Public Investment as a Social Policy in Remote Rural Areas in Japan

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Abstract: This paper aims to summarize the mechanisms of public investment as a social policy in remote rural areas in Japan. It includes findings from former studies as well as a case study undertaken in Shimane by the author, and it discusses the function of public investment in terms of the relationship between the three major groupings involved in the local civil engineering industry. These groups are the "primary labor force group" (PLG) which consists of workers born before or in 1935, the "secondary labor force group" (SLG) which consists of workers born after 1935, and the "local civil engineering companies" (LCECs). In the 1970s and 1980s, there was a strong mutual dependence between the PLG and the LCECs in remote rural areas. PLG workers gave higher priority to maintaining a traditional rural lifestyle and hoped to find jobs in their local area, hence jobs for them should have been created through public works projects. The LCECs also wanted a cheap and quantitatively flexible labor force for public works projects, so public investment worked effectively as a regional social policy. However, as the PLG workers retired and a new generation of workers entered the work force, the disparity between the supply of and demand for labor in the civil engineering industry has increased and the role of public investment as a social policy has been weakened. These changes suggest that the so-called "kaso problem" is generation-specific and that public investment as a social policy for remote rural areas is nearing its end.

Key words: remote rural areas, public investment, social policy, kaso problem

Introduction

After being defeated in World War II and suffering from economic difficulties, Japan adopted "growth center" policies and concentrated resource allocation into specific areas and key industries. In the 1960s the government also promoted labor force liquidity with the aim of solving the problem of labor shortages in metropolitan areas and that of an over-supply in remote rural areas.

These policies played an important role in the remarkable economic growth of the late 1950s and the 1960s. Although that was a period of high economic growth, it was also a time when regional income disparities increased and there was a dramatic migration from rural areas to the cities. This led to a crisis in local communities and remote rural areas. One of the characteristics of rural society in Japan had been its strong communal ties and the active role that neighborhood groups played in all aspects of everyday life (Fukutake 1982). There had also been a rigid system of family ethics, and various duties had been undertaken by the different generations in an extended family. The migration from the countryside often involved the successor, usually the eldest son, in many families, hence the communal and family functions were weakened in the countryside, and daily life became more and more difficult for the people who remained in the countryside. These problems are known as the "kaso problem." The word kaso refers to social problems which have arisen from severe depopulation, and it is also used in Korea, where remote rural areas have also experienced drastic depopulation and have faced equally severe social problems (Kim 1995, 1999).

With the exacerbation of the kaso problem, the central government changed its targeted areas for public investment from metropolitan areas to remote rural areas in the late 1960s (Kajita 1999). The level of public investment per capita in remote rural areas grew to be much more than that for metropolitan areas. One important reason for this change is that the ruling Liberal Democratic Party (LDP) was largely dependent on political support from ru-
Although public investment has never been formally acknowledged as a social policy for remote rural areas, it is now generally considered that it has such a function (Ando 1986; Okahashi 1997). According to the “inverted U” curve hypothesis (Kuznets 1955), empirical longitudinal data show that inequalities in income distribution generally tend to worsen in the early stages of economic growth. Additionally, it is difficult for the labor force in remote rural areas to commute to urban areas. Noguchi (1995), for example, therefore pointed out the important role that government spending plays in creating jobs in remote rural areas, which in turn helps avoid regional conflicts and social disintegration during periods of rapid industrialization and economic development.

This paper aims to summarize the mechanism of public investment as a social policy in remote rural areas of Japan with support from the findings of previous studies and a case study done by the author in Shimane, a prefecture about 250 km west of Osaka (Kajita 1998b, 1999, 2000). It discusses its function in terms of the interaction between the three main groups of players in the local civil engineering sector. This group relationship approach gives us a structural explanation for what sort of jobs local civil engineering companies create and what kind of social groups accept them. 

Figure 1 shows the kaso municipalities throughout Japan which were established by the “Kaso Area Vitalization Act” (“1990 kaso hou”). In 1995, 64.4% of the municipalities in Shimane were designated as kaso areas.

