

# Public Participation, System Construction and Satisfaction of Democratic Decision-Making

## —Taking the Relocation Community of Beijing Disaster-Prone Villages as an Example

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### Abstract

In this study, we discussed residents' satisfaction with democratic decision-making in the process of relocation of disaster-prone villages in Beijing from two dimensions which were public participation and system construction. Through the analysis of the ordered logit model, it was confirmed that the variables of residents' participation and community system construction were significantly positively correlated with the satisfaction variables of democratic decision-making. There were some problems in the democratic decision-making in the process of relocation of disaster-prone villages in Beijing, such as inconsistent decision-making content and residents' attention, weak participation consciousness, single form, poor channel, and imperfect legal system construction. Based on these, we put forward the following policy recommendations: 1) Bring industrial development and major livelihood issues into the content system of democratic decision-making; 2) Enrich the forms of democratic decision-making, increase decision-making channels, and enhance residents' enthusiasm for participation; 3) Strengthen the system construction, so that democratic decision-making could be based on laws and regulations.

### Keywords

Disaster-Prone Village Relocation, Public Participation, System Construction, Democratic Decision-Making Satisfaction

## 1. Introduction

“Disaster-prone village relocation” is a proper term proposed by the People's Government of Beijing Municipality for the implementation of risk-avoidance relocation of farmers in goaf areas and mudslide disaster-prone areas in mountainous

areas. It mainly refers to the resettlement actions that the provision of certain financial subsidies and policy support to eligible farmers and led by the government in which most residents participate widely (*The People's Government of Beijing Municipality, 2012*). The west of Beijing is West Mountain, and the north and the northeast is Jundu Mountain. Surrounded by mountains on three sides, these mountainous areas often suffer natural disasters such as mudslides and floods during the rainy season. These cause great loss of life and property to residents. *Chen (2009)* believed that when the threat of a disaster was severe enough, the relevant villages need to be relocated. The relocation of disaster-prone villages in Beijing is an adaptive measure taken to deal with natural disasters, mainly to eliminate the negative impact of natural disasters and harsh living environment on the production and life of farmers.

The relocation project of disaster-prone villages is a large volume, a long period, and a wide range. Any aspect of the relocation of households required concerted consultation and joint efforts by the government, farmers, and social organizations. Therefore, if we want to achieve the goal of “moving out, living stably and getting rich”, the relocation of disaster-prone villages and the construction of new villages not only depend on the strong support and overall promotion of government departments and autonomous organizations at all levels but also need to widely solicit the opinions of relevant residents and listen to their reasonable suggestions and needs for relocation and new village construction. These can maximize the efficiency and benefits of relocation and new village construction.

At the same time, it is necessary to extensively solicit the opinions of relevant farmers, listen to their reasonable suggestions and needs for relocation and new village construction, and maximize the efficiency and benefits of relocation and new village construction. Therefore, democratic decision-making and management are of great significance in this special process.

Grassroots democratic decision-making is an important form of grassroots democratic development. It can represent the decision-making willingness of most people and safeguard their interests. It is the core of the villagers' or residents' self-governance system (*Wu, 2008*). However, according to our research, the democratic decision-making mechanism in the process of relocation of disaster-prone villages still has problems such as poor channels, single form, and mere formality, which leads to limited space for residents to play a role in democratic decision-making, which is not conducive to improving residents' democratic decision-making satisfaction. In the process of grassroots democratic autonomy, the participation of residents and the corresponding system regulations will affect the effect of autonomy. Therefore, we will discuss whether these two factors will also play a role in the construction of democratic decision-making in Beijing disaster-prone villages.

## 2. Literature Review and Research Hypotheses

### 1) Demographic characteristics and decision-making

Democratic decision-making is a democratic right enjoyed by the people. The degree of realization of democracy should also be reflected in the public life of the grassroots. Grassroots democratic decision-making is conducive to the construction and development of grassroots democratic politics (Long & Gong, 2016).

