications penetration and economic development. In June 2016, Civic Exchange published a report concerning the results gathered in Hong Kong, Singapore and Shanghai.¹⁰⁷

At the beginning of the survey, the respondents were asked to evaluate how satisfied they are and how much they care about each domain covered, and to list what the priorities that the government should address are in their opinion. After this, the respondents were asked to score their overall life satisfaction (on a scale from 0 to 10, where 0 represents the worst possible, and 10 the best possible, in accordance with the Cantril Self-Anchoring Striving Scale model) and to do the same in relation to a five-year-time future perspective. In addition, the respondents were asked to answer additional questions, such as: "Since you started living in [city], overall, has it become a better or worse place to live?"; "If you could freely choose to live anywhere in the world, would you stay or move away?"; "In your view, is [city] a good place for children to grow up or not? In your view, is [city] a good place for retirees to live or not?"; "How worried are you about poverty in [city]? How worried are you about being able to provide for you and your family's daily needs?"¹⁰⁸

¹⁰⁷ For the complete survey report and further information: <http://civic-exchange.org/en/publications/8290304>.

¹⁰⁸ Carine Lai and Michael Michael E. DeGolyer, "Asian Urban-Wellbeing Indicators Comparative Report: Hong Kong, Singapore, Shanghai (2016 First Report), Graphic Summary", June 2016. Accessed July 16, 2016.

The Asian Urban-Wellbeing Indicators constitutes a cornerstone initiative in the realm of the measurement of urban well-being in East Asia, seen that projects like this have seen conspicuous development prevalently in Europe, the United States, Canada and Australia. This initiative not only gives extreme relevance to the social dimension of urban sustainability in rapidly urbanizing settings, but at the same time, it also puts a strong emphasis on the importance of subjective evaluation of urban quality of life and well-being, thus promoting a shift towards a more comprehensive definition of urban sustainability.

2.3.3 Malaysian Urban Rural National Indicators Network on Sustainable Development (MURNInets).

The Malaysian Government has been committed to the enhancement of sustainability projects and measures since 1992, both in terms of improving healthcare access, reducing the rise of inequalities and promoting clean urban environment and in terms of enhancing citizens and communities post-material well-being.¹⁰⁹ Against this background, the Malaysia Urban Indicators Network (MURNInet) was developed. The project, born as MURNInet, was implemented by the Federal Department of Town and Country Planning Peninsular Malaysia, Ministry of Housing and Local Government Malaysia that was launched in 2002 as a pilot project in six cities, and was then fully implemented on a national-scale in 2004. MURNInet, by trying to address and solve that gap between policy-making and data in national urban assessment and planning¹¹⁰, permits to implement an evaluation of the sustainability status of Malaysian towns and cities, and check whether it has improved, worsen or remained stagnant. Therefore, the project is considered as a cornerstone initiative for the assessment and measurement of urban sustainability in the country. The project, at its outset, consisted of a set of 56 indicators, that were then reduced to 38 and, eventually, to 36, due to data unavailability. The current indicators are benchmarked against the present indicators used at all levels of planning in the country and all the various stakeholders at all levels, encompassing Local Authorities, State Planning Department, Federal Agencies and Ministries, unanimously agreed upon

¹⁰⁹ Shamsaini Shamsuddin and Azmizam Abdul Rashid, "Malaysian Urban Rural National Indicators Network on Sustainable Development (MURNInets)." Presented at the 43rd Annual Conference of the Urban Affairs Association, 3-6 April 2013, San Francisco California, United States of America.

¹¹⁰ UN Habitat. "Malaysia Urban Indicators Network (Murninet) Planning Initiative". Accessed July 23, 2016. http://mirror.unhabitat.org/downloads/docs/MURNInet-Malaysia_SubmissionDetails.pdf.

the choice of core themes and indicators.¹¹¹ The name has also slightly changed, and the project is now called Malaysian Urban Rural National Indicators Network on Sustainable Development (MURNInets).¹¹² The 36 indicators that are currently included in the MURNInet initiative overall cover 6 dimension and 21 diversified themes, as shown by the following table:

Dimensions	Themes	Indicators
Competitive economy	Economic growth	Employment growth rate
	Poverty	Urban poverty rate Poverty rate
Sustainable environmental quality	Private investment	Growth rate of private investment
	Environment quality	River cleanliness Environmental air quality conditions
	Risk management	Percentage of population living in flood prone area
	Environmental management	Percentage of per capita solid waste generation Total programs/environmental campaign carried out in the local authority area
Sustainable community	Housing	Percentage of quality affordable housing units
	Community & recreational facilities	Percentage of residential coverage within 400 m range of community facilities
	Quality of life	Ratio of cases relating to public nuisance complaints per 10,000 population
		Ratio of cases of water and vector borne diseases per 10,000 population
Optimal use of land and natural resources	Security	Percentage of Grade A food premises Percentage of Grade A public toilets Happiness index
	Demography	The ratio of index crime per 10,000 population
	Land use changes	Dependency ratio The rate of change in land use from non-built-up to built-up
	Urban development	Urbanization rate
		Ratio of public open space per 1000 inhabitants Unsold residential properties
	Heritage conservation and tourism	Percentage change in the forest area The number of tourism attractions and recreation centres
Efficient infrastructure and transportation	Efficiency utility	Total volume of daily domestic water consumption per capita Total domestic electricity consumption (KW) per capita
	Solid waste management	Percentage of total waste recycled Percentage of domestic solid waste collection on schedule
	Transportation	Number of integrated public transport terminals/stations
Effective governance	Sewage management	Percentage of homes with centralized sewerage services
	Delivery system	Residents' satisfaction level on local authority services Number of community programs implemented by local authorities
	Strengthening institutions	Percentage of local authority revenue collection performance Percentage of total maintenance expenditures to overall local authority spending
		Enforcement and monitoring

Table 5. MURNInets set of indicators. Source: MURNInets Malaysia Urban-Rural-National Indicators, 2012.

¹¹¹ Michael, Florianna L., Zainura Zainon Noor, and Maria J. Figueroa. "Review of Urban Sustainability Indicators Assessment – Case Study between Asian Countries." *Habitat International* 44 (2014): 491-500. Accessed July 15, 2016. doi:10.1016/j.habitatint.2014.09.006.

¹¹² Shamsaini Shamsuddin and Azmizam Abdul Rashid, "Malaysian Urban Rural National Indicators Network on Sustainable Development (MURNInets)." Presented at the 43rd Annual Conference of the Urban Affairs Association, 3-6 April 2013, San Francisco California, United States of America.

The renewed set of indicators was enriched by three new main features, i.e. Happiness Index, People's Satisfaction Level Towards Local Authority's Services and Analytical Hierarchy Process (AHP).

The key-theme concerning quality of life includes five indicators, four of which are related to objective evaluations of life quality. The indicator that is the most relevant to this work is the aforementioned Happiness Index that covers a range of subjective evaluations of well-being. The happiness index is defined as the "Level of satisfaction of individuals in their daily lives and surroundings". The Happiness Index can be described as follows:

*"The Happiness Index is a comprehensive measurement of well-being of the population that covers mental and physical health. Everyone has different levels of perception and assessment on their settlement environment such as safety, satisfaction of life, adequacy of facilities provided by the Government, administrative efficiency and so on. In this regard, the indicator will help in identifying the level of happiness and well-being of the population. The Happiness Index can be identified through observation and interview. The Happiness index components cover community well-being psychology, resilient life, cultural diversity and sustainability, health, education, ecological diversity, quality of life and the efficiency of governance."*¹¹³

Despite the difficulty in finding reliable sources that attest the effective implementation of this indicator in the various urban contexts, I argue that the Malaysian Urban Rural National Indicators Network on Sustainable Development (MURNInets) is, on paper, adequately comprehensive and representative. By giving (at least in theory) balanced relevance to all the dimensions of sustainability, this initiative encompasses a conspicuous amount of diversified key-issues that are imperative for the sustainable development of urban settings. The inclusion of the Happiness Index shows how the various stakeholders are moving towards a truly integrated and less traditional concept of sustainability, concentrated not only on the economic growth or on the environmental protection as individual spheres, but with a new focus on "soft-themes" that, due to the difficulty in accessing the data, have constituted a challenge for the stakeholders involved in urban sustainability indicators development. The Happiness Index embraces the concepts of subjective well-being and quality of life, and the importance of moving towards the measurement of data that are not rapidly accessible but require the access to human capital.

¹¹³ Translated by the author. Source: MURNInets Malaysian Urban-Rural-National Indicators Network on Sustainable Development – Happiness Index. Accessed June 25, 2016. <http://murninet.townplan.gov.my/murninets/eng/page/kt3-p6-indeks-kebahagian>.

2.4.4 Bhutan's Gross National Happiness Index (GNH Index).

The Gross National Happiness Index is a well-being assessment tool that was first introduced in 1972 by Jigme Singye Wangchuck, the Fourth King of Bhutan. At the core of the GNH Index, described by the Fifth King of Bhutan, Jigme Khesar Namgyel Wangchuck, as “development with values”, is the enhancement of national well-being through the adoption of a holistic approach that gives equal relevance to the non-material dimension of well-being, designed to help policy-makers, governmental institutions and other organizations. For instance, in order to evaluate the impact of new policies on the GNH Index, the Bhutanese government measures their influence on all the dimension that compose it before implementing them, inasmuch as policies should be designed to enhance it.¹¹⁴

From a structural point of view, the Gross National Happiness Index revolves around 4 pillars, i.e. political, cultural, economic and environmental, and 9 domains (for a total of 33 indicators), namely:

Psychological well-being. Psychological well-being refers to people's self-evaluation of their own quality of life. This includes both people's evaluation of their life as a whole and affect, which is a hedonic evaluation of one's emotions and feelings, often related to a specific moment in time. These forms of subjective well-being evaluation can be complementary to material well-being data, and their assessment is considered as important as the assessment of economic metrics within the framework of planning and policy-making.¹¹⁵

Standard of Living. People's standard of living are usually assessed mainly by means of real income, while in this index the standard of living parameter is inclusive of both cash and non-cash income, as for instance healthcare, recreational activities, goods and services received as gift, etcetera. Since it takes into account the objective sphere of individual's and groups' well-being, standard of living is considered as the most fundamental parameter on the basis of which governmental institutions and policy-makers base their research and plans.¹¹⁶

Good governance. According to the GNH Index's developers, good governance encompasses all the domains covered by the Index. Considering the enhancement of the Gross National Happiness

¹¹⁴ "Oxford Poverty and Human Development Initiative - OPHI." OPHI. Accessed September 2016. Accessed September 15, 2016. <http://www.ophi.org.uk/policy/national-policy/gross-national-happiness-index/>.

¹¹⁵ Bhutan's Gross National Happiness Index. Nine domains: psychological well-being. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/psychological-well-being/>.

¹¹⁶ Bhutan's Gross National Happiness Index. Nine domains: standard of living and happiness. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/standard-of-living-and-happiness/>.

is considered as the fundamental priority to be pursued by the Buthanese government, therefore the national political system is re-organizing itself, through a shift from a monarchy to a parliamentary democracy and, furthermore, it aims at providing ameliorated infrastructures, facilities and basic services in order to reduce poverty and inequality.¹¹⁷

Health. Health, both physical and mental, is tightly related to individuals' happiness and positive life evaluation, inasmuch as the two share many common determinants, such as education, income, leisure time, family bonds, etcetera. Many studies agree on considering good reported health as a significant positive influence on happiness. Within the framework of the GNH Index, the relation between happiness and health status is also influenced by cultural elements, seen that Buthanese believe that happiness originates from good health. This domain of the GNH Index only includes physical health, inasmuch as the other components of health considered in holistic terms, i.e. mental and social health, are included within the framework of other domains.¹¹⁸

Education. As for many other countries, the education-related indicators in Buthan include structures and facilities, enrolment and dropout rate, pass rate, thus not taking into consideration, for instance, the actual skills and knowledge acquired by people during their lives in various contexts.¹¹⁹

Community vitality. This domain addresses the enhancement of vitality and well-being of the community, considered here in geographical terms, through the analysis of some fundamental components of community life, such as social cohesion, safety, resilience, interaction within the community, etcetera, that influence its vitality.¹²⁰

Cultural diversity and resilience. Pertaining to cultural diversity and cultural resilience, only the variables that influence individual's subjective well-being were included within the framework of the GNH Index, on the basis of data already available concerning cultural, spiritual and religious practices, values and norms. This indicators aims at evaluating Buthanese evaluation of cultural aspects such as sense of identity, religious beliefs, customs and traditions, etcetera; as a second goal, it attempts at measuring the cultural resilience of the country, intended as the capability to preserve

¹¹⁷ Bhutan's Gross National Happiness Index. Nine domains: good governance and gross national happiness. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/good-governance-and-gross-national-happiness/>.

¹¹⁸ Bhutan's Gross National Happiness Index. Nine domains: health. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/health/>.

¹¹⁹ Bhutan's Gross National Happiness Index. Nine domains: education. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/education/>.

¹²⁰ Bhutan's Gross National Happiness Index. Nine domains: community vitality. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/community-vitality/>.

its own peculiarities and develop itself amid the challenges deriving from other cultures and globalization.¹²¹

Time use. The use of time and its allocation in a person's life has been proven to produce an impact on people's material and subjective well-being. The importance of this indicator within the framework of the Gross National Happiness Index is related to conventional economic accounts, i.e. mainly GDP, which only focus on paid work as the fundamental component of productive activities, thus not taking into consideration unpaid activities and voluntary activities. These activities, however, are of fundamental importance in order to draw a comprehensive picture of a society's well-being and their assessment is, therefore, crucial for the development of well-structured social policies.¹²²

Ecological diversity and resilience. This last domain addresses people's evaluation of the environmental conditions of their area of residence, also taking into account the threat originating from potential natural disasters.¹²³

All the aforementioned domains are assigned the same weight and the indicators all possess the fundamental characteristics that indicators should have in order to be fully effective, i.e. they are SMART (Specific, Measurable, Achievable, Relevant and Time-related). Furthermore, the Index can be decomposed by population groups, districts, or any other demographic characteristic of the respondents.¹²⁴¹²⁵

The development of a tool such as the GNH Index to complement GDP is notably innovative; in 2011 a UN panel was considering how to reproduce its model in other countries. Bhutan, as a tiny developing country, sets an example in terms of relevance given to sustainable development in its political agenda and seems to have achieved remarkable goals in terms life expectancy, education and infrastructures development, amidst the objective difficulties, as official speeches frequently underline¹²⁶:

¹²¹ Bhutan's Gross National Happiness Index. Nine domains: cultural diversity and resilience. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/cultural-diversity-and-resilience-2/>.

¹²² Bhutan's Gross National Happiness Index. Nine domains: time use and happiness. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/time-use-and-happiness-2/>.

¹²³ Bhutan's Gross National Happiness Index. Nine domains: ecological diversity and resilience. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/9-domains/ecological-diversity-and-resilience/>.

¹²⁴ Gross National Happiness RSS. Accessed September 15, 2016. <http://www.grossnationalhappiness.com/>.

¹²⁵ For further reference and for the surveys questionnaires and results, visit: Gross National Happiness RSS. <http://www.grossnationalhappiness.com/>.

¹²⁶ Kelly, Annie. "Gross National Happiness in Bhutan: The Big Idea from a Tiny State That Could Change the World." *The Guardian*. December 01, 2012. Accessed September 15, 2016. <https://www.theguardian.com/world/2012/dec/01/bhutan-wealth-happiness-counts>.

“His Majesty the fourth King first proclaimed four decades ago that, “Gross National Happiness is more important than “Gross National Product”. Since then, Bhutan has adopted a holistic approach to development within the GNH framework that comprises the four pillars and their nine domains of which I am certain you are already familiar. This has enabled us to balance modernity with tradition, material with spiritual, economic with social, and physical transformation with ecological conservation. But this is not to say that we have discovered the remedy for all the ills and that Bhutan is clearly set on the path to happiness. I am aware that there are those who like to speak of our country as the land of happiness and presume that all our people are happy. We too wish these were true...But in reality, we are a developing country that has just become a low middle-income country. For too many -about 12% of our people – survival remains a struggle and happiness is only a dream. We have our share of misery and unhappiness.”¹²⁷

The rationale behind the GNH Index is simple and multifaceted at the same time. It is simple in the sense that it revolves around happiness, considered as “the creation of enabling conditions where people are able to pursue wellbeing in sustainable ways” (Ura, 2009). As Ura *et al.* (2012) point out, it is multifaceted in the sense that it can be described as holistic and collective (it encompasses various domains pertaining to human well-being), balanced (it focuses on the importance of balanced development in order to increase the GNH), sustainable (it is sustainable in Brundtland terms, i.e. it aims at achieving a development pattern that looks at both present and future generation) and, ultimately, equitable.¹²⁸

As evincible from the previous analysis, only several initiatives focus their core attention on the dimension of subjective well-being in urban settings. Indeed, a conspicuous number of urban sustainability indicators is structured around the environmental dimension of sustainable development, such as City Blueprints on water sustainability, the European Green Capital Award, the European Green City, the Eco Cities Initiative, Green Star, etcetera, just to cite a few. Moreover, an increasing number of initiatives to assess and measure urban sustainability are concentrating on developing indicators system that encompass all the dimensions of sustainable development, thus assigning more relevance to the social domain.

¹²⁷ Article by HRH Princess Kezang Choden Wangchuck. GNH Centre Bhutan Comments. Accessed August 30, 2016. <http://www.gnhcentrebhutan.org/what-is-gnh/gnh-today/article-by-hrh/>.

¹²⁸ Ura, Karma, Sabina Alkire, Tshoki Zangmo, and Karma Wangdi. *An Extensive Analysis of GNH Index*. Publication. The Centre for Bhutan Studies. Thimphu, Bhutan, May 2012.

Currently, a conspicuous amount of city indicators databases and projects are available for policy makers, organizations and local authorities, that can help measure the progress achieved in terms of sustainable development by a certain urban or metropolitan area, and fill the gaps in the current policies on the basis of internationally agreed standards. Among these initiatives, projects such as the Global City Indicators Facility (GCIF), the Reference Framework for Sustainable Cities, the Urban Sustainability Indicators and the Global Urban Indicators Database are of extreme relevance, accompanied by sets of indicators and toolkits developed by individual countries or cities and structured around the local necessities. These initiatives constitute valuable tools for the assessment and measurement of urban sustainability; however, the majority of them only focus on objective data that are rapidly accessible and easier to gather. Even when the dimension of “well-being” or “quality of life” is included, most projects concentrate on its objective features, including indicators such as “crime rate”, “households below the poverty line”, etcetera. These initiatives completely neglect the perceptions of citizens in relation to the overall life they conduct in their city and to the different domains concerning urban sustainability. The neglect of the subjective aspect can be dangerously misleading, inasmuch as policy makers and organizations will tend to focus on what is lacking according to the data accessible, without having a clear understanding of what people care about the most and what they perceive as a priority. Indisputably, data regarding subjective perceptions of well-being and quality of life are more complex to gather and use in a fruitful way. In fact, they are not meant to be used as independent indicators, but more as a complementary tool to understand and address the impending priorities, inasmuch as the merging of objective data and people’s individual perceptions permits to gain a comprehensive vision of the progresses made in term of sustainable development.

3. URBANIZATION AND SUBJECTIVE WELL-BEING IN CONTEMPORARY CHINA.

3.1 China's urbanization process: historical overview and assessment of its predominant features.

In order to gain a better understanding of the various challenges that China is currently facing in the realm of urban sustainability and the methods, policies and strategies that the central and local governments are adopting to overcome them, it is important to analyze beforehand the background of its urbanization process.

In the past three decades, China has undergone - and it is still undergoing - an unprecedented urbanization process. Chinese urbanization process is the grandest the world has ever experienced: the urbanization rate increased from below 20% in the early 1980s to 56% last year, with an average annual increase of 1.01%. This means that, in the past two decades, every year there were more than ten million new urban dwellers¹²⁹. According to the National Bureau of Statistics of China (NBSC, 2013) the urban population ratio has grown from 17,92% in 1978 to 49,96% in 2012, surpassing the rural residents for the first time in the PRC's history in 2011¹³⁰ (see Chart 1 below).

¹²⁹ Wang, R. (2011), *Environmental and resource sustainability of Chinese cities: A review of issues, policies, practices and effects*. Natural Resources Forum, 35: 112–121. doi: 10.1111/j.1477-8947.2011.01378.x.

¹³⁰ Zhang, Yuan. (2016). "Urbanization, Inequality, and Poverty in the People's Republic of China". ADBI Working Paper 584. Tokyo: Asian Development Bank Institute. <http://www.adb.org/publications/urbanization-inequality-and-poverty-prc/>.

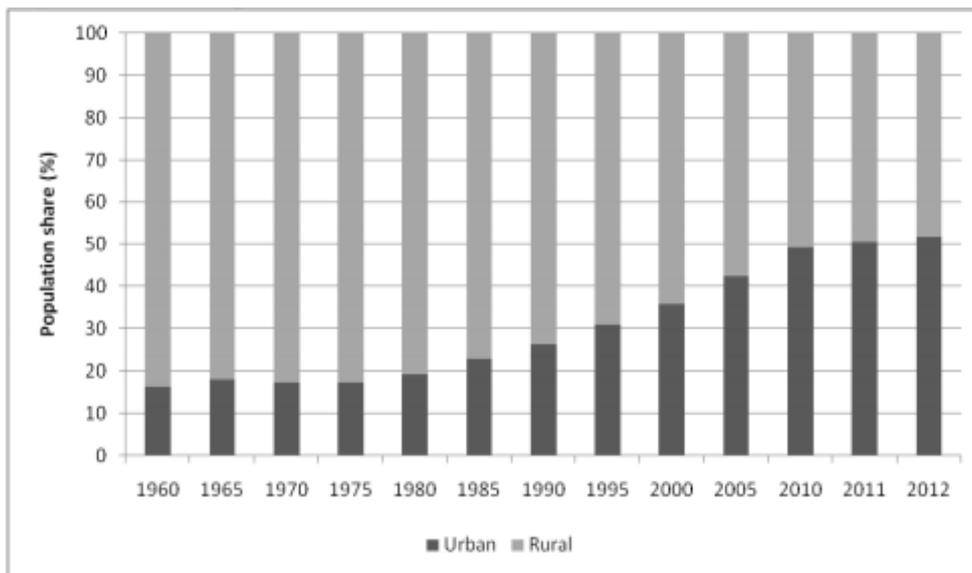


Chart 1: Population share in the PRC (1960-2012). Source: World Bank, *World Development Indicators*.¹³¹

However, the increase in its urbanization rate has not been exceptional when compared to other countries, such as Japan or the Republic of Korea, at comparable phases of urban development.¹³²

According to Friedmann, Chinese urbanization is “a multi-dimensional socio-spatial process” embracing five dimensions. The first is the administrative urbanization. Starting from the early 1980s, the government started putting restrictions on the size of big cities and promoting, instead, the development of small cities and towns, which resulted in the reclassification of many counties and prefectures into cities. As of today, this practice is still in place and frequently local officials resort to it as a shortcut to increase the urbanization rate; however, this practice is very seldom accompanied by an actual improvement of the living conditions of the residents. This peculiar phenomenon related to China’s urbanization, along with the conspicuous rural-to-urban migratory flows, makes it difficult to define the urban population and to measure the urbanization rate accurately.¹³³ The second is the economic dimension: the agricultural labor surplus was readdressed to the second and tertiary sectors, thus putting it into more productive usage. The following is the physical urbanization that resulted in the transformation of the “outlook” of many rural areas and small towns. The fourth dimension is constituted by the transformation of social and cultural patterns of everyday life. The last one is the

¹³¹ Lixing Li. “Managing Urbanization in China: Issues and Policy Options”. National School of Development, Peking University.

¹³² *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization*. Washington, DC: World Bank Group, 2014.

¹³³ Sorace, Christian, and William Hurst. "China’s Phantom Urbanisation and the Pathology of Ghost Cities." *Journal of Contemporary Asia* 46, no. 2 (2015): 304-22. doi:10.1080/00472336.2015.1115532.

political dimension, characterized by a high level of collusion between the top management and the political leadership.

Notwithstanding that the beginning of the urbanization process in China can be traced back to the final decades of the Qing Dynasty¹³⁴, one can argue that, from a contemporary standpoint, China's urbanization took off only after 1978, with the implementation of the reforms movement. The cornerstone of this movement was an ideological re-orientation of the ruling élite, under the leadership of Deng Xiaoping, who stated the urgency and imperativeness of the re-assessment of national priorities; in his view, economic development had to substitute class struggle as the number one priority.

Urbanization in China was triggered by various factors that emerged when China started re-stabilizing its own internal conditions after Mao Zedong's death and Deng Xiaoping's ascent. In the first decade of the reform movement, China's economic development was characterized by a strong emphasis on industrialization, which resulted in the loosening of the *hukou* system that had virtually brought internal migration to a halt in the two decades preceding Deng Xiaoping's ascent. By allowing internal migration, the CCP allowed the relocation of the labor surplus in rural areas to non-agricultural sectors where it could be put into more productive usage. Rural industrialization was mainly driven by the bottom-up process that led to the establishment of TVEs (Township and Village Enterprises, 乡镇企业 *xiangzhen qiye*), which leveraged the aforementioned labor surplus, thus contributing significantly to the creation of employment opportunities. Therefore, some rural areas started developing urban and industrial features: this process represents what is now referred to as *in situ* urbanization. *In situ* urbanization (就地城镇化 *jiudi chengzhenhua*) is a non-traditional kind of urbanization model, which reflects a transformation of rural areas physical structure, but, more importantly, the relocation of the labor surplus to the secondary and tertiary sectors, thus promoting a transformation of the overall life-style and production model of these rural districts. *In situ* urbanization is a form of urbanization pattern opposed to the traditional urbanization model, described as "a multiple, wide, and longitudinal integrated process that the rural population transfers to city and town and lives in there; the lifestyle and value change to urban pattern; the occupation range transforms from the primary industry to secondary and tertiary industry".¹³⁵ Some scholars, such as Ma and Lin (1993) and Ma and Fa (1994), described this urbanization model implemented in rural

¹³⁴ Friedmann, J. (2006), Four Theses in the Study of China's Urbanization. *International Journal of Urban and Regional Research*, 30: 440–451. doi:10.1111/j.1468-2427.2006.00671.x.

¹³⁵ Guo, S.Q. and Zou, J. (2015) *Study and Enlightenment of the In-Situ Urbanization of Rural Areas in China in the Background of New Pattern Urbanization—Taking Zhanqi Village, Pi County for Instance*. *Open Journal of Social Sciences*, 3, 137-144. <http://dx.doi.org/10.4236/jss.2015.39019>.

China as “urbanization from below”. This expression refers to the fact that, during the reform era, China experienced a remarkable growth of towns, in contrast with the precedent focus on the expansion of large- and medium-size cities, in which the government did not play an active role.¹³⁶ As Friedmann points out, this led to the widespread expansion of peri-urban areas around the industrial areas that could accommodate rural workers, which development has also helped China avoid the typical problems linked to urbanization that developing countries often face, in particular widespread urban poverty, urban slums and urban unemployment.¹³⁷

Alongside the alleviation of the restrictions linked to the *hukou* system, another important factor leading to China’s rapid urban growth was the decentralization of decision making to local governments. This new strategy started in 1980 and resulted in a high level of competition between cities and towns and experimentalism at a local level. The trigger of this system was the establishment of a performance evaluation method that rewarded the best performances.¹³⁸ Furthermore, the PRC gradual transition from a central planned economy to a market-oriented economy (or, at least, a system with market features, although still characterized by a high degree of collusion), saw the establishment of the first SEZs (Special Economic Zones) in the early ‘80s along the south-eastern part of the coastal belt. The economic calculus behind the creation of these newly established experimental industrial areas was the attraction of FDI aimed at triggering a large-scale industrialization; SEZs promoted a business model based on manufacturing and export processing that needed a large pool of cheap labor in order to function: this further triggered the ongoing urbanization process. The role of FDI, which allocation was gradually extended from the restricted and isolated experimental areas of the SEZs to the coastal cities and then to the whole country, was fundamental as an input to jump start the urbanization process that China needed to catch up with the industrialized economies.

China’s urbanization process has always been influenced by political calculus and strategies, which lend it a remarkable speculative nature, and it is encouraged by the government that sees it as a means for the promotion of economic development and for the minimization of economic disparities

¹³⁶ Ma, Laurence J. C., and Chusheng Lin. "Development of Towns in China: A Case Study of Guangdong Province." *Population and Development Review* 19, no. 3 (1993): 583. doi:10.2307/2938467.

¹³⁷ *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization*. Washington, DC: World Bank Group, Development Research Center of the State Council, the People’s Republic of China, 2014.

¹³⁸ *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization*. Washington, DC: World Bank Group, Development Research Center of the State Council, the People’s Republic of China, 2014.

within the country¹³⁹. Against the historical background of China's urbanization, one can infer that China's urbanization model is mainly characterized by the following elements:

- A continuous increase in urban population: as previously mentioned, Chinese urban population grew dramatically, reaching a peak of 55.6% in 2015 (The World Bank data).¹⁴⁰ According to the National Bureau of Statistics (NBS), in 2011, Chinese urban population outnumbered rural population, their respective amounts reaching 690.79 million and 656.56 million.¹⁴¹ When discussing about the growth of urban population in China, it is imperative to acknowledge the fact that the measuring of the urban population is often inaccurate, due to two main reasons. In the first place, in the past, statistics concerning urban population were often based on the administrative boundaries of cities and towns, which frequently did not coincide with their actual extent and, additionally, the criteria used to define a city were frequently redefined by the State Council. In the second place, the existence of a restrictive system such as the *hukou* system further complicates the situation. Statistics can thus vary; however, the recent development of a more efficient system made them more and more reliable and realistic.¹⁴²
- Differences in the level of urbanization among regions and provinces: with the establishment of SEZs and the possibility of receiving foreign direct investments, the coastal belt experienced a greater development than the central and the western provinces of the country. Furthermore, in an era characterized by experimentalism, pilot projects were also implemented for land-use and housing reforms, thus benefitting only a restricted area. Therefore, inequalities between the eastern part of the country, in which also reside the majority of the wealthiest provinces, and the central and western provinces grew more and more remarkably.
- A rampant growth of urban settlements and a dramatic expansion of urban built-up areas¹⁴³, characterized by a more rapid development of small- and medium-size cities and towns in comparison with large-size cities (however, the majority of urban population growth was

¹³⁹ Hald, May. *Sustainable Urban Development and the Chinese Eco-City - Concepts, Strategies, Policies and Assessments*. Report no. 5/2009. Fridtjof Nansen Institute (FNI). July 2009.

¹⁴⁰ The World Bank <http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS/countries/1W-CN?display=graph>

¹⁴¹ Flor Cruz, Jaime A. "China's Urban Population Outnumbers Rural Dwellers for First Time." CNN, January 17, 2012. Accessed June 21, 2016. <http://edition.cnn.com/2012/01/17/world/asia/china-urban-population-duplicate-2/>.

