

Article

# Stakeholders' Expectations in Urban Renewal Projects in China: A Key Step towards Sustainability

Taozhi Zhuang \* , Queena K. Qian, Henk J. Visscher and Marja G. Elsinga

OTB Research for the Built Environment, Delft University of Technology, Julianalaan 134, 2628BL Delft, The Netherlands; k.qian@tudelft.nl (Q.K.Q.); H.J.Visscher@tudelft.nl (H.J.V.); M.G.Elsinga@tudelft.nl (M.G.E.)

\* Correspondence: t.zhuang@tudelft.nl; Tel.: +31-6-28-61-66-99

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**Abstract:** China's fast growth of economy and urbanization have driven large-scale urban renewal projects, thus triggering a wide spectrum of unsustainable problems. Little research has systematically explored the stakeholders' expectations in urban renewal projects in China. A deeper understanding of the divergent interests and expectations of the key stakeholder groups is an important step towards sustainable urban renewal. This paper aims to analyze the stakeholders' expectations on urban renewal projects. Eighteen factors are identified and compared among the main stakeholders: government sectors, consulting parties, the general public and affected residents in both redevelopment and rehabilitation projects, using questionnaire survey and interviews in Chongqing, China. The results reveal that there exist enormous differences of opinions and interests among stakeholders in all economic, environmental and social aspects. To achieve sustainable urban renewal in China, the governments ought to reconsider what the "public interest" stands for. In-situ residents should be understood and treated differently, based on the type of projects. An effective dialogue mechanism as well as supportive administrative and legal system should be established. Moreover, urban-renewal-related education and publicity should be a long-term strategy to change current awareness of different stakeholders, by improving their skill and willingness to participate.

**Keywords:** urban renewal; stakeholders' expectations; social sustainability; China

## 1. Introduction

Urbanization is a driving force for economic growth. Since 2009, the world's urban population, for the first time, exceeded the rural population, marking a milestone in global urbanization [1]. Taking China for example, from 1978 to 2015, the urban population climbed from 172 million to 771 million, and the urbanization rate increased from 17.92% to 56.10% [2]. The economy and urban population have experienced an unprecedented rapid growth in China, due to its opening-up policy in 1978 [3]. Based on the urbanization curve introduced by Northam [4], a large amount of the Chinese rural population will keep moving into cities at a relatively high speed in the next decade. It is predicted that the level of urbanization will exceed 60% at the end of 2020, and reach 80% before 2030 [2,5].

To meet the fast-paced urbanization and economic growth, more high quality buildings and neighborhoods are needed. In this context, urban sprawl and urban renewal become two major methods for meeting such demands [6]. Urban sprawl leads to the spread of cities over rural lands. Urban renewal, also named urban regeneration, brings improvement to the existing urban areas, which is a sound approach to cope with urban decay and achieve multiple socioeconomic goals [7–9].

Urban renewal plays a vital role in improving life quality, and will keep bringing positive changes in urban areas in the near future [10,11]. There are two major types of urban renewal

projects: redevelopment and rehabilitation [12–14]. Redevelopment refers to the replacement of dilapidated buildings with new ones. Rehabilitation retains the buildings and neighborhoods through small-scaled physical change, such as building structural reinforcement, façade renovation, neighborhoods environment improvement, etc. In China, redevelopment is the dominant choice of decision makers and makes up the majority of urban renewal projects [15].

Since the expansion of urban renewal projects, building demolition and reconstruction have climbed to a high level. Between 2011 and 2015, at least 460 million m<sup>2</sup> of buildings were demolished in China [16]. Based on China's current national planning, urban renewal projects will be implemented in more than 10 million households from 2013 to 2017 [17]. Moreover, the buildings and neighborhoods developed between the 1970s and 1990s account for more than 50% of urban renewal projects today [6]. In those old neighborhoods, many of the residents are vulnerable groups such as the elderly and those with low income [18].

Large-scale and wide-spread urban renewal projects usually take place in the old neighborhood, which triggers a wide spectrum of social problems caused by the conflicts among various stakeholders [6]. The multidimensional and complex nature of social problems requires integrated, coordinated and multifaceted strategies involving a wide range of stakeholders. Different stakeholders have unequal rights and powers, as well as diverse interests in urban renewal projects [19,20]. Severe conflicts always emerge due to a lack of comprehensive recognition and evaluation of these different interests among the stakeholders during the urban renewal process [21]. Therefore, an in-depth understanding of the divergent interests and expectations of the key stakeholders is an essential step to address social sustainability in the urban renewal process in China.

Social sustainability considers two dimensions: ethical values and norms (e.g., equity and justice) related to the broad engagement of stakeholders [22]. Stakeholder participation benefits sustainable urban development in various ways and has been advocated in many studies [23–25]. However, there is no one-fits-all approach, since the stakeholders' expectations may vary in different local contexts [26]. In China, stakeholder participation is a challenging issue due to its unique market institution and social culture [26,27].

Little research has systematically explored the stakeholders' expectations in different types of urban renewal projects in China. Thus, this paper aims to analyze the expectations of key stakeholders, namely, government sectors, consulting parties, the general public as well as affected residents, and compare them in both redevelopment and rehabilitation projects. This paper first presents a literature review of sustainability associated with urban renewal, redevelopment and rehabilitation projects, stakeholders and their expectations. Eighteen factors are identified and analyzed to compare amongst the stakeholder groups based on the results from questionnaire surveys and interviews. The finding reveals a huge disparity of expectations among different stakeholders. The externalities of the public interest, the stakeholders' awareness, and diverse needs in redevelopment and rehabilitation projects in China are discussed. The results shed light on some policy implications for how to optimize stakeholder participation and cooperation.

## 2. Literature Review

### 2.1. Sustainability in Urban Renewal

"Sustainability" was first introduced in the early 1970s to describe an economy "in equilibrium with basic ecological support systems" [28]. In 1987, "Our Common Future" defined "sustainable development" as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs [29]. The concept of sustainable development indicates a growing global awareness on environmental concerns, socio-economic issues on poverty and inequality, and a healthy future for humanity [30,31]. Though it has various interpretations, there is an emerging agreement that it involves concerns of social, economic and environmental aspects [32–34].

