

2014

# BioTechnology

*An Indian Journal*

FULL PAPER

BTAIJ, 10(21), 2014 [13072-13077]

## Establishment of an effective mechanism for public participation and feedback in urban and rural planning

Xiaohua Shi<sup>1</sup>, Qiushi Xu<sup>2</sup>

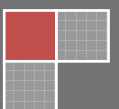
School of Architecture, Zhengzhou University, Zhengzhou, 450001, (CHINA)  
College of Architecture, North China University of Water Resources and Electric Power, Zhengzhou, 450046, (CHINA)

### ABSTRACT

Public participation is very important to the efficiency of urban and rural planning because it provides effective feedback to the government. First, this thesis gave a detailed discussion about the diverse choices of public participation from the perspective of multiple-choice theory. Then the thesis further explored the stages and the contents of public participation, with focuses on preparations of the project and discussions of the plan. After that, it comes to the actual establishment of the participation model, which is to thoroughly analyze construction ideas of the three-segment participation model, give a general idea of the model construction and the basic framework. Finally, it conducted an analysis on the application of the model and discovered the elements required for the application, so as to ensure that urban and rural planning is reasonable and practical. Meanwhile, the public participation model was used in a scientific way, which led to the establishment of the mechanism for public participation and feedback in urban and rural planning and enabled it to be more reasonable. What mentioned above is the general idea of this thesis and the research aims and contents are all clearly stated. This research is legitimate and well-targeted.

### KEYWORDS

Urban and rural planning; Public participation; Response mechanism; Model construction.

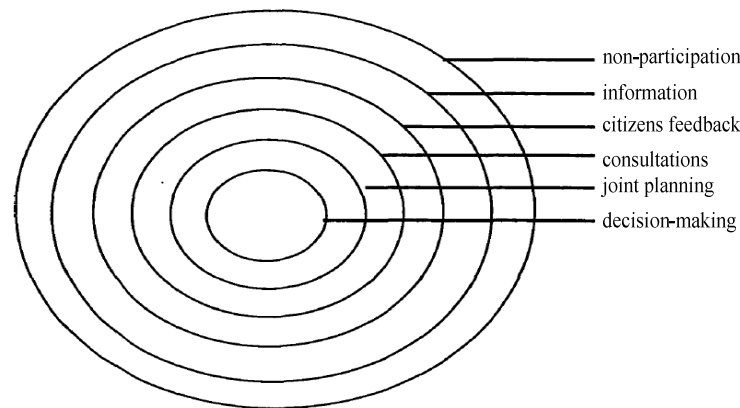


## INTRODUCTION

Public participation can provide the most effective feedback for planning and design in urban and rural planning and enable the planning to be more reasonable and practical. This thesis gave a detailed discussion from the perspectives of multiple-choice theory, the stages and contents of public participation, the construction of participation model and the application of the model in attempt to pursue the establishment of the mechanism for public participation and feedback and improve the application values of this mechanism.

## MULTIPLE-CHOICE THEORY

From the perspective of multiple-choice theory, urban and rural planning should provide and develop the opportunity to diverse choices instead of “monopolizing” the decision-making power by the technical elite and governmental departments. What coincides with the pluralism is Aggens’ concentric circle model of public participation. This model divided the participants into several levels in analyzing the diversity of public participation (shown in Figure 1). Aggens categorized citizens into different circles based on their enthusiasm on public matters, the outermost circle representing non-participation and the innermost one representing decision-making<sup>[1]</sup>. In this model, the people in certain circles spend certain amount of time and efforts for things concerning their own interests. In any given circumstances, the people can change the “orbits” in any time. This model is characterized with dynamic changes.



**Figure 1 : Aggens’ concentric circle model of public participation**

## STAGES AND CONTENTS OF PUBLIC PARTICIPATION

Judging from the realities of urban and rural planning, the public is highly involved in the planning. According to “A Ladder of Citizen Participation” by Sherry Arnstein, in the current urban and rural planning in China, the public hasn’t actually involved in the planning. Besides, the system for public participation in urban and rural planning is not sufficiently perfect and the procedures are yet to be completed. *Urban and Rural Planning Law of the People’s Republic of China* simply required public participation but didn’t establish a functional system for citizens to participate, which led to the whole practice not being able to proceed. There are many sections in the whole process of urban and rural planning and two of them are the most important parts: preparations of the project and discussions of the plan. Preparations of the project are to analyze the feasibility of a plan, to improve it to make it more practical and to predict some possible problems during the planning, which will lay a solid foundation for improving and implementing the plan. Discussions of the plan aim at collecting feedback of the plan through public participation and making comprehensive arrangements with the expert opinions, so as to improve the whole plan. The first step is to make a fair assumption about the people to ensure people’s interests are maximized. People’s role is crucial in the planning because they can provide relative information and data, which helps in making specific technical plans. The diversity of public participation enables the information and data they provided to be comprehensive and the final decision-making of the whole planning will be objective and fair.