Mechanisms of Public Investment as a Social Policy in Remote Rural Areas

In this section, using findings from previous studies, the relationship between public investment, the civil engineering industry, and the residents of remote rural areas is summarized. The following three themes are discussed: the characteristics of the Japanese governmental system and public investment, the relationship between the public works tender system and the location of civil engineering companies, and the relationship between civil engineering companies and their employees in remote rural areas.

The Japanese governmental system and public investment

Japan has a three-tier governmental system comprising a national government, 47 prefectural governments, and over 3000 municipal governments. As outlined below, the Japanese governmental system has three general characteristics (Kaneko 1994).

First, public investment plays a very important role in the national economy. Figure 2 shows the ratio of public investment to GDP in five developed countries. Since 1982 the ratio in Japan has been more than twice that of the
USA, UK, and Germany. There are three important reasons for this. The first is the persistent reliance on Keynesian demand management policies in Japan, even after the New Right movement of the 1980s (Mochida 1993). The second reason is the lag in the development of social capital stock as, in the late 1940s and the 1950s, the government gave priority to economic development and favored key industries such as steel, coal, and several other heavy industries in the allocation of resources and funding. These government policies were known as the “Priority Production System” (Keisha Seisan Houshiki) and the “Industrial Rationalization Plan” (Sangyou Gourika Keikaku) (Kosai 1986). The third reason is the interdependence between the civil engineering industry and the LDP (Hirose 1981; Miyamoto 1990). In particular the Tanaka-Takeshita-Hashimoto Faction, led by former prime ministers, has held very influential power within the LDP since the 1970s, and it is famous for representing the civil engineering industry. As a consequence, the LDP has guaranteed a certain amount of public investment in exchange for political support from the civil engineering industry.

The second general characteristic of the Japanese system of government is that local government expenditure has a relatively high weighting of 56.8% of total public sector expenditure (fiscal year 1996). This ratio is far higher than in other developed countries with a unitary system. The percentage of local government expenditure in public investment has reached as high as 78.4% (fiscal year 1995).

The third general characteristic is that intergovernmental fiscal transfers comprise almost one third of total local government revenue and have strong redistributional functions. The average local tax per capita across all municipalities is higher than in kaso municipalities (Figure 3). However, when the local allocation tax, a Japanese fiscal equalization scheme, and national and prefectural government special purpose disbursements are added in, this imbalance in local government revenues is reversed. Because the amount of local allocation tax for each municipality is calculated by taking into account differences in service costs and revenue potential, its allocation favors kaso municipalities. Furthermore, in most national and prefectural government special purpose disbursements, matching rates for kaso municipalities are much higher than those for other municipalities due to positive discrimination as a result of the “Kaso Area Vitalization Act” and other regional policies.

In both local allocation tax and national and prefectural government special purpose disbursements, public investment is the most favored sector for kaso municipalities. Therefore, while total expenditure per capita in kaso municipalities is 1.88 times higher than the total municipal per capita average, capital expenditure per capita in the public works sector is actually 2.33 times higher in kaso municipalities (Figure 4). These tendencies can also be observed at the prefectural level.

The relationship between tender systems and the location of civil engineering companies

In Japan, 80.1% of total public investment goes to civil engineering works, and 75.0% of the total investment in the civil engineering industry comes from government agencies (fiscal year 1995). Because it is the main recipient of public investment, this paper focuses on the civil engineering industry.

Kanemoto (1994) outlined the three main characteristics of bidding and tender systems
for public works in Japan. First, due to operational convenience, nominated bids are set in advance for most public works projects. In this type of bidding, only a limited number of companies nominated by public organizations can participate, so the tender managers have strong discretionary power over nomination, which makes them targets for bribery (Kanemoto 1994). The second and third characteristics are the widespread prevalence of illegal arrangements known as dangou and the limited price system. In the limited price system, public organizations themselves make a cost estimation for each project. If a company submits a tender over this estimated cost, that company is disqualified from the bid. This system is necessary in order to limit the project budget submitted by the successful bidder, which is likely to be determined by dangou. Kanemoto (1994) points out that the limited price system has been established on the premise that the eradication of dangou is impossible.