Over the last two decades, sustainable development theory has emerged and been commonly applied to urban renewal [19,35], attracting a wide range of academic attention. In economic dimension, sustainable urban renewal refers to the rectification of urban decay, the effective use of urban land resources and the stimulation of lasting economic growth [7,36,37]. In narrow terms, economic sustainability of urban renewal also refers to sustainable government finance, sustainable investment and returns for developers, and the stability or increase of property prices in the standpoint of property owners, etc. [13,38]. In China, the economic considerations are the main driving force of promoting urban renewal projects [21]. However, putting too much emphasis on the economic aspect may lead to the neglect of environmental and social dimensions.

In the environmental dimension, sustainable urban renewal aims to improve environmental quality during the urban renewal process [39,40]. On the one hand, it represents the improvement of the living environment, such as improving the natural environment, providing living convenience and comfort, etc.; on the other hand, it refers to energy conservation and emission reductions, e.g., green building promotion [41–43]. Although there is increasing research focusing on sustainable urban renewal, the debate is mostly dominated by environmental and economic dimensions. There is relatively little research focusing on social sustainability, especially in the Chinese urban renewal context.

Social sustainability is defined as a process for creating a sustainable environment that maintains and improves wellbeing, by understanding what people need in life and at work (p. 16) [44]. The key aspects of social sustainability in urban development include distribution of power and resources, participation in decision making, justice and equity in public issues, and provision of basic needs (e.g., housing, education, employment, etc.) [45–49]. However, the urban system is involved in performing social-economic functions [50]. It is not easy to reduce social inequality and cleavages by addressing all needs from the wide-range of stakeholders [51–53]. Therefore, identifying the (dis)agreements in expectations amongst various stakeholders in urban renewal becomes an essential research question.

In spite of much work that has been done to improve social sustainability, many unsatisfied scenarios have arisen as a result of in-situ residents, decision makers, the general public, etc., due to the social conflicts in urban renewal [54–56]. Without the satisfaction of major stakeholder groups, social sustainability cannot be achieved. Therefore, understanding stakeholders' interests and expectations is the premise and basis to improve social sustainability in urban renewal projects.

## *2.2. Redevelopment and Rehabilitation in Urban Renewal Projects*

Redevelopment and rehabilitation are two main types of urban renewal projects in neighborhood areas. In terms of redevelopment, it is a direct way to root out the dilapidated buildings and neighborhoods and to rebuild new ones that can meet the quality and functional demands [57]. From an economic perspective, it creates the investment value and rearranges the urban land [55]. A large-scale redevelopment may produce a mass of construction and demolition waste and break the social network built in the existing neighborhoods [42,58].

Rehabilitation brings speedy improvement of living conditions without demolishing existing buildings and relocating the in-situ residents. Compared to redevelopment, rehabilitation costs less money, keeps the existing social network, preserves the heritage of the building style and neighborhood characters. It is also claimed to cause less harm to the environment [13,59–61].

In China, much research has been done in the context of redevelopment and rehabilitation projects. For redevelopment, research focuses more on planning, land policy and governance. It is argued that history is repeating itself since China is experiencing the large-scale demolition that the western world experienced decades ago [62]. Because the lands are state owned but many buildings are private properties, land acquisition and residential relocation are always the most difficult issues to resolve [63]. For the rehabilitation, most efforts have been done to improve technology or management in the building scales, especially energy efficiency retrofitting [64,65]. There is a disparity of interests and

expectations between affected residents in redevelopment and rehabilitation due to their fundamental differences in approaches and outcomes. However, in China, the differences of residents' expectations are rarely considered and discussed in current urban renewal policy and research.

### 2.3. Stakeholders' Expectations in Urban Renewal

As one of the most commonly accepted definitions, stakeholders refer to the individuals or groups that can influence or be affected by the urban renewal process [66–68]. Those individuals or groups have their own stake or interest in urban renewal projects. Being a complex social-economic system, the urban system requires a wide range of stakeholders to participate and coordinate during the urban renewal projects [69]. The interdependence and coordination between different stakeholders during the urban renewal process is the key element towards success [70].

It is of great importance to recognize that stakeholder participation focuses on stakeholder relationships, rather than manipulating or managing the stakeholders [71]. However, it is not necessary that all stakeholders should be on an equal footing [72]. Due to the existence of mutual interests among different stakeholders, stakeholder relationships have the essence that creates the value for stakeholder participation and overcoming trade-offs [66,71]. To better deal with such relationships, the priority is first to identify who are the key stakeholders.

According to Roberts and Sykes [73], the list of stakeholders in urban renewal includes those who affect urban renewal in the process and outcomes as well as those who experience the impacts. Based on this, five stakeholder groups are identified and selected as the key stakeholders in urban renewal in China: government sectors, consulting parties, the general public, and affected residents in rehabilitation projects and redevelopment projects.

In China, government sectors are the most dominant stakeholders in urban renewal who establish the rule institution of urban renewal and directly influence the way other stakeholders participate [74]. Consulting parties play an important role in urban renewal. Their knowledge and professional suggestions have a great impact on decision making and implementation. In the information age, the general public also engages in urban renewal projects through the internet, mass media, etc [75]. Public supervision and demands can push the agenda and change the decision of the authority. In either redevelopment or rehabilitation projects, the affected residents are the ones who experience the greatest impact. Their satisfaction is essential to the success of urban renewal [76]. Although real estate developers, contractors and various suppliers are also important stakeholders, their expectation is clearly profit-driven and they work for private economic interests [77–79]. Therefore, expectations of these stakeholders are not elaborated in this research.

In urban renewal projects, stakeholders' expectations are complex and may vary from one stakeholder to another. Through the review of governmental documents and academic publications, 18 expectation factors are identified, shown in Table 1.

**Table 1.** Identified stakeholders' expectations in urban renewal projects.

Factor	Description	References
F1. Promotion of Local Development	Incl. economic growth indicators, e.g., GDP, investment environment, etc.	[80–88]
F2. Optimization of Land Use	Rational land function to meet the requirement of sustainability	[52,80,81,83–86,88–91]
F3. Increase in Local Employment	To increase the employment rate of local people through urban renewal projects	[52,82,85,87–90,92]
F4. Conservation of Cultural, Historical Value and Local Characteristics	To preserve the existing neighborhoods in urban renewal areas in terms of cultural, historical value, or unique local characters	[80–82,85,86,91]
F5. Maintenance of Social Network and Neighborhood Relations	Social network and neighborhood relations built in the existing neighborhoods may include valuable social capital to be maintained after the urban renewal process	[80,85,87,88]

Table 1. Cont.