¹⁴² Yeh, Anthony G.O., Jiang Xu, and Kaizhi Liu. *China's Post-reform Urbanization: Retrospects, Policies and Trends*. Urbanization and Emerging Population Issues - 5. Human Settlements Group (IIED) and Population Development Branch (UNFPA). May 2011.

¹⁴³ Yeh, Anthony G.O., Jiang Xu, and Kaizhi Liu. *China's Post-reform Urbanization: Retrospects, Policies and Trends*. Urbanization and Emerging Population Issues - 5. Human Settlements Group (IIED) and Population Development Branch (UNFPA). May 2011.

concentrated in large metropolitan areas). Since the mid-1990s, the central government started promoting the development of medium- and small-size cities, through the implementation of models for New Town development, which urban infrastructure and architecture was modelled on the basis of the templates adopted for large metropolitan areas.¹⁴⁴

3.2 The unsustainability of China's urbanization model: the social dimension.

Urbanization is often seen in China as the core engine of development and has been central in government's policies for the past decades. Undoubtedly, from an economic standpoint, urbanization has resulted in remarkable strides. However, from a sustainability perspective, China's uneven urbanization pattern is increasingly revealing its shortcomings and is facing various challenges, such as, for instance, quality of life in urban areas, protection of cultural heritage, and severe issues concerning air pollution, water scarcity and waste disposal.¹⁴⁵

Pertaining the many challenges that China's urbanization is facing, pollution, water scarcity and the depletion of natural resource constitute the main target of both national and international attention and discourse. Due to space constraint, this paragraph will only give a brief overview of this extremely complex and multifaceted issue. The rapid urbanization process that is structurally transforming China is taking a heavy toll on natural resources and environmental quality, and the problem is particularly accentuated in urban centers where there exists a high density of heavy industry and mining sites. Moreover, this issue is exacerbated by the fact that a very high percentage of the population in urban areas use cars daily and that, notwithstanding the restrictions on car use in many cities, traffic congestion constitutes a severe problem, which extensively contributes to the increase of CO₂ emissions.¹⁴⁶

Moreover, the Central government faces challenges concerning water provision and pollution. China's Ministry of Water Resources published a study that shows that in the 1990s there were around 55.000 rivers in China, 55% of which do not exist at present.¹⁴⁷ Water shortage is particularly concerning in the area north of the Yangtze River, where inefficient agricultural production consumes about 2/3 of the already scarce water resources. As John Barnett *et al.* point out, the principal obstacle

¹⁴⁴ "The Urbanization of Rural China - OCULS." OCULS, Oslo Center for Urban and Landscape Studies (The Oslo School of Architecture and Design). Accessed August 20, 2016. <http://www.oculs.no/projects/urban-development-china/about/>.

¹⁴⁵ "The Urbanization of Rural China - OCULS." OCULS, Oslo Center for Urban and Landscape Studies (The Oslo School of Architecture and Design). Accessed August 20, 2016. <http://www.oculs.no/projects/urban-development-china/about/>.

¹⁴⁶ Yusuf, Shahid. "Off to the City." *China Business Review*. May 1, 2009. Accessed August 15, 2016. <http://www.chinabusinessreview.com/off-to-the-city/>.

¹⁴⁷ Shek, Colin. "The Business of Urbanization in China." *The China Business Review*, September 16, 2014. Accessed August 23, 2016. <http://www.chinabusinessreview.com/the-business-of-urbanization-in-china/>.

concerns poor water management. In recent years, the central government has implemented a massive project called South-to-North Water Diversion (SNWD) that channels water from the Yangtze River to the northern areas afflicted by water scarcity through two routes. The project, however, has received various forms of criticism because of its impact on both the environment and the residents of the areas where these two routes have been constructed, due to the high costs of implementation and maintenance, a high risk of increased water pollution and the social costs linked to expropriation that the project implies.¹⁴⁸ The issue concerning inefficient enforcement of norms and regulations concerning pollution control and management is extremely prominent in China, where the government plays a twofold and conflicting role of regulator and stakeholder. In fact, notwithstanding the introduction of comprehensive and promising environmental laws and regulations (at least on paper), these have not resulted in outstanding strides in terms of air and water quality, due to a series of reasons. Principally, there is a lack of incentives for the enforcement of these laws and regulations, which would require a multidimensional approach. Moreover, the public participation system is still underdeveloped and not implemented to the fullest; therefore, citizens' involvement in public decisions pertaining to the management of environmental issues is still very limited and obstructed, in favor of an increasing perilous search for massive economic growth.¹⁴⁹

Apart from the environmental factors and the depletion of natural resources, the accelerated urbanization occurring in China in the past three decades has also originated various social issues, that constitute the main cause of social unsustainability and unrest in many areas of the country.

One of the most prominent issue is the one concerning China's system of land rights, which adopts different approaches for the management of urban and rural land. The former is a state property, while the rural collectives, that do not have transfer rights, own the latter. The existence of a dual market for rural and urban land has generated a lot of discontent among rural dwellers, that has frequently and increasingly resulted into various forms of social conflicts or frictions. The reason of the discontent is to be found in the fact that local governments rely on land leasing to a significant extent in order to increase their fiscal revenue. With the tax reform in 1994, while the financial revenue of the central government was increasing steadily, local governments saw their financial revenue reduce dramatically and their spending increase rapidly, thus exacerbating the gap between revenues and spending. As a consequence, local governments started adopting non budgetary solutions to reduce the severe fiscal pressure they were facing, which resulted in local governments

¹⁴⁸ Jon Barnett, Sarah Rogers, Michael Webber, Brian Finlayson, and Mark Wang. "Sustainability: Transfer Project Cannot Meet China's Water Needs." *Nature* 527, no. 7578 (November 19, 2015): 295-97. doi:10.1038/527295a.

¹⁴⁹ "World Bank and Development Research Center of the State Council, the People's Republic of China. 2014. *Urban China : Toward Efficient, Inclusive, and Sustainable Urbanization*. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/18865>. License: CC BY 3.0 IGO.

increasingly relying on land sale revenue.¹⁵⁰ As of today, local governments are the only institutions that have the right to convert the land from rural to urban and then lease it to private users that pay lease fees for periods that go from 40 to 70 years.¹⁵¹ The origin of this issue lies in the evaluation system of local governments that is mainly based on the achieved economic performance, i.e. GDP growth: expansion of urban areas is one of the main vehicles to jump-start the economic growth.¹⁵² The local governments, however, are not allowed to actively take part in the economic development process and to borrow from financial markets, as established by the Budget Law. Therefore, especially after the 2009 stimulus plan launched by the Central government, they started resorting to alternative and often not legitimate ways of funding their activities, known as Local Government Funding Platform (LGFPs), state-owned enterprises through which they obtain loans for financing infrastructure and urban development. This system has dramatically increased the local government debt, which ratio has jumped from around 20% of GDP in 2007 to nearly 40% in 2015. Against this background, leasing land has become fundamental for local governments in order to obtain sufficient funds to repay these loans. However, as the IMF argues, this is a perilous path that makes the economy subject to the volatility of land sales revenue and is, therefore, unsustainable in the long term.¹⁵³

Since local governments largely rely on land revenues to repay the loans they take up to incentive urban development (see Chart 2), the practice of farmland expropriation has become a common practice.

¹⁵⁰ <http://theory.people.com.cn/n1/2016/0801/c217905-28601100.html>.

¹⁵¹ Looney, Kristen, and Meg Rithmire. *Urbanization with Chinese Characteristics? China's Gamble for Modernization*. Working paper no. 16-083. Harvard Business School. January 2016. <http://hbswk.hbs.edu/item/urbanization-with-chinese-characteristics-china-s-gamble-for-modernization>.

¹⁵² Zheng, Heran, Xin Wang, and Shixiong Cao. "The Land Finance Model Jeopardizes China's Sustainable Development." *Habitat International* 44 (2014): 130-36. doi:10.1016/j.habitatint.2014.05.008.

¹⁵³ Yinqiu Liu, and Tao Sun. Authorized for distribution by Laura Kodres and Julie Kozack. "Local Government Financing Platforms in China: A Fortune or Misfortune?" *IMF Working Papers* 13, no. 243 (October 2013). doi:10.5089/9781475599671.001.

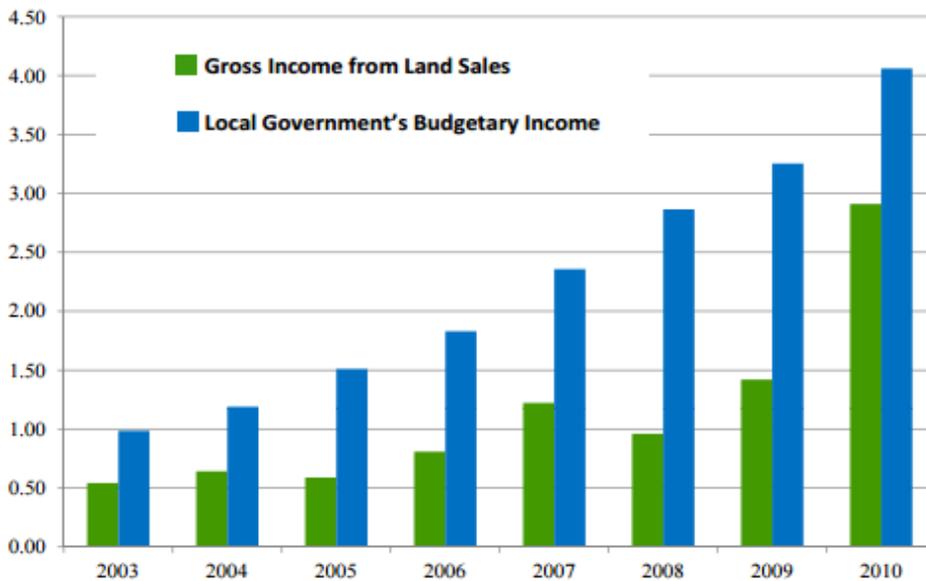


Chart 2: Local government dependence on land sale revenue 2003-2010 (trillion RMB). Source: Wu, Gyourko, Deng, 2012.¹⁵⁴

The Central government should guarantee the protection of farmers' rights but, notwithstanding a formal prohibition of this practice, it does not have the power to impose macro-regulations *ex-ante* on local governments' actions, thus enhancing the unsustainability of this model.¹⁵⁵ The local governments have the power to acquire farmland from the rural collectives and, if the negotiations do not have a favorable outcome, they frequently resort to land expropriation, obliging the farmers to move elsewhere in order to tear down their houses and convert the farmland into construction land in order to sell the property rights. Moreover, the expropriation should be compensated properly; however, frequently, the expropriated farmers are liquidated with very small and inappropriate compensations, left to themselves, with poor working and education skills and no rights to access to adequate social benefits and welfare nets. Moreover, findings from related research show that, despite their housing conditions improving remarkably, the expropriated farmers frequently feel uncomfortable and out of place in the new settings they are forced to move to, due to the unfamiliar environment and the fact that they often lack the required skills to enter the urban job market. These circumstances can create a dangerous circle of urban segregation, where the expropriated farmers are

¹⁵⁴ Ambrose, Brent W., Yongheng Deng, and Jing Wu. "Understanding the Risk of China's Local Government Debts and Its Linkage with Property Markets." *Paper Presented at the International Symposium on Housing and Financial Stability in China. Hosted by the Chinese University of Hong Kong, Shenzhen. Shenzhen, China.*, December 18-19, 2015.

¹⁵⁵ "China Faces Social, Financial Risks in Urbanization Push." Reuters. March 07, 2013. Accessed August 21, 2016. <http://www.reuters.com/article/us-china-parliament-urbanisation-idUSBRE92607K20130307>.

pushed to the outskirts of the urban areas and do not have access to the same benefits and opportunities that the local urban residents enjoy.¹⁵⁶

As argued before, the Central government does not have the power to fully enforce control regulations over the local governments' activities which, therefore, are very seldom persecuted for expropriation and inappropriate compensation, thus further exacerbating the social discontent.¹⁵⁷

Tightly related to the system of land rights is the issue concerning the excessive urban sprawl and the so-called "phantom urbanization" or "half urbanization". In the past decade, China's urban land has expanded at a much accelerated pace than the urban population, and this phenomenon is becoming increasingly concerning due to the issues related to low-density urbanization, such as the establishment of a car-based culture, increased urban segregation and social exclusion for the urban poor through the creation of dormitory areas at the urban fringe, the risk of the mushrooming of shantytowns, and increased costs and greater energy use for transportation infrastructure and services. Various scholars argue that China is in urgent need for efficient land management regulations, in order to provide solid basis for urban sustainable development and for the enhancement of citizens' quality of life and well-being.¹⁵⁸ As of today, many fear that the land rights system behind this mechanism is giving life to a largely unsustainable vicious circle characterized by over-investment leading to an unnecessary supply of urban infrastructures and urban land that does not correspond to the actual demand. As Looney and Rithmire (2016) describes it, the phenomenon of ghost cities is characterized by "areas of urban expansion with all the makings of a modern city save the residents".¹⁵⁹ The same concept applies to what Sorace and Hurst call urban façade, i.e. a place that has the physical characteristics of a city but does not have adequate urban infrastructure, nor is it capable to provide potential residents with the structural opportunities that are typically linked to urban life. These localities lack job opportunities, adequate transportation, educational facilities and other forms of urban services, thus leading to severe phenomena of under population.¹⁶⁰

¹⁵⁶ Cheng, Huixia. "Forced-Urbanization: The Alienation of Urbanization in China." *AJAEES Asian Journal of Agricultural Extension, Economics & Sociology* 6, no. 3 (April 18, 2015): 126-35. doi:10.9734/ajaees/2015/16227.

¹⁵⁷ Zheng, Heran, Xin Wang, and Shixiong Cao. "The Land Finance Model Jeopardizes China's Sustainable Development." *Habitat International* 44 (2014): 130-36. doi:10.1016/j.habitatint.2014.05.008.

¹⁵⁸ Yusuf, Shahid. "Off to the City." *China Business Review*. May 1, 2009. Accessed August 15, 2016. <http://www.chinabusinessreview.com/off-to-the-city/>.

¹⁵⁹ Looney, Kristen, and Meg Rithmire. *Urbanization with Chinese Characteristics? China's Gamble for Modernization*. Working paper no. 16-083. Harvard Business School. January 2016. <http://hbswk.hbs.edu/item/urbanization-with-chinese-characteristics-china-s-gamble-for-modernization>.

¹⁶⁰ Sorace, Christian, and William Hurst. "China's Phantom Urbanisation and the Pathology of Ghost Cities." *Journal of Contemporary Asia* 46, no. 2 (2015): 304-22. doi:10.1080/00472336.2015.1115532.

One of the most alarming issues related to China's urbanization, both on a national and international scale, concerns internal migration. Starting from 1958, the Chinese government has been capable of enforcing a system of strict regulations to control the migratory flows generating from the rural areas of the country and directed to the cities that goes under the name of *hukou* system. However, after the launch of the reforms in the early '80, the necessity of a large pool of cheap labor force made it imperative to loosen the tight control over the population movements. As a result, currently about 17% of the Chinese population belongs to the so-called "floating population". Notwithstanding the possibility of moving to bigger cities, work and live there, the restrictions related to the *hukou* system are still in place. This implies that the people moving from the rural areas to the cities, once there do not benefit from the same social services and opportunities as the local non-agricultural *hukou* holders, thus creating what has frequently been referred to as rural-urban apartheid, i.e. a wide rural-urban gap that intensifies along with the increase of the urbanization pace.¹⁶¹ Against this background, it is arguable that, if it is undeniable that the restrictions on migrations have a positive outcome in preventing the emergence of slums in the outskirts of Chinese cities, albeit only partially, on the other hand they have largely slowed down the overall urbanization process.¹⁶²

Urbanization is not always easy to assess, nor to measure its rate of development, and this is particularly valid for China, due to the aforementioned reasons. Scholars largely agree that, in China, land urbanization (土地城镇化, *tudi chengzhenhua*) and human urbanization (人口城镇化, *renkou chengzhenhua*), do not proceed at the same speed. In fact, while the former has reached a peak of 56%, the latter, that is constituted by the ratio of people that live in the city and, at the same time, have access to the same benefits as urban local residents, such as welfare provisions, education, healthcare, and other social services has a much lower rate, around 35%. Data show that, in the decade going from 1990 to 2000, the pace of land urbanization was 1.71 times faster than the pace of human urbanization, and 1.85 times faster in the following decade (2000-2010).¹⁶³ The combination of these factors is impinging upon the sustainability of China's urbanization, inasmuch as this trend produces a reduction of urban density that might weaken the role of cities as growth drivers.

In addition, migrants moving to the cities frequently lack the education and job skills necessary to be competitive on the work market of big cities, and are therefore mainly employed in low-skilled,

¹⁶¹ Looney, Kristen, and Meg Rithmire. *Urbanization with Chinese Characteristics? China's Gamble for Modernization*. Working paper no. 16-083. Harvard Business School. January 2016. <http://hbswk.hbs.edu/item/urbanization-with-chinese-characteristics-china-s-gamble-for-modernization>.

¹⁶² Yusuf, Shahid. "Off to the City." *China Business Review*. May 1, 2009. Accessed August 15, 2016. <http://www.chinabusinessreview.com/off-to-the-city/>.

¹⁶³ Sorace, Christian, and William Hurst. "China's Phantom Urbanisation and the Pathology of Ghost Cities." *Journal of Contemporary Asia* 46, no. 2 (2015): 304-22. doi:10.1080/00472336.2015.1115532.

low-waged physical labor, such as construction. Therefore, they cannot afford housing and life costs in the rich urban areas, thus creating a dangerous work force vacuum in the eastern coastal areas of the country.¹⁶⁴

These issues are extremely challenging for the central government to deal with. The central government is trying to channel the migratory flows towards small- and medium-size cities; these cities, however, from the perspective of migrant workers, are not as attractive in terms of job opportunities and enhanced life quality, due to governmental policies that tend to address investment and resources mainly to big cities.¹⁶⁵

In the light of this background, Chinese society has started developing a sort of dualism between the urban and the rural sphere, which constitutes the main source of inequality in contemporary China. Moreover, urban China is the theatre of rising social inequalities, and urban poverty, which according to Zhang (2016) is negatively influenced by urbanization, also constitutes a severe issue.¹⁶⁶ The most prominent example of the phenomenon of urban inequality can be observed in the living conditions of migrant workers, who frequently are institutionally prevented from fulfilling their aspirations in the cities where they move to. Notwithstanding the recognition of the fact that migrant workers play a fundamental role in both economic and urban development, they often fall victim to various forms of social discrimination in the labor market and in society as a whole, reflected in the limited access to social insurance, public welfare and educational facilities for their children.¹⁶⁷

In addition, accelerated urbanization comes at the cost of increasing residential segregation, a widespread phenomenon in urban China. China's urbanization is often described as a process that permitted to avoid the typical problem encountered by most developing countries, in particular urban slums. However, the situation has gradually worsened, and in December 2008, the PRC government launched a stimulus plan aimed at providing funds to build affordable housings destined to the millions of urban households that live in conditions of poverty or in the slums at the fringe of expanded urban areas.¹⁶⁸ This phenomenon is mainly due to two factors. In the first place, there is a

¹⁶⁴ Zheng, Heran, Xin Wang, and Shixiong Cao. "The Land Finance Model Jeopardizes China's Sustainable Development." *Habitat International* 44 (2014): 130-36. doi:10.1016/j.habitatint.2014.05.008.

¹⁶⁵ Lixing Li. "Managing Urbanization in China: Issues and Policy Options". National School of Development, Peking University.

¹⁶⁶ Zhang, Yuan. (2016). "Urbanization, Inequality, and Poverty in the People's Republic of China". ADBI Working Paper 584. Tokyo: Asian Development Bank Institute. <http://www.adb.org/publications/urbanization-inequality-and-poverty-prc/>.

¹⁶⁷ Jiang, Shiqing, Ming Lu, and Hiroshi Sato. "Identity, Inequality, and Happiness: Evidence from Urban China." *World Development* 40, no. 6 (June 2012): 1190-200. doi:10.1016/j.worlddev.2011.11.002.

¹⁶⁸ Yusuf, Shahid. "Off to the City." *China Business Review*. May 1, 2009. Accessed August 15, 2016. <http://www.chinabusinessreview.com/off-to-the-city/>.

significant lack in the provision of affordable housing, and a consequent strong bias of local authorities towards the construction of high-end and luxury housing.¹⁶⁹ This occurs because welfare housing cannot generate the same revenues as the regular market housing, which is driven, as argued before, by high levels of speculation and over-investment. In addition, the reluctance of local residents further contributes to the exacerbation of residential segregation.¹⁷⁰ The combination of these factors have resulted in the development of the so-called urban villages (城中村, *chengzhongcun*), i.e. villages that emerge amid the city, typically at the outskirts, and are inhabited by rural migrants, inasmuch as they cannot afford regular market prices and they are also institutionally limited, due to their *hukou* status. City authorities are alarmed by this phenomenon, due to the fact that urban villages are often characterized by poor living condition and high crime rates.¹⁷¹

3.3 China's progress towards urban sustainability: overview and assessment of China's urbanization policies, the importance of subjective well-being and urban sustainability indicators.

As reiterated in the previous sections, China has given large priority to economic growth and increase in GDP in its urbanization process, which is, therefore, investment-driven and has a strong speculative nature. Speculation and over-investment in urban growth have taken a high toll on other dimensions, leading to considerable social costs and severe environmental degradation. In dealing with the trade-offs between the economic gain and these aspects, the former has frequently been given higher relevance and absolute priority by Chinese policy makers. However, in recent years, the situation seems to be gradually moving towards a more comprehensive, balanced and long-term-oriented vision of sustainability that revolves around the importance of finding permanent solutions for social and environmental issues. People's well-being, quality of life and cities livability are prioritized in this new approach, which is increasingly gaining Chinese policy makers' attention, at least on paper.

In the next paragraphs, I will first go through an overview of China's first urbanization plan, the National New-type Urbanization Plan (2014-2020), followed by an analysis of subjective well-

¹⁶⁹ Wu, Qiyang, Jianquan Cheng, Guo Chen, Daniel J. Hammel, and Xiaohui Wu. "Socio-spatial Differentiation and Residential Segregation in the Chinese City Based on the 2000 Community-level Census Data: A Case Study of the Inner City of Nanjing." *Cities* 39 (August 2014): 109-19. doi:10.1016/j.cities.2014.02.011.

¹⁷⁰ Lixing Li. "Managing Urbanization in China: Issues and Policy Options". National School of Development, Peking University.

¹⁷¹ Zheng, Siqi, Fenjie Long, C. Cindy Fan, and Yizhen Gu. "Urban Villages in China: A 2008 Survey of Migrant Settlements in Beijing." *Eurasian Geography and Economics* 50, no. 4 (2009): 425-46. doi:10.2747/1539-7216.50.4.425.

being in urban settings across the country, the importance of this concept in urban studies conducted in China and an overview of the main determinants that influence it. The last part will be constituted by a review of some studies and initiatives concerning urban sustainability indicators developed specifically for China, with an emphasis on the social dimension and their potentiality and shortcomings in this sphere.

3.3.1 China's National New-type Urbanization Plan (2014-2020): a pathway to successful urban sustainability? An overview of China's landmark urbanization plan, its principles, goals and potential issues.

"We will implement a new type of people-centered urbanization, address the bifurcation between urban and rural areas and within cities, and grant urban residency in an orderly manner to rural people who have moved to cities."^{172/173}

These words, pronounced by Premier Li Keqiang at the Opening Plenary of the Boao Forum for Asia Annual Conference 2014 (Boao, Hainan, PRC) on April 10, 2014, summarize the core objectives that the Chinese government aims at achieving through the implementation of its first urbanization plan, the National New-type Urbanization Plan (国家新型城镇化规划, *guojia xinxing chengzhenhua guihua*) for 2014-2020.

As discussed previously, the "traditional" urbanization model adopted by China so far, which has produced severe social and environmental outcomes, has been proven to be no longer sustainable. The main issue is that, in managing urban development, the Chinese government has chosen to deliver quantity over quality; by focusing on economic growth, it has neglected the social and environmental costs that have led to a low-quality and unbalanced urban growth. However, the Chinese government continues to consider urbanization as one of the pillars sustaining national economic growth, as well as the emblem of modernity and human development and, faced with these impelling challenges, in March 2014 the Central Committee of the Communist Party of China (CPC) and the State Council issued China's first national urbanization plan, the National New-type Urbanization Plan.

The program, which constitutes a landmark plan in China's urban planning history, revolves predominantly around the concept of human-centered urbanization (一人的城镇化为核心, *yi ren de*

¹⁷² Taylor, Jon R. "The China Dream Is an Urban Dream: Assessing the CPC's National New-Type Urbanization Plan." *Journal of Chinese Political Science (J OF CHIN POLIT SCI)/Association of Chinese Political Studies* 20, no. 2 (May 24, 2015): 107-20. doi:10.1007/s11366-015-9341-7.

¹⁷³For the complete speech, see: CITA http://www.fmprc.gov.cn/web/ziliao_674904/zyjh_674906/t1145916.shtml

chengzhenhua wei hexin), i.e. a new model of urban development that focuses on the shift from the urbanization of land to the urbanization of people that, as argued in the previous section, still lags behind the investment-driven urban and land expansion. At the same time, in order to achieve a long-term sustainable development pattern, the Chinese government has acknowledged the importance of slowing down the on-going urbanization process, in favor of a more measured path.

Through the proper implementation of this urbanization program, the Chinese government aims at achieving various social goals, in order to find a sustainable solution for the aforementioned impelling issues that are increasingly impinging on the overall national economic and social development. In particular, the National New-type Urbanization Plan aims at making progresses in the following dimensions:

- In the first place, as already mentioned, the main goal is to successfully shift to a people-centered urbanization model, by reaching an overall urbanization rate of around 60% and a *hukou* urbanization rate of 45% by 2020, and to overcome the dualism and the rising inequalities that exist between the rural sphere and the urban dimension. This translates into the objective of allowing 100 million rural migrants (out of about 270 million) to become city residents *in toto* by converting their *hukou* status from agricultural to non-agricultural, which implies equal access to social services and welfare, by 2020. As for the remaining 170 million rural dwellers, the central government will allow them to have adequate access to basic services, such as healthcare, education for their children and pension, albeit still retaining an agricultural *hukou* status.¹⁷⁴ Moreover, allowing rural migrants to become fully integrated into urban life constitutes a beneficial tool to fulfil the necessity of a larger domestic demand. Up to present, migrant workers have tended to save their money and their contribute to urban consumption has been very little, inasmuch as not only their salaries are usually lower, but they also need to keep a certain amount of savings to be able to face potential needs, seen their exclusion from social welfare. Against this background, in the National New-type Urbanization Plan is argued that “*Domestic demand is the fundamental impetus for China's development, and the greatest potential for expanding domestic demand lies in urbanization*”.¹⁷⁵

¹⁷⁴ Chen, Chunlai, and Biliang Hu. "China's New Urbanisation. A Nation Building Project to Rival That of the Great Wall." Asia & the Pacific Policy Society - APPS Policy Forum. January 14, 2015. Accessed September 10, 2016. <http://www.policyforum.net/chinas-new-urbanisation/>.

¹⁷⁵ Zhu, Ningzhu (Ed.). "China Unveils Landmark Urbanization Plan - Xinhua | English.news.cn." Xinhua Net. March 16, 2014. Accessed September 16, 2016. http://news.xinhuanet.com/english/china/2014-03/16/c_133190495.htm.

- Second, the plan aims at developing big city clusters in three core areas, specifically Beijing-Tianjin-Hebei (京津冀, *Jing-Jin-Ji*), the Yangtze River Delta (长江三角洲, *Chang Jiang Sanjiaozhou*) and the Pearl River Delta (珠江三角洲, *Zhu Jiang Sanjiaozhou*), and to also create other city clusters in the least developed central and western areas of the country. City clusters are beneficial to promote a more integrated model of urbanization and to take better advantage of the benefits related to agglomeration. Through the creation of city clusters, that permit the improvement of transportation between different areas and the movement of people, capital and goods, the government seeks to promote a more integrated rural/urban development and to give more relevance to the development of small- and medium-size cities and towns, that are at the center of this new urbanization plan. Moreover, in this way, some city functions can be redirected to smaller cities and towns, thus making the whole system more efficient.
- Third, from an environmental standpoint, the new urban plan seems to have various shortcomings. The concept of green cities is included in the government's project, which aims at raising the amount of "green" buildings from 2% in 2012 to about 50% in 2020 and to improve the air quality in terms of PM 2.5, reaching the national standards in more than 60% of the cities. However, in dealing with the severe environmental issues caused by high speed and intensive construction and accelerated urban development has not been addressed adequately.¹⁷⁶
- Fourth is the focus on the shift from a fully planned urbanization to a more natural and market-oriented model. As argued in the previous sections, China's urbanization has always been characterized by a pronounced political calculus, dictated by the priority of GDP growth and the necessity to largely invest in urban expansion and infrastructures.¹⁷⁷ With the issuance of its first urbanization plan, the central government seems to have understood, albeit only to a certain extent, the importance of the role of market in driving urbanization and the necessity to let the market be the principal determinant of the flows of people, goods and capital in the urbanization process. By allowing this, the government can foster a more integrated rural-

¹⁷⁶ Shek, Colin. "The Business of Urbanization in China." *The China Business Review*, September 16, 2014. Accessed August 23, 2016. <http://www.chinabusinessreview.com/the-business-of-urbanization-in-china/>.

urban development and it can be beneficial to social and sustainable development of both urban and rural areas.¹⁷⁸

Indicator	2012	2020
Urbanization Level		
Urbanization Ratio (resident population) (%)	52.6	60.0
Public Services		
Proportion of peasant worker's children accompanying parents receiving mandatory education (%)	n/a	≥99.0
Basic social-security coverage for urban and township resident population (%) ^a	66.9	≥90.0
Basic medical insurance coverage for urban and township resident population (%)	95.0	98.0
Infrastructure		
Public transportation share in motorized travel in cities with more than 1 million population (%)	45.0#	60.0
Public water supply coverage in cities and towns (%)	81.7	90.0
Proportion of wastewater treated in cities (%)	87.3	95.0
Proportion of municipal waste decontaminated in cities (%)	84.8	95.0
Broadband internet connection capacity of urban households (megabits per second)	4.0	≥50.0
Resource and Environment		
Per capita urban land use (square meters)	n/a	≤100 ^b
Share renewable energy consumption in cities and towns (%)	8.7	13.0
Share of 'green' buildings in new constructions in cities and towns (%)	2.0	50.0
Share of prefecture and above level cities that meet the national air-quality standards (%)	40.9	60.0

Table 6: Indicators and Targets in the National New-Type Urbanization Plan.¹⁷⁹

^a Excludes resident students and people aged 0–16. # Data from 2011

^b Standard is 65–115 square meters for urban built-up area and 85–105 square meters in newly developed cities

A few months after the unveiling of the National New-Type Urbanization Plan, David Frey, Partner at KPMG's Global China Practice and country head of the consultancy's Cities Global Center of Excellence, referring to it, asserted "*I think China will make a lot of mistakes [but] I also think it*

¹⁷⁸ Chen, Chunlai, and Biliang Hu. "China's New Urbanisation. A Nation Building Project to Rival That of the Great Wall." Asia & the Pacific Policy Society - APPS Policy Forum. January 14, 2015. Accessed September 10, 2016. <http://www.policyforum.net/chinas-new-urbanisation/>.

