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Definition and Classification of the Stakeholders in Land Consolidation Project

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Abstract Using the methods of questionnaire survey, statistical analysis and multidimensional rating, we define and classify the stakeholders in land consolidation project. 25 kinds of stakeholders are determined, divided into three categories: core stakeholders, including county-level government, county-level land departments, county-level land consolidation center, the rural collective economic organizations, farmers, township government, and the villagers' committee; middle stakeholders, including central government, the Ministry of Land and Resources, the Ministry of Land and Resources Land Consolidation Center, the provincial land departments, the provincial land consolidation center, the county-level finance departments, the county-level water resources departments, the government supervisory departments, government audit departments, and the public; peripheral stakeholders, including the county-level environmental protection departments, the county-level agricultural departments, supervisory agencies, design agencies, project contractors, equipment suppliers, material suppliers, and the bidding agencies. The project managers should pay attention to the interest appeal of the stakeholders, and adopt different coping strategies.

Key words Land consolidation, Method of point rating, Stakeholders, Classification

Land consolidation is an inevitable choice to solve China's increasingly tense contradiction between human and land at present, and an important means to achieve the dynamic equilibrium of the total arable land, promote comprehensive agricultural production capacity, increase farmers' income and promote rural economic development^[1]. The decade during which China comprehensively carries out land consolidation is also the decade when China's urbanization and industrialization advance rapidly. Land consolidation plays a significant role in protecting arable land, ensuring food security, advancing new socialist rural construction, optimizing land use structure, and promoting balanced development of urban and rural areas^[2–3].

However, due to flaws in management system and technical methods, there are some problems as follows: insufficient public participation; frequent design changes; the abuse of power; low attraction of social investment; the project result failing to fully play its role^[4–5]. The reason for these problems includes unreasonable project governance institution, having a disregard of adjustment of property right relationship adjustment^[6], and lagged construction of laws and regulations.

Taking the theory of "stakeholders" as a framework, on the basis of field surveys and interviews, we try to identify and classify the stakeholders in the land consolidation project, analyze the potential impact, influence and importance of different types of stakeholders, put forth coping strategies for different types of stakeholders, in order to provide a reference for the governance innovation of the current land consolidation project.

1 Definition of the stakeholders in land consolidation project

The stakeholder theory is a theory of organizational management and business ethics that addresses morals and values in managing an organization. It was originally detailed by R. Edward Freeman in the 1960s in the book *Strategic Management: A Stakeholder Approach*. It identifies and models the groups which are stakeholders of a corporation, and both describes and recommends methods by which management can give due regard to the interests of those groups. In short, it attempts to address the "Principle of Who or What Really Counts". The stakeholder view of strategy is an instrumental theory of the corporation, integrating both the resource-based view as well as the market-based view, and adding a socio-political level. This view of the firm is used to define the specific stakeholders of a corporation (the normative theory (Donaldson) of stakeholder identification) as well as examine the conditions under which these parties should be treated as stakeholders (the descriptive theory of stakeholder salience). These two questions make up the modern treatment of stakeholder theory. According to the expounding of the main founder of the stakeholder theory, Freeman, the purpose of creating and developing stakeholder theory is to introduce the concept of "stakeholders" to re-scan and understand the external environment and its changes, and use the management of stakeholders to adapt to the situation of the changing external environment and its requirements; the ultimate purpose is to help people to "transform the external changes to the internal changes", eliminate the risk of uncertainty caused by the external changes, and ensure the effectiveness of the organizational strategy and organizational management^[7]. Since the end of the 20th century, the impact of the stakeholder theory has been far beyond

the original area of corporate governance, and this theory has been widely used in the area of project management. Stakeholder theory is changing from the theoretical paradigm to a kind of practice mode^[8].

In China, the project system is commonly used in the practice of land consolidation^[9], and the land consolidation project needs to face many different stakeholders in operation. These stakeholders have different interest appeal, respectively. The coordination, communication and cooperation between them are throughout the project, and if they are not handled properly, it may lead to serious conflicts, or even affect the normal operation of the land consolidation project. The process of land consolidation project is essentially the process of allocation of resources and balance of interests; the process of establishing system by all stakeholders through negotiation, transaction, coordination, interest transfer and responsibility sharing^[10].

As far as we are concerned, the stakeholders in land consolidation project are the individuals or organizations actively participating in land consolidation project or whose interests may be positively or negatively affected by implementation or completion of land consolidation project. In this definition, the object of stakeholders not only includes individuals, but also contains a variety of organizations (governmental organizations, non-governmental organizations, enterprises, special interest groups, communities, etc.); the form of participating in land consolidation project both includes active participation and passive participation; the impact both includes positive impact and negative impact; the time during which interests are affected includes both the time during which project is implemented, and the period after the completion of the project; the exact extent of the interests being affected is certain or possible. It can be said that this definition can be incorporated into the possible related interest objects of land consolidation project.