Factor	Description	References
F6. Improvement of Community Security	The criminal rate may be higher in the existing neighborhood, which is to be reduced in the new/rehabilitated neighborhoods	[89,90,92]
F7. Improvement of Geographic Accessibility	Urban renewal projects should improve accessibility of space through optimized transportation planning and systems	[52,80–83,85–87,90–93]
F8. Availability of Amenities, Community and Welfare Facilities in the Area	Urban renewal should improve the availability and accessibility of basic amenities and community facilities	[52,80–83,86–89,91–93]
F9. Economic Benefits to Governments and Local People	(1) Financial benefits, such as the benefit from future land leasing. (2) increase in income, such as rental income, and a decrease in the living cost, including energy, transportation, service facilities, etc.	[52,86,87,92] [90,93]
F10. Good Relocation and Compensation Plan	Urban renewal projects provide a fair compensation plan for the affected residents to upgrade their living environment, as part of social equity and justice.	[83,84,87,88,90,91]
F11. Maintenance of Social Stability	To minimize the social conflicts during the urban renewal process	[82,84,86]
F12. Transparency of Urban Renewal Process	Urban renewal is a public issue, of which the information should be transparent to the public	[82,83,88]
F13. Increase of Participation and Cooperation	Different stakeholder groups are actively involved and well communicated in urban renewal process	[52,81,82,84–89,92,93]
F14. Improvement of Neighborhood Sanitation and the Natural Environment	Many old neighborhoods have poor hygienic conditions and a low green rate, which should be improved through urban renewal	[52,80–83,86–88,90–93]
F15. Beautification of the Landscape and Buildings	To bring aesthetic values for the neighborhoods through architecture and landscape design	[80,82,83,86–89,93]
F16. Improved Building Safety	To meet the requirement of building safety, including structural safety, fire safety, etc.	[80–85,87,89,90,92,93]
F17. Improved Living Comfort in Buildings	To guarantee adequate living functions (e.g., elevators, independent toilets), layout and space, air ventilation, acoustical and illumination environment, etc., that increase the sense of comfort of residents	[85,87,89,90,92,93]
F18. Construction or Renovation of Green Buildings	To meet the requirements of building energy efficiency	[52,83,85,91]

### 3. Research Methodology

#### 3.1. Interview

As shown in Table 2, semi-structured interviews were conducted with 23 interviewees representing different stakeholder groups in urban renewal in China. All the selected representatives are authorities, professionals, or citizens who have either gained rich practical experience or sufficient knowledge in urban renewal.

In urban renewal projects, government interviewees include representatives from planning, land, housing, development, etc., sectors at local administrative, district and municipal levels. For this reason, ten representatives were selected to be interviewed. For consulting parties, five representatives from academia and industry, with rich experience in providing consulting services in urban renewal projects, participated in the interview. Three interviewees representing the perspectives from developers and financial institutions, also gave insightful and reflective views on urban renewal. The interviewees from affected residents and the general public are either those who are currently participating in or have participated in urban renewal projects.

Yuzhong District, Chongqing city, China, is selected as the case study area. Yuzhong District is the capital of Chongqing and has played a significant role in the history of Chongqing's urban development. Two case projects in Yuzhong District are selected to represent the redevelopment and rehabilitation projects respectively, which is shown in Figure 1.

The redevelopment project named Meijianxincun is located in the Daping sub-district. It was planned to be redeveloped in 2016 because the neighborhood is close to a CBD, but there is a poor

surrounding environment, with many old and dilapidated residential buildings built from the 1970s to 1990s. It is a typical project, with a median size (around 19,000 m<sup>2</sup>), median household number (1100 potentially affected residents), and most of the residents are vulnerable groups.



**Figure 1.** Map of two case projects in Yuzhong District, Chongqing, China.

The rehabilitation project is named Jiaxicun, located in the Shangqingsi sub-district. Buildings in the neighborhood were built from the 1950s to the 1990s. It is a successful rehabilitation project since it meets the purpose of improving life quality and preserving the cultural value, which has benefited more than 6000 low-income residents. The rehabilitation methods include façade renovation, improvement of the surrounding environment, expansion of building space, and building structural reinforcement. The project was planned in 2013 and will be completed in 2017.

Three interviewees from affected residents were selected from these two cases. For the general public, two representatives living close to the above urban renewal areas were selected, with sufficient background knowledge of the urban renewal projects.

**Table 2.** Groups and Background of the Interviewees.

Group/No.	Cd.	Profile
Government Sectors (10)	G1	Officer of Chongqing Municipal Commission of Development and Reform
	G2	Officer of Chongqing Municipal Bureau of Urban Planning
	G3	Officer of Chongqing Municipal Administration of Land, Resources and Housing
	G4	Officer of Chongqing Municipal Commission of Urban-Rural Development
	G5	Officer of Yuzhong District Bureau of Land and Resources
	G6	Officer of Yuzhong District Bureau of Housing Management
	G7	Officer of Yuzhong District Bureau of Urban Planning
	G8	Officer of Yuzhong District Commission of Development and Reform
	G9	Officer of Shangqingsi Sub-district Administrative Office
	G10	Officer of Jiaxicun Neighborhood Committee
Consulting Parties (5)	C1	Professor at Chongqing University
	C2	Researcher at Tongji University
	C3	Researcher at Chongqing University
	C4	Professor at Chongqing University
	C5	Consultant of Chongqing Planning and Design Institute
Developers (2)	D1	Manager of a Real Estate Development Company
	D2	Employee of a Real Estate Development Company
Financial Institutions (1)	F1	Employee of China Development Bank

Table 2. Cont.

Group/No.	Cd.	Profile
Affected Residents (3)	R1	Resident of a Neighborhood that will be Redeveloped
	R2	Resident of a Neighborhood that will be Redeveloped
	R3	Resident of a Neighborhood that is under Rehabilitation
General Public (2)	P1	Ordinary Citizen in Yuzhong District, Chongqing
	P2	Ordinary Citizen in Yuzhong District, Chongqing

The interview consists of four major discussions: (1) verification of the listed stakeholders' expectations and the target sample; (2) current roles of the stakeholders; (3) conflicts among the stakeholders; and (4) barriers to current participation and cooperation.