¹⁷⁹ Original source: Bai, X., P. Shi, and Y. Liu. 2014. Realizing China's urban dream. *Nature* 509(8): 158–160. Taken from: Taylor, Jon R. "The China Dream Is an Urban Dream: Assessing the CPC's National New-Type Urbanization Plan." *Journal of Chinese Political Science (J OF CHIN POLIT SCI)/Association of Chinese Political Studies* 20, no. 2 (May 24, 2015): 107-20. doi:10.1007/s11366-015-9341-7.

will also get a lot of things right".¹⁸⁰ As of 2016, it is still difficult to assess whether the National New-type Urbanization Plan will be able to fully achieve all the important goals the government has set by issuing this ambitious project. According to Hu and Chen (2015), the plan contains various potential issues to be faced during its implementation. In the first place, by giving the possibility to rural migrants to become actual city residents and by granting them access to the same social services and welfare nets as the urban-born residents, the government indirectly opens up the cities to an increased amount of rural workers. However, more than half of them do not have the adequate educational and working skills to be fully productive and competitive on the urban job market; furthermore, this situation can exacerbate the already severe urban unemployment. Moreover, the creation of big city clusters in the most prosperous areas of the country could result in a significant convergence of resources, capitals and human labor towards these areas, thus exacerbating the regional gaps that the project itself aims at reducing. In addition, as already discussed before, the plan does not give enough relevance to environmental protection; however, notwithstanding the necessary trade-offs among the economic, social and environmental dimensions in order to achieve sustainable urban development, the Chinese government can not afford to neglect the environmental aspect and the importance of promoting a low-carbon development path. Ultimately, the project is still driven by planned economy forces, therefore, albeit to a lesser extent, it still represents a plan-led urbanization plan.¹⁸¹

Notwithstanding that the above issues, if not taken care of appropriately, could heavily impinge on the positive outcomes and on the implementation of this new plan, the project is undoubtedly emblematic of the renovated relevance given to the social dimension of sustainable development. The National New-type Urbanization Plan implies, at least on paper, that the central government has understood the importance of shifting the focus from a non-sustainable form of development that revolves around investments and mere economic growth to a new development pattern, that is both sustainable from a social and environmental point of view and that places people and their well-being at its core.

3.3.2 Subjective well-being and its determinants in urban China.

As subjective well-being and life satisfaction are becoming increasingly central in the discourses concerning sustainability and quality of life, a conspicuous body of literature on these

¹⁸⁰ Shek, Colin. "The Business of Urbanization in China." *The China Business Review*, September 16, 2014. Accessed August 23, 2016. <http://www.chinabusinessreview.com/the-business-of-urbanization-in-china/>.

¹⁸¹ Hu, Biliang, and Chunlai Chen. "New Urbanisation under Globalisation and the Social Implications in China." *Asia & the Pacific Policy Studies Asia and the Pacific Policy Studies* 2, no. 1 (January 5, 2015): 34-43. doi:10.1002/app5.68.

topics is emerging. Despite the rising concern over these issues, the majority of studies and surveys focus on developed countries. Notwithstanding this focus on Western countries, however, in the past decade both Chinese and international scholars, as well as international organizations, have started giving higher relevance to subjective well-being and life satisfaction in post-reform China, which is a clear sign of the aforementioned movement towards a more comprehensive and balanced vision of sustainability and urban development. Prior to discussing the main findings, trends and determinants pertaining to subjective well-being in urban China, it is important to underline the limitations of the literature concerning subjective well-being and life satisfaction in China. First, due to the total absence of data pertaining to life satisfaction and subjective well-being in the pre-reform era, it is not possible to conduct a time comparison.¹⁸² Second, the studies and surveys conducted about this matter are largely urban-centered. This is extremely interesting for the purpose of this work, but at the same time it also implies an almost exclusive focus on urban residents, therefore, the opinions of rural migrants who reside in urban areas but hold an agricultural *hukou* are frequently not taken into account, despite the considerable amount of rural dwellers in urban areas.¹⁸³ Moreover, these studies are frequently restricted to specific population groups (for instance, students, elders, left-behind children, etcetera), or specific geographic areas, or they tend to solely focus on one domain affecting subjective well-being (such as housing, environmental pollution, mental health, etcetera).¹⁸⁴

Notwithstanding the dramatic increase in per capita income (that has reached 11.477 US dollars in 2014), Human Development Index (0.719 in 2014) and life expectancy at birth (75.2 years in 2014)¹⁸⁵, a conspicuous amount of studies pertaining to subjective well-being in China demonstrate that, surprisingly, life satisfaction levels and subjective well-being have not increased proportionally during the same period of time. In support of this argument, Liu and Shang (2012) assess that, according to the World Values Survey, life satisfaction in China has decreased, dropping from 7.29 in 1990 to 6.53 in 2001.¹⁸⁶ This finding is consistent with the results shown by other studies, the majority of which agree upon the fact that, despite economic growth being positively related to increased levels of life satisfaction in the long run, in the short term drops in life satisfaction are

¹⁸² Graham, Carol, Shaojie Zhou, and Junyi Zhang. *Happiness and Health in China: The Paradox of Progress*. Report no. Working Paper 89. Global Economy and Development, Brookings. June 2015.

¹⁸³ Appleton, Simon, and Lina Song. "Life Satisfaction in Urban China: Components and Determinants." *IZA Discussion Papers N° 3443*, April 2008.

¹⁸⁴ Smyth, Russell, Ingrid Nielsen, and Qingguo Zhai. "Personal Well-being in Urban China." *Soc Indic Res Social Indicators Research* 95, no. 2 (February 22, 2009): 231-51. doi:10.1007/s11205-009-9457-2.

¹⁸⁵ "About China." UNDP in China. Accessed September 19, 2016. <http://www.cn.undp.org/content/china/en/home/countryinfo.html>.

¹⁸⁶ Liu, Zhiqiang, and Qingyan Shang. "Individual Well-being in Urban China: The Role of Income Expectations." *China Economic Review* 23, no. 4 (April 21, 2012): 833-49. doi:10.1016/j.chieco.2012.04.004.

frequently registered. By analyzing two Gallup surveys from 2005, it is arguable that Chinese people tend to define themselves as generally satisfied (63% of the participants declared to feel satisfied), even though the average level of life satisfaction has eroded over time.¹⁸⁷

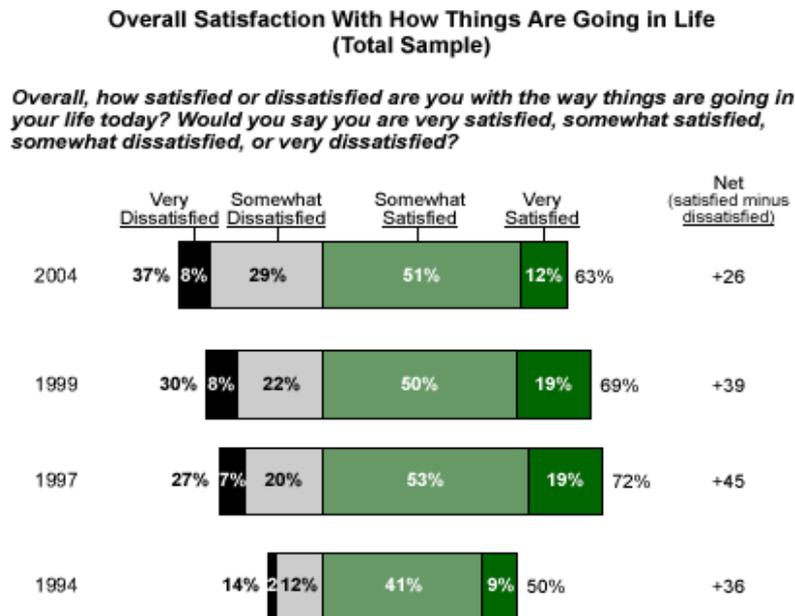


Figure 4: Overall life satisfaction in China (1994-2004). Source: Gallup, 2005.¹⁸⁸

*Before 1997, when a four-point-scale was introduced, Gallup used a five-point-scale.

A Gallup survey conducted in 2011 shows that, notwithstanding the dramatic increase in per-capita GDP, which in 2010 was almost three times as high as in 1999, life evaluation levels have remained almost flat over the same period. The level of life satisfaction between 1999 and 2012 has remained below 5.0, thus placing China, with its average 4.7, in the three bottom countries (along with Mongolia and Cambodia) in terms of life evaluation among the East Asian and Southeast Asian countries surveyed that year (the average level is 6.0).¹⁸⁹

¹⁸⁷ Richard Burkholder (International Bureau Chief). "Chinese Far Wealthier Than a Decade Ago -- but Are They Happier?" Gallup.com. January 11, 2005. <http://www.gallup.com/poll/14548/chinese-far-wealthier-than-decade-ago-they-happier.aspx>.

¹⁸⁸ Richard Burkholder (International Bureau Chief). "Chinese Far Wealthier Than a Decade Ago -- but Are They Happier?" Gallup.com. January 11, 2005. <http://www.gallup.com/poll/14548/chinese-far-wealthier-than-decade-ago-they-happier.aspx>.

¹⁸⁹ Carbtree, Steve, and Tao Wu. "China's Puzzling Flat Line." Gallup.com. August 10, 2011. <http://www.gallup.com/businessjournal/148853/China-Puzzling-Flat-Line.aspx?ref=more#1>.

How Chinese Rate Their Current Lives

Average life ratings in China have remained stable since 1999, despite a dramatic rise in per-capita GDP.

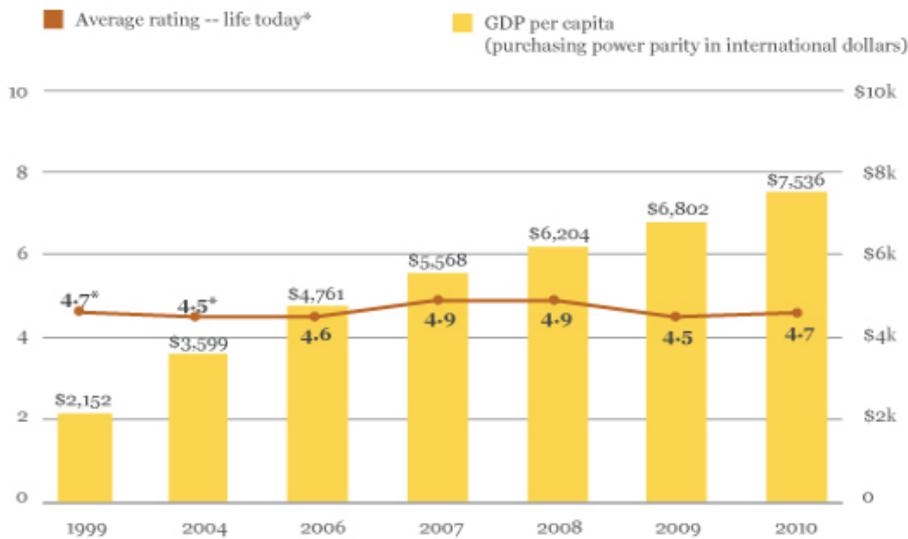


Chart 3: Chinese life evaluation line (1999-2010). Original source: per-capita GDP: World Bank Average Rating; Life ratings: Gallup.¹⁹⁰

*Surveys conducted in 1999 and 2004 use a 1-to-10 scale rather than the current 0-to-10 scale.

With the aim of understanding the rationale behind this trend, many researchers have found an explanation in the so-called “Easterlin paradox” (Easterlin, 1974). According to Easterlin, subjective well-being is positively associated with income, but negatively associated with aspirations; the latter, however, rise along income, which positive effect is thus reduced. Therefore, according to his theory, there is no link between the level of economic development of a society and the overall happiness of its members.¹⁹¹ Related to this is the issue concerning the influence of absolute and relative income in urban China. According to Knight and Gunatilaka (2014), while absolute income has a positive effect on urban residents at low levels of income, relative income becomes more crucial at higher levels of income. The same trend is valid not only for household income, but for all the manifestations of material well-being, such as owning a house or a family car.¹⁹² Notwithstanding the general agreement upon this trend, the role of relative income and aspirations is quite unclear in the existing literature. Some authors and scholars argue that income inequalities could be positively associated

¹⁹⁰ Carbtree, Steve, and Tao Wu. "China's Puzzling Flat Line." Gallup.com. August 10, 2011. <http://www.gallup.com/businessjournal/148853/China-Puzzling-Flat-Line.aspx?ref=more#1>.

¹⁹¹ Stevenson, Betsey, and Justin Wolfers. "Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox." *Brookings Papers on Economic Activity* 2008, no. 1 (2008): 1-87. doi:10.1353/eca.0.0001.

¹⁹² Knight, John, and Ramani Gunatilaka. *Subjective Well-being and Social Evaluation in a Poor Country*. CSAE Working Paper WPS/2014-09. Department of Economics - Centre for the Study of African Economies (CSAE), University of Oxford. 2014.

with subjective well-being, if people see this trend as a sign that they will have a chance to get richer in the coming future (Hirschman, 1973)¹⁹³, and some others assert that relative income is less crucial to well-being than absolute income.¹⁹⁴ However, the majority of studies pertaining to subjective well-being in urban China tend to describe upward mobility as a means to lower life satisfaction, due to increased expectations and access to a broader range of information, and also as a result of a feeling of relative deprivation as economic growth has been predominantly beneficial only to certain population groups.¹⁹⁵ This is especially true for rural migrants, who tend to be more vulnerable to inequalities and, therefore, are found to perceive lower levels of life satisfaction than rural dwellers. This phenomenon is mainly related to the fact that, by moving to urban areas, they change their reference group from rural communities to urban dwellers, who are usually far more advantaged in terms of employment, social inclusion, basic rights and welfare, and frequently have much higher standards of life.¹⁹⁶

Most studies conducted on subjective well-being in urban China conclude that the basic determinants that influence subjective well-being in urban China coincide with the patterns discovered in other countries. According to Xing and Qu (2015), the most relevant determinants of subjective well-being is composed by three dominant spheres, namely life satisfaction, pleasure and self-worth. On the basis of their study, life satisfaction in urban China is determined by seven domains pertaining to life evaluation and satisfaction, i.e. satisfaction with housing, health, leisure, relationships, income, traffic and environment¹⁹⁷, as reported in the following Figure:

¹⁹³ Smyth, Russell, Ingrid Nielsen, and Qingguo Zhai. "Personal Well-being in Urban China." *Soc Indic Res Social Indicators Research* 95, no. 2 (February 22, 2009): 231-51. doi:10.1007/s11205-009-9457-2.

¹⁹⁴ Appleton, Simon, and Lina Song. "Life Satisfaction in Urban China: Components and Determinants." *IZA Discussion Papers N° 3443*, April 2008.

¹⁹⁵ Liu, Zhiqiang, and Qingyan Shang. "Individual Well-being in Urban China: The Role of Income Expectations." *China Economic Review* 23, no. 4 (April 21, 2012): 833-49. doi:10.1016/j.chieco.2012.04.004.

¹⁹⁶ Jiang, Shiqing, Ming Lu, and Hiroshi Sato. "Identity, Inequality, and Happiness: Evidence from Urban China." *World Development* 40, no. 6 (June 2012): 1190-200. doi:10.1016/j.worlddev.2011.11.002.

¹⁹⁷ Xing, Zhanjun, and Xiaxia Qu. "An Initial Research on Output Well-being Index Applied to Residents in Wealthy Counties from China." *STATISTICS IN TRANSITION New Series - The Measurement of Subjective Well-Being in Survey Research* 16, no. 3 (Autumn 2015): 441-60.

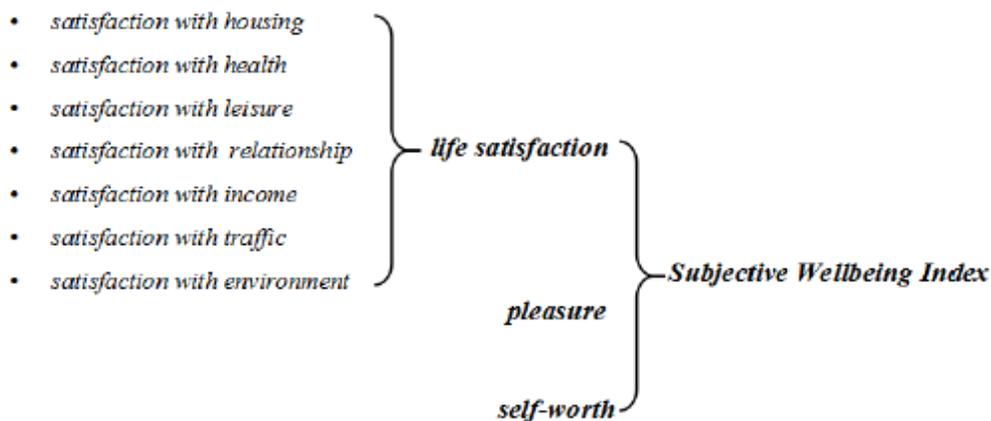


Figure 5: Subjective well-being index structure. Source: Xing and Qu, 2015.

Against the previous background and on the basis of further studies, it is arguable that, except for the aforementioned effects of absolute and relative income, the most crucial determinants of subjective well-being in the context of urbanizing China, some of which I will discuss in further details in the following chapter, are defined by the following dimensions:

- City size and density. While research has proven that, in wealthy contexts subjective well-being is negatively correlated with city size and density, the opposite pattern has emerged from surveys conducted in developing economies, where people show a higher level of life satisfaction in big, dynamic contexts (evidence from Berry and Okulicz-Kozaryn’s (2009) analysis of World Values Survey (WVS) data for 81 countries between 1995 and 2004). Regarding China, according to Chen *et al.* (2015), the category of urban residents that show the greatest satisfaction is constituted by those urban dwellers that reside in cities with populations between 200,000 and 500,000. This phenomenon seems to be related to other determinants of life satisfaction and subjective well-being, such as relative income and feelings of relative deprivation, inasmuch as income gaps and inequalities tend to be wider in metropolis (this is particularly valid for rural migrants), and social bonds, which are easier to build and maintain in smaller cities.¹⁹⁸
- Homeownership. The literature concerning the relationship between housing and individual subjective well-being is quite scarce; however, due to the relevance that homeownership has in urban China society, the trends of its influence on urbanites’ subjective well-being is extremely important in order to gain a comprehensive understanding of the various dimensions that have an impact on subjective well-being in urban China. In fact, most

¹⁹⁸ Chen, Juan, Deborah S. Davis, Kaming Wu, and Haijing Dai. "Life Satisfaction in Urbanizing China: The Effect of City Size and Pathways to Urban Residency." *Cities* 49 (July 28, 2015): 88-97. doi:10.1016/j.cities.2015.07.011.

studies on the determinants of subjective well-being in urban China tend to focus on the role of absolute *versus* relative income, age and gender. According to Chen, Smith and Wang (2013), the relationship between homeownership and subjective well-being in urban China is ambiguous. Precedent literature, not necessarily focused on China, conclude that the relationship between the two variables is positive, inasmuch as it promotes a sense of higher social status and independence, enhanced safety, stronger community bonds and sense of belonging. The three authors assert that, on the basis of their research, generally speaking homeownership is positively correlated with subjective well-being, but that different forms of home ownership affect subjective well-being differently, reaching the conclusion that while full and partial ownership are positively associated with subjective well-being, minor ownership is negatively related with it.¹⁹⁹ Hu (2011) also underlines the positive relation, adding that homeownership has a positive effect not only on the dimension concerning housing satisfaction, but on life evaluation as a whole.²⁰⁰

- Rest and leisure. The literature concerning the relation between leisure time and leisure activities and subjective well-being in rural China is not abundant; in fact, in order to shed light on this important relation, further research is necessary. A study conducted in 2015 by Wei *et al.* using a nation-wide survey contributed to the adding more empirical evidence to the relation between leisure time and subjective well-being in urban China. Unsurprisingly, leisure time was found to be positively associated with life satisfaction and happiness in China where, especially in urban settings, frenetic working schedules can affect people's subjective well-being. However, it is important to underline that, even if the above mentioned study and other studies emphasize the positive association between leisure time and well-being, this does not seem to be particularly relevant to China urbanites. This is especially true when it comes to active leisure activities, which effect on people's happiness is irrelevant or non-existent, while passive activities, such as watching TV, are much more decisive in determining happiness and satisfaction.²⁰¹
- In their research, Appleton and Song (2008) also observe the influence of other determinants on subjective well-being. Specifically, they address the following domains: Communist

¹⁹⁹ Chen, Zhiming, Russell Smyth, and Haining Wang. *Housing and Subjective Well-being in Urban China*. Report no. Discussion Paper 39/13. Department of Economics, Monash University. 2013.

²⁰⁰ Hu, Feng. "Homeownership and Subjective Wellbeing in Urban China: Does Owning a House Make You Happier?" *Soc Indic Res Social Indicators Research* 110, no. 3 (November 29, 2011): 951-71. doi:10.1007/s11205-011-9967-6.

²⁰¹ Wei, Xiang, Songshan (Sam) Huang, Monika Stodolska, and Yihua Yu. "Leisure Time, Leisure Activities, and Happiness in China: Evidence from a National Survey." *JLR Journal of Leisure Research* 47, no. 5 (January 2015): 556-76. doi:10.18666/jlr-2015-v47-i5-6120.

Party membership and political participation in general, which they found out to be positively related to life satisfaction; Family and community bonds, both positively related to subjective well-being (the former constitutes the domain in which Chinese have expressed the greatest satisfaction); Satisfaction with promotion opportunities and with job security were surprisingly found to exercise very little to no influence on overall life satisfaction; Welfare provision in general is positively related to subjective well-being, however satisfaction with transportation is not considered as relevant as one might think, as well as satisfaction towards government policies (especially pertaining to low food prices); Ultimately, social status was found to have a much more significant positive impact on subjective well-being than occupation status.²⁰²

3.3.3 Urban sustainability indicators in China: the inclusion of social indicators and their effectiveness as actual tools for policy makers.

As previously argued, the Chinese government, faced with the outcomes of the massive investment-driven urbanization process it has fostered, is implementing new instruments capable of assessing and measuring the current situation and of providing adequate tools for policy makers and other institutions to move towards a more sustainable development model. Against this background, the development of urban sustainability indicators seems to have become a national priority; however, in order to be fully effective and work as useful tools for policy makers, institutions and organizations, urban sustainability indicators should incorporate certain characteristics.²⁰³ The initial assumption is that the application of urban sustainable indicators in China faces many challenges, due to various factors, such as the fact that they are frequently not coherent with the specific realities they are developed for, or the non-availability of the data they are based on. Shen and Zhou (2014) select and analyze eight indicator systems specifically developed in China for the national context, in order to understand the main rationale behind the development of urban indicator systems, the different selection of indicators and their actual applicability. The study by Shen and Zhou is interesting and relevant to this work, inasmuch as it indicates how different indicator systems give different relevance to the various dimensions.

²⁰² Appleton, Simon, and Lina Song. "Life Satisfaction in Urban China: Components and Determinants." *IZA Discussion Papers N° 3443*, April 2008.

²⁰³ Li, Feng, Xusheng Liu, Dan Hu, Rusong Wang, Wenrui Yang, Dong Li, and Dan Zhao. "Measurement Indicators and an Evaluation Approach for Assessing Urban Sustainable Development: A Case Study for China's Jining City." *Landscape and Urban Planning* 90, no. 3-4 (December 20, 2008): 134-42. doi:10.1016/j.landurbplan.2008.10.022.

Pertaining to the social dimension, it is represented in varying extents in the different indicator systems (see Chart 4), and this is representative of a remarkable imbalance among the various indicator systems. While some of them prioritize the social dimension of sustainable development, some others barely include it or widely neglect it, limiting its scope to the inclusion of a restricted number of indicators; economic indicators, on the contrary, are considered almost equally relevant in all the indicator systems analyzed. Furthermore, even though some indicators are indicated with a certain name under one indicator system, they might be indicated with a different name under another system or even have the same name but indicate something different; in addition to this, the indicators might not be relevant or fully representative of the dimension they are included in, thus adding a lot of complexity and making it harder to make effective use of these indicator systems for the purposes of policy-making and strategy development. For instance, as argued before, two indicator systems only have one indicator for the social dimension, respectively “Per capita disposable income of urban residents”, which represents the “People’s livelihood” dimension and “Proportion of educational funds expenditure in GDP” for the “Education” dimension. It is clear that such a scanty variety of indicators cannot be representative of the social dimension; this endangers and somehow nullifies the potential effectiveness of the indicator system as a whole, inasmuch as it is not capable of working as an efficient means for accurate assessment of sustainable development.

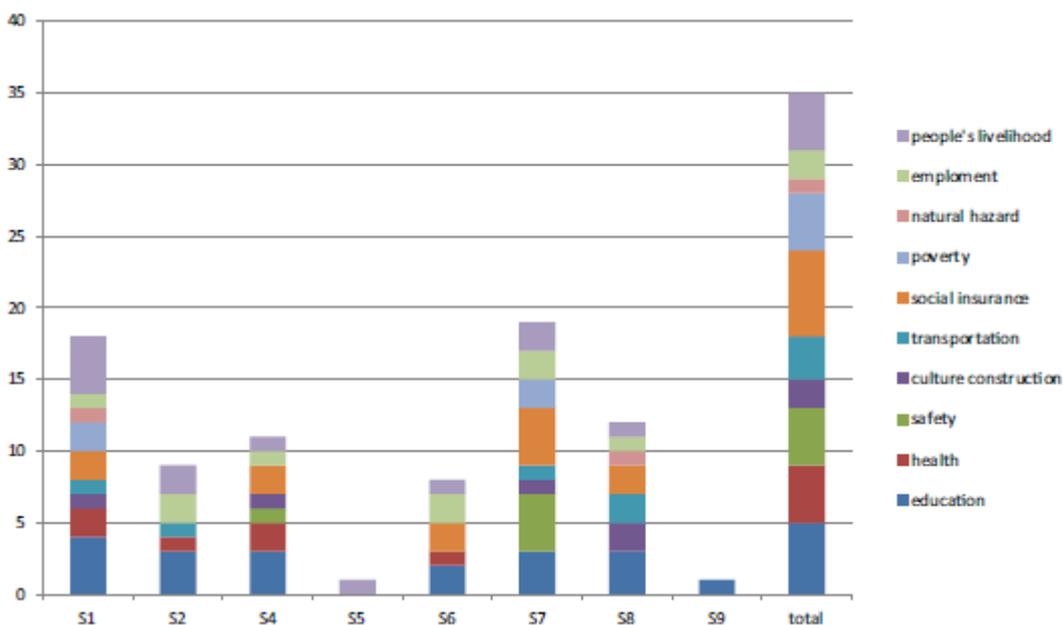


Chart 4: The social dimension in the indicator systems analyzed by Shen and Zhou. Source: Shen and Zhou, 2014.

In addition, as already argued in the first chapter of this work, and as further underlined by Shen and Zhou, in order to work as efficient tools for policy-making and strategy development, urban sustainability indicators should incorporate the following characteristics:

1. Scope. Ideally, effective urban sustainability indicators should be comprehensive and balanced and should encompass all the dimensions of sustainable development, giving to all of them adequate relevance.
2. Coherence. In order to be functional, urban sustainability indicator sets should be in line with the policies implemented and the strategies adopted in the interested areas concerning urban sustainable development.
3. Public participation. The role of all the stakeholders in determining which indicators should be included in an ideal indicator system is extremely relevant.
4. Focus. The choice of adequate indicators should be guided by clear development goals and strategies.
5. Consistency. It is important that the various stakeholders unanimously agree upon the meaning and the dimensional relevance of the indicators.

However, as proven by the authors in their study, these indicators have various noticeable shortcomings that do not allow them to meet these criteria adequately; these limitations were observed in all the five criteria proposed. Pertaining to the scope of the indicator systems, each of them lacks fundamental indicators, resulting therefore incomplete, especially from the social point of view (see Figure 6). As for the social sphere is concerned, an additional issue is constituted by the fact that the engagement in public participation is minimal and that the role of non-governmental stakeholder is widely neglected and marginal.²⁰⁴ This trend is common to the totality of the analyzed indicator systems, a finding that is extremely relevant for the purpose of this work; furthermore, it is consistent with the findings elaborated in the first chapter and showing how undervalued and only marginally implemented public participation forms are in contemporary China.

S ₁	Lack of indicators for safety
S ₂	Lack of indicators for safety
S ₄	Lack of indicators for transportation, poverty
S ₅	Only one indicator for social
S ₆	Lack of indicators for transportation, land use
S ₇	Lack of indicators for information, waste
S ₈	Lack of indicator for economic benefit
S ₉	Only one indicator for social

Figure 6: The lack of fundamental indicators in the existing indicator systems.

Source: Shen and Zhou, 2014.

²⁰⁴ Shen, Liyin, and Jingyang Zhou. "Examining the Effectiveness of Indicators for Guiding Sustainable Urbanization in China." *Habitat International* 44 (June 12, 2014): 111-20. doi:10.1016/j.habitatint.2014.05.009.

3.3.4 A peculiar example in the context of urban sustainable development indicator systems for China: The China Urban Sustainability Index, by MGI and UCI.

Among the initiatives focused on China urban sustainability, the China Urban Sustainability Index constitutes a comprehensive and functional example. The China Urban Sustainability Index is a research project conducted annually and developed by the McKinsey Global Institute. In its 2013 edition, the project has enlarged and ameliorated its indicators, which encompass all the three pillars of sustainable development, plus one, i.e. resources, for a total of 23 indicators (see Table X).

Within the context of the 2013 edition of the project, 185 Chinese cities, at different stages of urbanization and of various sizes, were ranked according to the level of sustainability achieved in the four different dimensions, and some of them were benchmarked against some advanced international cities in order to draw a comparison and to analyze the different development strategies. The data were collected over a 7-year-long period, from 2005 to 2011, while the precedent version (2011) only covered a 4-year-long period.