With public investment, the national and prefectural governments divide their territory into small areas and have branch offices managing them. Each branch office deals with tenders for works within its territory when the estimated cost is below a set maximum limit. Their head office deals with tenders for works in cases where the estimated cost exceeds that limit. It is only in the case of large-scale public works that a competitive bidding system is utilized to guarantee equal chances to all bidders. A ranking system is employed for standardizing eligible companies, and public organizations nominate from those companies with a rank that corresponds to the estimated cost of each project.

Under these systems, bidding in remote rural areas is usually carried out as follows. First, local public agencies such as municipal governments and prefectural branch offices in remote rural areas will nominate only those civil engineering companies within their territories which will assist in vitalizing the local economy and comply with political pressure from the local civil engineering industry (Kajita 1998b). Then, the nominated companies will arrange the winners and the biddings in a manner that will allow for a harmonious relationship among the companies. Priority is given to companies closest to the location where the public project will be conducted (Kajita 1998b).

There are two reasons for this arrangement. One is that the successful bids in competitive biddings tend to be too low because the winners tend to underestimate the cost of the project, a phenomenon that is known as the "winner's curse" in auction theory (Milgrom and Roberts 1992). Some studies argue that such underestimations lead to an increase in defective products and result in serious damage to public organizations (for example, Yamazaki 1997). The other reason is that fluctuations in orders and works in the civil engineering industry are unavoidable due to changes in economic conditions, seasonality of orders, political decisions regarding public investment, and other related factors. A steady flow of work is very important in managing civil engineering companies, especially in small- to medium-sized ones.

In the nomination and negotiation processes, the hierarchy and jurisdiction of the public organizations regulate the locational structure of civil engineering companies to a substantial degree (Kajita 2000). Figure 5 shows the number of civil engineering companies in Shimane. In most municipalities, there are one or more civil engineering companies with more than three hundred million yen in sales.
more, in every territory of a prefectural branch office, even in the Kawamoto and Oki areas where the populations are less than 40,000, there is at least one civil engineering company with more than two billion yen in sales. There are clear differences between civil engineering companies in urban areas and those in remote rural areas (Kajita 2000). In urban areas, vertical integration of the companies is highly developed. A large portion of contracts for public works projects are won by a few leading companies and the remaining companies depend on subcontracting work from them. In remote rural areas, most of the companies are small in size and contracts are evenly allocated among them. Because of this, the profitability and balance sheets of civil engineering companies in remote rural areas are more favorable than those for companies of comparable size in urban areas.

**The relationship between civil engineering companies and their employees**

Civil engineering companies in remote rural
areas are scattered throughout the region and most of their employees live in nearby settlements (Fujita and Tomokuni 1979; Kajita 1999). Figure 6 displays the distribution of civil engineering companies in the Kawamoto area, one of the most rural parts of Shimane. The Kawamoto area is quite remote from urban areas such as Matsue and Izumo, and all seven municipalities of the area are designated as *kaso* municipalities, making the Kawamoto area a favorite for public investment. As an example, although it has only 4.0% of the total population of Shimane, the area received 8.9% of public investment commissioned by the prefectural branch offices in fiscal year 1995. One result of this is that the ratio of male construction workers between the ages of 15 and 64 in the Kawamoto area (24.9%) is much higher than the ratio for Shimane as a whole (19.6%).

Fujita and Tomokuni (1979) as well as Kajita (1999) pointed out two important reasons for why civil engineering companies are scattered throughout such regions. One pertains to the lifestyle of the workers. Most workers in remote rural areas are middle-aged or older and are of little value to the primary labor market, and they give a higher priority to maintaining a traditional rural lifestyle than to receiving a high income because it is difficult for them to adapt to a modern lifestyle. They want to be able to take a day off when they please and to give priority to participating in agricultural and communal activities. Holding a job in their neighborhood is favorable for their lifestyle, but civil engineering companies can minimize wage costs by employing them under conditions that suit their existing lifestyles. The second reason is the looseness and flexibility of employee arrangements. Fluctuations in the demand for labor are unavoidable in the civil engineering industry and in public investment (Okahashi 1980; Tajima and Murakami 1985), so the strong community ties and interdependence found in rural areas help reduce conflict between potential employees competing for jobs that are often scarce in such areas.