Through the interviews, the listed stakeholders' expectations were verified, and the target stakeholder groups for questionnaire survey were adjusted. In the original research design, the target groups comprise relevant government sectors, consulting parties, affected residents, the general public and NGOs. NGOs were removed from the list, due to the rare involvement of NGOs in urban renewal projects in China. In addition, affected residents were separated into rehabilitation and redevelopment projects, due to the contrasting opinions of the affected residents in these two scenarios.

### 3.2. Questionnaire Survey

Based on the verification of identified stakeholders' expectations and target groups, a questionnaire survey was conducted to collect the required information. The respondents were asked to score the significance level of each factor. The level of significance is measured on a five-point Likert scale, where 1 = "extremely unimportant", 2 = "unimportant", 3 = "neutral", 4 = "important", and 5 = "extremely important".

The questionnaires were distributed over the internet and via personal delivery to increase the response rate and sample representation. The questionnaires were delivered to people representing five different stakeholder groups. Potential respondents from government sectors, consulting parties, affected residents in two types of projects were purposely selected, ensuring most of them possess adequate knowledge or experience in urban renewal. The distribution in governments covers all relevant key sectors in local administrative, municipal, district and municipal levels. For the affected residents, the survey was conducted in two above-mentioned urban renewal projects. For the general public, questionnaires were collected from randomly selected respondents through the internet survey, which increases the sample representation.

A total of 830 questionnaires were delivered to the respondents. As shown in Table 3, 257 valid questionnaires covering the relatively balanced amount of five different groups are collected, which represents a 30.96% response rate. This rate is acceptable and common [94,95].

Table 3. Summary of Respondents for the Questionnaire Survey.

Type of Group	Number	Percentage (%)
Government sectors	54	21.0
Consulting parties	55	21.4
General public	52	20.2
Affected Residents in Redevelopment Projects	49	19.1
Affected Residents in Rehabilitation Projects	47	18.3
Total	257	100

### 3.3. Data Analysis Method

Based on Norman's research in 2010, compelling evidence dating back nearly 80 years shows that using data from Likert scales, parametric tests are generally more robust than non-parametric

tests, even with small sample sizes, unequal variances, and non-normal distributions [96]. Therefore, parametric tests are adopted for data analysis in this paper.

First, the mean score of each factor is calculated to compare its importance level in each stakeholder group. Second, the mean scores are compared within different pairs of groups. Before the comparison, Levene's test is applied to assess the assumption that the variances between two particular groups are equal. The threshold probability value  $p$  is 0.05. Then, an independent  $t$ -test is adopted to test whether the mean scores given by two stakeholder groups are significantly different. The threshold probability value  $p$  (two-tailed) is also 0.05. Third, one-way ANOVA is adopted to clarify whether the whole picture of the expectations of all stakeholder groups in urban renewal projects differs. Levene's test is used again to determine the equality of variances among the five groups with the threshold value  $p < 0.05$ .

## 4. Data Analysis and Results

### 4.1. Comparison of Expectations within each Stakeholder Group

The importance level of all factors in each group is measured by mean scores and summarized with standard deviation and rankings in Table 4. The standard deviations of the three highest mean scores in each group range from 0.50 to 0.83. These low standard deviations indicate that the data are reliable because they are clustered closely around the means.

As presented in Table 4, Promotion of Local Development (F1), Maintenance of Social Stability (F11) and Optimization of Land Use (F2) are the top three ranks for the government. According to eight interviewees from the government, the major interest of the government in urban renewal projects is to benefit the "public interest". Renewing the old urban areas can indeed benefit the quality of life of the citizens. Essentially, "public interest" has a broader connotation. Achieving "public interest" represents stimulating economic development, rational use of land, and minimum social contradiction during the renewal process. This is also considered as the success of urban renewal.

The respondents of consulting parties give the highest scores to Increase Participation and Cooperation (F13). Followed by the Optimization of Land Use (F2), Availability of Amenities, Community and Welfare Facilities in the Area (F8), Historical Value and local characteristics (F4) and Improvement of Geographic Accessibility (F7) ranking the second, third, fourth and fifth place, respectively. They are the key professionals who give suggestions to influence urban renewal. The opinions of consulting parties are the important basis for planning, project reviewing, and approving, etc., throughout the urban renewal process. According to all the interviewees from consulting parties, they hope to achieve their personal/enterprise values by providing professional consulting services. Therefore, consultants strongly expect to be more involved in the urban renewal process. Furthermore, the land use, historical protection, amenities/facilities, and accessibility are major technical factors that should be seriously considered.

For the general public, none of the factors are unimportant since none of them are scored less than 3.46. Among all factors, the general public place much more concern on Promotion of Local Development (F1), Improvement of Building Safety (F16) and a Good Relocation and Compensation Plan (F10). Following the interviewees' opinions from the public, urban development is one of the most important issues that brings higher quality of life for the whole society. The development should not be founded on the violation of rights and interests of local residents.