Category (weight = 100%)		Components (weight within category = 100%)	Indicators
Society (33%)	Social welfare (33%)	Employment (25%)	Urban employment rate (%)
		Doctor resource (25%)	Number of doctors per capita (per thousand persons)
		Education (25%)	Middle school students in young population (%)
		Pension (13%)	Pension security coverage (%)
		Healthcare (13%)	Health care security coverage (%)
Environment (33%)	Cleanliness (17%)	Air pollution (11%)	Concentration of SO ₂ , NO ₂ , PM ₁₀ (mg per cubic meter)
		Industrial pollution (11%)	Industrial SO ₂ discharged per unit GDP (tons per bn RMB)
		Air qualified days (11%)	Days of air qualified equal or above level II ¹ (%)
		Waste water treatment (11%)	Wastewater treatment rate (%)
		Household waste management (5%)	Domestic waste treated (%)
	Built environment (17%)	Urban density (11%)	Persons per square kilometer of urban area
		Mass transit usage (11%)	Passengers using public transit (per capita)
		Public green space (11%)	Area of public green space (%)
		Public water supply (5%)	Public water supply coverage (%)
		Internet access (11%)	Household access to Internet (%)
Economy (17%)	Economic development (17%)	Income level (33%)	Disposable income per capita
		Reliance on heavy industry (33%)	GDP from service industry (%)
		Capacity investment (33%)	Government investment in R&D (per capita)
Resources (17%)	Resource utilization (17%)	Energy consumption (33%)	Total energy consumption (SCE per unit GDP)
		Power efficiency (33%)	Residential power consumption (kwh per capita)
		Water efficiency ² (33%)	Total water consumption (liters per unit GDP)

1 Air qualified days defined as days qualified equal or above Air Pollution Index level II. There are six levels by API. Level II means air quality is general acceptable to public, except for specially sensitive population.

2 Cities are classified by water resource and then are scored within their own group to minimize distortion by natural water resource

Table 7: The China Urban Sustainability Index 2013: the 23 indicators. Source: McKinsey analysis and Urban China Initiative.

*Bold means that the indicators were not included in the 2011 edition of the project.

The goal that the China Urban Sustainability Index aims at achieving is to gain a comprehensive understanding regarding the patterns of urban sustainability across the country, including, as

mentioned before, cities of different sizes and populations. The project covers a range of cities that the central government has appointed as “urbanized areas with population settlement and economic activity”, including first and second tier cities, some county-level cities as well as some city clusters, the latter chosen on the basis of the *National Main Functional Cluster Plan*.

The methodology adopted during the implementation of this project is extremely efficient. As evincible from an analysis of Table 7, MGI and UCI have decided to develop a set of indicators for the assessment of urban sustainable development that puts a strong emphasis on the categories of “society” and “environment”, each dimension amounting to 33% of the total, while the other two categories, “economy” and “resources” are given lower relevance, each amounting to 17% of the total. In the 2013 edition, the amount of indicators concerning urban residents’ quality of life is more conspicuous than it was in the precedent version, thus underlying the higher relevance given to this aspect in determining the levels of urban sustainable development. Furthermore, the newest edition of the project (2013) revolves around growth analysis instead of focusing only on the current levels of sustainability, in order to draw a comparison to determine the pace of growth and sustainable development in different cities, both in terms of comprehensive growth and in terms of individual indicators. In addition, as already mentioned, the project includes a comparison with 11 international cities (London, Berlin, Paris, Prague, Warsaw, Stockholm, Copenhagen, New York, Tokyo, Hong Kong and Seoul), thus permitting to draw an international comparison, which is one of the final goals that the application of sustainable development indicators aims at achieving. Ultimately, the China Urban Sustainability Index 2013 includes a case study of 9 cities that analyses the different characteristics and the development strategies, with their pros and cons, adopted by each of them.²⁰⁵

²⁰⁵ Li, Xiaopeng, Xiujun Li, Jonathan Woetzel, Gengtian Zhang, and Yingjie Zhang. "The China Urban Sustainability Index 2013." April 2014. Accessed September 30, 2016. <http://www.mckinseychina.com/wp-content/uploads/2014/04/china-urban-sustainability-index-2013.pdf>.

4. CASE STUDY: AN EVALUATION OF SUBJECTIVE WELL-BEING AGAINST THE BACKGROUND OF URBANIZATION IN FIVE TOWNSHIPS AND TWO SUB-DISTRICTS IN CHINA.

4.1 Selection of case studies.

This last chapter revolves around a small-scale survey based on questionnaires that I have conducted between January and February 2016 in five townships and two sub-districts situated in Shandong Province and in the two Municipalities of Beijing and Tianjin.

The purpose of this survey, in line with the goal that this work aims at achieving overall, is to try to shed light on the subjective well-being of the residents of rapidly urbanizing townships in China. There exists conspicuous evidence on how urbanization has led to an improvement of the quality of life of citizens, both in large cities, and in a vast majority of small-size cities. In terms of objective well-being, urban residents benefit from better transportation and basic services and infrastructures than in the late '80s and early '90s, and also compared to rural inhabitants²⁰⁶; however, little is known about the subjective well-being of urban inhabitants.

I have chosen not to focus on medium- or large-size cities, which residents are much more diversified and have immensely variegated backgrounds, but rather on smaller townships or sub-districts that are still undergoing a rapid, sometimes aggressive, process of urbanization and which residents frequently still hold a rural *hukou*. Moreover, small- and medium-size and townships cities have increasingly become the core focus of government development policies, as evincible starting from the Tenth Five-Year Plan (2001-2005).²⁰⁷ The people living in these areas experience deep transformations, both in terms of infrastructures and renewed architecture, and in terms of improved services and employment opportunities. Many consider rural urbanization as the only path in order to increase the income of rural inhabitants, who would be transferred from low productivity sectors to high productivity sectors, thus increasing their material well-being. Moreover, it can positively influence the consumption structure of the people in these areas, through the introduction of improved services, facilities and amenities. In addition, through rural urbanization, the living environment would receive considerable benefits, both in terms of natural and artificial environment; the costs of dealing with pollution issues would also reduce dramatically, thanks to population agglomeration (人口集聚, *renkou jiju*) that allows for the building of more efficient sewage systems and excrement and

²⁰⁶ Yusuf, Shahid. "Off to the City." *China Business Review*. May 1, 2009. Accessed August 09, 2016. <http://www.chinabusinessreview.com/off-to-the-city/>.

²⁰⁷ Lixing Li. "Managing Urbanization in China: Issues and Policy Options". National School of Development, Peking University.

refuse treatment facilities. Ultimately, some scholars believe that urbanization can help improve the subjective well-being of rural inhabitants, for instance by providing them with improved facilities and diversified socio-recreational activities for their leisure time.²⁰⁸ However, at the same time, rural urbanization is mainly driven by industrialization that frequently impinges on the quality of life of residents of the surrounding areas, and all the benefits and improved conditions described above can come at the price of air and water pollution and the creation of non-inclusive patterns of development.

Against this background, my intention was to try to capture the patterns of subjective well-being and quality of life in these areas and their development, both positive and negative, in relation to the urbanization process. This correlation is tightly linked to the social dimension of the sustainable development of these areas. In order for these developing urban areas to achieve a balance that is sustainable in the long run, citizens need to feel satisfied with their life in these places, they need to feel safe and included and, ultimately, resilience and public participation also play a fundamental role.

As I will elaborate in more details in the following section, the choice of places was dictated by a series of different reasons; in particular, I tried to find diversified areas that were undergoing different stages of urban development, in order to draw a comparison. Following is a brief overview of each township and sub-district, of their main characteristics and the reason why they are interesting to the purpose of this survey.

4.2 Description of case studies.

4.2.1 Luozhuang Jiedao, Luozhuang District, Linyi City, Shandong Province (山东省, 临沂市, 罗庄区, 罗庄街道).

Luozhuang Jiedao is a sub-district that has jurisdiction over 27 neighborhoods; it has a total surface of 47,97 square kilometers and its population amounts to 100,500 residents. Back in 2000, the area that was originally administered by the township of Luozhuang underwent a process of administrative reclassification and was transformed into the current Luozhuang sub-district.²⁰⁹

²⁰⁸ Wang, Xuelian and Wang Xulang. "Rural urbanization and peasants' quality of life", *Urbzat*. 17th November 2010. 王雪莲及王绪朗“论农村城镇化与农民生活质量”, 城镇化研究..

²⁰⁹ Baidu Baike, Luozhuang Jiedao - 百度百科, 罗庄街道办事处. <http://baike.baidu.com/view/1463886.htm?fromtitle=%E7%BD%97%E5%BA%84%E8%A1%97%E9%81%93%E5%8A%9E%E4%BA%8B%E5%A4%84&fromid=748847&type=syn>.

According to the official government website, in recent years, many improvements have been made and many goals have been reached in term of social development, such as improvements in social welfare, education, green areas and waste management.²¹⁰

Since 2014, the government of the District of Luozhuang, where Luozhuang Jiedao is situated, has started implementing numerous reforms in line with the National New-type Urbanization Plan launched in 2014, thus constantly moving towards a human-centered urbanization model, in order to improve the living environment of the whole area that it has jurisdiction on. In July 2015, the government of Luozhuang District had invested 1 billion and 780 million renminbi in urban infrastructure, and the surface of the built-up area has reached 31,5 square kilometers, while the overall urbanization has reached 62,5%.²¹¹

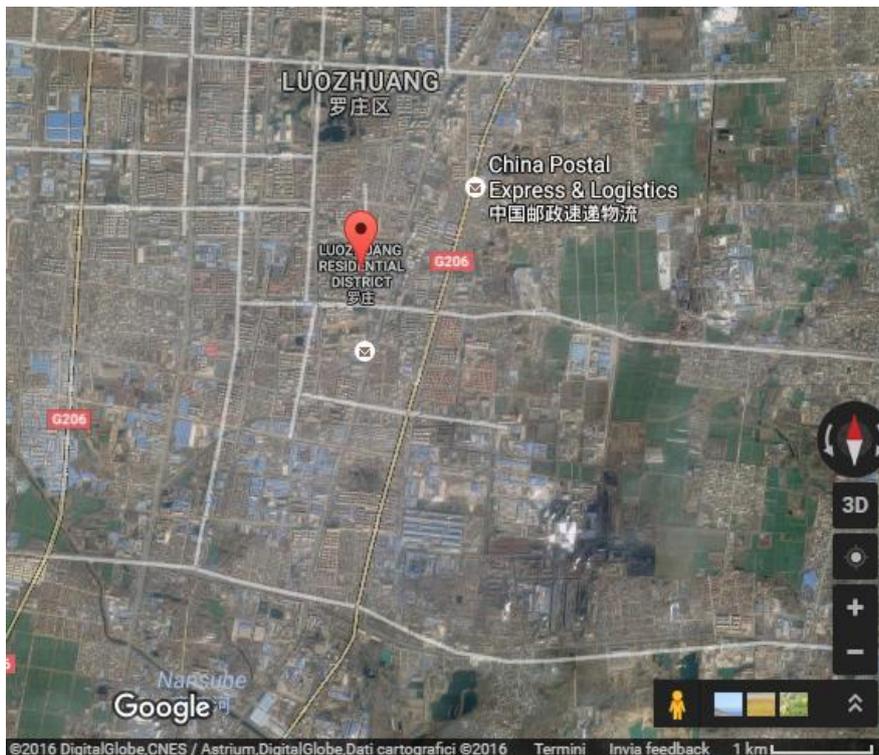


Figure 7: Satellite view, Luozhuang Jiedao. Source: Google Maps.

²¹⁰ Luozhuang District government website, Luozhuang Jiedao – 罗庄区人民政府网，罗庄街道。 <http://www.luozhuang.gov.cn/html/2008-12-24/482121399.htm>.

²¹¹ Wang, Qinglong, Shandong Yongquan – 王庆龙. “临沂市新型城镇化建设现场观摩会组织到罗庄区观摩”. 山东涌泉网, 7 July 2015. http://www.sdyq.org/2015/zjlq_1207/1532.html.

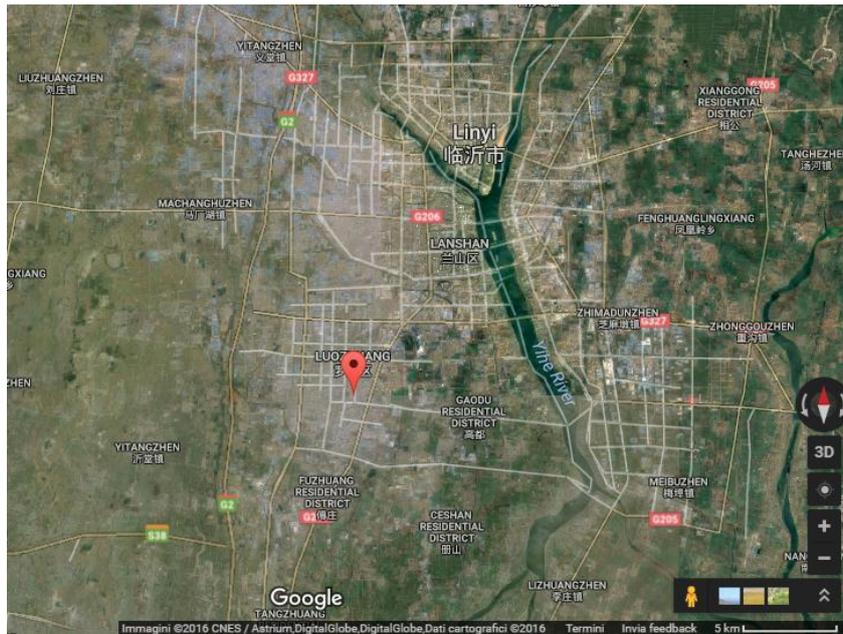


Figure 8: Satellite view, Luozhuang Jiedao and Linyi City. Source: Google Maps.

4.2.2 Fenghuangling Jiedao, Hedong District, Linyi City, Shandong Province (山东省, 临沂市, 河东区, 凤凰岭街道).

The area under the jurisdiction of Fenghuangling sub-district is constituted by 31 administrative villages, the total surface is 36,89 square kilometers and its population amounts to 34,800 residents.²¹²

Within the context of the Thirteenth Five-Year Plan, Hedong District and Lanshan district became the central focus of Linyi City development plan and are considered as the leading forces for the improvement of the economic structure of the city. From the perspective of this development strategy, the local government of Hedong District aims at reinforcing the development strategy called “The development of five areas supports the development of the whole city” (五区托一城, *wu qu tuo yi cheng*), in order to achieve a sustainable development model. The aforementioned five areas are a nodal hub for international air transport and logistic (国际航空运输物流枢纽区, *guoji hangkong yunshu wuliu shuniuqu*), a national-level economic and technological development zone for the northern area (国家级经济技术开发区北区, *guojiaji jingji jishu kaifaqu beiqu*), a national tourism and vacation resort (国家旅游度假区, *guojia lüyou dujiaqu*), a national-level agricultural science and technology park (国家级农业科技园区, *guojiaji nongye keji yuanqu*) and, ultimately, a

²¹² Baidu Baike, Fenghuangling Jiedao – 凤凰岭街道 (山东省临沂市河东区凤凰岭街道). <http://baike.baidu.com/subview/1462006/5831591.htm>.

modern, ecological and livable recreational area at the provincial-level (全省现代生态宜居休闲区, *quansheng xiandai shengtai yiju xiuxianqu*).²¹³

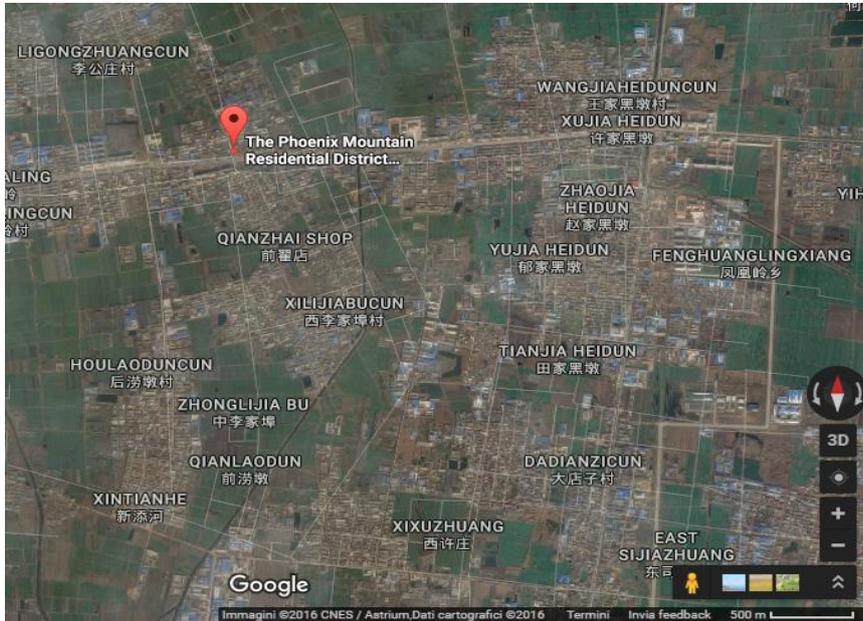


Figure 9: Satellite view, Fenghuangling Jiedao. Source: Google Maps.

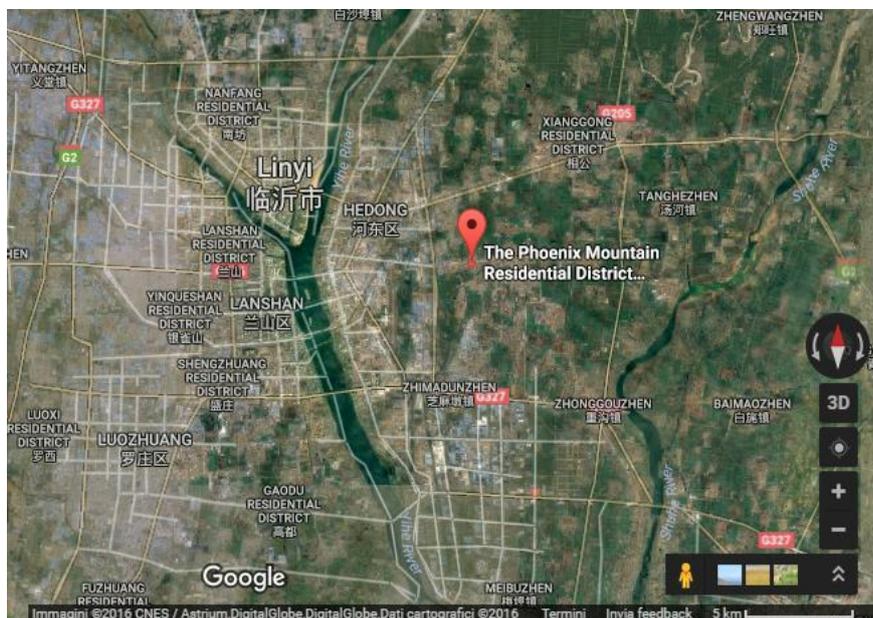


Figure 10: Satellite view, Fenghuangling Jiedao and Linyi City. Source: Google Maps.

²¹³ Cai Qian and Yang Qing (ed.), “[The Thirteenth Five Year Plan of Linyi City] The “Wu qu tuo yi cheng” development strategy opens up a new and fresh perspective for the development of Hedong District”. www.langya.cn – 材茜, 杨青 (编辑). “[临沂十三五] 五区托一城” 开创河东新局面”. 琅琊新闻网, 26th April 2016. http://www.langya.cn/lyxw/jrgz/201604/t20160426_401379.html.

4.2.3 Zhangjiawo Zhen, Xiqing District, Tianjin Municipality (天津市, 西青区, 张家窝镇).

Zhangjiawo is a township that has jurisdiction over 16 administrative villages and 8 neighborhood committees. Zhangjiawo has a surface of 44.5 square kilometers, and the number of permanent residents amounts to 31.000, 21.000 of which hold a rural *hukou*.

Starting from 2011, the district of Xiqing has invested around 38 trillion RMB in the construction and development of towns, thus improving their living and natural environment and promoting a fast economic and social development. The local government has given strong support and incentives for the development of the so-called “three areas” (三区, *san qu*), namely the residential community for rural residents (农民居住社区, *nongming juzhu shequ*), the pilot industrial zone (示范工业园区, *shifan gongye yuanqu*) and the agricultural facilities industrial park (设施农业产业园区, *sheshi nongye chanye yuanqu*). Pertaining to urban facilities and infrastructures development, Zhangjiawo zhen represents the best example within Xiqing District.²¹⁴

Moreover, Zhangjiawo zhen is one of the national key towns; the key towns, which first list was released in 2004, are considered the center of the local economic development at a county level and are committed to promote the local urbanization process and the embitterment of the surrounding rural areas.²¹⁵

Ultimately, Zhangjiawo zhen was also included in the first batch of reform trial townships (第一批发展改革试点镇, *di yi pi fazhan gaige shidianzhen*), which is a project developed during the Sixteenth Third Plenum of the Chinese Communist Party, aimed at achieving a healthy and stable development of small-size cities and towns. According to the trial program, which up to the present counts three batches of trial towns, the selected localities have to develop feasible trial programs and economic development plans in order to achieve sustainable urban growth.²¹⁶

²¹⁴ “Tianjin Zhangjiawo zhen has reached a new breaking-point in urban development” - 天津西青区张家窝城镇建设获突破. 名人博客网, 5th July 2016. <http://blog.jiujhb.net/ymjr/15604.html>.

²¹⁵ Southcn.co. “A complete list of all the key towns across the country: is you hometown in it?” – 南方网. “全国重点镇名单 (最全名单): 你的家乡入选了吗?” September 6, 2016. Accessed October 10, 2016. http://news.southcn.com/community/content/2016-09/06/content_155335709_2.htm.

²¹⁶ Baidu Baike, List of reform trial townships – 全国发展改革试点镇. <http://baike.baidu.com/view/2797784.htm>.

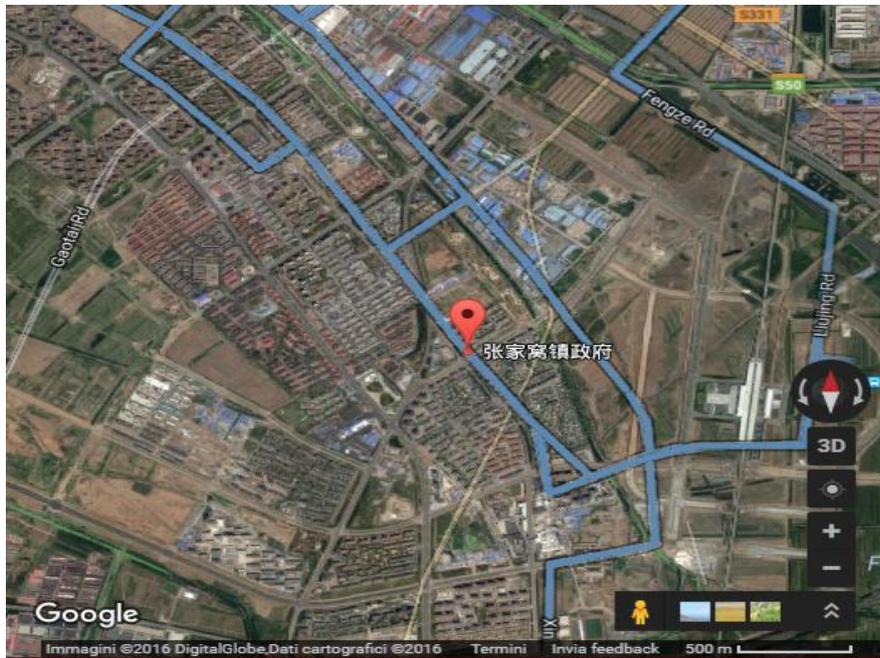


Figure 11: Satellite view, Zhangjiawo Zhen. Source: Google Maps.

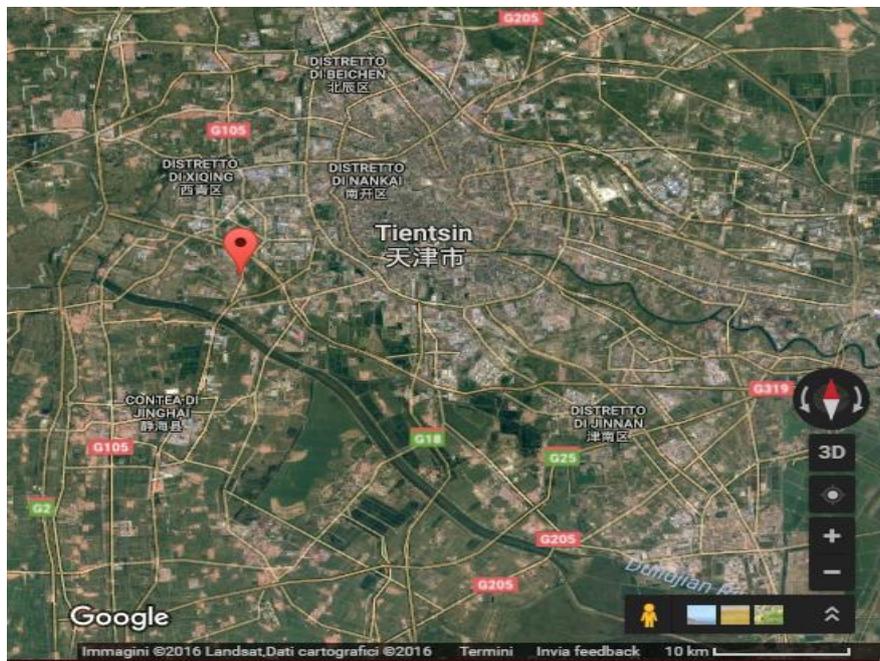


Figure 12: Satellite view, Zhangjiawo Zhen and Tianjin Municipality. Source: Google Maps.

4.2.4 Ligezhuang Zhen, Jiao Zhou City East, Shandong Province (山东省，胶州市东部，李哥庄镇).

Li Ge Zhuang Zhen is a township that has jurisdiction over 41 administrative villages and 3 neighborhood committees, with a surface of 75 square kilometers and a total of 128.000 residents; the built-up area (建成区 *jianchengqu*) has a surface of 16.8 square kilometers and a population of 93.000 people.

In 2005 Li Ge Zhuang Zhen was included in the first batch of reform trial towns (第一批发展改革试点镇, *di yi pi fazhan gaige shidianzhen*) and from that moment on, it received a strong support

from the National Development and Reform Commission. Li Ge Zhuang, which government largely underlines the importance of urbanization as the main route to development, focuses its core attention on the enhancement of the so-called human-centered urbanization (以人为中心的城镇化, *yi ren wei zhong xin de cheng zhen hua*). Moreover, it has started implementing strategies and policies in six core realms that are considered as the driving forces of development, i.e. population, reform, infrastructures and facilities, services, estate and planning, in order to fully achieve the goal of transforming Li Ge Zhuang Zhen from a township into an actual city.²¹⁷ In March 2013, Li Ge Zhuang became one of the five townships included in the first batch of training trail townships (第一批 5 个小城市培育试点镇, *di yi pi wu ge xiao chengshi peiyu shidianzhen*) and in August 2014 it became a key township (重点镇, *zhongdianzhen*), thus undertaking the task of implementing various experimental development and reform projects and initiatives, financed by Shandong Province and the cities of Qingdao and Jiaozhou. Through the inclusion of Ligezhuang Zhen in these programs, its built-up area has developed both in terms of increased surface, reaching the current size of 16.8 square kilometers, and in terms of augmented urbanization rate that increased from the previous 67% to the current 73%²¹⁸(regarding the urbanization rate, the only available data concern the built-up area, that accounts for 22.4% of the total surface of the township and for 72,6% of its population).

²¹⁷ Li Ge Zhuang Zhen Government (李哥庄人民政府, *Li Ge Zhuang Zhen Ren Min Zheng Fu*). <http://www.jiaozhou.gov.cn/lgzz/Columns/95956.shtml>.

²¹⁸ National Development and Reform Committee of the People's Republic of China (中华人民共和国国家发展和改革委员会, *Zhong Hua Ren Min Gong He Guo Guo Jia Fazhan He Gaige Weiyuanhui*).

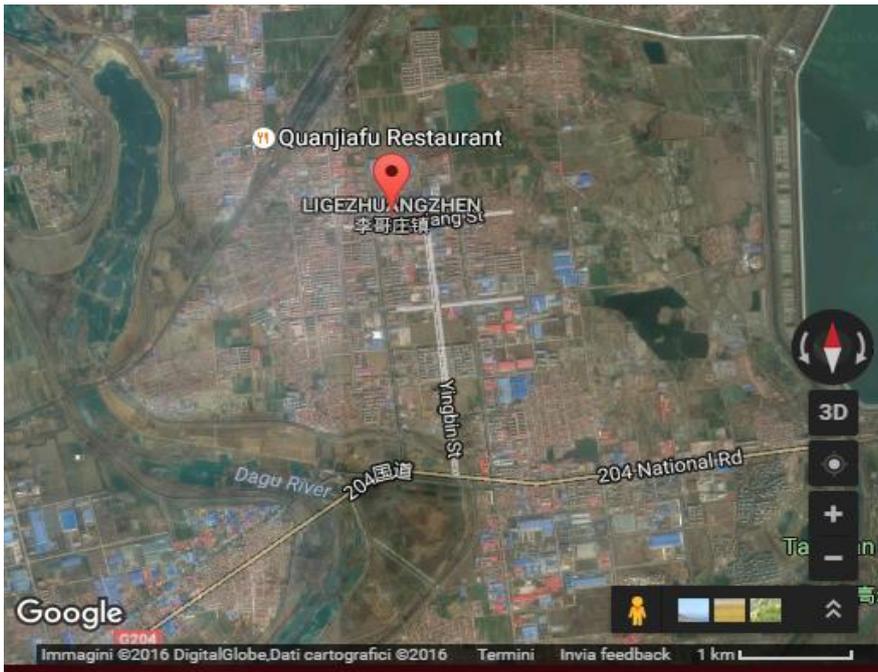


Figure 13: Satellite view, Ligezhuang Zhen. Source: Google Maps.

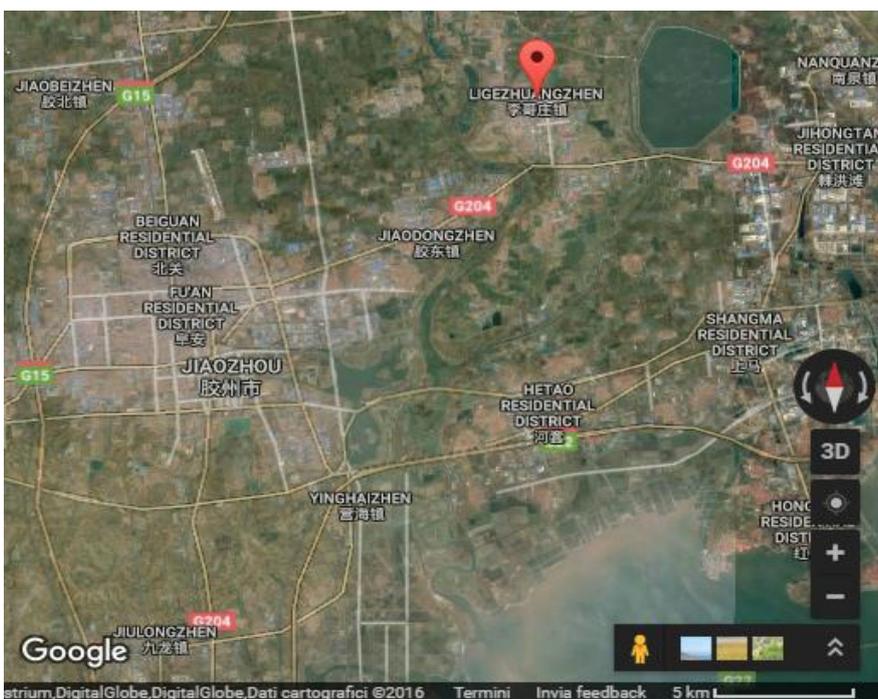


Figure 14: Satellite view, Ligezhuang Zhen and Jiaozhou City. Source: Google Maps.