Regarding gender and decision-making, it was found that male and female have significant differences in decision-making preferences (Bart & McQueen, 2013; Xiong, Wang, Zhang, & Li, 2018). Regarding age and decision-making, it was found that age have a very significant impact on people's decision-making (Chang & Zhang, 2005; Rao, You, Mei, & Zeng, 2015). Zeng (2013) has found that young people participating in decision-making could make more groundbreaking suggestions, and older people could provide more robust and pertinent suggestions in his further study. Regarding education level and decision-making, it was found that the education level of decision-makers affected their decision-making preferences and behaviors according to different decision-making contents. The education level was higher and the decision-making ability was stronger (Zhang, 2013; Tong & Shan, 2019). As income and decision-making, it was found that the level of income has a significant impact on decision-making, especially expenditure-based decision-making (Xie, 2020; Shen, 2019).

We believe that the research results of the above-mentioned scholars can be applied to our research, and based on this, the following research hypotheses will be proposed.

Hypothesis 1: The demographic characteristics of disaster-prone village residents in Beijing can affect their democratic decision-making behavior and satisfaction.

2) Satisfaction of public participation and democratic decision-making in disaster-prone villages

On June 12, 2017, the "Opinions on Strengthening and Improving Urban and Rural Community Management Ability" issued by the State Council of China pointed out: "To improve the ability of community residents to discuss and negotiate, all major decision-making matters involving the public interest of urban and rural communities were related to the vital interests of residents, grass-roots self-governance organizations should lead the residents to negotiate and resolve them in principle." The relocation of disaster-prone villages was related to the vital interests of all residents, and the construction of new villages had a wide range of impacts and was closely related to the interests of the masses. Constructing a democratic decision-making mechanism involving the masses could improve work efficiency and quality, enabled residents to adapt to the new living environment and production order more quickly in the construction of new villages, and enhanced satisfaction and happiness of the residents (Wu, 2008; Zhang & Zhang, 2013; Mao, 2008).

In the process of relocation of disaster-prone villages and construction of new

villages, the introduction of democratic decision-making mechanism of public participation should explore the channels, schemes, and mechanisms of democratic decision-making participation, and study the decision-making criteria, participation process and application of decision-making results based on identifying the type and representativeness of the public (Wang & Zhang, 2020). The decision-making participation channels included not only the participation of the public in various formal meetings and activities, but also various communication activities, such as the residents' participation in the community service center or village committee to handle affairs or report the situation, and the residents' participation in the community service center or village committee organized various public affairs activities, etc. Yang (2020) found that people who have been in contact with community service centers or village committees for a long time and participated in their various activities would give positive evaluations to the democratic decision-making of these institutions.

Based on this, we use the frequency of residents' contact with community service centers or village committees each year and the number of residents' participation in public affairs activities each year to measure residents' participation in democratic decision-making, and propose the following research hypotheses:

Hypothesis 2: In the process of relocation of disaster-prone villages, the higher the participation of residents, the higher their satisfaction with democratic decision-making.

Hypothesis 2a: Under the control of other variables, the more residents contact the community service center or village committee each year, the higher their satisfaction with democratic decision-making.

Hypothesis 2b: Under the control of other variables, the more residents participate in public affairs activities, the higher their satisfaction with democratic decision-making.

3) System construction and the satisfaction of democratic decision-making in disaster-prone villages

The relocation of disaster-prone villages in Beijing needed to play the role of grassroots autonomous organizations, through the democratic decision-making of grassroots autonomous organizations, to complete the relocation tasks, carry out the construction of new villages, and improve the satisfaction of residents (Zhang & Zhang, 2013). Jacob (2014) believed that democratic decision-making was a method and procedure for achieving collective decisions in a transparent and mutually acceptable way as an equal society. Mao (2008) believed that grassroots democratic decision-making was conducted by relevant community organizations in democratic discussions or consultations according to certain procedures, and a certain decision-making process was carried out. Government departments at all levels in Beijing were encouraging villagers or community residents to participate in democratic decision-making during the relocation of disaster-prone villages and the construction of new villages and promoted the modernization of the governance system and capacity of the disaster-prone vil-

lages (Tu, 2020).