**Table 4.** Mean Scores of Expectations of different stakeholder groups in urban renewal projects.

Cd.	Government Sectors			Consulting Parties			General Publics			Affected Residents (Redevelopment)			Affected Residents (Rehabilitation)		
	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank
<b>F1</b>	4.78	0.50	1	4.15	0.70	6	4.42	0.64	1	2.59	0.98	11	3.32	1.42	18
<b>F2</b>	4.56	0.57	3	4.4	0.68	2	4.02	0.98	9	2.43	1.02	16	3.38	1.21	17
<b>F3</b>	3.89	0.88	9	3.44	0.79	12	4.08	0.80	6	2.94	0.92	6	3.74	0.67	14
<b>F4</b>	3.83	0.77	10	4.2	0.70	4	4.12	0.80	4	2.82	1.20	7	3.45	0.88	16
<b>F5</b>	2.24	1.03	18	2.82	1.02	17	3.56	0.94	17	3.92	0.79	3	4.21	0.88	11
<b>F6</b>	3.57	0.79	14	3.15	0.68	14	3.96	0.91	11	2.55	1.06	13	4.09	1.02	13
<b>F7</b>	4.22	0.94	6	4.16	0.94	5	3.75	0.93	15	2.67	1.14	9	4.32	0.52	10
<b>F8</b>	4.39	0.71	4	4.38	0.78	3	4.04	0.74	8	2.76	1.20	8	4.34	0.76	8
<b>F9</b>	4.09	0.71	8	3.36	0.80	13	3.73	0.93	16	2.33	0.82	18	4.38	0.61	6
<b>F10</b>	3.78	0.90	11	2.73	1.04	18	4.23	0.83	3	4.84	0.51	1	4.51	0.66	2
<b>F11</b>	4.59	0.69	2	3.13	0.98	15	3.98	0.96	10	2.51	0.96	15	3.55	0.95	15
<b>F12</b>	3.3	0.90	17	2.85	1.03	16	3.77	1.00	14	4.61	0.67	2	4.19	0.82	12
<b>F13</b>	4.35	0.89	5	4.53	0.63	1	3.46	0.96	18	3.9	1.03	4	4.47	0.58	3
<b>F14</b>	3.74	0.81	12	3.71	0.90	9	4.1	0.91	5	2.57	1.27	12	4.45	0.62	4
<b>F15</b>	3.7	0.94	13	3.82	0.90	8	3.9	0.91	13	2.53	1.04	14	4.36	0.92	7
<b>F16</b>	4.2	0.79	7	3.85	0.85	7	4.37	0.79	2	2.98	1.35	5	4.72	0.50	1
<b>F17</b>	3.43	1.06	15	3.53	0.86	10	3.92	0.90	12	2.61	1.30	10	4.34	0.70	8
<b>F18</b>	3.37	1.10	16	3.45	0.92	11	4.06	0.89	7	2.39	1.27	17	4.4	0.61	5

From the perspective of the affected residents in redevelopment projects, Good Relocation and Compensation Plan (F10), Transparency of Renewal Process (F12), Maintenance of Social Network and Neighborhood Relations (F5) and Increase of Participation and Cooperation (F13) are the major four criteria that receive a mean score higher than 3.9. All of the other factors are considered as unimportant as they are scored less than 3. It is also reported by the interviewees from affected residents that they are rarely offered opportunities to be involved in the urban renewal process; rather, they are mostly affected during the execution of the projects. Since they must move out of the place after the projects are completed, they do not care much about what the projects can profit the society. All they care about is to gain enough information and participate in the decision-making process to maximize their economic interests.

The affected residents in rehabilitation projects are most concerned about Improvement of Building Safety (F16), Good Relocation and Compensation Plan (F10) and Increase of Participation and Cooperation (F13), Neighborhood Sanitary and Natural Environment (F14), and Construction or Renovation of Green Buildings (F18). Besides, they also give relatively high scores to all other factors, none of which is less than 3.32. The affected residents are also the end-users who benefit from the change of their neighborhoods and dwellings. Therefore, they are eager to be involved and to contribute their ideas to the project. In this way, their living environment is greatly improved, and they can obtain a reasonable economic benefit, including financial support from the government, an increase in property value and rental income, etc.

#### 4.2. Comparison of Expectations between Pairs of Stakeholder Groups

As shown in Table 5, through independent *t*-test, the mean differences between pairs of groups proved to be significant are listed (GS = Government Sectors, CP = Consulting Parties, GP = General Public, ARR = Affected Residents in Rehabilitation Project, ARD = Affected Residents in Redevelopment Project).

From an overall perspective, the expectations of affected residents in redevelopment projects are greatly different from other stakeholders. With only one exemption, every factor in all four comparisons between them and other groups have a significant difference in mean scores. Moreover, most mean differences of the factors are more than 1.000, which accounts for both 14/18 compared to government sectors and the general public, 12/18 compared to academics/consultants, and 10/18 compared to affected residents in rehabilitation projects.

**Table 5.** Significant Mean Differences between Pairs of Stakeholder Groups.

Factor	GS & CP	GS & GP	GS & ARR	ARD & GS	ARD & CP	ARD & GP	ARD & ARR	CP & GP	CP & ARR	GP & ARR
F1	0.632	0.355	1.459	2.186	1.554	1.554	-0.727	-	0.826	1.104
F2	-	0.536	1.173	2.127	1.971	1.971	-0.954	0.381	1.017	0.636
F3	0.453	-	-	0.950	0.498	0.498	-0.806	-0.641	-	0.332
F4	-0.367	-	0.387	1.017	1.384	1.384	-0.630	-	0.753	0.669
F5	-0.577	-	-1.972	-1.678	-1.100	-1.100	-	-0.740	-1.395	-0.655
F6	0.429	-0.387	-0.511	1.023	0.594	0.594	-1.534	-0.816	-0.940	-
F7	-	0.472	-	1.549	1.490	1.490	-1.646	0.414	-	-0.569
F8	-	0.350	-	1.634	1.627	1.627	-1.585	0.343	-	-
F9	0.729	-	-0.290	1.766	1.037	1.037	-2.056	-	-1.019	-0.652
F10	1.051	-0.453	-0.733	-1.059	-2.109	-2.109	0.326	-1.503	-1.783	-
F11	1.465	0.612	1.039	2.082	0.617	0.617	-1.043	-0.853	-	-
F12	0.442	-0.473	-0.895	-1.316	-1.758	-1.758	0.421	-0.915	-1.337	-0.422
F13	-	0.890	-	0.454	0.629	0.629	-0.570	1.066	-	-1.007
F14	-	-	-0.706	1.169	1.138	1.138	-1.875	-	-0.738	-
F15	-	-	-0.658	1.173	1.288	1.288	-1.831	-	-0.544	-0.458
F16	0.349	-	-0.520	1.224	0.875	0.875	-1.744	-0.511	-0.869	-0.358
F17	-	-0.497	-0.914	0.814	0.915	0.915	-1.728	-0.396	-0.813	-0.417
F18	-	-0.687	-1.034	0.983	1.067	1.067	-2.017	-0.603	-0.950	-0.347

'-' Represents that the mean difference is not significant.

For more details about the independent *t*-test for each pair of groups, please refer to the Supplementary Materials (Tables S1–S10).

#### 4.2.1. Comparison between Government Sectors and the Others

The comparison between government sectors and consulting parties shows that 10 out of 18 factors have significant differences in the mean scores of expectations. The greatest mean differences are Maintenance of Social Stability (F11), Good Relocation and Compensation Plan (F10) and Economic Benefits to Governments and Local People (F9). As pointed out by four interviewees from the group of consulting parties, in many instances, their suggestions are not what the government expected. Government focuses much more on maintaining social stability, fiscal revenue and balance when initiating the urban renewal projects, while the consultants give higher priority to the technical factors. In practice, consultants often change their minds and compromise. As described by a representative of consulting parties: “We often adopt the stance of the governments and use our knowledge to demonstrate the rationality of their targets. What we often do in practice is to support what they want to do”.