4.2. 5 Licha Zhen, Jiaozhou City, Southwestern area, Shandong Province (山东省，胶州市西南部，里岔镇).

Licha Zhen is a township that has jurisdiction over 53 administrative villages; it has a surface of 74 square kilometers, with a population of 33.000 people.

Starting from 1999, the pace of the construction and development of urban infrastructure has increasingly accelerated, thus leading to remarkable annual increases in the urbanization rate.²¹⁹

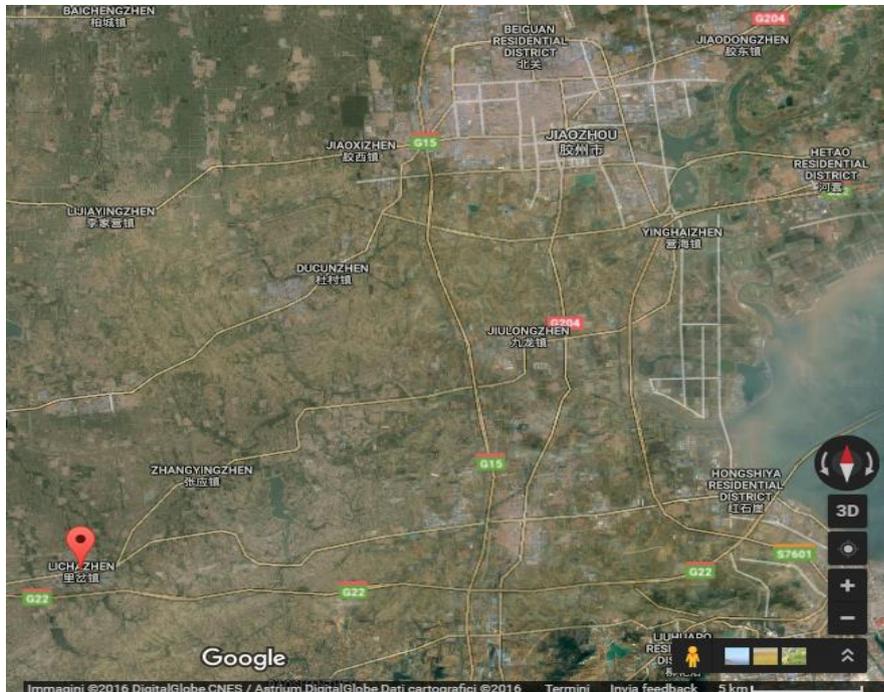


Figure 15: Satellite view, Licha Zhen. Source: Google Maps.

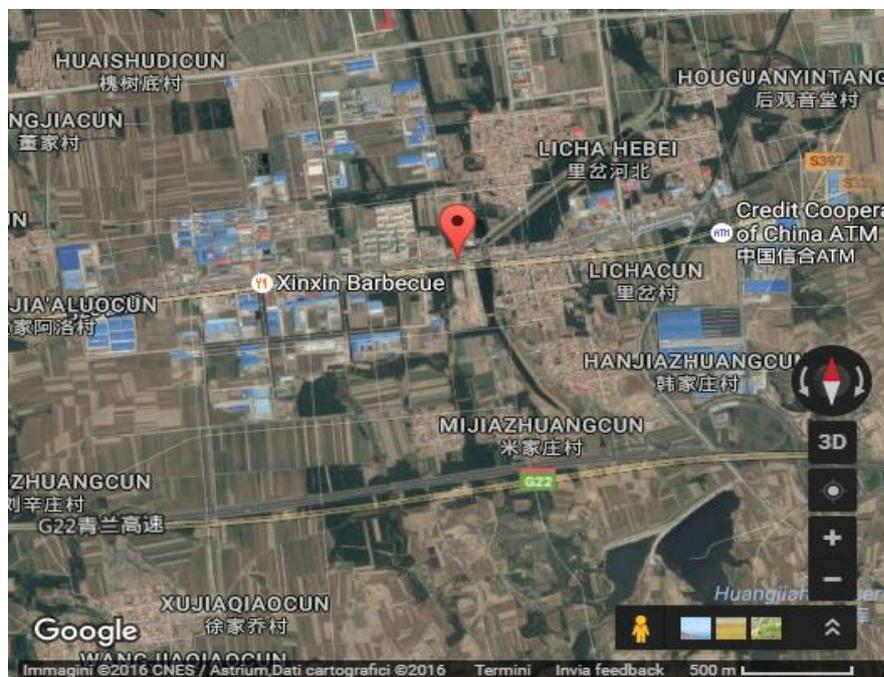


Figure 16: Satellite view, Licha Zhen and Jiaozhou City. Source: Google Maps.

²¹⁹ Baidu Baike, Lichazhen – 里岔. <http://baike.baidu.com/view/1570190.htm#6>.

4.2.6 Puji Zhen, Jiaozhou City, Southwestern area, Shandong Province (山东省, 胶州市西南部, 铺集镇).

According to the official website of the Puji Zhen Government, Puji is a township that has jurisdiction over 69 administrative villages. Puji Zhen has a surface of 122 square kilometers, with a population of nearly 80,000 residents (therefore, the population density is much lower than in Ligezhuang Zhen).

Puji is a national-scale key-township and was included in the third batch of reform trial towns.²²⁰ Moreover, it is a key-township included in the New-type Urbanization Program of the city of Qingdao (2014-2020), along with three other townships, namely Tianheng, Mingcun and Nanshu. Through the inclusion in this program as key-townships, these four townships aim at accelerating the establishment of a center of goods delivery and a township trade and commerce center, at improving the delivery of rural goods and at realizing the two-way circulation of rural and city goods, thus becoming the leading supporters of the New-type Urbanization Plan.²²¹

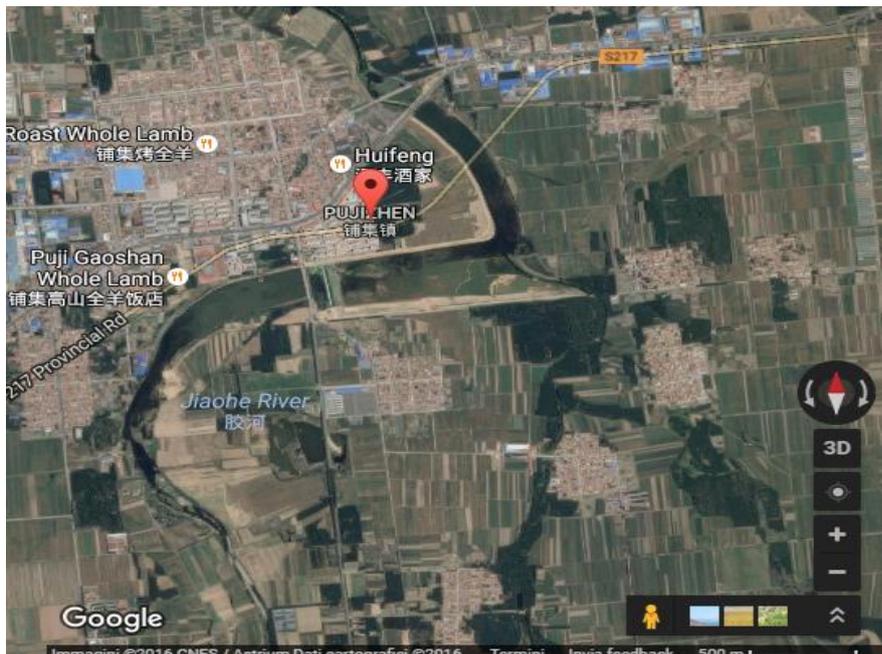


Figure 17: Satellite view, Puji Zhen. Source: Google Maps.

²²⁰ Puji Zhen Government (铺集镇人民政府, Pu Ji Zhen Ren Min Zheng Fu). <http://www.jiaozhou.gov.cn/pjz/Columns/95956.shtml>.

²²¹ Qingdao Yutong Pipeline Co., Ltd (青岛宇通管业有限公司, Qingdao Yutong Guanye Youxian Gongsi). <http://www.yutongpipe.com/article/195.html>.

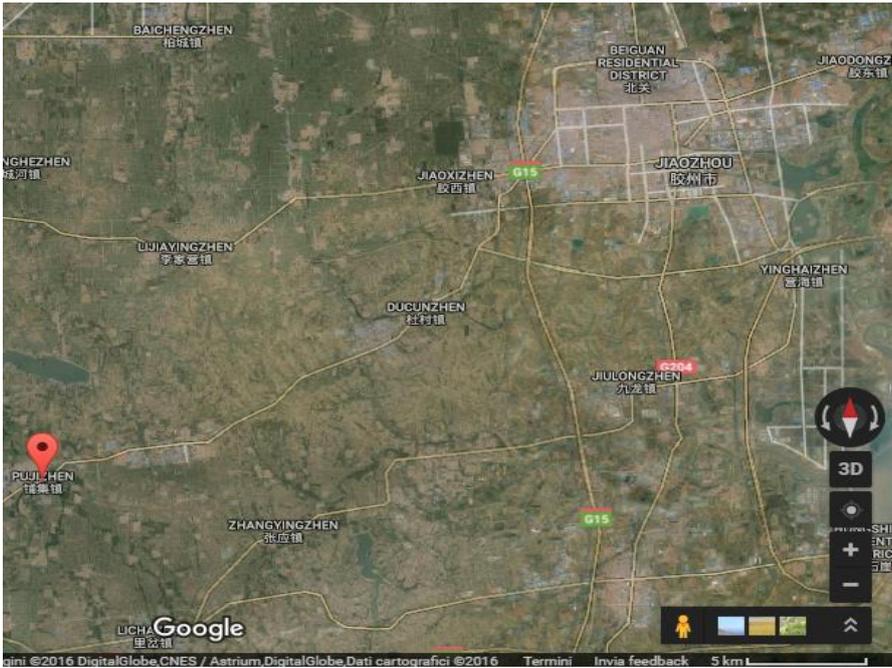


Figure 18: Satellite view, Puji Zhen and Jiaozhou City. Source: Google Maps.

4.2.7 Xiji Zhen, Beijing City, Tongzhou District, Beijing Municipality (北京直辖市，通州区，西集镇).

Xiji zhen is situated in Tongzhou District, along with other ten townships. Xiji zhen exercises administrative jurisdiction on 57 administrative villages and its territory has a surface of 90,65 square kilometers. In 2013, the number of residents amounted to 41.642, of which 31.582 hold an agricultural *hukou*, while 10.114 hold a non-agricultural *hukou*.²²²

With the Aiming of creating a secondary an alternative city center for Beijing, the urbanization process of Tongzhou District has increasingly accelerated, thus narrowing the distance between the urban sphere and the countryside. Out of eleven townships in Tongzhou District are part of the new urban plan (新城规划, *xincheng guihua*), while four of them were not included, among which Xiji zhen. However, as key project towns (重点建设的小城市, *zhongdian jianshe de xiao chengshi*), they are starting to develop basic urban infrastructure and the living conditions of the peasants are increasingly improving. As a result of this uneven development process, the southern areas of the District, including Xiji zhen, lag behind the overall achievements and growth accomplished in Tongzhou District as a whole. The townships situated in the southern part of the District, in fact, are

²²² Beijing Government, Tongzhou District. Xiji zhen - 北京通州 . 西集镇 . <http://www.bjtz.gov.cn/n90/n168/n1617724/n11347374/n11348608/c11424835/content.html>

characterized by a much lower urbanization rate, less advanced economic structure, industrial development and public welfare system, thus leading to an overall lower level of life conditions.²²³

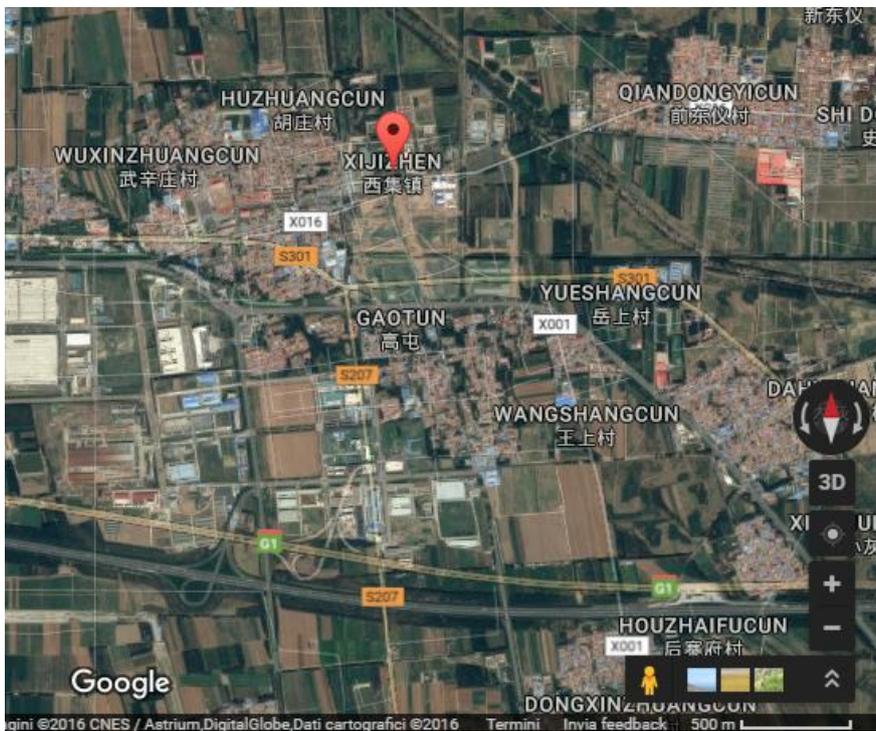


Figure 19: Satellite view, Xiji Zhen. Source: Google Maps.

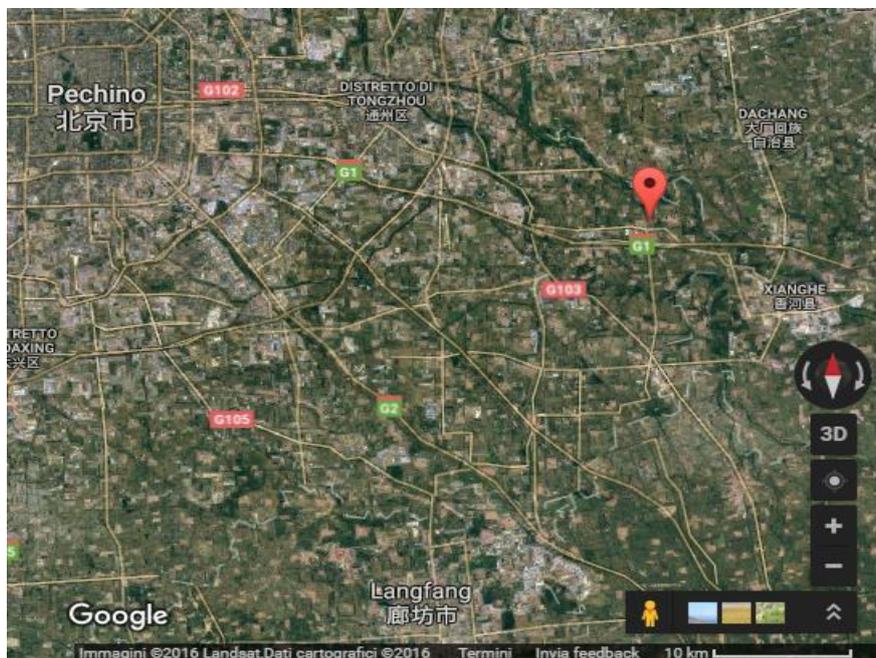


Figure 20: Satellite view, Xiji Zhen, Tongzhou District and Beijing Municipality. Source: Google Maps.

²²³ “Survey and considerations on the urbanization process of Tongzhou District” - 关于推进通州区城镇化建设的调查与思考, 18th July 2014. <http://www.docin.com/p-899322715.html>.

4.3 Methodology.

The conclusive section of the present work originates from the purpose of shedding light on the correlation between subjective well-being and ongoing urbanization process in China. This subject, as evincible from the previous chapter, is still understudied and the literature concerning it is still scant and frequently does not adopt a comprehensive approach to the topic. Against this background, the aim of the work proposed in this chapter is twofold. As a first objective, it aims at providing a possible framework for the evaluation of subjective well-being in rapidly urbanizing areas, through its application to a case study carried out in selected areas in Northeastern China (see the previous paragraph). Second, through the analysis of the results of the small-scale survey conducted in these areas, it aims at drawing a comparison between two groups of residents that live in areas undergoing different stages of urbanization, in order to grasp the differences and similarities in the responses provided by the participants. As I will elaborate more on later, the survey from which the results proposed here are drawn is a small-scale qualitative survey based on a sample of 107 respondents chosen randomly.

4.3.1 The choice of questions.

The questions included in the questionnaire were selected based upon different criteria of subjective well-being as found in relevant literature on the subject. Particular attention was given to the review of literature pertaining to subjective well-being in general and the relevant determinants that influence urban residents' life evaluation in China.

The indications provided by the *OECD Guidelines on Measuring Subjective Well-Being* (2013) represent the major source for development of the questionnaire that I used to conduct this small-scale survey, inasmuch as it represents the most comprehensive report on how to assess subjective well-being. Following the OECD guidelines, I developed a questionnaire divided into two main parts, as described above; the first part is dedicated to demographic information, while the second part, constituted by 14 questions, is an evaluation of the influence of the urbanization process and its impact on one's subjective well-being.

The first four questions included in the second part of the questionnaire were intended to provide a quick overview of the objective effects of the urbanization process on the surveyed areas, in order to complement the data already available. The question regarding the *hukou* status change from agricultural to non-agricultural is of extreme relevance. As discussed in the previous chapter, one of the main sources of social instability and the establishment of non-inclusive patterns of development is the implementation of the *hukou* system. Despite the loosening of the *hukou*

restrictions during the reform movement, both the rural-to-urban migrants and the rural inhabitants that experience *in-situ* urbanization without receiving an urban *hukou* do not benefit from the same rights as urban *hukou* holders. However, it is difficult to assert what kind of impact a *hukou* change can lead to. This is mostly due to the fact that the literature concerning changes in the *hukou* status as a consequence of territorial expansion and expropriation is exiguous and the rationale behind it does not seem to follow a precise pattern; in fact, the patterns of *hukou* type change are not homogenous, nor consistent, but it rather seems that each situation follows an individual scheme.²²⁴

The question concerning the impact of urbanization on one's health is fundamental for the purpose of evaluating individuals' subjective well-being. It is largely acknowledged that there exists a correlation between the rapid urbanization process and urban expansion, that cause resource depletion and environmental degradation, and the impact that this outcomes may have on people's lifestyle, health and well-being. This is particularly valid in cases where the urbanization process is not accurately planned and takes place at an over-accelerated pace, inasmuch as this kind of growth patterns frequently lead to unpleasant and dangerous phenomena, such as air pollution, water scarcity and urban sprawl, that can affect citizens' health directly and indirectly. Moreover, another widespread issue is the one concerning food security and food scarcity that also emerge as a negative outcome of rapid and chaotic urbanization, which takes over considerable shares of agricultural land.²²⁵ However, according to each respondent's own understanding, this question may also be considered under a different light. While it is beyond doubt that an uncontrolled urbanization process may have a serious impact on the natural environment and resources, however, the urbanization process also acts as an engine for the improvement of sanitary conditions, sanitary facilities and the uptake of modern technologies to deal with issues such as air pollution, sewer treatment facilities and waste management.

As for the question related to the increase in the employment rate as a result of the urbanization process, it is arguable that the urbanization process is expected to automatically create a conspicuous amount of new job positions. This should happen as the result of a semi-total shift from the agricultural sector to the industrial production and, in particular, the service sector. The latter is increasingly predominant in the growth model pursued by China and it constitutes the direction

²²⁴ Akgüç Mehtap, Xingfei Liu, and Massimiliano Tani. "Expropriation with Hukou Change: Evidence from a Quasi-Natural Experiment." IZA Discussion Papers, no 8689, December 2014. Accessed August 31, 2016. <http://ftp.iza.org/dp8689.pdf>.

²²⁵ Li Xihu, Jinchao Song, Tao Lin, Jane Dixon, Guoqin Zhang, and Hong Ye. "Urbanization and Health in China, Thinking at the National, Local and Individual Levels." Environmental Health Environ Health. From The 11th International Conference on Urban Health Manchester, UK. 6 March 2014 15, no. (Suppl 1):32 (2016): 113-23. doi:10.1186/s12940-016-0104-5.

towards which Chinese economy aims at turning in its New-Type Urbanization Plan (2014-2020), in order to sustain its leading position on the international market.

The core section of the second part of the questionnaire, based on the guidelines provided in the OECD report on measuring subjective well-being, encompasses two predominant concepts concerning the evaluation of one's subjective well-being. According to the *OECD Guidelines on Measuring Subjective Well-being*, the definition of subjective well-being embraces three main factors:

1. **Life evaluation:** an individual evaluation of one's life as a whole or of some aspects of it. The concept and its evaluation have some limitations, inasmuch as people tend to recall some emotions related to a particular event that might not be what they truly felt at that time. However, it is of extreme interest for policy makers and researchers, because respondents, consciously or unconsciously, use a mental scheme that leads them to compare their status to what they believe is an ideal standard, and then evaluate their own condition;
2. **Affect:** a person's feelings or emotional perceptions, usually related to a specific moment in time;
3. **Eudaimonia:** a sense of purpose and realization in life, characterized by various aspects, such as resilience, social integration, ambition, etcetera.²²⁶

For the purpose of this work, I have decided to focus only on life evaluation and eudaimonia; it would be, in fact, extremely complex to concentrate on affect, since the evaluation of a person's emotions and states in relation to a particular moment in time may require interviewing the respondents multiple times.

As the OECD points out, it is fundamental to relate measures of subjective-well being to demographic information and to objective data, therefore information about gender, age, marital status, ethnicity, education level, employment status, party membership, annual income, *hukou* status and place of residence were included, in order to better define the profile of the respondents. In order to complement the questions concerning life evaluation as a whole, I have added a series of life domains questions and, for some of them, an evaluation in comparison with the past, in order to gain a better understanding of how urbanization might have changed or stabilized the patterns of subjective well-being in the surveyed areas. As assessed in the *OECD Guidelines on Measuring Subjective Well-being*, there is no agreed upon framework of life domains; therefore, I have decided to include the domains that, according to the features delineated in the previous chapter and to my understanding of China's urbanization, are of fundamental interest when assessing transformations in relation to urbanization in China. These domains are: satisfaction in relation to local policies, safety,

²²⁶ OECD (2013), *OECD Guidelines on Measuring Subjective Well-being*, OECD Publishing. <http://dx.doi.org/10.1787/9789264191655-en>.

feeling of belonging to the community, satisfaction concerning the protection of the local cultural heritage, one's social skills, leisure time activities and cultural and recreation places, green spaces and basic services and infrastructures.

Local policies.

Due to the vast dimension of China, both in terms of territory and population size, the central government does not have the power to exercise and extended control over the whole territory, especially over the most remote regions. Therefore, the local governments are the actual implementer of policies at the local level, on the basis of the models provided by the central government (方针, *fangzhen*). At the same time, however, the local officials are ranked on the basis of a complex nomenclatura system; they are evaluated on the basis of different aspects, mainly related to the growth of the areas under their administration, such as GDP growth, the creation of new job positions and increases in the urbanization rate. Furthermore, the local officials are often the protagonists of corruption scandals, especially in relation to land expropriation cases.²²⁷ This has created, in many areas, a highly inefficient pattern of urban growth, mainly based on high investments and urban sprawl, thus frequently not taking into account relevant aspects such as environmental degradation, the lack of social cohesion, the inefficiency of basic services and infrastructures and the widening of inequalities. In the long run, this growth pattern has revealed its shortcomings and its unsustainability, especially in terms of social and environmental development, as described in the previous chapter.²²⁸

Feeling of safety and security.

The notion of safety as intended in the questionnaire has a twofold meaning: it encompasses both the feeling of safety in relation to crime and violence and in relation to protection against the potential threat of natural disasters. The earthquake that devastated the Wenchuan area in 2008, the various episodes of flooding that struck different areas of the country, the fact that even minor rainfalls often lead to sewer blockages and overflows and to extensive traffic obstruction, the outbreak of SARS in 2003 and various other similar events raised people's awareness about the urgency of improving urban planning, policy making, urban architecture and infrastructures.²²⁹ Moreover, a vast population also leads to safety problems, concerning, for instance, public transportation overloading, thus resulting in transportation inefficiency and the difficulty in dealing with waste management.

²²⁷ Yusuf, Shahid. "Off to the City." *China Business Review*. May 1, 2009. Accessed August 15, 2016. <http://www.chinabusinessreview.com/off-to-the-city/>.

²²⁸ Yining Li. "Traditional urbanization patterns do no suit China". *Fenghuang Wang Qingdao*, February 2013. Accessed: 15 August 2016. http://qd.ifeng.com/special/czh/detail_2013_02/06/578570_0.shtml. – 厉以宁, “传统的城市化模式不适合中国国情”, 凤凰网青岛.

²²⁹ Li, Jie, Qian Liu, and Yao Sang. "Several Issues about Urbanization and Urban Safety." *Procedia Engineering* 43 (2012): 615-21. doi:10.1016/j.proeng.2012.08.108.

Ultimately, the existence of deep inequalities, scarce integration and ethnic discrimination can become the source of an increase in crime and violence operated by the weakest part of the population within the urban context.

Social cohesion and community belonging.

In a rapidly urbanizing world, cities frequently face serious issues concerning social cohesion and community belonging that are thus becoming core issues for policy makers and researchers, inasmuch as they constitute, together with the aspects discussed earlier, the backbones of the social sustainability of developing urban settings. The weakening of neighborhood and social cohesion has started in China with the dismantlement of the work units (单位, *danwei*) and has been further exacerbated by the patterns of rapid urban development that has led to the creation of new neighborhoods as a consequence of land expropriation and urban expansion that noticeably lack community bonds.

As Liu *et al.* point out, in various cases the expropriated peasants were assigned better housing than they used to have and the surrounding environment was more pleasant, thus making them more satisfied with their new condition; however, the feeling of attachment, in these cases, is more related to the overall better condition rather than to strong neighborhood bonds.

Unfortunately, due to a lack of research in this field, it is difficult to define a precise pattern of how urban events like urban expansion and redevelopment can influence community bonds and neighborhood cohesion.²³⁰

Cultural heritage protection.

Rapid urban development is posing a serious threat to the protection of cultural heritage in China. On one hand, the rapid pace of urban development in certain areas has resulted in overpopulation, environment degradation and “non-traditional usages” of cultural sites (such as shopping centers), which put a lot of pressure on the protection of cultural heritage, also due to a lack of awareness of the population concerning the importance of implementing sustainable patterns of development that allow for the preservation of cultural heritage. On the other hand, the improper management of countryside development has also resulted in unpleasant outcomes for the cultural heritage of the country, with the deterioration of the natural environment and the destruction of the typical features of some historical villages. This has led to a weakening of the cultural identity and of the bond between humans and natural environment in these areas.²³¹

²³⁰ Yuqi Liu, Fulong Wu, Ye Liu & Zhigang Li (2016): Changing neighbourhood cohesion under the impact of urban redevelopment: a case study of Guangzhou, China, *Urban Geography*, doi: 10.1080/02723638.2016.1152842.

²³¹ "Cultural Heritage Protection Faces Challenges in China." *Xinhua*. April 11, 2012. Accessed August 15, 2016. http://news.xinhuanet.com/english/china/2012-04/11/c_131520665.htm.

Social skills.

The perception of an individual concerning his or her social skills is fundamental in a constantly transforming setting, and it is closely related to his or her overall life satisfaction. Studies show that, despite economic growth and urbanization being related with an increase in people's objective well-being, nevertheless, in the short term, they can be harmful to their subjective well-being, inasmuch as they can produce feelings of insecurity and inferiority, related to people's social skills and their skills in general.²³²

Leisure time activities and cultural and recreational places.

In rapidly urbanizing settings such as the areas where the survey was conducted, it is fundamental to provide the residents with adequate leisure time activities and cultural and socio-recreational facilities, that contribute to make life more pleasant and provide meaningful and diversified ways of spending free time, and that can satisfy different passions and interests.

Green areas.

The preservation and improvement of green areas in urban settings is considered fundamental for both human and environmental health and should, therefore, be central in urban planning and policy making. There is a conspicuous body of literature that shows a positive correlation between the presence of adequate green areas and perceived general health, both physical and mental. However, the importance of the green factor has been frequently overlooked in developing urban areas and subordinated to other factors such as urban growth and the expansion of built-up areas.²³³

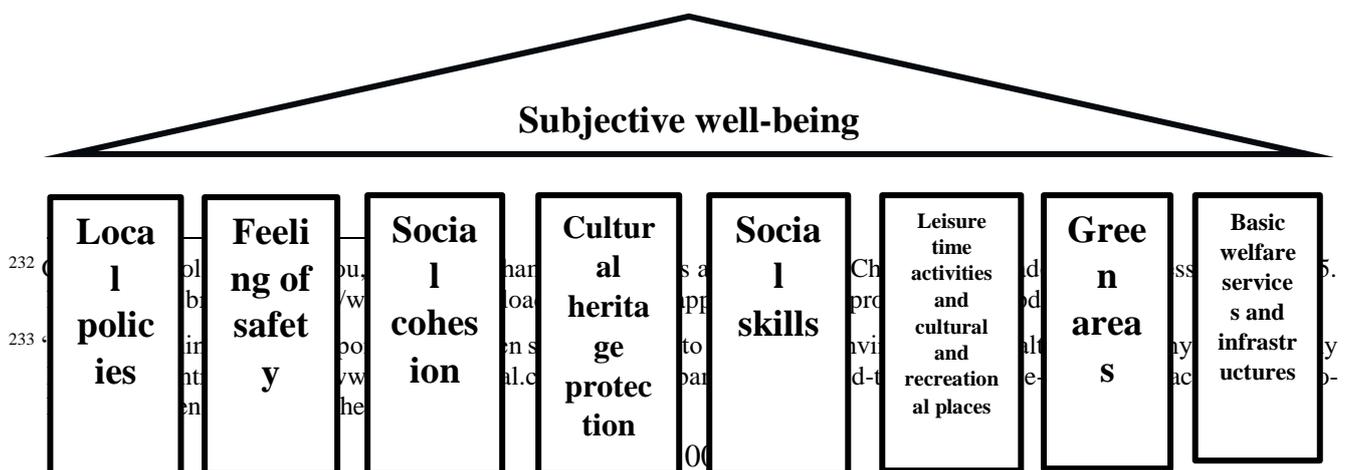


Figure 21: The pillars of subjective well-being, as developed for the purpose of this work.