**Discussion**

In this section, the changing functions of public investment as a social policy, focusing on successive generations of rural workers, is discussed. This involves an analytic concept of three groups that participate in local civil engi-
The first and the second groups belong to the labor force and are classified according to their generation. The “primary labor force group” (PLG) consists of workers born before or in 1935. When the era of high economic growth began in 1955, they had already reached the age of 20. In this era it was difficult for them to migrate to metropolitan areas because most companies in leading industries valued a very young labor force due to their trainability. Therefore, the population cohorts they belong to are relatively large, with the 1926–30 and 1931–35 cohorts being the largest in population pyramids for remote rural areas (Figure 8). The “secondary labor force group” (SLG) consists of workers born after 1935. It was easy for them to migrate to metropolitan areas in their youth, and the cohorts they belong to are relatively small in remote rural areas. These two groups have quite different characteristics.

The third group is the “local civil engineering companies” (LCECs). The civil engineering industry is labor-intensive, so labor costs have a critical influence on the management strategy of each company. It is therefore postulated that the LCECs act rationally according to the local labor supply.

In the 1970s and 1980s, public investment worked effectively as a social policy (Figure 9a). The PLG gave a higher priority to preserving a traditional rural lifestyle and hoped to find employment locally. The LCECs wanted a cheap and quantitatively flexible labor force, so there was a strong, mutual dependence between the PLG and the LCECs. The SLG was valued in the primary labor market and its members preferred jobs in urban industries with high wages, hence the SLG workers were not interested in being employed by the LCECs, which for their part were not bothered as long as the PLG provided an adequate supply of labor.

In the 1990s, the previous generation of local workers was succeeded by the next generation, and a disparity emerged between labor demand and supply in the local civil engineering industry. As PLG workers retired, the shortage of labor increasingly became a problem (Figure 9b). The response from large-scale companies and small-scale ones has been quite different (Kajita 1998a). Large companies are highly motivated to ensure their continuing operation and have used such methods as wage rises and improvements in the working environment to
attract the SLG. Small companies have not adopted such measures because they lack capital and some plan their abolition in the near future. By around 2005, when the age of the PLG workers will be approximately 70 or more, the bulk of the labor supply from the PLG will have vanished, and the LCECs will be forced to reform due to this change in the labor supply (Figure 9c).

The group relationship approach provides a model that explains the changing function of public investment as a social policy. During the 1970s and 1980s, there were many people in the PLG in remote rural areas. The governments had to create employment for the PLG, so they used a policy of providing public investment as
well as supported policies favoring agriculture. Figure 9a clearly shows that the mutual dependence between the PLG and the LCECs was the most important factor in public investment functioning effectively as a social policy. The changing group relationships (Figures 9a to 9c) show that the kaso problem is generation-specific and that the effectiveness of public investment as a social policy for remote rural areas is nearing its end because the PLG, to whom jobs should have been offered by governments, is disappearing. Moreover, it is becoming increasingly difficult for the national government to maintain such public investment policies in light of the recent fiscal crisis. It would seem that it is now time to reduce the

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Figure 9. Changing relationships between the main groups.
amount of public investment in remote rural areas and to draft appropriate guiding policies to make LCEC operations more rational in regard to creating proper jobs.

This does not mean that special public expenditure is to be discontinued and that remote rural areas are to be left to themselves. Recently there has been much support for preserving remote rural communities for both the public and national interest. Supporters argue that rural communities and environments are an asset valued by urbanites for the feelings of wholesomeness and homeliness that they evoke. They argue that the preservation of paddy fields and forests contribute to sound land management resulting in water replenishment and the control of soil erosion. The general public seems to support these opinions and to be prepared to bear the burden of their preservation. Nowadays, most rural communities continue to suffer from a declining population and some face the possibility of disappearing altogether. As a result, the government is currently looking for alternative social policies. For example, in 2000 the national government introduced a direct income support policy for farmers in less favored areas. To conclude this paper, it might be said that the success of such alternative policies depends on the degree to which their implementation protects and reflects the norms and lifestyles of those who live in the rural communities.