2 Definition and classification steps of the stakeholders in land consolidation project

Using the expert point rating method and Mitchell point rating method, we define and classify the stakeholders in land consolidation project^[11-13], and the basic idea is shown in Fig. 1. Specific steps are as follows.

Step 1 Making the list of possible stakeholders in land consolidation project. On the basis of the relevant research literature and survey analysis, we make the list of possible stakeholders in land consolidation project and design the definition questionnaires on the stakeholders for the experts to choose.

Step 2 Collecting the definition questionnaires on the stakeholders and obtaining the experts' scoring results, determining the stakeholders with selection rate more than 60% as the stakeholders in land consolidation project.

Step 3 Classifying the stakeholders for survey, and requiring the experts to score the stakeholders in land consolidation project from three attributes (legitimacy, influence, initiative).

Step 4 Conducting statistical analysis of the questionnaires on the classified stakeholders called back, determining the order of legitimacy, influence and initiative of the stakeholders

through mean, and calculating the composite score of each stakeholder on the three attributes.

Step 5 Conducting composite dimension sequencing according to the composite scores on the stakeholders, and classifying the stakeholders in accordance with the composite dimension scores.

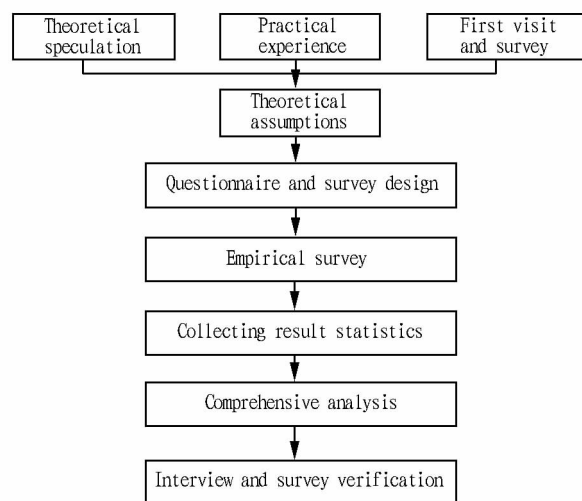


Fig. 1 Definition and classification steps of the stakeholders in land consolidation project

3 Definition of the stakeholders in land consolidation project

The questionnaire survey on the definition of the stakeholders was conducted in June 2010, and there were 45 experts receiving questionnaire survey, including government officials, researchers from research institutes, land consolidation project managers, the technical service staff of land consolidation project, project contractors, technical experts and so on. The average time of their participation in the land consolidation is 4.3 years, having a comprehensive understanding of land consolidation.

In the questionnaire, it first crystallizes our definition of the stakeholders in land consolidation project, and we ask the respondents to choose the stakeholders from list in line with the definition of the stakeholders (the number is unlimited).

The probable stakeholders in the land consolidation are as follows:

(i) Government: central government, provincial government, municipal government, county-level government, township government.

(ii) Government departments: the Ministry of Finance, the Ministry of Land and Resources, the Ministry of Agriculture, the State Forestry Administration, the Ministry of Transport, the Ministry of Water Resources, the Ministry of Environmental Protection, the Ministry of Housing and Urban-Rural Development, the provincial departments of finance, provincial departments of land, provincial departments of agriculture, provincial departments of forestry, provincial departments of transport, provincial departments of water resources, provincial depart-

ments of environmental protection, provincial departments of construction, municipal departments of finance, municipal departments of land, municipal departments of agriculture, municipal departments of forestry, municipal departments of transport, municipal departments of water resources, municipal departments of environmental protection, municipal departments of construction, county-level finance departments, county-level land departments, county-level agricultural departments, county-level forestry departments, county-level transport departments, county-level water resources departments, county-level environmental protection departments, and county-level construction departments.

(iii) Professional bodies of government departments: the Land Consolidation Center of the Ministry of Land and Resources, the provincial land consolidation center, the municipal land consolidation center, the county-level land consolidation center, the financial accrediting body, and engineering quality inspection institution.

(iv) The supervisory bodies: the People's Procuratorate, the government supervisory departments (the party's disciplinary inspection bodies), and government audit departments.

(v) Land owners: the rural collective economic organizations, farmers, other collective land users, state-owned land users, and owners of the other rights of land.

(vi) Contractors: project contractors, equipment suppliers, and material suppliers.

(vii) Technical services bodies: engineering consulting or-

ganization, supervisory agencies, design agencies, investigation agencies.

(viii) The intermediaries: the bidding agencies, accounting firms, law firms, land evaluation institutions, land registration agency, notary organization, and economic arbitration committee.