Democratic decision-making in disaster-prone villages needed to strengthen the construction of the system, cultivate the democratic concepts and democratic thinking of residents, and improve their democratic decision-making qualities. Through the construction of channels and procedures for people to participate in decision-making, residents in disaster-prone villages could be masters of their own affairs. The residents' enthusiasm, initiative and creativity were brought into play in the construction of new villages (Yang, 2020; *The People's Government of Beijing Municipality*, 2018). Some scholars had also found that through system construction, the co-governance and sharing of multiple subjects of grassroots social governance could be achieved, and residents' satisfaction with democratic decision-making in disaster-prone villages could be improved (Jacob, 2014; Mao, 2008; *The People's Government of Beijing Municipality*, 2012).

Based on the above literature analysis, we proposed the following research hypothesis.

Hypothesis 3: The higher the evaluation of the disaster-prone villages' residents on the construction of the community system, the higher their satisfaction with democratic decision-making.

In summary, the democratic decision-making of community service centers or village committees was an important system closely related to residents or villagers. The predecessors not only did more research on the problems faced by the relocation of disaster-prone villages (Wang & Zhang, 2020), but also discussed the construction of new villages and community management (Zhou & Mao, 2017). The satisfaction status of democratic decision-making, the existing problems, and the improvement countermeasures of the major events and plans in the relocation and community construction that disaster-prone villages' residents concerned about were rarely discussed. This was the direction that we needed to work hard on in the research.

### 3. Data, Variables, and Methods

#### 1) Data source

The data for this study came from a sample survey of rural households relocating in disaster-prone villages in Beijing by the "Anti-poverty Intervention and the Construction of Beijing Disaster-prone Village Relocation Community". The survey adopted multi-stage and hierarchical probability sampling. Questionnaires were issued to residents of 10 disaster-prone villages in 5 districts suburban areas of Beijing, and some residents have interviewed about the democratic decision-making process in Beijing disaster-prone village relocation and community construction situation. A total of 394 questionnaires were issued this time, and 360 valid questionnaires were recovered, with a recovery rate of 91.37%. Therefore, the effective analysis sample for this study was 360.

#### 2) Variables

##### Control variables

To minimize the errors caused by the omission of dependent variables in this study, we selected four characteristics of demographic economics, including gender, age, average annual household income, and education level, as control variables. Among them, the gender variable was recorded as a dummy variable, that was, male was coded as 1, and female as 0; the age and average annual household income variables were continuous variables, and the analysis was performed based on their true values. As a categorical variable, education level was divided into four categories: “1 = junior high school and below, 2 = senior high school or technical secondary school, 3 = college, 4 = university and above”. For the convenience of research, we had regrouped these answers, 1 and 2 remain unchanged, and merged “3 = college, 4 = university and above” into “3 = college and above”.

### **Independent variables**

This study mainly discussed the satisfaction of residents in disaster-prone villages with the democratic decision-making of the village committee or community service center from the two dimensions of residents' participation and the status of system construction. That was to say, the independent variables of this study were composed of residents' participation variables and system construction variables.

Resident participation variables were measured by two variables: the frequency of residents going to the village committee (community service center) and the frequency of residents participating in public affairs activities organized by the village committee (community service center). Among them, the variable of the frequency of residents going to the village committee (community service center) was divided into three situations according to the frequency: “1 = never been, 2 = occasionally, 3 = often.” For the convenience of research, we have regrouped these answers and merged “1 = never been, 2 = occasionally” into “1 = infrequent,” and “3 = often” adjusted to “2 = often.” “The frequency of residents participating in village committees (community service centers) in organizing public affairs activities” was used as a continuous variable, and the results were expressed in terms of the number of participations. Regarding the system construction variable, it was measured by the residents' evaluation of the “community system.” This variable was continuous, and the answer was based on a percentile system.

### **Dependent variable**

This study mainly explored the satisfaction of the relocated residents of disaster-prone villages with the democratic decision-making of the village committee or community service center where they were located, which was also the dependent variable of this study. In the questionnaire, “Your evaluation of the democratic decision-making of the village committee or community service center?” was used to measure it. There were five options, which were assigned values: “1 = very dissatisfied, 2 = dissatisfied, 3 = fair, 4 = satisfied and 5 = very satisfied,” which were ordered variable. For the convenience of research, we regrouped these answers and merged “1 = very dissatisfied, 2 = dissatisfied” into

“1 = dissatisfied,” and adjusted “3 = general” to “2 = general,” Merge “4 = satisfied, 5 = very satisfied” into “3 = satisfied.”