Comparing government sectors with the general public, there are a total of 11/18 criteria that are significantly different expectations. Among those factors, the mean difference of the Increase of Participation and Cooperation (F13) is the greatest, followed by Construction or Renovation of Green Buildings (F18) and Maintenance of Social Stability (F11). However, none of the mean differences is higher than 0.89, which is relatively low. Based on most of the interviewees from government sectors and the general public, more and more of the general public attempts to oversee and monitor their exercise of power. Since many negative reports about the social inequality and environmental problems have been published in recent years, the public is more concerned with such problems and has strong enthusiasm to be involved in pushing improvement during the urban renewal process.

There are 14 out of 18 factors in the different importance levels in the comparison between government sectors and affected residents in the rehabilitation project. Among the others, the top three different expectations are Maintenance of Social Network and Neighborhood Relations (F5), Promotion of Local Development (F1), and Optimization of Land Use (F2). According to the seven interviewees from these two stakeholder groups, although the affected groups can benefit from urban development, they pay little attention to these issues. Instead, they care much about the improvement of their own living environment and economic benefits. The social network built in the existing neighborhood in decades is also treasured by the residents. They do not want to lose any relationship when urban renewal takes place in their neighborhood. While from the perspective of the government, these relations are almost ignored in decision-making, planning, projects review, and all the other steps in urban renewal.

#### 4.2.2. Comparison between Affected Residents in Redevelopment Projects and the Others

As shown in Table 5, the strongest disagreements between affected residents in redevelopment projects and government sectors are Promotion of Local Development (F1) and Optimization of Land Use (F2) and Maintenance of Social Stability (F11). These are three factors of most concern for government sectors and are recognized as the core of the public interest that must be achieved. However, affected residents in redevelopment projects care little about macro urban development. As stated by two representatives of affected residents in redevelopment projects, “public interest is indeed the consensus that urban renewal should achieve, but being in the group that suffers the most in the projects, we do not feel we are recognized as part of the public. In most of the cases, we do not benefit from such urban development”.

Similarly, Promotion of Local Development (F1) and Optimization of Land Use (F2) are also two of the three top disagreements between affected residents in redevelopment projects and the general public, which can be seen in Table 4. Thus, these are not only the conflicts between the affected groups and major decision makers but also the gap between them and the unaffected public.

The most conflicting opinions between affected residents in redevelopment projects and consulting parties are Good Relocation and Compensation Plan (F10), Optimization of Land Use (F2), and Transparency of Renewal Process (F12). From the perspective of the four representatives of consultants, guaranteeing social equality is rarely considered when providing consulting services in urban renewal. Because of the lack of rational accountability, consultants are not expected to be accountable for their work when the projects raise conflict between governments and other groups. Based on the interviews with the representatives of these affected residents, the relocation or compensation from the governments are the vital opportunities to improve their living condition. It also includes obtaining huge economic benefits because of the skyrocketing property prices. Therefore, they have a strong incentive to interfere with decision making and stay informed in the urban renewal process.

The comparison between different types of affected residents shows that although they are both affected groups, they greatly vary in expectations. Economic Benefits to Governments and Local People (F9) rank the first in mean differences, followed by the factors on the improvement of old neighborhood (from F14 to F18). Because the affected residents in rehabilitation projects do not move out of the old neighborhoods, the rehabilitation of their neighborhoods and dwellings are their core interests. According to an interview with a resident of a neighborhood under rehabilitation, most of the house owners appreciate the changes that are brought by urban renewal. Through urban renewal, they can gain a better living environment and obtain more rental income with an increase in land and property value. Comparing residents in redevelopment projects who move out of their old residence, they do not expect these factors. Social Network and Neighborhood Relations (F5) is the only criterion that has a similar opinion between the two groups. Both stakeholder groups strongly value the relationships built in their old neighborhoods and hope to keep them after the projects are finished.

#### 4.2.3. Comparison between Other Pairs of Stakeholders

A significant difference in mean scores appears for 13 factors in the comparison between consulting parties and the general public. The top three largest differences are Good Relocation and Compensation Plan (F10), Increase of Participation and Cooperation (F13), and Transparency of Renewal Process (F12). As indicated by the interviewees, if the urban renewal projects do not have a direct impact on them, few of the general public are willing to strongly participate in the process. Instead, indirect involvement and monitoring the right protection for the affected residents are the roles they are willing to play. In the view of consulting parties, they hope they can participate more in the decision-making process. As three interviewees state: "We hope to have a greater influence on decision making rather than support governments' decision". Moreover, although all the consultant interviewees agree that the lay public and affected residents have the right to the latest information, they are skeptical that information transparency may lead to over-interference of the renewal process.

Thirteen factors have different importance levels in the perspective of both consulting parties and affected residents in the rehabilitation project. Similarly, Good Relocation and Compensation Plan (F10) and Transparency of Renewal Process (F12) are two of the top three different expectations. Maintenance of Social Network and Neighborhood Relations (F5) is the other one. Pointed out by an academic interviewee, the social network in the old neighborhoods is the hidden social asset that should be well protected. Although it has raised more attention in urban governance and planning today, it is still ignored by many consultants when providing consulting services in the industry.

For the comparison between the general public and affected residents in rehabilitation projects, there are 13 factors considered significantly different by the two groups. Among these, the mean differences of Promotion of Local Development (F1), Increase of Participation and Cooperation (F13) and Historical Value and local characteristics (F4) rank the top three. One of the most distinguishing characteristics between these two stakeholder groups is whether an urban renewal project can affect the residents directly or indirectly. Thus, the affected residents in rehabilitation projects expect much of their involvement to better improve their living environment and economic interests. Compared to

the general public, macro-level benefits such as local development and cultural protection are much less important for the affected residents in rehabilitation projects.

#### 4.3. Comparison of Expectations among all Stakeholder Groups

To investigate the agreement on the expectation factors amongst all stakeholder groups in urban renewal projects overall, one-way ANOVA is adopted, which is shown in Table 6.