(ix) Financial institutions: banks, trust investment companies, finance companies, insurance companies, and the potential social investors.

(x) Research institutions: the project technical standards research institutions, engineering technology research institutions, and universities.

(xi) Experts: project evaluation experts, bidding evaluation experts, and acceptance check experts.

(xii) Special interests: the potential badger hat, evil forces in rural areas, and those who seek illegal benefits from the project.

(xiii) Public enterprises: power enterprise.

(xiv) Others: industry associations, villagers' committee, village cadres, workers, the public, owner project management personnel, public media, environmental protection organizations, and cultural heritage protection organizations.

45 paper questionnaires and electronic questionnaires (via e-mail mode) are distributed, and 42 questionnaires are called back, with response rate of 93.3%. All are valid questionnaires. Taking the selection rate of 60% as the standard, the stakeholders determined can be shown in Table 1.

Table 1 Definition results of the stakeholders in land consolidation project

Stakeholders	Frequency of being selected	Selection rate//%	Stakeholders	Frequency of being selected	Selection rate//%
Central government	42	100.00	Project contractors	35	83.33
Ministry of Land and Resources	42	100.00	The villagers' committee	33	78.57
County-level government	42	100.00	County-level water resources departments	32	76.19
County-level land departments	42	100.00	Government supervisory departments	32	76.19
County-level land consolidation center	42	100.00	County-level environmental protection departments	30	71.43
Farmers	42	100.00	Equipment suppliers	28	66.67
The rural collective economic organizations	42	100.00	Provincial land departments	27	64.29
Provincial land consolidation center	41	97.62	The bidding agencies	27	64.29
Township government	40	95.24	Government audit departments	27	64.29
The public	40	95.24	Material suppliers	26	61.90
Supervisory agencies	39	92.86	Land Consolidation Center of the Ministry of Land and Resources	26	61.90
County-level finance departments	38	90.48	County-level agricultural departments	26	61.90
Design agencies	36	85.71			

Note: Those with frequency of being selected less than 10 are not listed.

Table 1 shows that there are 25 kinds of stakeholders defined by the experts in total, of which the government includes central government, county-level government, and township government, and the provincial and municipal governments are excluded, because the experts believe that they do not play an important role in land consolidation. Among government departments, the Ministry of Land and Resources, as land consolidation policy maker, is selected; the provincial land departments are responsible for establishment of project, supervision and inspection of the implementation, and acceptance in land consoli-

dation; the county-level land departments are the organizers and coordinators of land consolidation project. Numerous county-level government departments are the main forces of public participation in projects. The government supervisory departments and audit departments at all levels have the right to supervise land consolidation project. The Land Consolidation Center of the Ministry of Land and Resources and the provincial land consolidation center, as the primary technical forces for guiding and regulating the implementation of land consolidation project, are selected. Farmers (as the land rights owners),

the rural collective economic organizations, the villagers' committee, and the public, are surely the stakeholders. Among the market subjects, project contractors, design agencies, and supervisory agencies play an important role in the implementation of the project.

4 Classification of the stakeholders in land consolidation project

4.1 Classification method The dimension of the classification of the stakeholders in land consolidation project is based on the following considerations. (i) There are differences in the protection of the stakeholders' special assets input by laws or contracts. (ii) Whether the differences in the stakeholders' project decision-making, implementation and operation can exert influence on the whole process of the project cycle, or only exert influence at a certain stage (iii) Whether the stakeholders will exert influence on the project on their own initiative and actively bear the project risk, or passively avoid risks under the influence of project.

From three dimensions (legitimacy, influence and initiative), this study scores the stakeholders. Among the three dimensions, legitimacy means whether the stakeholders' interests requirements of the project are legitimate and correct, ensured by the contract or in line with social morality; influence means whether the stakeholders have the status, ability and corresponding ways to affect the project decision-making, implementation and operation; initiative means whether the stakeholders will actively exert influence on the project, and actively undertake the project risk.

After scoring the above three dimensions, we score the

comprehensive dimensions, and according to the scoring results, the stakeholders are divided into three categories: core stakeholders, middle stakeholders, peripheral stakeholders.

4.2 Data source and processing method We mainly obtain data through field interviews and questionnaire surveys for the research on classification of the stakeholders in land consolidation project.

In July 2010, we conducted questionnaire survey of the government departments, professional bodies, farmers' organizations, contractors, professionals, etc. involved in 12 land consolidation projects in Nanle County, Fan County and Puyang County of Henan Province. In this survey, 40 paper questionnaires and electronic questionnaires (by way of e-mail) were distributed, and 37 questionnaires were called back, with recovery rate of 92.50%, of which 36 are valid questionnaires, with response rate of 97.30%.