### 3) Methods

The dependent variable in this study was a multi-categorical ordered variable, so the ordered logit model (OLM) was selected as the research model (Hamilton, 2008). The cumulative logit of the dependent variable can be expressed as:

$$l_j(x_j) = \log \left[ \frac{P_r(y_i \leq j | x_i)}{P_r(y_i > j | x_i)} \right] = a_j + X\beta$$

In the formula,  $X$  represents the explanatory variables that affect residents' satisfaction with community democratic decision-making, including core explanatory variables and control variables,  $\beta$  represents the coefficient matrix corresponding to  $X$ ;  $J$  represents the category set of residents' satisfaction degree;  $a_j$  represents the estimated intercept term.

It is worth mentioning that this model is also called the proportional odds model. The  $\beta$  in the formula cannot be understood as the influence of the independent variable on the dependent variable.  $\beta$  refers to the impact of changes in the log of the cumulative odds of each unit  $X$  to  $Y$ . Based on the above discussion of the specific content of the model, the empirical equation in this paper is:

$$l_j(x_j) = \log \left[ \frac{P_r(y_i \leq j | x_i)}{P_r(y_i > j | x_i)} \right] \\ = a_j + \beta_1 ncvisit_i + \beta_2 fpcpa_i + \beta_3 css_i + \sum_{i=1}^4 \delta_i control_i + \varepsilon_i$$

In this formula,  $control_i$  represents the gender, age, average annual household income, and education level selected as the control variables.

In the specific operation, we used the independent variables and dependent variable to perform data regression. In the process of regression analysis, the dependent variable and control variables were first included in the model, and then resident participation variables and system construction variables were respectively included on this basis, and the analysis results of different models were compared. In addition, all the data processing required in this study was completed in Stata (15.0).

## 4. Data Analysis

### 1) Descriptive statistics

**Table 1** showed the basic distribution of all variables in this study. In terms of gender, the interviewees were equal in number of male and female, with male respondents accounting for 48% and female for 52%. For age, the average age of the respondents in this survey was 52 years old, and the age structure was relatively large. The average annual household income of the interviewees was 185,300 yuan, and the residents' living standards were relatively high. In terms of education level, residents in various communities had a low educational level. Among the respondents, 140 people received only junior high school education

**Table 1.** The list for all variables' description.

Variables	Description
Control variables	
Gender	1 = Male; 0 = Female
Age	continuous variable
Education level	1 = Junior high school and below; 2 = Senior high school or technical secondary school; 3 = College and above
Average annual household income (RMB: Ten thousand)	continuous variable
Independent variables	
The frequency of residents going to the village committee (community service center)	1 = Infrequent; 2 = Often
The frequency of residents participating in public affairs activities (Annual)	continuous variable
Evaluation of the community system	continuous variable
Dependent variable	
Evaluation of the democratic decision-making	1 = Dissatisfied; 2 = General; 3 = Satisfied

or below, accounting for 38.89% of the respondents; 131 people received high school or technical secondary education, accounting for 36.39%.

In addition, it can be seen from the table that the frequency of interviewees going to community neighborhood committees (community service centers) in descending order was: “frequently,” “occasionally” and “never,” the proportions were respectively 53.89%, 42.78%, and 3.33%. It indicated that most residents have been to the neighborhood committee, and basically had contact with the neighborhood committee or community service center. For community public affairs or activities, residents take an average of about 5 times a year, indicating that people were more enthusiastic about community public affairs activities. Regarding the evaluation of the community system, the average value of the residents' scores on the community system was 78.80, and the standard deviation was 11.96. Generally speaking, residents were relatively satisfied with the community system, but there was still a lot of room for improvement in the construction of the community system.