With the probability  $p$  values all approximately equal to 0.000, it is obvious that no identified factors are expected at the same level among five stakeholder groups. The mean scores of Good Relocation and Compensation Plan (F10), Promotion of Local Development (F1) and Optimization of Land Use (F2) have the highest F value, which implies they received the most different opinions among all stakeholder groups. The Increase of Local Employment (F3) and Increase of Participation and Cooperation (F13) are the factors that receive minimal different views.

**Table 6.** Test of Significant Difference among All Stakeholder Groups.

Factor	Between Groups		Within Groups		F	Sig.
	Sum of Squares	df	Sum of Squares	df		
F1	158.816	4	208.912	252	47.893	0.000
F2	153.450	4	208.620	252	46.339	0.000
F3	40.084	4	180.305	252	14.006	0.000
F4	64.954	4	196.572	252	20.817	0.000
F5	134.672	4	222.425	252	38.145	0.000
F6	78.076	4	201.745	252	24.381	0.000
F7	91.537	4	211.599	252	27.254	0.000
F8	97.643	4	187.353	252	32.834	0.000
F9	125.238	4	207.377	252	38.047	0.000
F10	140.991	4	169.912	252	52.277	0.000
F11	131.070	4	235.989	252	34.991	0.000
F12	100.457	4	204.236	252	30.988	0.000
F13	42.534	4	177.139	252	15.127	0.000
F14	96.841	4	241.852	252	25.226	0.000
F15	90.206	4	219.015	252	25.948	0.000
F16	85.823	4	202.037	252	26.762	0.000
F17	80.524	4	244.791	252	20.724	0.000
F18	116.023	4	246.008	252	29.712	0.000

Based on the interview with eight government officers, rational land use and stimulating local development are the two basic elements of public interest. For governments, these are two top priorities when making decisions, which are also echoed by the consultants when offering consulting services. This is in agreement with the respondents of the general public. In their view, urban renewal should benefit the people living in old neighborhoods, but more importantly, it should promote the development of the city and bring benefits to all citizens. Nevertheless, in the perspective of affected residents in both redevelopment and rehabilitation projects, there are different opinions. Even though all the respondents of affected residents can understand its importance, they do not care much about this issue. On the contrary, they strongly expect to achieve their personal interest, especially compensation and relocation. Because many of the residents living in old neighborhoods are old, low-educated and low-income people, this is the only way for them to improve their living condition and life quality. According to interviewees from the consulting parties and government sectors, in many instances, the expectations of affected residents are irrational. The compensations they request are several times over the market value of their properties.

Although employment is highlighted as an important goal that urban renewal should achieve, this factor is neither ignored nor highly valued by all stakeholder groups. They all emphasize the need to improve their participation in urban renewal projects. Both the government sectors and consulting

parties want to strengthen their discourse, and believe that their expertise can guarantee the success of urban renewal. However, the starting points of the general public and the affected residents are different. The general public believes their supervision can support the achievements of public interest and social equality, and the affected residents hold the view that their participation is the optimal method to maximize their private interests.

## 5. Discussion

### 5.1. Stakeholders' Expectations in Sustainable Urban Renewal

The findings of this research deliver valuable information for understanding the expectations of different stakeholder groups in urban renewal projects. In sustainable urban renewal, there has been much research concerning elements in social dimension such as employment, equity, social network, cultural value, participation, etc. [9,45,52]. Maintaining social stability in urban renewal process is seldom mentioned. While in the Chinese context, it is even disagreed by many other stakeholders; this is still one of the top issues attached by the government. The social network in the neighborhoods is emphasized as a valuable social asset [87,88]. Nevertheless, it is almost ignored by both government and consultants though it is extremely important for the affected residents. Moreover, Sanoff [97] points out that consultants (designers and planners) are more willing to advocate information sharing because it promotes stakeholder participation and improves the quality of consulting services. However, the consulting parties in China are not willing to share information because they believe that it may reduce the efficiency and quality of the urban renewal process.

In the environmental dimension, energy efficiency and green buildings are recognized as parts of the top priorities in urban renewal for dealing with pollution and climate change [42]. In China, plenty of energy policies have been issued to promote building energy efficiency retrofitting and green building construction in recent years [98,99]. However, even though it is of concern for the public and residents in-situ (rehabilitation), it is not always on the agenda when conducting urban renewal projects. Compared to many other factors, energy efficiency and green buildings are relatively less important for governments and consultants.

Hin and Xin [21] highlight that economic consideration is of high priority in promoting urban renewal projects in China. Indeed, economic benefits are seriously expected by all stakeholder groups, but these expectations have different standpoints. Government and the public are more concern about local economic development, while the affected residents pursue their private economic interests. This disparity may challenge the core value of "public interest" in China.

### 5.2. Content of Public Interest

Generally, public interest represents the welfare or well-being of the public. In China, "public interest" is defined by the government as a macro-scope interest, attaching special importance to the urban development and social stability in urban renewal. Government-led, also referred to as top-down approaches, have been criticized by many researchers, with the argument that it causes unsustainability in urban renewal, including social inequality and conflicts [19,100,101]. But in the principle of "public interest", these approaches have also brought about a tremendous development and prosperity in China in recent decades [87,88]. In the view of the general public, they appreciate governments' effort in achieving public interest since their quality of life has undergone a noticeable improvement.

Nevertheless, governments focus the effort on achieving public interest, yet their expectations are in sharp contrast to the affected residents. The affected residents complain that it is unfair to sacrifice their interests to benefit the other stakeholders. It seems that the term "public" does not include all the citizens, and the in-situ residents are left out of the group. Argued by Ho [102], the "public interest" is the ex-ante welfare; it may lead to the failure of public policy without impartially assessing who should benefit or be well protected. Levine and Forrence [103] state that to define public interest, it is crucial to assess the scenarios concerning relevant public, demands, and restraints, etc. Understanding and

providing the basic needs of affected residents are key elements of social sustainability in urban renewal [47]. If the affected residents cannot really benefit from the achievement of public interest, urban renewal will never meet the expectation of sustainability. Thus, it is of significance for the government to redefine “public interest”, which not only cares about the urban development in the macro scope but also pays more attention to the human needs at the micro level.