4.3.2 Surveyed sample.

The survey is based on the responses of a small random sample of 107 respondents, distributed as follows: 12 people in Luozhuang Zhen, 15 people in Fenghuangling Jiedao, 20 people in Zhangjiawo Zhen, 18 people in Ligezhuang Zhen, 14 people in Licha Zhen, 18 people in Puji Zhen and 10 people in Xiji Zhen.

Based on demographic information, the participants are divided as follows:

- Gender: 70 females and 37 males;
- Age group: 25 in the age range 18-25, 50 in the age range 26-40, 25 in the age range 41-60 and 5 in the age range 61+ (in addition, 2 respondents did not provide information about their age);
- Marital status: 83 married, 21 unmarried (in addition, 3 respondents did not provide information about their marital status);
- Ethnicity: The totality of the respondents belong to the Han ethnic group;
- Education level: 9 middle school or below, 33 middle school, 48 high school and 16 university or above (in addition, 1 respondent did not provide information about his education level);
- Occupation: 6 students, 46 employees, 2 government functionaries, 2 managers, 2 entrepreneurs, 11 unemployed, 36 others (in addition, 2 respondents did not provide information about their occupational status);
- Part member: 8 party members and 97 non-party members (in addition, 2 respondents did not provide information about their party membership status);
- Annual income: 19 in the income range below 10.000 yuan/year, 36 in the income range 10.000-30.000 yuan/year and 46 in the income range above 30.000 yuan/year (in addition, 6 respondents did not provide information about their annual income status);

- *Hukou* type: 79 agricultural *hukou* type and 24 non-agricultural *hukou* type (in addition, 4 respondents did not provide information about their *hukou* type);
- Place of origin: 83 locals and 23 non-locals (in addition, 1 respondent did not provide information about his place of origin).

4.3.3 Limitations of the sample.

The participants sample on which the survey is based on has various limitations, therefore the findings are not universally valid and cannot be applied to the different areas of the country. The sample is not statistically representative, inasmuch as it is restricted and the distribution of the respondents is, in some aspects, not perfectly balanced. Therefore, it was not possible to use a regression analysis for the data, while a qualitative and descriptive method will be used to discuss the findings. Moreover, it was not possible to draw a comparison based on the respondents' demographic information, which would be extremely interesting to conduct in potential further studies on the topic.

Against this background, the findings and the result that I will expose and elaborate on in the following sections can only be interpreted as a partial assessment of the level of subjective well-being perceived by the residents of the areas where the survey was conducted. Far from being representative of a variegated and multifaceted reality such as China in its vastness is, however, this small-scale survey can, with the due improvements, appropriate training, funding and time, be considered as a starting point for further research on the topic. In fact, even though the literature concerning life satisfaction in general is increasingly copious, however, the relation between urbanization, which constitutes a fundamental feature of the massive development of various countries, among which China, and subjective well-being is still under-researched.

4.3.4 Questionnaire structure (Mandarin Chinese and English versions).

第一部分: 个人信息

- 一、性别: 男 或 女
- 二、年龄: 18-25 岁; 26-40 岁; 41-60 岁; 61 岁以上
- 三、婚姻状况: 结婚 或 未婚
- 四、种族: 汉族 或 其他 (请注明:.....)

五、学历: 中学以下; 中学; 高中; 大学或大学以上

六、职业: 学生; 职员; 公务员; 经理; 企业家; 无业; 其他 (请注明:.....)

七、共产党员: 是 或 否

八、家庭年收入 (人民币): 1 万以下; 1 至 3 万; 3 万以上

九、户籍类别: 农业户口 或 非农业户口

十、请注明您所居住的地方: (村/小区 - 乡镇/街道 - 县/区)

十一、您是本地人吗?: 是 或 否

如果不是, 您家乡是哪里? _____ 您是什么时候搬到这里来? _____

第二部分: 城镇化与它所带来的影响以及主观幸福感的评价

(A)

一、该地访是什么时候开始进行城镇化? _____

二、城镇化后您户籍类别更改为非农业户口吗? 是 或 否

三、您觉得城镇化对您的健康有影响吗? 有影响; 没有影响; 不清楚/不知道

如果有的话, 您觉得影响是: 好 或 不好

如果不好的话, 请注明您经历的影响: 导致慢性病的发作或恶化; 导致精神病;

其他 (请注明:.....)

四、据您所知, 城镇化过程完成了之后, 该地访的就业率是否显著地提高了? 是 或 否

(B)

一、总的来说, 您对自己的生活是否感觉满意? 完全不满意; 不太满意; 相当满意; 很满意; 非常满意

与目前相比, 城镇化过程开始进行之前您感觉满意吗? 现在满意 或 之前满意

二、你觉得在这儿可以实现您人生地抱负与目标? 是 或 否

您觉得目前有机会进行自我完善与个人的发展还是您觉得之前的生活更有意义? 现在 或 之前

三、您对地方政策的执行是否感觉满意? 完全不满意; 不太满意; 相当满意; 很满意; 非常满意

您觉得该地访的地方政策是以人为中心还是以经济发展为中心?

四、您住在这儿觉得安全吗？（该概念既包括犯罪行为的威胁，又包括自然现象的威胁）完全不安全；不太安全；相当安全；很安全；非常安全

与目前相比，城镇化过程开始进行之前您觉得安全吗？现在安全 或 之前安全

五、城镇化过程开始进行之后，您是否感觉您是该社区的一员？是 或 否

六、您对该地访文化遗产的保护是否感觉满意？完全不满意；不太满意；相当满意；很满意；非常满意

七、您对自己的社交能力是否感觉满意？完全不满意；不太满意；相当满意；很满意；非常满意

与之前相比，是否有显著的区别？是，区别很明显 或 区别不明显

八、您对所提供的企业活动机会是否感觉满意？完全不满意；不太满意；相当满意；很满意；非常满意

对您而言，是否有足够的图书馆、博物馆、展览馆、KTV、电影院、剧场等类似的文化与娱乐场所？是 或 否

九、您对该地访的绿化区是否感觉满意？完全不满意；不太满意；相当满意；很满意；非常满意

与之前相比，是否有显著的区别？是，区别很明显 或 区别不明显

十、地方政府所提供的教育机会、医疗保健及基础设施是否令您觉得您的基本权利受到足够的保护？是；否；有的方面是，有的方面不是

Part one: Demographic information.

1. Gender: M or F.
2. Age group: 18-25; 26-40; 41-60; 61 or more.
3. Marital status: Married or Not married.
4. Ethnicity: Han or Other (please explain).
5. Education level: Middle school or below; Middle school; High school; University or above.
6. Employment: Student; Employee; Government functionary; Manager; Entrepreneur; Unemployed; Other (please explain).
7. Party member: Yes or No.
8. Household yearly income: Below 10.000 yuan; Between 10.000 and 30.000 yuan; more than 30.000 yuan.

9. *Hukou* type: Agricultural or Non-agricultural.
10. Please explain where you live: Village/District; Township/Subdistrict; County/Region.
11. Are you a local? Yes or No.
If not, where is your place of origin? When did you move here?

Part two: The impact of urbanization and its influence on one's subjective well-being and happiness.

(A)

1. When has [name of the place] started undergoing urbanization process?
2. Has your *hukou* status changed from agricultural to non-agricultural as a result of the urbanization process? Yes or No.
3. Do you think that the urbanization process had an impact on your health? Yes or No or I don't know.
If it did, do you think that this is impact was: Positive or Negative.
If you think that it was negative, please explain what your personal experience was: It led to the development or the worsening of chronic diseases; It led to the development of mental disturbances; Other (please explain).
4. As far as you know, has the employment rate of [name of the place] increased as a result of the urbanization process? Yes or No.

(B)

1. Generally speaking, are you satisfied with your life? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.
Compared to before [name of the place] started urbanizing, do you feel more satisfied...?
Before or Now.
2. Do you feel like you can achieve your life goals and fulfill your ambitions in [name of the place]?
Do you feel that currently you have more opportunities for self-improvement and individual development or do you think that your life was more meaningful before? Now or Before.
3. Are you satisfied with the implementation of local policies? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.
Would you say local policies in [name of the place] are...? People-oriented or Growth-oriented.

4. Do you feel safe living here (both in terms of protection against criminality and against natural phenomena)? Extremely unsafe; Not very safe; Fairly safe; Safe; Extremely safe. Compared to before [name of the place] started urbanizing, do you feel safer...? Now or Before.
5. Throughout the urbanization process of [name of the place], do you feel you belong to the community? Yes or No.
6. Are you satisfied with the protection of the cultural heritage of [name of the place]? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.
7. Are you satisfied with your social skills? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.
In this respect, do you feel remarkable differences with before? Yes, the difference is very remarkable or No, the difference is not remarkable.
8. Are you satisfied with the leisure time activities provided in [name of the place]? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.
In your opinion, is there an adequate number of libraries, museums, exhibition halls, KTV, movie theatres, theatres and other cultural and recreation places? Yes or No.
9. Are you satisfied with the green areas of [name of the place]? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.
Compared to before [name of the place] started urbanizing, do you feel there are remarkable differences in this regard? Yes, the difference is very remarkable or No, the difference is not remarkable.
10. Do you think that your basic rights are fully met with [name of the place] local government's provision of adequate education opportunities, health care service and infrastructures? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.²³⁴

4.4 Findings.

In the following section, I report the findings of the survey presented in this chapter, providing the data for each individual township or sub-district. Later on, I will elaborate more on the findings, by suggesting a comparison between two different groups of areas based on their level of development and current urbanization stage.

²³⁴ The questionnaire was submitted in Mandarin Chinese.

4.4.1 Individual data.

Question: Has your *hukou* status changed from agricultural to non-agricultural as a result of the urbanization process? Yes or No.

Locality	Yes	No	No answer
Luozhuang Jiedao	5	7	0
Fenhuangling Jiedao	2	7	6
Zhangjiawo Zhen	1	18	1
Ligezhuang Zhen	0	18	0
Licha Zhen	2	12	0
Puji Zhen	1	17	0
Xiji Zhen	1	9	0
Tot.	12	88	7
Tot. percentage (%)	11,2%	82,2	6,5

Table 8: Changes in hukou status (Individual results).

Question: Do you think that the urbanization process had an impact on your health? Yes or No or I don't know.

Locality	Yes	No	I don't know	Doesn't answer
Luozhuang Jiedao	8	3	0	1
Fenhuangling Jiedao	10	4	1	0
Zhangjiawo Zhen	12	7	1	0
Ligezhuang Zhen	10	6	2	0
Licha Zhen	4	6	4	0
Puji Zhen	9	8	1	0
Xiji Zhen	3	5	1	1
Tot.	56	39	10	2
Tot. percentage (%)	52,3%	36,4%	9,3%	1,9%

Table 9: Urbanization impact on health (Individual results).

Question: If it did, do you think that this impact was: Positive or Negative.

Locality	Positive	Negative
Luozhuang Jiedao	2	6
Fenhuangling Jiedao	2	8
Zhangjiawo Zhen	3	9
Ligezhuang Zhen	4	6
Licha Zhen	0	4
Puji Zhen	3	6
Xiji Zhen	2	1
Tot.	16	40
Tot. percentage (%)	28,6%	71,4%

Table 10: Perception of urbanization impact on health: positive or negative? (Individual results).

Question: As far as you know, has the employment rate of [name of the place] increased as a result of the urbanization process? Yes or No.

Locality	Yes	No	No answer
Luozhuang Jiedao	6	6	0
Fenhuangling Jiedao	10	5	0
Zhangjiawo Zhen	12	8	0
Ligezhuang Zhen	11	6	1
Licha Zhen	7	6	1
Puji Zhen	9	4	5
Xiji Zhen	5	5	0
Tot.	60	40	7
Tot. percentage (%)	56,1%	37,4%	6,5%

Table 11: Increase in the employment rate (Individual results).

Question: Generally speaking, are you satisfied with your life? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

Locality	Completely dissatisfied	Not very satisfied	Fairly satisfied	Satisfied	Extremely satisfied	Doesn't answer
Luozhuang Jiedao	1	4	2	3	1	1

Fenhuangling Jiedao	0	7	2	4	2	0
Zhangjiawo Zhen	0	5	6	9	0	0
Ligezhuang Zhen	1	3	8	6	0	0
Licha Zhen	0	2	9	3	0	0
Puji Zhen	0	3	5	8	2	0
Xiji Zhen	0	0	3	6	1	0
Tot.	2	24	35	39	6	1
Tot. percentage (%)	1,9%	22,4%	32,7%	36,4%	5,6%	0,9%

Table 12: Life satisfaction as a whole (Individual results).

Question: Compared to before [name of the place] started urbanizing, do you feel more satisfied...? Now or Before.

Locality	Now	Before	Doesn't answer
Luozhuang Jiedao	4	2	6
Fenhuangling Jiedao	13	2	0
Zhangjiawo Zhen	11	6	3
Ligezhuang Zhen	15	3	0
Licha Zhen	9	5	0
Puji Zhen	16	2	0
Xiji Zhen	6	3	1
Tot.	74	23	10
Tot. percentage (%)	69,2%	21,5%	9,3%

Table 13: Life satisfaction: a time comparison (Individual results).

Question: Do you feel like you can achieve your life goals and fulfill your ambitions in [name of the place]?

Locality	Yes	No	No answer
Luozhuang Jiedao	4	0	8
Fenhuangling Jiedao	11	4	0
Zhangjiawo Zhen	12	8	0
Ligezhuang Zhen	11	7	0

Licha Zhen	3	11	0
Puji Zhen	13	5	0
Xiji Zhen	7	3	0
Tot.	61	38	8
Tot. percentage (%)	57%	35,5%	7,5%

Table 14: Life purpose and personal ambitions (Individual results).

Question: Do you feel that currently you have more opportunities for self-improvement and individual development or do you think that your life was more meaningful before?

Locality	Now	Before	Doesn't answer
Luozhuang Jiedao	8	0	4
Fenhuangling Jiedao	12	3	0
Zhangjiawo Zhen	13	6	1
Ligezhuang Zhen	13	5	0
Licha Zhen	8	6	0
Puji Zhen	16	2	0
Xiji Zhen	8	2	0
Tot.	78	24	5
Tot. percentage (%)	72,9%	22,4%	4,7%

Table 15: Life purpose and personal ambitions: a time comparison (Individual results).

Question: Are you satisfied with the implementation of local policies? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

Locality	Completely dissatisfied	Not very satisfied	Fairly satisfied	Satisfied	Extremely satisfied	No answer
Luozhuang Jiedao	0	4	3	1	2	2
Fenhuangling Jiedao	1	5	4	3	2	0
Zhangjiawo Zhen	2	12	2	2	0	2
Ligezhuang Zhen	3	5	6	2	0	2
Licha Zhen	0	1	3	8	0	2
Puji Zhen	3	5	2	7	0	1

Xiji Zhen	0	5	2	1	1	1
Tot.	9	37	22	24	5	10
Tot. percentage (%)	8,4%	34,6%	20,6%	22,4%	4,7%	0,9%

Table 16: Satisfaction in relation to local policies and their implementation (Individual results).

Question: Would you say local policies in [name of the place] are...? People-oriented or Growth-oriented.

Locality	People-oriented	Growth-oriented	No answer
Luo Zhuang Jiedao	5	3	4
Fenhuangling Jiedao	9	6	0
Zhangjiawo Zhen	8	9	3
Lige Zhuang Zhen	6	12	0
Licha Zhen	3	11	0
Puji Zhen	3	13	2
Xiji Zhen	3	6	1
Tot.	37	60	10
Tot. percentage (%)	34,6%	56,1%	9,3%

Table 17: Perception of local policies: human-oriented or growth-oriented? (Individual results).

Question: Do you feel safe living here (both in terms of protection against criminality and against natural phenomena)? Completely unsafe; Not very safe; Fairly safe; Safe; Extremely safe.

Locality	Completely unsafe	Not very safe	Fairly safe	Safe	Extremely safe	No Answer
Luo Zhuang Jiedao	0	4	5	2	1	0
Fenhuangling Jiedao	0	4	4	6	1	0
Zhangjiawo Zhen	0	5	6	5	4	0
Lige Zhuang Zhen	0	5	3	6	4	0
Licha Zhen	0	0	5	8	1	0
Puji Zhen	0	0	6	10	2	0
Xiji Zhen	0	1	2	6	1	0
Tot.	0	19	31	43	14	0
Tot. percentage (%)	0%	17,8%	28,9%	40,2%	13,1%	0%

Table 18: Perception of safety (Individual results).

Question: Compared to before [name of the place] started urbanizing, do you feel safer...? Now or Before.

Locality	Now	Before	No answer
Luozhuang Jiedao	4	3	5
Fenhuangling Jiedao	15	0	0
Zhangjiawo Zhen	11	7	2
Ligezhuang Zhen	14	4	0
Licha Zhen	12	2	0
Puji Zhen	16	2	0
Xiji Zhen	9	1	0
Tot.	81	19	7
Tot. percentage (%)	75,7%	17,8%	6,5%

Table 19: Perception of safety: a time comparison (Individual results).

Question: Throughout the urbanization process of [name of the place], do you feel you belong to the community? Yes or No.

Locality	Now	Before
Luozhuang Jiedao	11	1
Fenhuangling Jiedao	14	1
Zhangjiawo Zhen	13	7
Ligezhuang Zhen	14	4
Licha Zhen	11	3
Puji Zhen	16	2
Xiji Zhen	8	2
Tot.	87	20
Tot. percentage (%)	81,3%	18,7%

Table 20: Community belonging (Individual results).

Question: Are you satisfied with the protection of the cultural heritage of [name of the place]? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

Locality	Completely dissatisfied	Not very satisfied	Fairly satisfied	Satisfied	Extremely satisfied	No Answer
Luozhuang Jiedao	0	2	5	4	1	0
Fenhuangling Jiedao	0	3	6	3	2	1
Zhangjiawo Zhen	0	7	5	2	3	3
Ligezhuang Zhen	0	6	4	4	2	2
Licha Zhen	0	2	4	2	0	6
Puji Zhen	0	1	2	10	1	4
Xiji Zhen	0	4	2	2	0	2
Tot.	0	25	28	27	9	18
Tot. percentage (%)	0%	23,4%	26,2%	25,2%	8,4%	16,8%

Table 21: Satisfaction in relation to cultural heritage protection (Individual results).

Question: Are you satisfied with your social skills? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

Locality	Completely dissatisfied	Not very satisfied	Fairly satisfied	Satisfied	Extremely satisfied	No Answer
Luozhuang Jiedao	0	3	7	2	0	0
Fenhuangling Jiedao	0	7	3	4	1	0
Zhangjiawo Zhen	1	7	5	7	0	0
Ligezhuang Zhen	1	6	3	8	0	0
Licha Zhen	1	4	6	3	0	0
Puji Zhen	0	7	1	9	1	0
Xiji Zhen	0	3	3	3	1	0
Tot.	3	37	28	36	3	0
Tot. percentage (%)	2,8%	34,6%	26,2%	33,6%	2,8%	0%

Table 22: Satisfaction in relation to one's social skills (Individual results).

Question: In this respect (your social skills), do you feel remarkable differences with before? Yes, the difference is very remarkable or No, the difference is not remarkable.

Locality	Yes, the difference is remarkable	No, the difference is not remarkable	No answer

Luo Zhuang Jiedao	7	5	0
Fenhuangling Jiedao	8	6	1
Zhangjiawo Zhen	9	10	1
Ligezhuang Zhen	8	10	0
Licha Zhen	5	9	0
Puji Zhen	12	6	0
Xiji Zhen	7	3	0
Tot.	56	49	2
Tot. percentage (%)	52,3%	45,8%	1,9%

Table 23: Satisfaction in relation to one's social skills: a time comparison (Individual results).

Question: Are you satisfied with the leisure time activities provided in [name of the place]?

Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

Locality	Completely dissatisfied	Not very satisfied	Fairly satisfied	Satisfied	Extremely satisfied	No Answer
Luo Zhuang Jiedao	2	1	5	3	1	0
Fenhuangling Jiedao	0	6	4	2	3	0
Zhangjiawo Zhen	4	5	3	5	1	2
Ligezhuang Zhen	0	8	4	5	1	0
Licha Zhen	9	3	0	2	0	0
Puji Zhen	1	6	3	5	1	2
Xiji Zhen	0	3	2	5	0	0
Tot.	16	32	21	27	7	4
Tot. percentage (%)	15%	30%	19,6%	25,2%	6,5%	3,7%

Table 24: Satisfaction in relation to leisure time activities (Individual results).

Questions: In your opinion, is there an adequate number of libraries, museums, exhibition halls, KTV, movie theatres, theatres and other cultural and recreation places? Yes or No.

Locality	Yes	No	No answer
Luo Zhuang Jiedao	3	1	8
Fenhuangling Jiedao	5	9	1

Zhangjiawo Zhen	8	11	1
Ligezhuang Zhen	7	11	0
Licha Zhen	0	14	0
Puji Zhen	4	14	0
Xiji Zhen	2	8	0
Tot.	29	68	10
Tot. percentage (%)	27,1%	63,6%	9,3%

Table 25: Adequate presence of socio-recreational and cultural places (Individual results).

Question: Are you satisfied with the green areas of [name of the place]? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

Locality	Completely dissatisfied	Not very satisfied	Fairly satisfied	Satisfied	Extremely satisfied	No Answer
Luo Zhuang Jiedao	0	3	5	3	1	0
Fenhuangling Jiedao	0	6	3	4	2	0
Zhangjiawo Zhen	1	2	6	6	5	0
Ligezhuang Zhen	2	9	5	2	0	0
Licha Zhen	4	2	7	1	0	0
Puji Zhen	1	5	3	7	2	0
Xiji Zhen	0	7	1	2	0	0
Tot.	8	34	30	25	10	0
Tot. percentage (%)	7,5%	31,8%	28%	23,4%	9,3%	0%

Table 26: Satisfaction in relation to green areas (Individual results).

Question: Compared to before [name of the place] started urbanizing, do you feel there are remarkable differences in this regard (green areas)? Yes, the difference is very remarkable or No, the difference is not remarkable.

Locality	Yes, the difference is remarkable	No, the difference is not remarkable	No answer
Luo Zhuang Jiedao	9	3	0
Fenhuangling Jiedao	11	4	0
Zhangjiawo Zhen	15	4	1

Ligezhuang Zhen	9	9	0
Licha Zhen	6	8	0
Puji Zhen	13	5	0
Xiji Zhen	5	5	0
Tot.	68	38	1
Tot. percentage (%)	63,6%	35,5%	0,9%

Table 27: Satisfaction in relation to green areas: a time comparison (Individual results).

Question: Do you think that your basic rights are fully met with [name of the place] local government's provision of adequate education opportunities, health care service and infrastructures? Yes, No or Some aspects yes, some aspects no.

Locality	Yes	No	Some aspects yes, some aspects no	No answer
Luozhuang Jiedao	3	1	8	0
Fenhuangling Jiedao	8	0	7	0
Zhangjiawo Zhen	9	2	8	1
Ligezhuang Zhen	5	4	9	0
Licha Zhen	9	1	4	0
Puji Zhen	13	0	5	0
Xiji Zhen	4	1	5	0
Tot.	51	9	46	1
Tot. percentage (%)	47,7%	8,4%	43%	0,9%

Table 28: Satisfaction in relation to basic needs, services and infrastructures (Individual results).

4.4.2 Groups data.

After analyzing the data gathered in each township or sub-district, I have divided the respondents into two groups, Group A and Group B, based on the level of the development and the degree of urbanization of their place of residence, in order to get a better understanding of what the respondents belonging to each reality perceive and experience. Group A is constituted by the respondents of Luozhuang Zhen, Fenghuangling Jiedao and Zhangjiawo Zhen, the most developed areas or the places that have started urbanizing earlier and a more accelerated pace among the

surveyed areas, and counts 47 respondents. Group B is constituted by the remaining townships, namely Ligezhuang Zhen, Licha Zhen, Puji Zhen and Xiji Zhen, which are the least developed areas or the ones that have started urbanizing later in comparison to Group A. Placing

Ligezhuang Zhen was difficult, due to its characteristics that makes it suitable for both groups; however, seen its vicinity with Licha Zhen and Puji Zhen and, therefore, their similarities in terms of development, cultural and social values and norms, I eventually decided to include it in Group B.

This distinction allows not only for a delineation of the main trends of the respondents' subjective well-being in relation to urban development, but most importantly, it allows for a comparison between the two groups, in order to understand whether the patterns of well-being evolved as a consequence of a more accelerated and invasive urbanization process, or whether they remained stable.

Question: Has your *hukou* status changed from agricultural to non-agricultural as a result of the urbanization process? Yes or No.

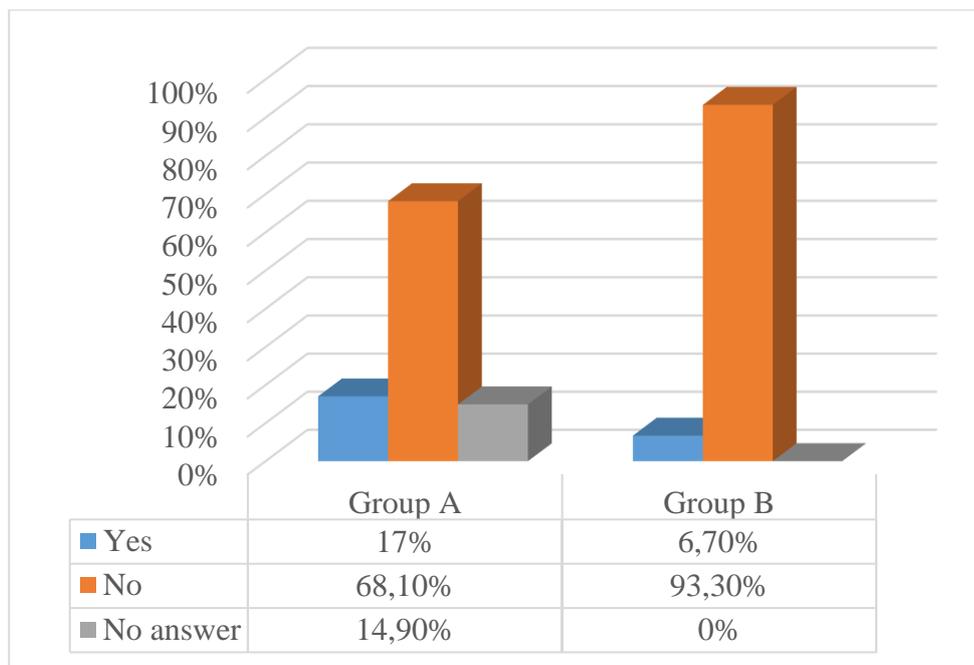


Chart 5: Changes in *hukou* status (Groups).

Question: Do you think that the urbanization process had an impact on your health? Yes or No or I don't know.

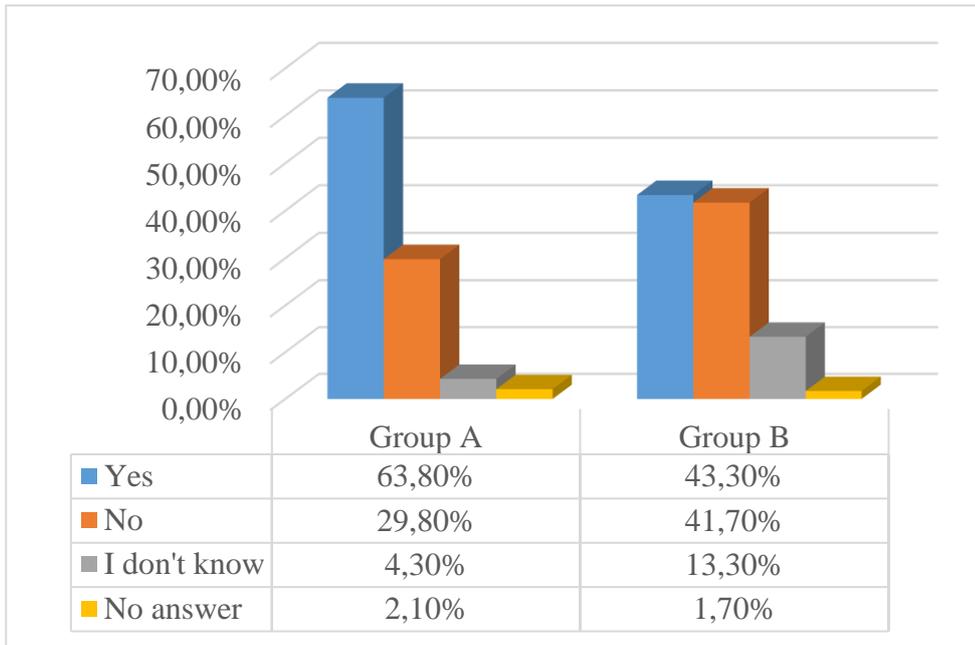


Chart 6: Urbanization impact on health (Groups).

Question: If it did, do you think that this is impact was: Positive or Negative.

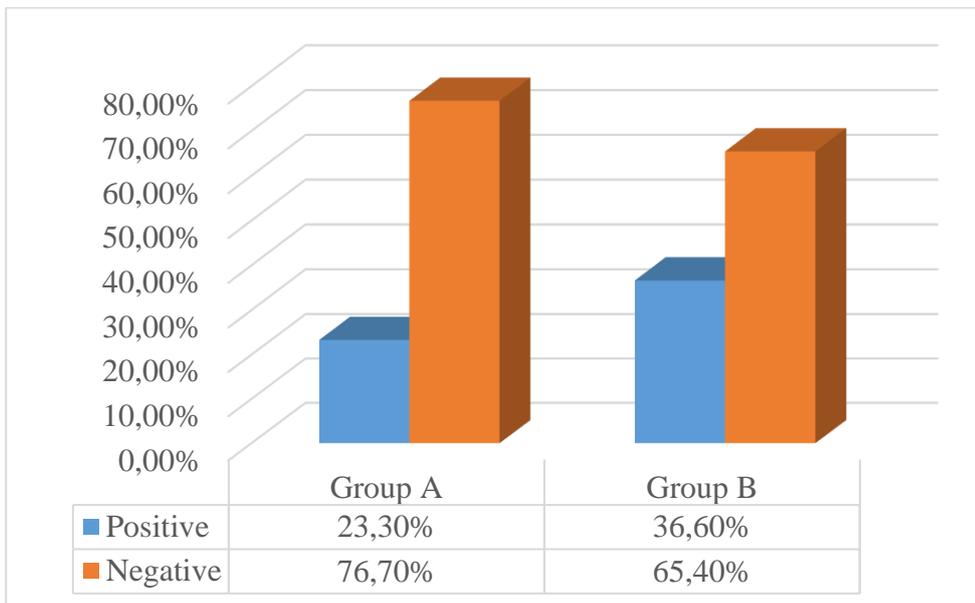


Chart 7: Perception of urbanization impact on health: positive or negative? (Groups)

Question: As far as you know, has the employment rate of [name of the place] increased as a result of the urbanization process? Yes or No.