Look at the basic situation of the dependent variable. Residents' average satisfaction with the community's democratic decision-making was 3.73, which was a relatively high degree; the number of residents who felt “normal”, “satisfied”, and “very satisfied” with the community's democratic decision-making were 117, 111 and 97 respectively, each accounting for the sample 32.50%, 30.83% and 26.94% of the population, but still, 9.72% of the respondents were not satisfied with the democratic decision-making of the community.

## **2) Regression analysis on the satisfaction of democratic decision-making in disaster-prone villages**



In **Table 2**, we found that in the process of relocation of disaster-prone villages and construction of new villages, residents of different genders and the frequency of going to the village committee (community service center) had significant differences in the evaluation satisfaction of democratic decision-making ( $t = 2.170, p = 0.031$ ;  $t = -13.593, p < 0.001$ ). Residents' satisfaction with the evaluation of democratic decision-making had a significant difference in the level of education ( $F_{(2,357)} = 26.27, p < 0.001$ ). At the same time, democratic decision-making evaluation satisfaction and age ( $r = -0.360, p < 0.001$ ), total family income ( $r = 0.585, p < 0.001$ ) and frequency of participation in public services ( $r = 0.508, p < 0.001$ ) also existed significant correlation.

To understand the impact of residents on the satisfaction of democratic decision-making evaluation during the relocation of disaster-prone villages in Beijing and the construction of new villages, we further performed regression model fitting on the factors that affected the satisfaction of democratic decision-making evaluation. Since the dependent variable in this study was a multi-categorical ordered variable, we also compared and analyzed the fixed-ratio variable by calculating the margins of the independent variable. In the model, we have taken the change in the satisfaction of democratic decision-making evaluation

**Table 2.** Descriptive statistical analysis of variables.

Variables	<i>F</i> (%) or $\bar{x}$ (SD)
Gender	
Female (= 0)	188 (52.22)
Male (= 1)	172 (47.78)
Age	52.28 (11.11)
Education level	
Junior high school and below (=1)	140 (38.89)
Senior high school or technical secondary school (=2)	131 (36.39)
College and above (=3)	89 (24.72)
Average annual household income (RMB: Ten thousand)	18.53 (10.19)
The frequency of residents going to the village committee (community service center)	
Infrequent (=1)	166 (46.11)
Often (=2)	194 (53.89)
The frequency of residents participating in public affairs activities (annual)	5.32 (2.21)
Evaluation of the community system	78.80 (11.96)
Evaluation of the democratic decision-making	3.73 (1.01)
Dissatisfied (=1)	35 (9.72)
General (=2)	117 (32.50)
Satisfied (=3)	208 (57.78)

Note: 1) The number of samples analyzed was 360; 2) The frequency and frequency of categorical variables were reported in the table, and the mean and standard deviation of continuous variables were reported.

as the dependent variable, and incorporate sociodemographic variables, resident participation variables, and system construction variables into the regression model in turn, as shown in **Table 3**. Among them, only the dependent variables and sociodemographic variables were included in Model 1, while Model 2 and Model 3 included residents' participation variables and institutional construction variables based on Model 1. Combining dependent variable, control variables, resident participation variables and the system construction variables were also included in the model, which constitutes Model 4. It could be seen in **Table 3** that the 4 models were all statistically significant ( $p < 0.05$ ).

a) The influence of demographic characteristic variables on the satisfaction of democratic decision-making

Model 1 included control variables such as gender, age, education level, and average annual household income. The adjusted pseudo  $R^2$  was 0.2379, which meant that only demographic variables could explain 23.79% of the error.

Since the interviewee's gender ( $p = 0.269$ ), age ( $p = 0.996$ ), education level

**Table 3.** Regression analysis of satisfaction of relocated residents in disaster-prone villages with community democratic decision-making