### *5.3. Diverse Needs in Redevelopment and Rehabilitation Projects*

Technically, there is a widely-accepted consensus that redevelopment and rehabilitation change the urban areas in different ways [13,55]. In most urban-renewal-related policies in China, these two types are mentioned together and share a similar decision making process [82–84]. The relevant planning, evaluation and projects confirmation, etc. are done by government sectors with the support of consulting parties. Juan, Roper, Castro-Lacouture and Ha Kim [13] highlight the importance of stakeholder’s acceptance in optimizing decision making of urban renewal in both redevelopment and rehabilitation projects. However, this research demonstrates that there is a huge disparity of expectations between affected residents in the two types of projects. Staying in the same neighborhoods or moving out to a new one greatly influences the residents’ perceptions. To improve the understanding of diverse needs in different types of projects, it will be beneficial to hear more voices from the affected groups.

### *5.4. Awareness of Different Stakeholders*

Stakeholder participation is a powerful driving force to effective planning and development that guarantee the success of urban renewal [23,104]. However, Maitland [105] states the importance of understanding the stakeholders’ willingness and awareness, in order to ensure the effectiveness of their involvement. Greene [106] points out that stakeholders’ awareness has a great impact on their participation and cooperation. Most of the stakeholder groups have strong willingness to increase their involvement in urban renewal projects. However, it does not mean the outcomes can be improved if they are more involved.

The awareness of different stakeholders is one of the major barriers to achieving sustainability in urban renewal. There exists strong distrust or disrespect of one group towards many others. Government sectors believe that they can see the whole picture and provide the best way to achieve public interest, but the affected residents and general public are overly concerned with the immediate interest and cannot understand governments’ thought process. Consulting parties harbor the view that other stakeholders cannot well understand the core of urban problems. The general public believes that government sectors and the consultants cannot really protect the rights and interests of the in-situ residents. Therefore, it is of great importance for the general public to push urban development toward a more sustainable path. In both types of projects, the affected residents do not have a positive perception of authorities and professionals and barely trust decision makers. In a nutshell, such awareness of different stakeholders is one major obstacle of urban renewal, which leads to a deadlock. Without changing the awareness, it is difficult and inefficient to reach agreement among the participated stakeholders.

### *5.5. Policy Implications and Recommendations*

Yung and Chan [107] argue that the success of stakeholder participation lies in identifying the difference in the needs and perceptions among different stakeholders, and balancing the conflicting interests through an appropriate resolution mechanism. Due to the large disparity of expectations among stakeholders, it is of priority for the governments to establish an effective dialogue mechanism to achieve sustainability. According to Brüggemann [108], good dialogue can benefit information transparency and break the deadlock to enhance common understanding of different stakeholders.

To address the differences and conflicts, government should also facilitate stakeholder participation through developing supportive administrative & legal system. Given that almost all the

identified factors have their own value in views of different stakeholders, the system should holistically consider economic, political, environmental, cultural, and social Cheung and Leung [109] state that government accountability can enhance the satisfaction of citizens, especially the powerless one. In urban renewal, this can strengthen the responsibility of government sectors as well as consulting parties to increase their willingness to cooperate with less-empowered groups.

Furthermore, because of the traditional culture and social institution in China, same stakeholder participation approaches may not yield the same results as its counterparts [26]. Therefore, urban-renewal-related education and publicity can be a long-term strategy to improve current awareness among the stakeholders to improve their willingness and skill of participation.

## 6. Conclusions

Urban renewal plays an important role in the urbanization to meet the demand of the growing urban population and stimulate the urban development in China. To achieve sustainable urban renewal, the expectations of different stakeholder groups in urban renewal should be well understood. This paper has identified and analyzed the possible expectations of main stakeholders: government sectors, consulting parties, the general public, affected residents in rehabilitation projects, and affected residents in redevelopment projects. Regarding social dimension, except for the general public, all stakeholders are eager to strengthen their participation and discourse in the urban renewal process. Maintaining social stability is a core element of public interest defined by the governments but is not well-appreciated by the others. In old neighborhoods, the social network remains good value to the residents, which is, however, underappreciated by decision makers. From the environmental aspect, more attention is paid to the improvement of the living environment. Although public and residents in rehabilitation projects do care about energy conservation, promoting green buildings and energy efficiency retrofitting is not a priority for governments and consultants compared to other factors. From an economic perspective, the government gives top priority to economic growth. Being another key element of public interest, it benefits the public in general, but not the affected residents' concern. The affected residents agree that decent compensation or relocation is their top priority. Due to ignorance and misunderstanding, conflicts among stakeholders often emerge during the urban renewal process. Obviously, it is counter to the premise of sustainability. One of the top issues is for the governments to redefine the "public interest" by considering urban development in the macro scope as well as human needs at the micro level. Moreover, establishing an effective dialogue mechanism and supportive administrative and legal system is an efficient way to reduce conflicting views. More education and publicity about urban renewal for various stakeholders can be a long-term strategy to improve the awareness of different stakeholders in China.

This paper explores the stakeholder participation in sustainable urban renewal in China by understanding the expectations of different stakeholder groups. It is the first step to obtain the whole picture of stakeholder participation in urban renewal projects.

For future research, stakeholder analysis methods will be applied to further explore the roles of different stakeholders and their relationships in urban renewal projects in China. Based on this, it is possible to establish a multi-stakeholder model to support participatory urban renewal.

**Supplementary Materials:** The following are available online at [www.mdpi.com/2071-1050/9/9/1640/s1](http://www.mdpi.com/2071-1050/9/9/1640/s1), Table S1: Test of Significant Difference between Government Sectors and Consulting Parties, Table S2: Test of Significant Difference between Government Sectors and General Public, Table S3: Test of Significant Difference between Government Sectors and Affected Residents in Rehabilitation Projects, Table S4: Test of Significant Difference between Affected Residents in Redevelopment Projects and Government Sectors, Table S5: Test of Significant Difference between Affected Residents in Redevelopment Projects and General Public, Table S6: Test of Significant Difference between Affected Residents in Redevelopment Projects and Consulting Parties, Table S7: Test of Significant Difference between Affected Residents in Redevelopment Projects and Rehabilitation Projects, Table S8: Test of Significant Difference between Consulting Parties and General Public, Table S9: Test of Significant Difference between Consulting Parties and Affected Residents in Rehabilitation Projects, Table S10: Test of Significant Difference between General Public and Affected Residents in Renovation Projects.

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