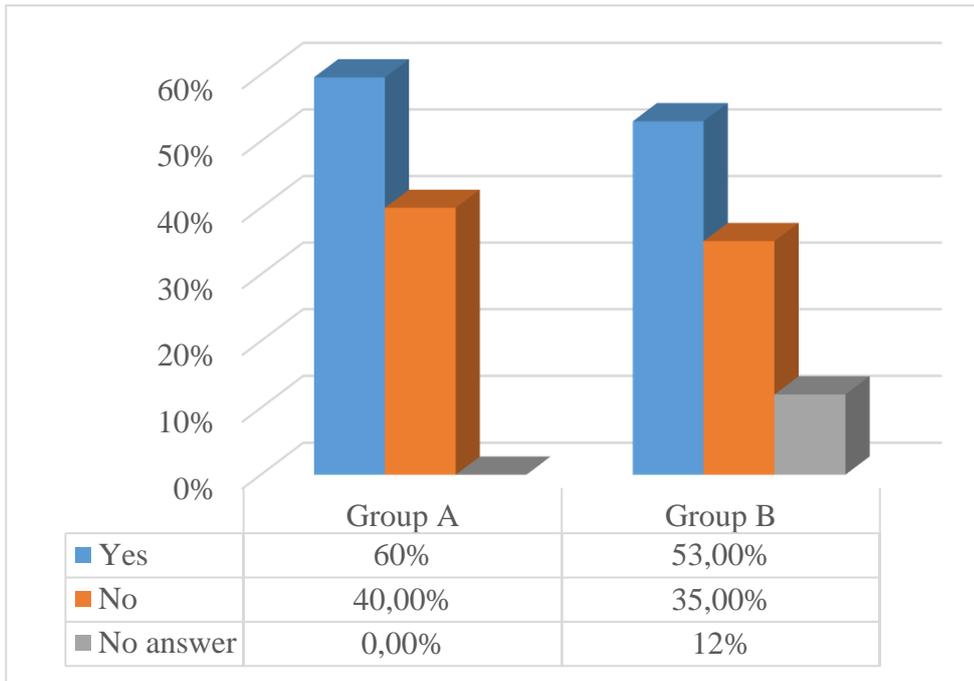


Chart 8: Increase in the employment rate (Groups.)

Question: Generally speaking, are you satisfied with your life? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

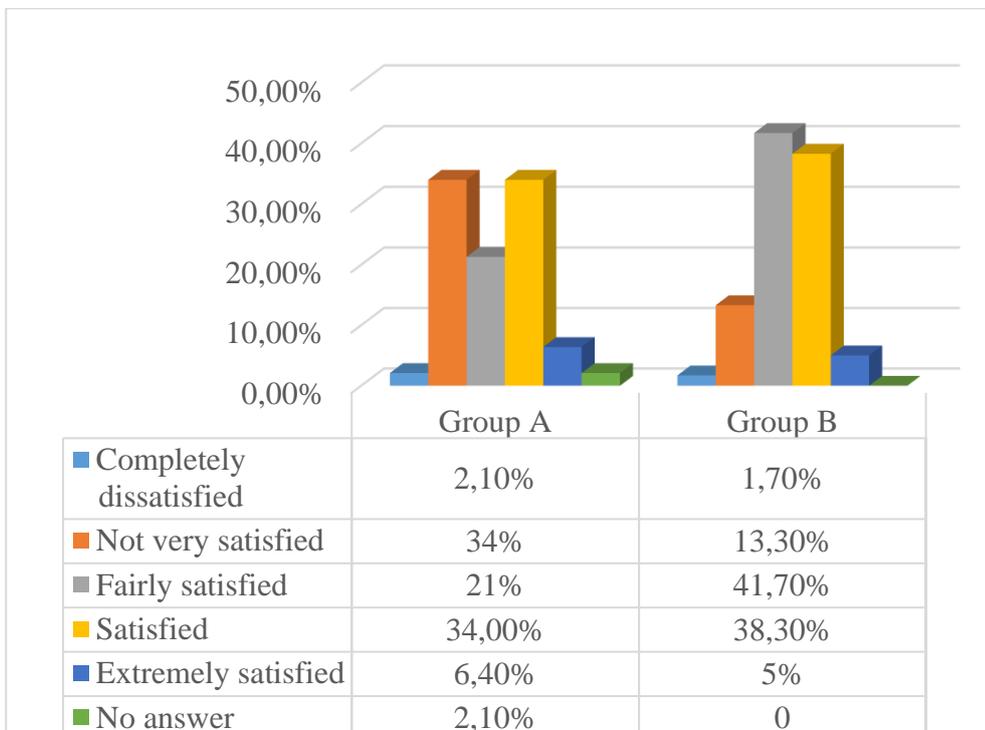


Chart 9: Life satisfaction as a whole (Groups).

Question: Compared to before [name of the place] started urbanizing, do you feel more satisfied...? Now or Before.

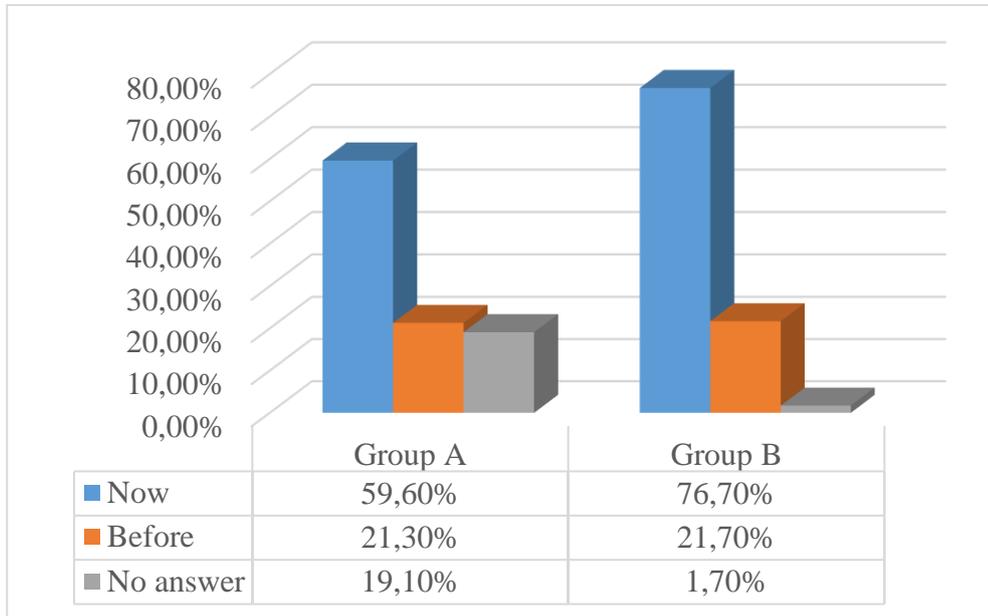


Chart 10: Life satisfaction: a time comparison (Groups).

Question: Do you feel like you can achieve your life goals and fulfill your ambitions in [name of the place]?

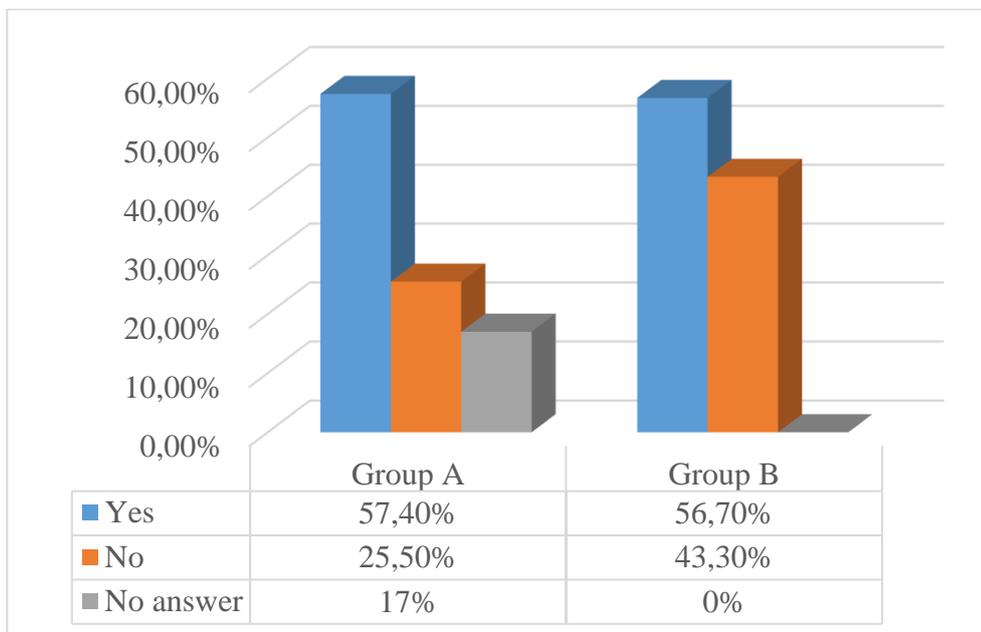


Chart 11: Life purpose and personal ambitions (Groups).

Question: Do you feel that currently you have more opportunities for self-improvement and individual development or do you think that your life was more meaningful before?

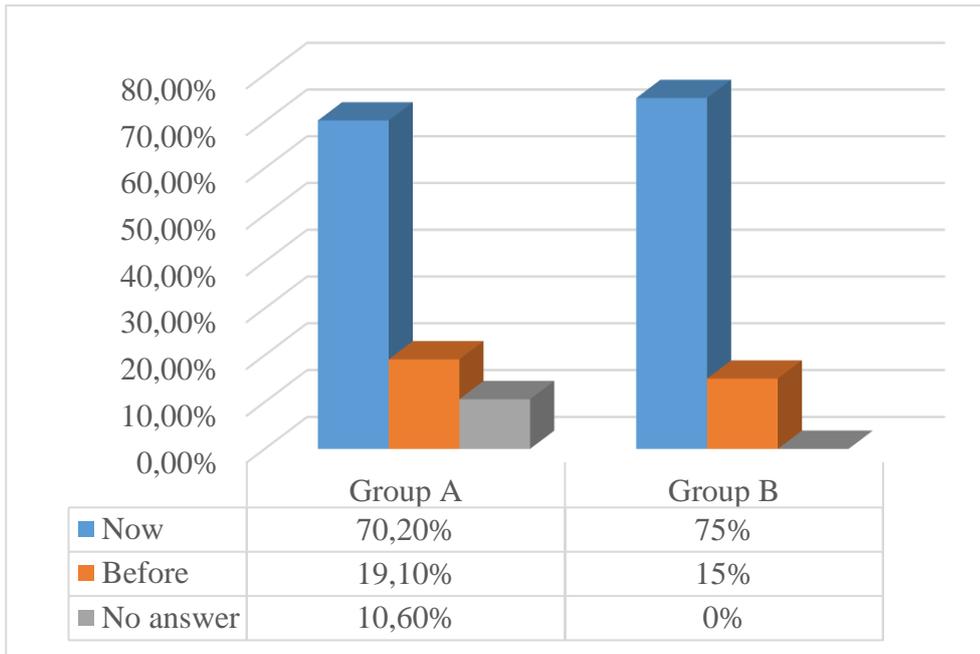


Chart 12: Life purpose and personal ambitions: a time comparison (Groups).

Question: Are you satisfied with the implementation of local policies? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

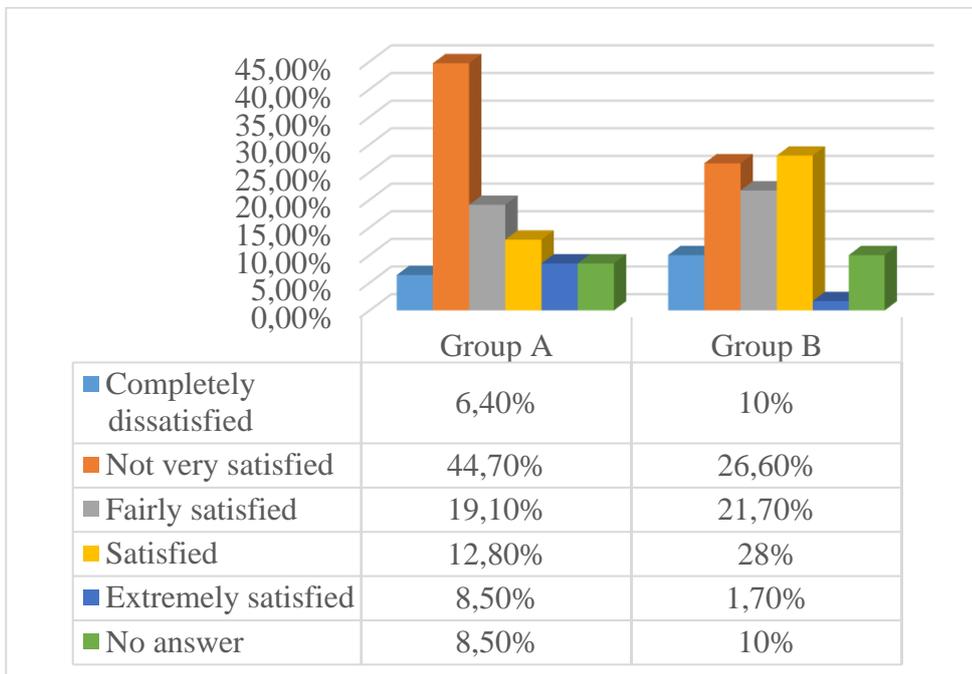


Chart 13: Satisfaction in relation to local policies and their implementation (Groups).

Question: Would you say local policies in [name of the place] are...? People-oriented or Growth-oriented.

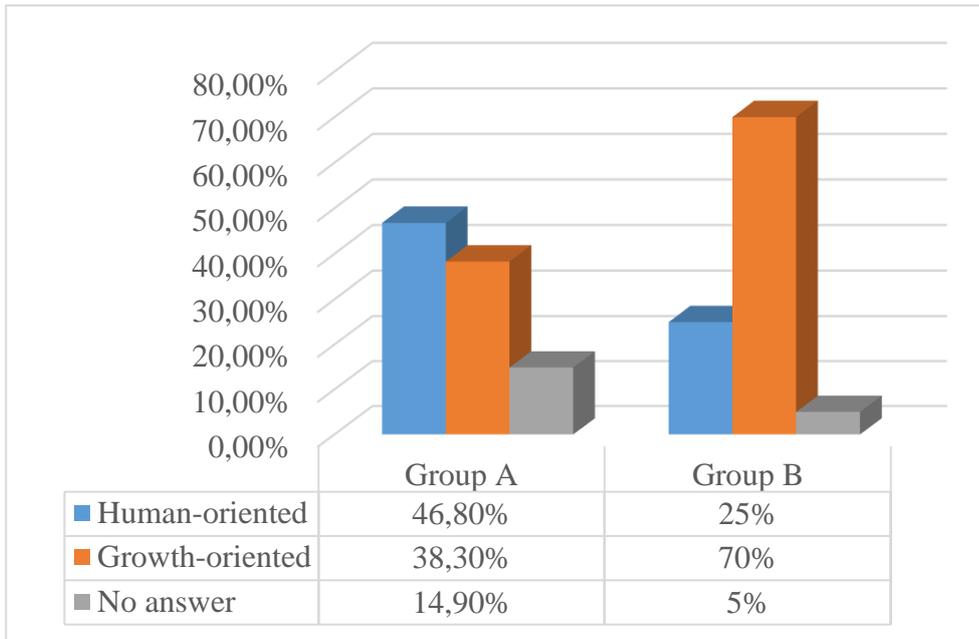


Chart 14: Perception of local policies: human-oriented or growth-oriented? (Groups)

Question: Do you feel safe living here (both in terms of protection against criminality and against natural phenomena)? Completely unsafe; Not very safe; Fairly safe; Safe; Extremely safe.

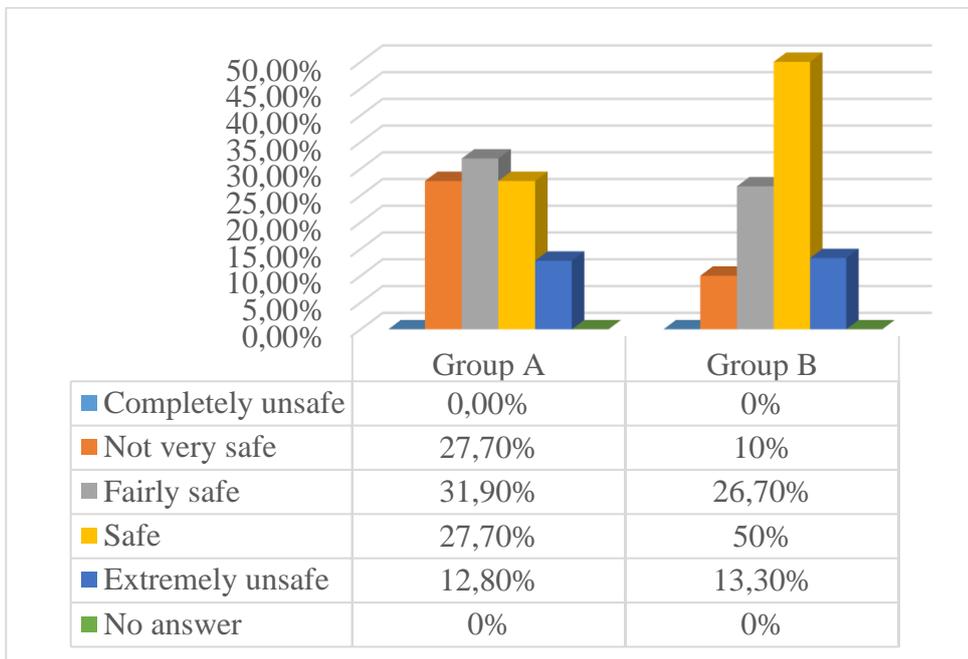


Chart 15: Perception of safety (Groups).

Question: Compared to before [name of the place] started urbanizing, do you feel safer...? Now or Before.

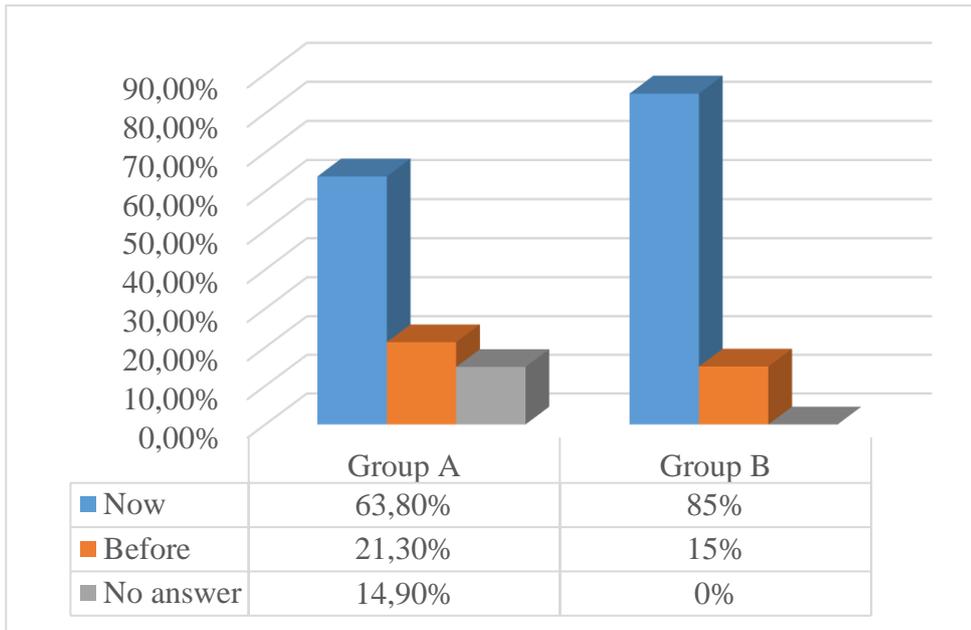


Chart 16: Perception of safety: a time comparison (Groups).

Question: Throughout the urbanization process of [name of the place], do you feel you belong to the community? Yes or No.

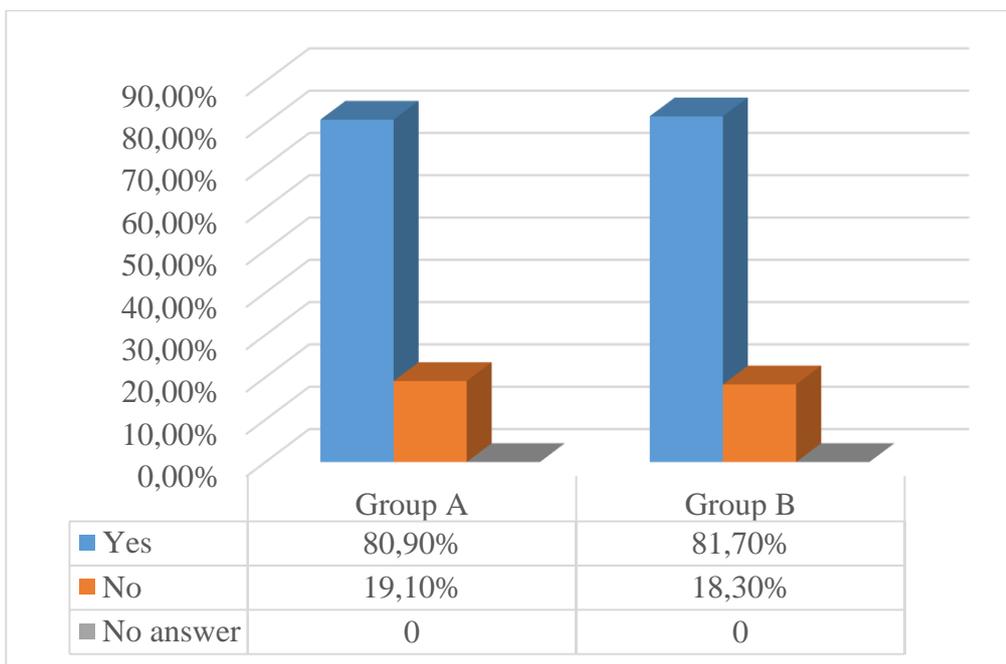


Chart 17: Community belonging (Groups).

Question: Are you satisfied with the protection of the cultural heritage of [name of the place]? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

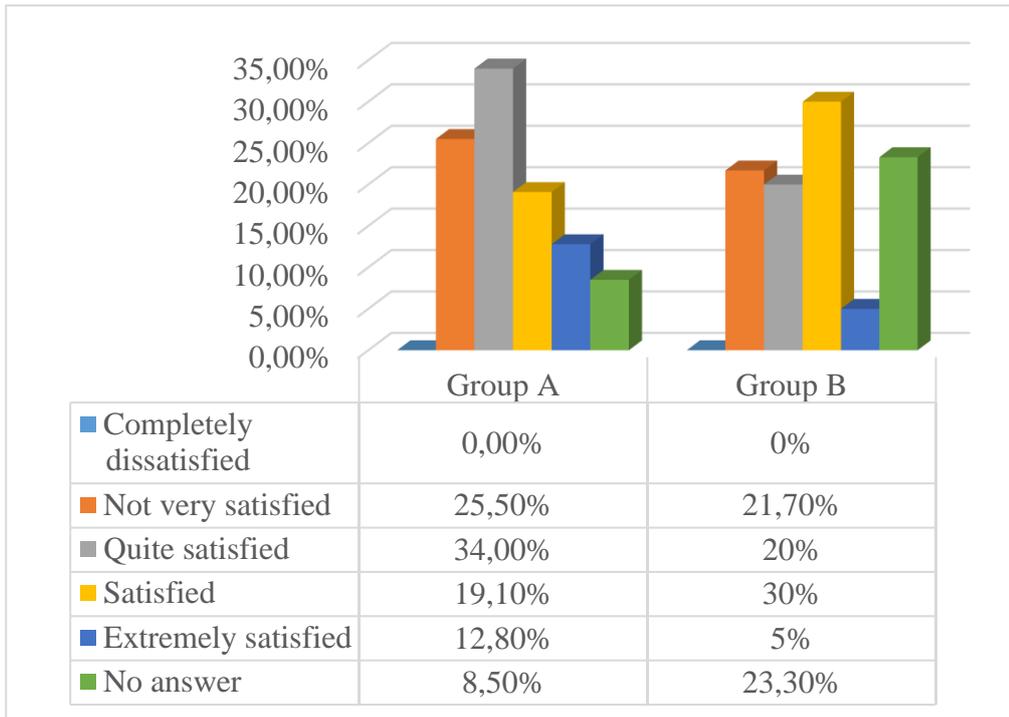


Chart 18: Satisfaction in relation to cultural heritage protection (Groups).

Question: Are you satisfied with your social skills? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

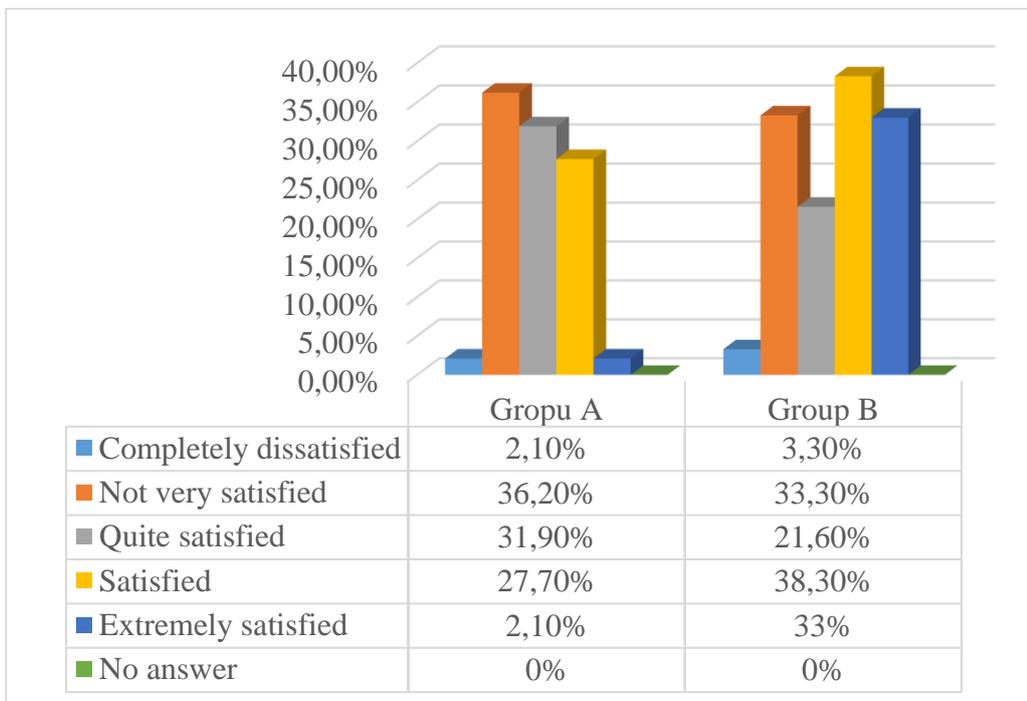


Chart 19: Satisfaction in relation to one's social skills (Groups).

Question: In this respect (your social skills), do you feel remarkable differences with before?

Yes, the difference is very remarkable or No, the difference is not remarkable.

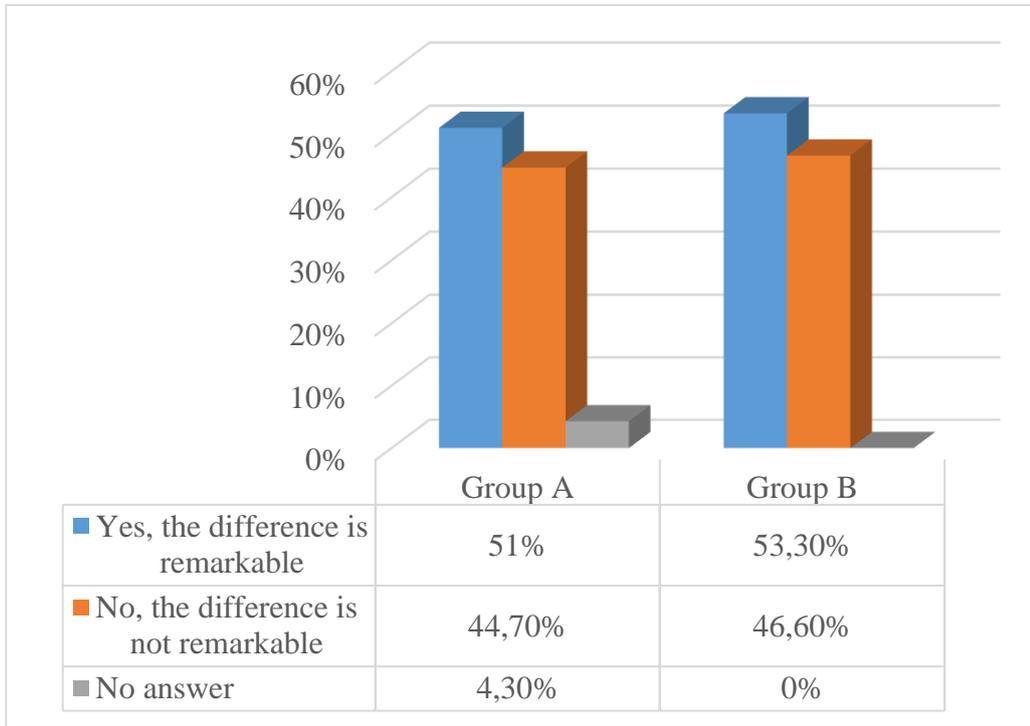


Chart 20: Satisfaction in relation to one's social skills: a time comparison (Groups).

Question: Are you satisfied with the leisure time activities provided in [name of the place]?

Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

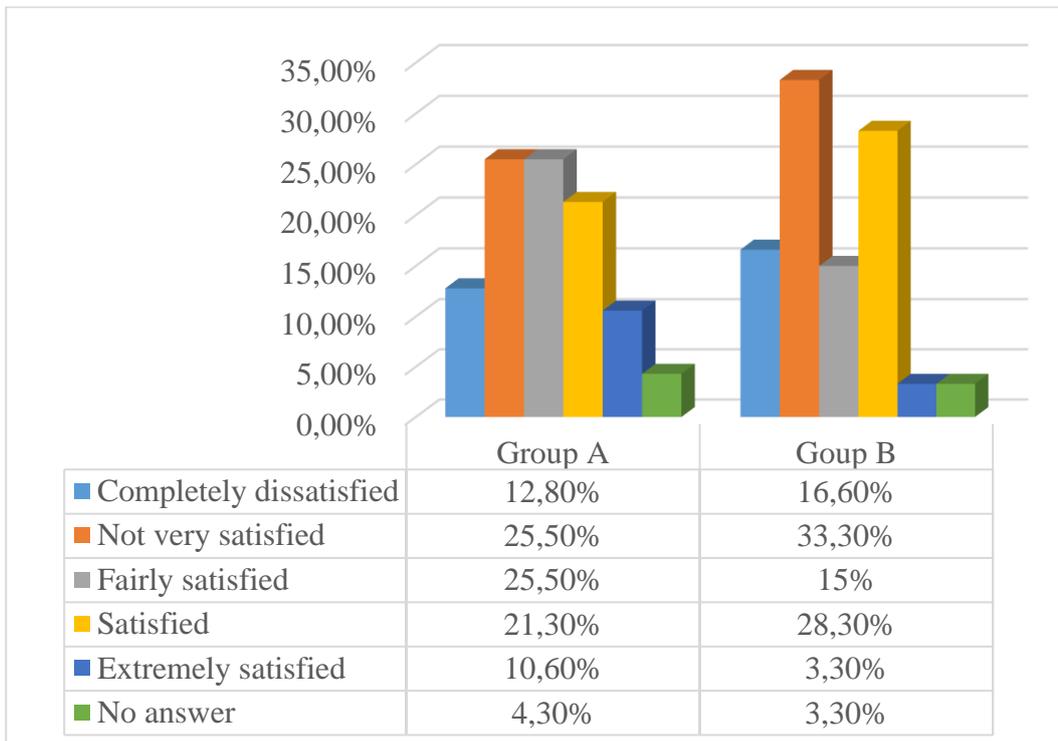


Chart 21: Satisfaction in relation to leisure time activities (Groups).

Questions: In your opinion, is there an adequate number of libraries, museums, exhibition halls, KTV, movie theatres, theatres and other cultural and recreation places? Yes or No.

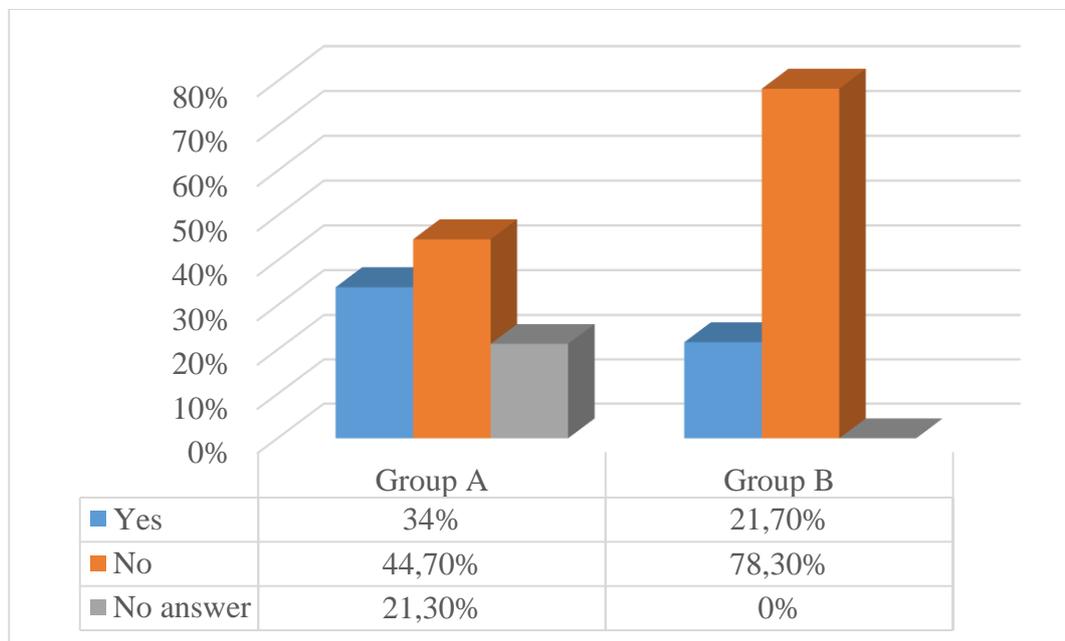


Chart 22: Adequate presence of socio-recreational and cultural places (Groups).

Question: Are you satisfied with the green areas of [name of the place]? Completely dissatisfied; Not very satisfied; Fairly satisfied; Satisfied; Extremely satisfied.

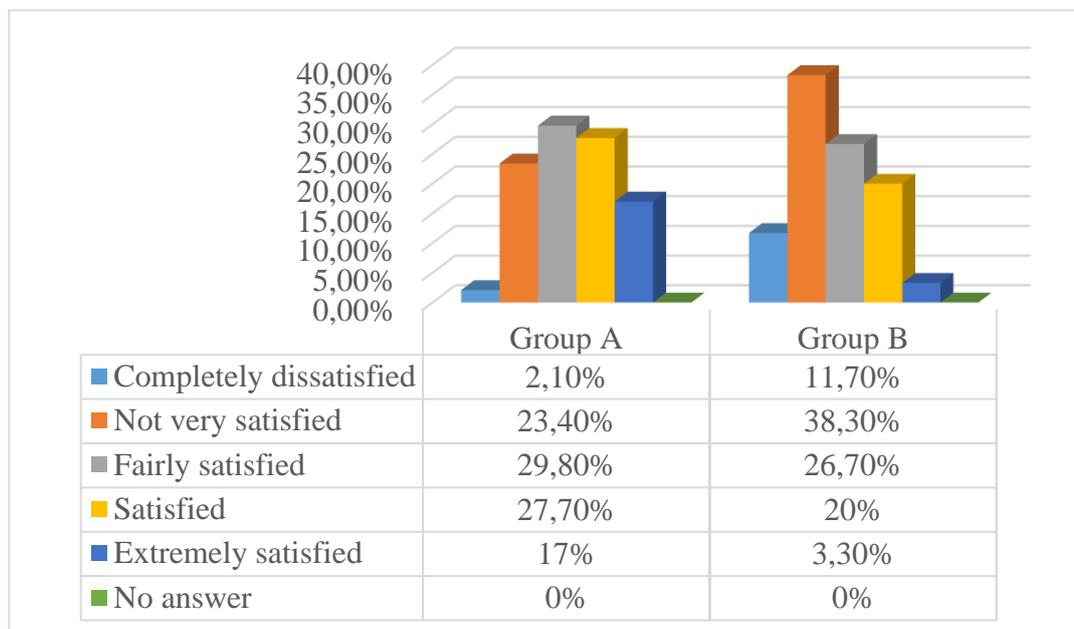


Chart 23: Satisfaction in relation to green areas (Groups).

Question: Compared to before [name of the place] started urbanizing, do you feel there are remarkable differences in this regard (green areas)? Yes, the difference is very remarkable or No, the difference is not remarkable.

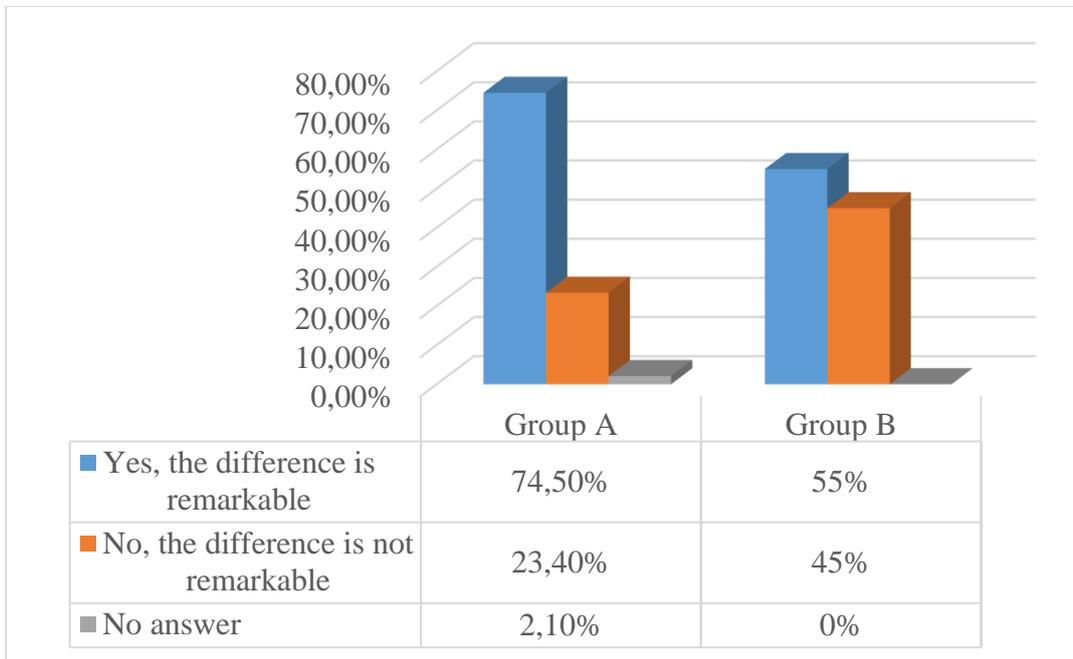


Chart 24: Satisfaction in relation to green areas: a time comparison (Groups).

Question: Do you think that your basic rights are fully met with [name of the place] local government's provision of adequate education opportunities, health care service and infrastructures? Yes, No or Some aspects yes, some aspects no.

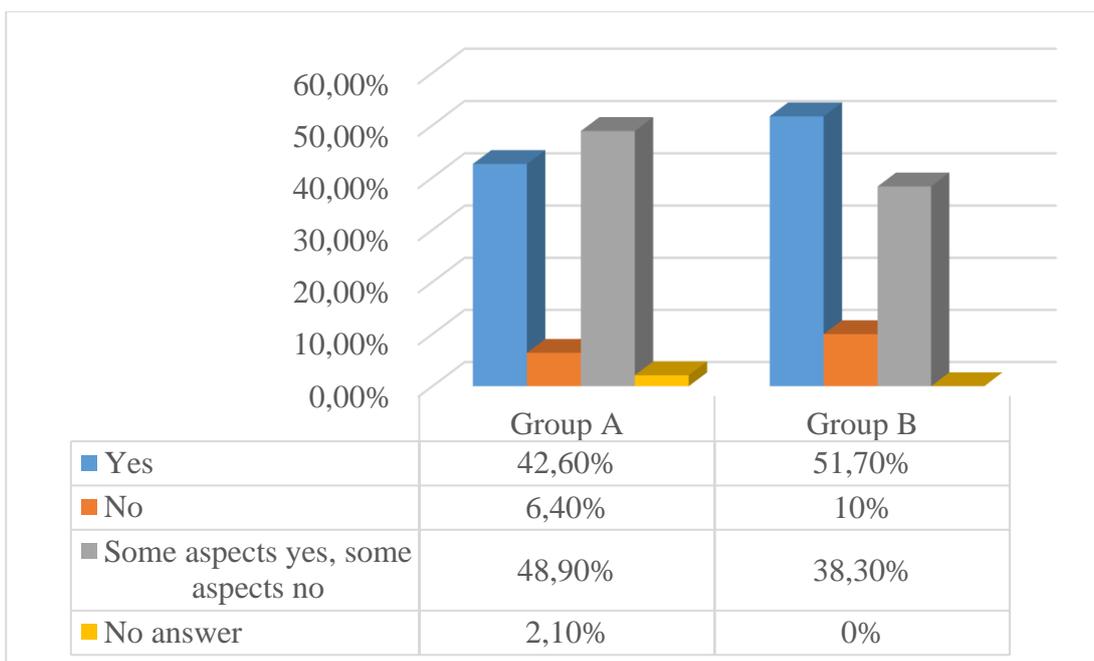


Chart 25: Satisfaction in relation to Basic Needs, Services and Infrastructures (Groups).

4.5 Discussion of the results.

This section aims at better defining the patterns of subjective well-being among the respondents residing in the different areas surveyed in this case study in relation to the urbanization process of these areas. In order to gain a better understanding of the analyzed topic, I will elaborate more on the differences and similarities that have emerged through the analysis of the data divided by groups.

As one can observe from Chart 5, only a restricted minority in both Groups experienced a ***hukou status change***, albeit to different extents. While only 6,7% of the respondents in Group B who were registered with an agricultural *hukou* at birth received a non-agricultural *hukou*, while the percentage increases to 17% in Group A. As already discussed in the previous section in relation to the choice of questions, it is difficult to identify a clear pattern behind this issue. Therefore, further research is necessary, that addresses possible correlations between the changes in *hukou* status and the urbanization of the areas where the interested people live, combined with their demographic information, in order to draw a reliable scheme.

As evincible from Chart 6, in Group A there exists a remarkable divergence between the respondents that believe that the **urbanization process had a noticeable impact on their health** (63,8%) and the ones that believe it did not have any influence, or that it was not remarkable (only 29,8%). Contrarily, the responses in Group B are more balanced, with virtually no difference between the amount of respondents that believe that the urbanization process had a noticeable impact on their health (43,3%) and the ones who believe it did not (41,7%). However, the two Groups show very similar patterns in respect to **the nature of the perceived impact of urbanization on their health**, with only 23,3% of the respondents in Group A and 34,6% in Group B believing that it had a positive impact. As one can deduct from Chart 7, this trend is more accentuated in Group A. This may be due to a different interpretation of the question itself, as mentioned in the section dedicated to the choice of questions; in fact, some people, especially in Group B, might relate urbanization with a general improvement of sanitary and hygienic conditions.

Pertaining the increases in the **employment rate**, the responses of participants in the two groups show similar trends, albeit slightly different; more than half of the respondents in both groups believe that the employment rate of their places of residence has increased as a consequence of the urbanization process of the investigated areas (see Chart 8). As far as this issue is concerned, further research is needed, in order to draw a comparison between what people perceive and the available data on the actual employment rate. However, it is frequently difficult to find available and up-to-date data for places that are below the county level. In fact, it is usually possible to gather data

concerning the reference county, prefecture or municipality, but since they constitute a comprehensive assessment of the county-, prefecture- or municipality-level overall situation, they might not be fully representative of these smaller individual realities.

With regard to **overall life satisfaction**, by analyzing the combined data of the “Completely dissatisfied” and “Not very satisfied” responses reported in Chart 9, one can notice that Group A reports a much higher percentage of dissatisfaction (36,1%) compared to Group B (15%). As a consequence, the inverse trend is visible for the more neutral option “Fairly satisfied”, where Group A reports a percentage of 21,3%, while the percentage in Group B amounts to 41,7%. However, the percentage of respondents that consider themselves fully satisfied is almost identical in both groups. Therefore, it can be argued that even though there exist differences concerning the percentage of unsatisfied respondents, however, a vast majority of respondents in both groups assess that, albeit to different extents, they are satisfied with their life in general. When asked whether they feel **more satisfied currently or before**, both groups agree that they are overall more satisfied with their life at present. This trend is more pronounced in Group B, where more than 75% of the respondents opted in favor of this response (see Chart 10). These results are interesting, inasmuch as they show how the respondents, belonging to both groups indistinctly, rely urbanization and modernization with an enhanced satisfaction with their life as a whole.

Concerning **life meaningfulness and the fulfillment of personal ambitions**, both in Group A and Group B more than half of the respondents assess that they feel their consider their life meaningful and that they can fulfill their personal ambitions in their place of residence. However, since there is a high percentage of people who did not provide any answer for this question in Group A, it is difficult to compare the two groups, since only 25,5% of the respondents in Group A gave a negative answer, while the percentage increases to 43,3% in Group B (see Chart 11). As for the question regarding whether they feel their **life is more meaningful and whether they have more opportunities of self-development and personal fulfillment currently or before**, a vast majority (more than 70%) in both groups opted in favor of the first option (see Chart 12). This trend points out how the respondents of both groups relate urbanization and modernization with enhanced feelings of life purpose and opportunities for self-development and fulfillment of one’s own ambitions, which is consistent with the results obtained for the “overall life satisfaction” question.

Pertaining to the domain of **local policies and the degree of satisfaction with their implementation**, through the analysis of the responses of the two groups reported in Chart 13, one can observe some differences, albeit not extreme. While the percentage of respondents that chose the neutral answer “Fairly satisfied” is almost identical for both groups, most participants opted for more polarized responses. When adding together the percentage of respondents that stated a complete

dissatisfaction and the ones that chose the “Not very satisfied” option, one can observe that, while in Group A 51,1% of the respondents declare themselves unsatisfied, only 36,6% of the respondents in Group B chose this option. On the contrary, the combined data of the “Satisfied” and “Extremely satisfied” responses show that only 21,3% of the respondents in Group A gave a positive feedback, while the percentage increases to 29,7% in Group B. These results seem to be in contradiction with the findings reported in Chart 14 (**local policies: human-oriented or growth-oriented?**), where the responses of Group A are almost balanced between the two options, while a remarkable divergence can be observed in Group B. In the latter, only 20% of the respondents believe that the local policies implemented in their place of residence are human-oriented, while 70% of them assert they are growth-oriented. However, the two results are not necessarily contradictory; in fact, the perception of local policies is driven by the priorities of each individual. One might think that respondents in Group B are mostly satisfied with the local policies implemented in their place of residence and, at the same time, believe that these are mostly growth-oriented, because they perceive economic growth and modernization as the most impelling priority and as the fundamental pillar sustaining the development of all the other aspects analyzed in this survey. Further research is necessary in order to shed light on this particular issue and the consequences it implies.

With reference to the domain of **perceived safety** reported in Chart 15, both in relation to crime and violence and potential threat related to natural phenomena, 27.7% of the respondents in Group A do not feel very safe in their place of residence, while the percentage drops dramatically in Group B (10%). However, as evincible from Chart 16, both groups report a much higher perception of **safety at present in comparison to before** their place of residence started urbanizing, with a more accentuated disparity observable in Group B. Against this background, it can be argued that, overall, the majority of the respondents perceive the ongoing urbanization process as a measure to enhance safety in their place of residence, despite a considerable percentage of people feeling unsafe in Group A.

Concerning the issue of **social cohesion and community belonging**, a vast majority (more than 80% for both groups) of the respondents largely agree on assessing that they experience strong feelings of community bonds and belonging in their place of residence (see Chart 17).

In the matter of satisfaction in relation to the **protection of cultural heritage**, various respondents argue that in their place of residence there is no cultural heritage to protect, therefore, a high percentage of respondents in Group B have decided not to provide any answer for this question. Generally speaking, the two groups do not show considerably different patterns in relation to this issue and more than half of the respondents in both groups consider themselves satisfied with the

current protection of the cultural heritage in their place of residence, albeit to different extents (see Chart 18).

With regard to the respondents' satisfaction in relation to their **social skills**, the two groups provided similar answers; respondents belonging to both Group A and Group B are mostly fairly satisfied or satisfied, while the percentage of dissatisfied respondents is lower than 40% for both groups (see Chart 19). The **time comparison** produced similar result, as evincible from Chart 20, with both groups assessing that they are more satisfied with their social skills at present.

Pertaining to the domain concerning **leisure time activities**, by combining the data for "Completely dissatisfied" and "Not very satisfied" it can be observed that, while in Group A the percentage of respondents who gave a negative answer accounts for 38,3%, the number increases in Group B, where 49,9% of the respondents consider themselves dissatisfied with the range of leisure time activities available (see Chart 21). This trend is consistent with the responses obtained for the following question reported in Chart 22, when the respondents are asked whether they believe **there are enough and adequate recreational and cultural facilities** in their place of residence. 44,7% of the people belonging to Group A declared to be dissatisfied, while the percentage increases to 78,3% in Group B, which defines a pattern of deep dissatisfaction. Through this analysis, it can be argued that the respondents living in more urbanized and modern areas have a vaster and more diversified choice concerning the socio-recreational and cultural activities provided for their free time.

With respect to satisfaction in relation to the presence of **green areas**, there exist remarkable divergences among the answers provided by the two groups. By looking at Chart 23, one can observe that while the respondents in Group A are overall satisfied with the green areas in their places of residence, with a percentage of 44,7% of them who gave a positive feedback (combined results for "Satisfied" and "Extremely satisfied" options), this percentage drops down to 23,3% in Group B. As a consequence, a similar trend is observable for the combined results of "Completely dissatisfied" and "Not very satisfied" options, where the respondents in Group A who chose this answer amount to 25,5% of the total while, in Group B, the percentage increases to 50%. As for the neutral option "Fairly satisfied", the difference is minimal. When asked whether they notice **remarkable differences in relation to green spaces** as a consequence of urbanization, the participants' responses are quite consistent with the previous question. 74,5% of the people belonging to Group A declare that they notice remarkable differences, while only 55% of the respondents in Group B chose this option. In answering this question, many respondents assessed that when they say they notice remarkable differences, they mean there have been noticeable improvements in the green areas of their places of residence (see Chart 24). Against this background, it can be argued that the majority of the participants in this survey, albeit to a significantly different extent depending on the group they

belong to, observe a positive correlation between the urbanization process and the betterment of green spaces.

Ultimately, as far as the participants' satisfaction in relation to **the provision of basic needs, services and infrastructure** is concerned, both groups report very similar trends. As can be observed in Chart 25, a high percentage of respondents in both Group A (42,6%) and Group B (51,7%) think that their basic rights are fully met; only a few people in both groups have a completely negative perception in relation to this issue. A high percentage of respondents in Group A (48,9%) chose the more neutral option, stating that they are satisfied with some services and dissatisfied with some others, while the percentage is slightly lower in Group B (38,3%). In order to gain a better understanding of this issue, further research on the topic is necessary. The majority of these areas are included in some trial programs aimed at improving different aspects of the residents' quality of life; therefore, it would be useful to give them the possibility to express their view on each kind of service or infrastructure considered relevant to the specific context.

5. CONCLUSIONS.

Throughout the development of this work, I have analyzed the concept of subjective well-being as a component of social sustainability and its relevance within the context of urbanization, with a major focus on China, in order to provide an answer for the research questions that guided the development of the present work.

As argued before, in a rapidly urbanizing world, urbanization and the social, economic and environmental challenges it has produced constitute one of the main objects of sustainable development studies. If we think of sustainable development as development that, as stated in the Brundtland Report (1978), is capable of meeting the needs of the present generation without endangering the possibility to permit future generations to meet their own, it is evident that there is more to development than the constant pursuit of economic growth. Therefore, in order to embrace a fully sustainable development path, economic growth needs to be in line with the social and environmental sustainability standards of a community. In consideration of this, it is arguable that the main goal is to implement a balanced and multidimensional approach to development that encompasses the so-called three pillars of sustainability, i.e. environmental, social and economic. On the basis of the conspicuous academic literature dedicated to sustainable development and urban sustainability, it is evincible that the social dimension of sustainability, when compared to the economic and the environmental spheres, is characterized by a more chaotic conceptual framework and a much lower degree of public awareness. As argued throughout the development of this work, as of today, social sustainability refers not only to the material satisfaction of basic human needs and material equity, as it has been for long, but it increasingly revolves around what Colantonio (2009) calls “soft themes”, i.e. the non-material dimension of social sustainability. Therefore, themes such as livability, social capital, social and environmental resilience, gender equity, quality of life and individual well-being started emerging and becoming central in the discourse concerning social sustainability. Notwithstanding the increasing recognition of the relevance of the aforementioned dimensions in order to shape sustainable development, subjective well-being is still relatively scarcely investigated by policy makers, due to the fact that the parameters necessary to measure it and assess it are not as immediately accessible as the ones for objective measures and, furthermore, it requires access to human subjects.

The relevance of the concept of subjective well-being in shaping sustainable urbanization in China constitutes the first and principal quandary that I tried to answer in this work, by arguing that citizens’ well-being is the ultimate goal that sustainable development should aim at preserving in the long term. In order to shed light on this issue, it is fundamental to investigate the relation between

subjective well-being and the achievement of sustainable urbanization goals beforehand. As Rogers *et al.* (2012) point out, the notion of social sustainability lies in a vision of sustainable development as a smart and comprehensive approach to growth that aims at implementing development patterns that preserve citizens' well-being and communities' satisfaction, within the boundaries of environmental capabilities, in order not to compromise future generations' needs and opportunities.²³⁵ Against this background, I argue that, in order to shape fully sustainable urbanization, it is fundamental to take into consideration, assess and give adequate relevance to citizens' subjective well-being. As Chen, Smyth and Wang (2013) argue, considered that the pursuit of subjective well-being should be the main goal human society aims at achieving and improving the status of, policy makers should develop urban policies that effectively revolve around this ultimate goal.²³⁶ However, as stated in the introductory section of the present work, it is important to keep in mind that subjective well-being does not represent the full spectrum of people's well-being. Therefore, in order for subjective well-being measurement and assessment to work as a constructive tool for the achievement of sustainable urbanization goals, it must be linked with the material and quantifiable side of well-being. In this way, it is possible to maximize urbanization-related policies and, moreover, to reduce social discontent with effective policies aimed at increasing the overall life satisfaction. However, as evincible from the analysis of the existing academic literature and of some indicator systems and initiatives carried out in the second chapter of this work, current practices frequently neglect this aspect, which is challenging for policy makers. This is particularly valid for the Chinese case, where the social dimension of sustainable development has been for long neglected and subordinated to the maximization of economic growth. As argued in the third chapter of the present work, this has produced a long series of compelling social and environmental issues. Moreover, according to various surveys conducted among Chinese people, the pursuit of GDP and urban growth has not resulted in the expected hike in people's reported well-being and life satisfaction which, in some cases, have dropped dramatically. The neglect of the social dimension of sustainable development, as intended in the present work, in the assessment and evaluation of urbanization performances is largely visible in the work of Shen and Zhou (2014), based on the analysis of 8 indicator systems developed in China. It is evident that even the systems which actually include the social dimension mostly limit their scope to a non-representative - both in terms of amount and in terms of effective content - range of social

²³⁵ Rogers, Deborah S., Anantha K. Duraiappah, Daniela Christina Antons, Pablo Munoz, Xuemei Bai, Michail Fragkias, and Heinz Gutscher. "A Vision for Human Well-being: Transition to Social Sustainability." *Current Opinion in Environmental Sustainability* 4, no. 1 (February 17, 2012): 61-73. Accessed October 1, 2016. doi:10.1016/j.cosust.2012.01.013.

²³⁶ Chen, Zhiming, Russell Smyth, and Haining Wang. "Housing and Subjective Well-being in Urban China." Monash University, Department of Economics Discussion Paper 39/13. 2013. Accessed September 27, 2016.

indicators, thus somehow nullifying the potential effectiveness of these systems and, hence, their possible contribution in the shaping of sustainable urbanization. Notwithstanding this, in the past two years, the Chinese government seems to have made some significant steps towards a renewed human-centered urbanization pattern, through the issuance of the *National New-type Urbanization Plan for 2014-2020*, that aims at improving people's well-being and providing viable solutions for the impelling social issues that the precedent model has produced.

Against this background, the fourth chapter of the present work has a twofold aim: on one hand, it aims at providing a possible framework for the evaluation of subjective well-being in rapidly urbanizing areas, through its application to a case study carried out in selected areas in Northeastern China; on the other hand, through the analysis of the results of the small-scale survey conducted in these areas, it aims at drawing a comparison between two groups of residents that live in areas undergoing different stages of urbanization. The proposed framework is based on a review of the existing literature concerning the relations between urbanization and various life domains in urban China and how this influences people's overall quality of life evaluation and subjective well-being, and is modelled on the basis of the guidelines provided by the OECD (2013). The evaluation framework proposed in the present work potentially aims at grasping the possible correlations between demographic characteristics and the levels of subjective well-being in relation to urban transformation. However, due to the small size of the sample and the lack of proper training and funding, it was not possible to underline possible correlations. Therefore, the proposed framework for the evaluation of subjective well-being in relation to urban transformation would require further research in order to improve its potentiality as an efficient tool, and it requires to be applied to a much wider range of respondents in order for it to be representative and lead to valuable results. Pertaining to the group comparison drawn from the analysis of the results obtained by applying the proposed framework to a small-scale case study, some significant trends emerged from the aforementioned comparison between the two groups. In some domains, the differences are remarkable; for instance, it appears that the respondents belonging to the more urbanized areas within the framework of the survey) are more conscious of the negative effect that urban rapid development has on their health; at the same time, they also report a much higher percentage of dissatisfaction towards life as a whole than their counterpart (even though both groups report pretty high levels of satisfaction). On the other hand, the respondents of the two groups show many similarities; for instance, both groups seem to be more satisfied today than they were before, and that their life is more meaningful and rich of opportunities of self-development and personal fulfillment. This trend points out how the respondents of both groups relate urbanization and modernization with enhanced satisfaction with their lives in general. Concerning the different life domains that were analyzed, i.e. local policies, perceived safety,

social cohesion and community belonging, protection of cultural heritage, social skills, leisure time activities and recreational places, green areas and the provision of basic needs, services and infrastructures, the two groups report different trends, showing strong similarities in some spheres (such as, for instance, social cohesion and community belonging, satisfaction in relation to the protection of cultural heritage the provision of basic needs, services and infrastructures) and wide divergences in other dimensions (such as the perception of safety and security and satisfaction in relation to the presence of green areas). The trends emerged from the analysis of the results are extremely interesting, but very limited in scope, insofar as the sample size does not allow to draw valuable conclusions for wider application. Therefore, in order to gain a better understanding of the correlation between the selected domains and subjective well-being in transforming urban China, further research is needed.

Against this background, it is arguable that the correlation between subjective well-being and urban sustainability in China is still under-investigated and the literature concerning the determinants of subjective well-being in urban China and the ways in which urbanization influence their trends is still relatively scarce. Moreover, from this work it emerges that the vast majority of urban indicators currently adopted in China are non-comprehensive, insofar as they are not able to grasp the dimension of subjective well-being to complement other objective dimensions. Therefore, seen the importance that subjective well-being is gaining in the eyes of scholars and policy makers around the world, the subject is open to future analysis, research and development. The years to come until 2020 are crucial for China to demonstrate the validity of its new urbanization plan and the effective commitment in reconsidering its priorities concerning urban development. The new focus on people's well-being constitutes a landmark shift in China's progress towards sustainable urbanization; hence, in order to gain a better understanding of all the different variables that have a role in this sphere and to concretely contribute to help policy makers shape sustainable patterns of urban growth, this relation needs to be investigated in depth. Therefore, it is fundamental to develop scientifically solid frameworks for the evaluation of subjective well-being in urban China, which require the comprehension of all the possible dimensions affecting it, and of indicator systems capable of grasping this dimension, in order to move towards an actual multidimensional approach to sustainable development that gives equal recognition to all the spheres composing it.

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