	Model 1		Model 2		Model 3		Model 4	
	<i>B</i> (SE)	<i>p</i>	<i>B</i> (SE)	<i>p</i>	<i>B</i> (SE)	<i>p</i>	<i>B</i> (SE)	<i>p</i>
Gender (Female)	-0.2645 (0.2394)	0.269	-0.1629 (0.2621)	0.534	-0.3005 (0.2585)	0.245	-0.2325 (0.2720)	0.393
Age	-0.0001 (0.0138)	0.996	0.0122 (0.0150)	0.418	-0.0004 (0.0150)	0.978	0.0097 (0.0158)	0.539
Education level (Junior high school and below)								
Senior high school or technical secondary school (= 2)	0.4624 (0.3020)	0.126	0.2229 (0.3346)	0.505	0.1813 (0.3324)	0.586	0.0643 (0.3558)	0.857
College and above (= 3)	1.2726 (0.3867)	0.001	1.2304 (0.4302)	0.004	1.1557 (0.4296)	0.007	1.1824 (0.4560)	0.010
Average annual household income (RMB: Ten thousand)	1.1365 (0.0174)	<0.001	0.0681 (0.0189)	<0.001	0.0858 (0.0191)	<0.001	0.0466 (0.0201)	0.020
The frequency of residents going to the village committee (community service center) (Infrequent)								
Often (= 2)			2.1238 (0.3213)	<0.001			1.7085 (0.3394)	<0.001
The frequency of residents participating in public affairs activities (Annual)			0.3063 (0.0694)	<0.001			0.2133 (0.0737)	0.004
Evaluation of the community system					0.1144 (0.0141)	<0.001	0.0909 (0.0149)	<0.001
Interval constant term (decreased)								
Interval 1	-0.2882 (0.9599)		1.2614 (1.0578)		7.0047 (1.3720)		6.6235 (1.4174)	
Interval 2	2.3619 (0.9596)		4.3964 (1.0868)		10.2920 (1.4564)		10.1805 (1.5110)	
Log-likelihood ratio	155.65		230.84		235.47		271.63	
Pseudo R2	0.2379		0.3528		0.3599		0.4151	
<i>p</i>	<0.001		<0.001		<0.001		<0.001	

Note: 1) The number of samples analyzed is 360; 2) The significance level is  $p < 0.05$ ; 3) The text in parentheses indicates the reference group.

( $p > 0.05$ ) and other variables were not statistically significant in the model, only the average annual household income was significant at the 0.05 level. Therefore, hypothesis 1 has only been partially verified.

In Model 1 (see **Table 3**), under the control of other conditions unchanged, female's satisfaction with democratic decision-making was lower than male's ( $\beta = -0.265$ ).

In terms of education level, compared with residents with junior high school or below, residents with a high school or technical secondary school degree ( $\beta = 0.462$ ) were lower than those with a college degree or above ( $\beta = 1.273$ ) in terms of satisfaction with democratic decision-making. However, it should be noted that, given that the above variables were not significant at the 0.05 level, the differences in satisfaction with democratic decision-making among different groups were not significant.

According to **Table 3**, the average annual household income in Model 1 was  $p < 0.001$ ,  $\beta = 1.137$ , and the marginal utility ( $dy/dx$ ) of the total annual household income was:  $-0.0053$ ,  $-0.0265$ ,  $0.0317$ , indicating the income of residents in disaster-prone villages for every 10,000 yuan increasing, the probability of dissatisfaction with democratic decision-making (outcome1) decreased by 0.53%; the probability of general (outcome2) democratic decision-making decreased by 2.65%; the probability of being satisfied with democratic decision-making (outcome3) increased 3.17%. This showed that the average annual household income had a significant impact on residents' satisfaction with democratic decision-making.

Therefore, hypothesis 1 of this study was partially established, that was, the influencing factors contained in the demographic characteristics of Beijing disaster-prone village residents partially affected their satisfaction with democratic decision-making.

b) The impact of public participation on the satisfaction of democratic decision-making

Model 2 added two public participation variables based on model 1, and model 2 was statistically significant ( $p < 0.001$ ). The adjusted pseudo  $R^2$  value was 0.3528, that was, the public participation variable can explain 35.28% of the error, and the model was better than model 1.

Public participation variables were mainly the frequency of residents contacting the village committee (or community service center) (referred to as contact variable) and the frequency of residents participating in public affairs activities organized by the village committee (or community service center) (referred to as public affairs participation variable) to measure. The estimated coefficient of the link variable was 2.124, and it had a positive effect on the satisfaction of democratic decision-making at a statistical level of 5%. This indicated that the more residents had contact with the community service center or village committee each year under the control of other variables, the higher the satisfaction with democratic decision-making. This validated hypothesis 2a.