The experts are required to sequence the 25 stakeholders given in accordance with three dimensions (legitimacy, power, initiative) in descending order (the score range is 1 to 25; 1 means that the legitimacy of the stakeholder is the greatest in the project; 25 means that the legitimacy of the stakeholder is the smallest in the project). After transforming the sequencing into numerical data, then we use SPSS14.0 for statistical description, mean comparison and T test of paired samples.

4.3 Analysis of scoring results Using the arithmetic mean method for solution, we calculate the stakeholders' composite score in terms of the three dimensions of legitimacy, influence and initiative. Integrated dimension scoring results of the stakeholders in land consolidation project is shown in Table 2.

Table 2 Integrated dimension scoring results of the stakeholders in land consolidation project

Order number	Stakeholders	Effective sample/N	Minimum Min	Maximum Max	Average value Mean	Standard deviation/Std. D.
1	County-level government	36	1	15	3.16	1.89
2	County-level land departments	36	1	21	4.05	2.95
3	County-level land consolidation center	36	1	16	4.61	1.94
4	The rural collective economic organizations	36	1	15	4.81	1.77
5	Farmers	36	2	12	6.16	1.91
6	Township government	36	3	19	7.54	2.36
7	The villagers' committee	36	1	19	7.55	2.74
8	Ministry of Land and Resources	36	1	22	9.77	3.15
9	Central government	36	1	24	10.69	3.27
10	Provincial land departments	36	1	15	10.73	1.73
11	County-level finance departments	36	1	23	10.84	2.85
12	Provincial land consolidation center	36	4	23	11.91	2.19
13	Government supervisory departments	36	6	25	12.82	2.44
14	County-level water resources departments	36	9	25	13.18	1.86
15	Government audit departments	36	4	25	14.63	2.24
16	Land Consolidation Center of the Ministry of Land and Resources	36	4	24	15.17	2.61
17	The public	36	1	25	16.27	2.98
18	Design agencies	36	9	25	17.47	2.15
19	Supervisory agencies	36	5	24	18.69	2.26
20	County-level environmental protection departments	36	9	25	18.91	1.73
21	The bidding agencies	36	3	25	19.02	2.77
22	Project contractors	36	2	23	19.20	2.84
23	County-level agricultural departments	36	15	25	21.24	1.72
24	Equipment suppliers	36	15	25	22.98	1.93
25	Material suppliers	36	18	25	23.60	1.90

According to the integrated dimension scores of stakeholders in Table 2, 25 stakeholders in land consolidation project are divided into three categories.

The first category: core stakeholders, with integrated dimension score below 9, including county-level government, county-level land departments, county-level land consolidation center, the rural collective economic organizations, farmers, township government, the villagers' committee. They are indispensable stakeholders in the land consolidation project, and the organizations or individuals carrying out special investment in the project, directly participating in the project operation and bearing high risks, whose activities directly affect the realization of project objectives. The projects cannot be carried out without them. They are concerned about the course of the project, and also concerned about the project results.

The second category: middle stakeholders, with integrated dimension score of 10–17, including central government, the Ministry of Land and Resources, the Land Consolidation Center of the Ministry of Land and Resources, the provincial land departments, the provincial land consolidation center, the county-level finance departments, the county-level water resources departments, the government supervisory departments, government audit departments, and the public. They form a close relationship with the project, and the special investment carried out by them makes them bear a certain risk. Different from core stakeholders, they are more concerned about the project results.

The third category: peripheral stakeholders, with integrated dimension score of 18–25, including the county-level environmental protection departments, the county-level agricultural departments, supervisory agencies, design agencies, project contractors, equipment suppliers, material suppliers, and the bidding agencies. For the owners of project, the importance of them is little, having small impact on the project; these stakeholders' interests realization is not so urgent. They are more concerned about the course of the project, rather than the project results.

5 Conclusions

Core stakeholders, middle stakeholders, and peripheral stakeholders will affect the implementation of land consolidation project or be affected by the implementation of the project, but the status and role of these three categories of stakeholders in the project are different. There is a close relationship between interests coordination problems and core stakeholders, so the analysis of core stakeholders is of significance to the governance issues of land consolidation project.

In the land consolidation project, we should pay attention to the following two points:

(i) Adopting different coping strategies for different types of stakeholders. In the land consolidation project, different types of stakeholders have different impact on the project and the extent of these stakeholders being affected by the project is different. There is no need to pay equal attention to various stakeholders, and it is an inevitable choice to classify the stakeholders for governance.

(ii) Ensuring expression channel of the interest appeal for different stakeholders. In order to ensure that more stakeholders can express and realize their own interest appeal in the project operation, and guarantee the smooth implementation of projects, it is necessary to formulate and promulgate relevant laws and regulations as soon as possible to distribute the related power for various stakeholders, increase opportunities for each stakeholder to participate in the project, and achieve reasonable allocation of project decision-making power and benefits.

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