### Preparations of the project

The first step of urban and rural planning is to make preparations of the project, which include analysis of specific participation, macro-policy and the feasibility of application. For a project of urban and rural planning, the guidance of development policies and parallel planning is an important part of the setting up a project. Planning objectives tend to have far-reaching influences on the time and space arrangements of urban and rural planning. Therefore, the economic and social development should be taken into consideration when making urban and rural planning and the planning should have the foresight of a city’s future development. In this stage, the government doesn’t make all decisions. Instead, the public need to tell their opinions and make effective assessments of the intrinsic values of the plan to make it objective enough<sup>[2]</sup>. Among the preparations, questionnaires and seminars are also necessary because they can collect and analyze the information and

data for the planning. Through data processing, the final plan will be confirmed. In this stage, the public can participate in three ways: to know about specific policies and relative laws and regulations through the system, to express specific opinions about the planning through online questionnaires and to upload the VGI data they knew through the system.

### Discussions of the plan

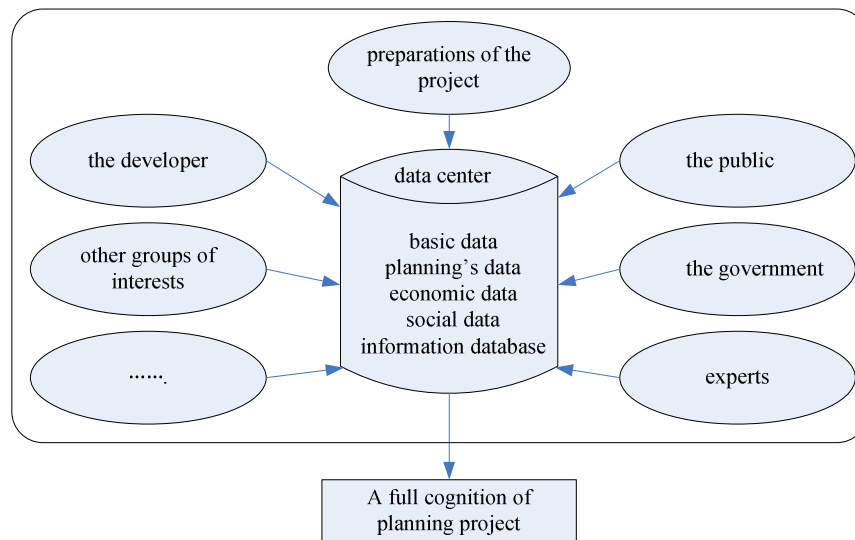
This part is to improve the plan and to the design idea. During this stage, the relative governmental department should put out a notice asking for public opinions about urban and rural planning in the platform of public participation and the notice should stay for no shorter than 20 days. The public can express their opinions on the plan which has been published and the relative governmental department should collect and sort out the feedback, so as to improve and upgrade the plan with the consideration of public opinions. Besides, the regional plan's influences on people's interests should also be taken into consideration and assess its feasibility through panel discussions in order to strengthen the feasibility of the whole plan. The government is important to public interests, so it should pay more attention to the vulnerable groups of the society. Publishing the plan will encourage more public opinions to take part in the governmental discussions<sup>[3]</sup>. Planners are especially important in this part because they need to make effective adjustments based on policies and public opinions, so as to make the plan more practical and legitimate.

## PARTICIPATION MODEL

Considering the realities of urban and rural planning, there are many unfavorable factors in participating in the planning and the decision-making, such as insufficient publicity of public participation and lack of expertise. All these facts were considered in the establishment of the participation model, with three-segment public participation model as the main idea, giving full attention to the status of participants and sufficient expertise. The first stage of this model is to let the public have full understanding of the plan. The second stage concentrates on discussions of the final plan with careful consideration of public opinions and the feedback. The third stage comes with the final plan with expert assessments as the focus.