According to **Table 3**, the public affairs participation variable in Model 2  $p <$

0.001,  $\beta = 0.306$ , and the marginal utility ( $dy/dx$ ) of the public affairs participation variable was:  $-0.0031$ ,  $-0.0451$ ,  $0.0483$ , indicating that residents participate one more time in public affairs, the probability of dissatisfaction with democratic decision-making (outcome1) decreased by 0.31%; the probability of general democratic decision-making (outcome2) decreased by 4.51%; the probability of being satisfied with democratic decision-making (outcome3) increased by 4.83%. This showed that public affairs participation variables had a significant impact on residents' democratic decision-making satisfaction, which validated hypothesis 2b.

Based on the above analysis, it can be inferred that hypothesis 2 of this study was established, that was, in the process of relocation of disaster-prone villages, the higher the participation of residents, the higher the satisfaction with democratic decision-making.

c) The impact of system construction on the satisfaction of democratic decision-making

Model 3 incorporated the core independent variable of residents' evaluation of community system construction based on the benchmark model. The evaluation was recorded in the form of "0 - 100" scoring. Model 3 was statistically significant ( $p < 0.001$ ). The adjusted pseudo  $R^2$  was 0.3599, that is, the system construction variables can explain 35.99% of the error, and the model fit was better than the benchmark model.

From the calculation results of the model, the system construction variable  $p < 0.001$ ,  $\beta = 0.114$ , and the marginal utility ( $dy/dx$ ) of the system construction variable was:  $-0.0014$ ,  $-0.0196$ ,  $0.0210$ , indicating that the residents of the disaster-prone village had one more point in the construction score, the probability of dissatisfaction with democratic decision-making (outcome1) decreased by 0.14%; the probability of general democratic decision-making (outcome2) decreased by 1.96%; the probability of satisfaction with democratic decision-making (outcome3) increased by 2.10%. This showed that the system construction variables had a significant impact on the residents' democratic decision-making satisfaction, which verified hypothesis 3.

d) Comprehensive analysis of the impact of public participation and system construction on the satisfaction of democratic decision-making

The control variables, public participation variables and system construction variables were incorporated into the model at the same time, which constituted model 4. According to **Table 3**, Model 4 was statistically significant ( $p < 0.001$ ). The adjusted pseudo  $R^2$  value was 0.4151, that was, the control variables, public participation variables, and system construction variables can explain 41.51% of the error. The model fit was better than Model 1, Model 2, and Model 3, which supported us Analysis of Model 2 and Model 3.

The above analysis showed that the hypothesis 1 proposed in this research has been partially verified, and hypothesis 2 and hypothesis 3 have been fully verified, and it can be inferred to the overall, that was, the public participation va-

riables and system construction variables can improve the residents' democratic decision-making Satisfaction.

## 5. Conclusion

We used the research team's survey data of relocated residents in Beijing disaster-prone villages to study the relationship between public participation and system construction and the satisfaction of relocated residents in disaster-prone villages with democratic decision-making. We found the following conclusions: 1) The household income of residents affects their satisfaction with the democratic decision-making in the relocation of disaster-prone villages and the construction of new villages. However, gender, age, and education level have no significant influence on the satisfaction of democratic decision-making; 2) The more the residents had contact with the social service center (or village committee) and the more they participated in public affairs, the more residents were satisfied with democratic decision-making. This is consistent with the previous views (Yang, 2020); 3) The more perfect the institutional system was, the higher the residents' satisfaction with democratic decision-making was (Chen, 2020; Zhang, 2020; Chen & Xie, 2019); 4) The democratic decision-making in the relocation process of disaster-prone villages in Beijing still had problems such as inconsistency between the content of the decision and the attention of the residents, the lack of awareness of residents' participation, the single form, poor channels, and imperfect legal system construction.

## 6. Discussions and Recommendations

Based on the above conclusions and problems in the democratic decision-making of communities in the relocation of disaster-prone villages, we put forward the following policy recommendations.