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Notes

1. The first kaso hou was called the "Emergency Kaso Area Revitalization Act" (Kaso Chiiki Shinkou Tokubetsu Sochi Hou) and was enacted in 1980 ("1980 kaso hou"). Similarly, the "Special Kaso Area Vitalization Act" (Kaso Chiiki Kasseika Tokubetsu Sochi Hou) was established in 1990 ("1990 kaso hou"), and the current kaso hou called the "Kaso Area Self-Support and Promotion Act" (Kaso Chiiki Jiritsu Sokushin Tokubetsu Sochi Hou) was enacted in 2000 ("2000 kaso hou"). They were partly revised each time to address the changing nature of the kaso problem.

2. In fiscal year 1996, this ratio was 29.8% in France and 24.8% in the UK (OECD 1998).

3. The local allocation tax is levied to secure an equitable distribution of financial resources among local public bodies and to guarantee sufficient revenue to conduct administration as planned in each locality. Under this system, the national government reserves a certain percentage from the national tax revenues as a common fund for local bodies. It then distributes funds to each local public body according to their needs and local revenue resources, based on complicated equations provided by the national government. There is virtually no constraint on the use of the local allocation tax distribution, and local bodies may use the monies for whatever purpose they choose (Ishihara 1986).

4. National and prefectural government special purpose disbursements are specific revenue resources. These disbursements are usually classified into two broad categories: disbursements for national and prefectural functions delegated to municipalities, their executive organs, or administered by them; and disbursements for part or all of the costs of municipal functions to promote national and prefectural objectives. Disbursements for special municipal functions are further divided into two categories: disbursements to municipalities to cover part or all of specific municipal expenditures; and disbursements to execute specific services or to render financial assistance (Ishihara 1986).

5. In the case study conducted by the author, the set price limit was 200~250 million yen in 1998.

6. Milgrom and Roberts (1992: 513) explain the "winner's curse" phenomenon as such:

Auctions are often used for the sale of properties of unknown value... Bidders do their best to deal with that uncertainty by gathering information and making estimates of the underlying values. Because the factors underlying these estimates are themselves subjective and uncertain, there can be considerable variation among the bidders' estimates of the true underlying value.
This variation in estimates has an interesting consequence that has come to be called the winner's curse. A bidder is more likely to win when its estimate is too optimistic and it bids high than when its estimate is too pessimistic and it bids low. On average, then, the winning bidder tends to be one who overestimated the value of the object being sold. In a similar fashion, contractors who bid for jobs may find that their bids are most likely to win when they have been too optimistic about the cost of doing the job. A bidder ignores these tendencies at its peril: Naïve bidders may pay too much for the items they buy at auction or ask too low a price for the services they sell.

7. Due to the limitations of relevant statistics in the Japanese census, we discuss this point using the number of total construction industry workers rather than that of civil engineering industry workers.

8. The fundamental idea of the dual labor market theory was proposed by Doeringer and Piore (1971). Their premises are as follows: Jobs of workers who enter the internal labor market are characterized by relatively high wages, opportunities for training, stable employment, due process in the settling of grievances, and a high degree of unionization. The set of these jobs constitutes the primary labor market. The secondary labor market is constituted of jobs that offer low wages and little chance for advancement, intermittent employment opportunities, and no union representation.

9. The long-term debt of the national government was over 400 trillion yen at the end of fiscal year 1998 due to a series of stimulus packages after the collapse of the bubble economy in the early 1990s.

10. The direct income support policy for farmers in less favored areas originated from the hill sheep and hill cattle subsidies in the United Kingdom and was introduced into the Common Agricultural Policy of the European Community in 1975.

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