### Stage of letting the public have full understanding of the plan

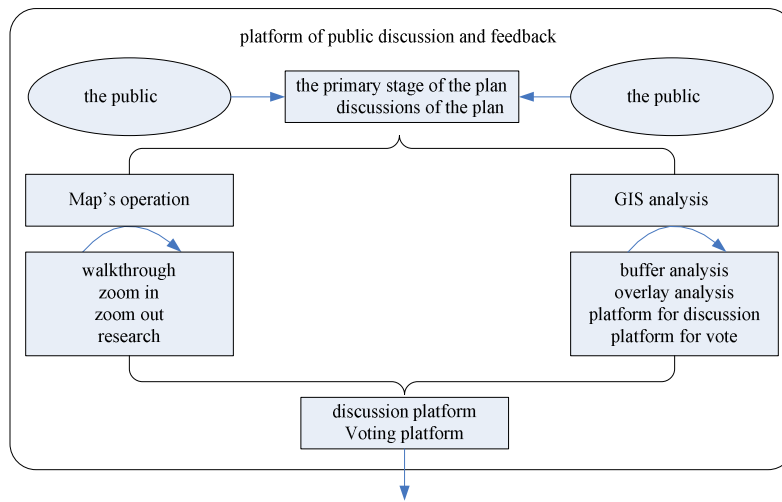
For specific projects of urban and rural planning, public participation should combine the information and data provided by the system. The information includes the background of the project, development policies and relative laws and regulations. Besides, the public can voluntarily edit some information about the geography and share it to all. All the information was provided by the public, including cultural information, pictures, charts and tables<sup>[4]</sup>. Then planners can make further study with the consideration of specific data and the background and procedures of the plan in order to lay the solid foundation for future feedback and assessments of the opinions (shown in Figure 2).



**Figure 2 : PPGIS's public participation model in urban and rural planning in the first stage**

### Stage of decision-making with the consideration of public opinions and the feedback

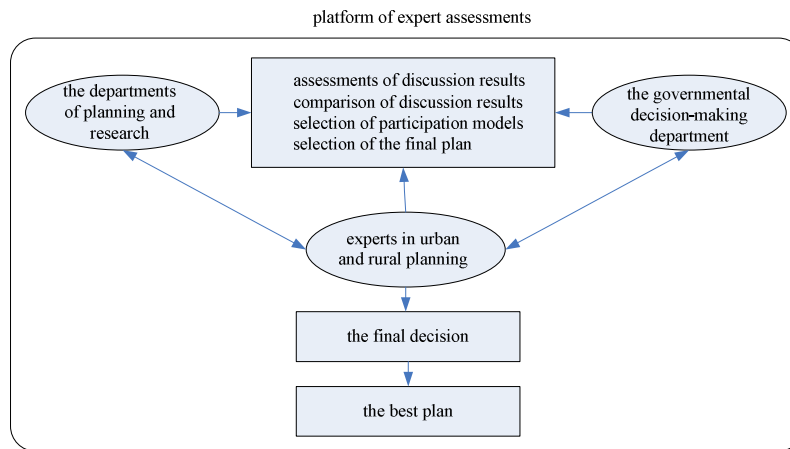
During the process of urban and rural planning, the public should have certain knowledge of the ongoing project in order to be able to participate in it. First, the public can do their own research based on published maps and data. Then they can GIS analyze the regions they're interested through the system in order to find the most convenient analysis means within the planning scope. Finally, the public can know about the gradients and the aspects within the planning scope through DEM and other geographical data provided by the system. With the knowledge of these 3 aspects, the public can express their fair opinions and make discussions about the plan through the platform of public discussion and feedback within the system, so as to make the opinions useful to the decision-making of the plan (shown in Figure 3).



**Figure 3 : PPGIS’s public participation model in urban and rural planning in the second stage**

**Stage of expert assessments**

The main participants in this stage are the experts and professionals needed for urban and rural planning. These experts and professionals would make effective and fair analysis based on the specific policies of urban and rural development and public opinions<sup>[5]</sup>. Besides, the relative laws and regulations, review and approval by relative departments were also taken into consideration. With all these conditions, the most effective and appropriate plan would come out. In this stage, public opinions would be reviewed again. Through many sessions of discussions and negotiations, a final plan would be confirmed that is satisfactory to both planners and the public (shown in Figure 4).



**Figure 4 : PPGIS’s public participation model in urban and rural planning in the third stage**

**APPLICATION**

**Publicity activities**

During the process of the public’s participation in urban and rural planning, most people lack the expertise of planning, which is insufficient to provide technical support for the whole planning. Even they do have certain knowledge about planning; their states of knowledge are also different. So it’s necessary to arrange some publicity activities to let the public know about urban and rural planning, so as to improve their participation and produce positive effects on the decision-making of the plan.