First, in disaster-prone villages, villagers should incorporate industrial development and major livelihood issues into the content system of democratic decision-making. Industrial development is the foundation for the survival and development of disaster-prone villages and is closely related to the development of residents and communities. It should be incorporate major issues encountered in industrial development planning and development into democratic decision-making in the democratic decision-making mechanism of disaster-prone villages so that the wisdom of all residents can be integrated into the democratic decision-making process. In the relocation project of disaster-prone villages and the construction of new villages, we will contribute our efforts to reduce mistakes and improve the income level and decision-making satisfaction of residents in disaster-prone villages. Major livelihood issues are mainly constructed by various policy systems of the state and Beijing. However, most of the disaster-prone villages are in remote areas of Beijing, which results in inconveniences for medical treatment, schooling, exercise, and entertainment, and guarantees for the survival of the elderly, the young, the sick, and the disabled. Living mate-

rials are more difficult. It is necessary to make overall arrangements for solutions based on the basic national policies, according to their own financial resources and natural conditions, and incorporate them into the content system of democratic decision-making, balance the interests of all parties, and improve the level of democratic decision-making satisfaction.

Secondly, it should enrich the forms of democratic decision-making, increase decision-making channels and residents' enthusiasm for participation. At present, democratic decision-making in disaster-prone villages is mostly in the form of all residents or village representatives participating in village meetings, party membership meetings, elections, village committee or community committee enlarged meetings, etc. The channels for residents to effectively participate in democratic decision-making are limited, which suppresses residents' enthusiasm for participation. According to the survey data, only 97 respondents (26.94%) are very satisfied with community democratic decision-making, and a relatively large proportion of respondents feel average (32.50%) about the community's decision-making process, or even not satisfied (9.72%). In terms of resident participation, 3.33% of the respondents have never contacted the neighborhood committee, and only 53.89% of the residents admitted that they often go to the neighborhood committee, and there are still many residents who participate in the community by chance. Therefore, it should allow the existing residents to participate in democratic decision-making to become real and effective, rather than to complete the work, enrich the democratic decision-making form and increase the democratic decision-making channel on a formal basis, such as using democratic discussion meetings, decision-making mailboxes, and various channels. Formal opinion consultation meetings are convenient for residents to participate in democratic decision-making according to their multiple interests (Chen & Wu, 2007; Yang, 2012), escort the relocation of disaster-prone villages, the construction and development of new districts, and the settlement of people's livelihood issues, and it can also promote the various contradictions to be solved reasonably and harmoniously.

Third, it should strengthen system construction among disaster-prone villages so that democratic decision-making can be governed by laws and rules.

At present, it has basically improved the work system, reward and punishment system, public announcement system, election system, party member meeting system, village meeting system, special group care system for left-behind children and the elderly in the relocation community of Beijing disaster-prone villages. However, the content, forms, and channels of residents' effective participation in democratic decision-making are no detailed, specific, and highly operable regulations, making participation of many residents in disaster-prone villages in democratic decision-making become the slogan of the government, village, or community self-government organization, which is just a mere formality.

At present, housing property rights in some Beijing disaster-prone villages cannot be handled, roads and other infrastructure construction are prevarication, community environmental sanitation is not ideal, and public services such

as bank branches, charging equipment and childcare institutions cannot be implemented. All these obviously require residents to conduct democratic discussions and make decisions. We believe that it can be based on the existing “Organization Law of Urban Resident Committees of the People’s Republic of China (Amended on December 29, 2018)”, “Organization Law of Villagers Committees of the People’s Republic of China (December 29, 2018)”, and “The Communist Party of China Rural Grassroots Organization Work Regulations (promulgated on January 1, 2019)” and other laws and regulations, formulate detailed and collective democratic decision-making systems to solve current problems in disaster-prone villages, and enable residents to participate in democratic decision-making with laws and regulations.

Due to data limitations, we failed to consider all the variables that have important effects on democratic decision-making in regression analysis, the summary and verification of explanatory variables is not enough. Secondly, the data analysis of this research only stays in correlation analysis, the exploration of deeper causality is not enough, and we will strive to try more in the future related research.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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