**Development policies’ influences on the plan**

The specific projects of urban and rural planning have to consider the economic development of a certain region. The planning has to see the whole landscape. Opinions from all levels of governments have to be considered in order to make the planning scope, direction and specific plans are accurate and well-planned.

**Preparations of data and setting up the database**

A medium- and long-term plan should be set up during the whole process of urban rural planning. The preparations of basic data are the most important conditions because they reflect if the data are complete or dynamic. There are two kinds

of data: space data and attribute data<sup>[6]</sup>. Space data includes the specific spots, planning scope and specific plans. Attribute data include development path, development characteristics, ect. It's a huge project to collect the data. And setting up the database is necessary to management all the data in a scientific way.

### Public opinions

The public has the right to express their opinions on the region under planning. In the primary stage of the planning, the public can sort out the current situation of the region and some major problems. With the consideration of local realities, government policies and the opportunities and challenges incurred, the opinions expressed in the feedback may be included in the planning with careful selection.

### Setting up a discussion topic

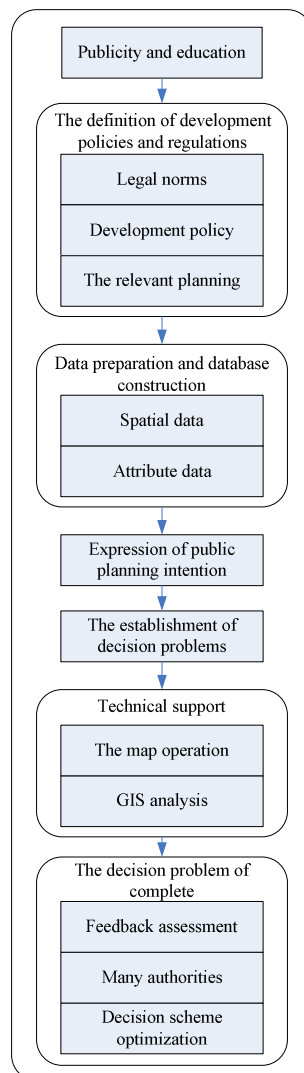
A discussion topic should firstly be selected, which should be of public interests and suitable for public participation. Planners and local governments should guide and develop the topic and invite more public opinions with many optional plans.

### Technical supports

When problems occur, proper analysis should be made. The three-segment public participation model should be used to solve the issue<sup>[7]</sup>. During such process, the public can know about the plan through the maps and GIS analysis provided by the participation platform to make their own plans available to the governmental planning.

### The final decision-making

The opinions from public discussions would effectively go to the planners. Through discussions and negotiations of all levels of planners, the public opinions would be assessed and selected to come out a best and most appropriate plan, which enables the section of public participation to function well. The application of PPGIS's public participation model in urban and rural planning is shown as Figure 5.



**Figure 5 : The application of PPGIS's public participation model in urban and rural planning**

## CONCLUSION

What mentioned above is the research and analysis of setting up an effective mechanism for public participation and feedback in urban and rural planning. Constructing the participation model and the contents of participation are the focus on this thesis, which help the direction of this research and lay the theory and model foundation for future research.

## REFERENCE

- [1] Feng Zhibai; “Analysis of the effectiveness of public participation in urban and rural planning and management” [J], *Commercial Times*, (7), 93-94 (2011).
- [2] Zheng Yanni; “The implementation path of public participation in urban and rural planning” [J], *Journal of Hunan University (Social Sciences)*, 27(2), 68-72 (2013).
- [3] Ma Changqing, Liang Shengping, Li Qian; “A research on public participation in urban and rural management in minority areas” [J], *Guizhou Ethnic Studies*, (5), 21-24 (2013).
- [4] Ying Qiaoyan; “The effective study of public participation in urban-rural planning” [J], *Guangxi Social Sciences*, (1), 131-134 (2011).
- [5] Niu Xinyi; “Methods and means of urban and rural planning” [J], *Urban Planning Forum*, (4), 122-124 (2014).
- [6] Wu Yizhou; “Big data based urban rural planning decision making theory and practice” [J], *Planners*, 30(8), 12-18 (2014).
- [7] Lu Chengbin, Liu Shengcheng; “The research on evaluation system of urban & rural planning in China” [J], *Urban Development Studies*, 20(9), I0007-I0011 (2013).