# The public constructions by Donburi-Kanjyo (rough accounting) [From the second half of 20<sup>th</sup> century to the beginning of 21st century, Japan]

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Quality, process, and cost are the essential ingredients in any construction pr oduction and management system. However, quality, construction period observance (it is not a process) and the settlement according to planned budget in every s ingle year have been emphasized in the public constructions of our country; That is to say, the high quality by the new technology, the strict construction peri od observance and the budget digestion in every single year were emphasized rega rdless of money and cost, which became the characteristics of the public constru ction. Around 1990, the Japanese construction industry became enriched because o f the bubble economy. Because of this, the public constructions of our country d eveloped me a kind of malignant chronic illness called Donburi-Kanjyo (rough acco unting). As the result, the public construction cannot remove the distrust from t he nation, the public investment decreases, and a market economy, which made a p oint of free competition, was introduced from the beginning of 21st century. Man y problems such as the unreasonable pressure on the subcontractor companies beca use of the cost reduction without cost management, the spread of promissory note s on sites over the long term, the bad quality because of the construction work done with some corner-cutting, and the fact that bad companies act high-handedly have become tangible.

#### 1. Event

Public offices and private companies have made various efforts together, in orde r to remove the distrust towards public construction which began following the s candal in 1993, and to maintain the environment for people who are engaged in in frastructure management and want it to be active throughout the future. Also, "t he law of promoting the proper contract and bidding for the public construction" was promulgated on 27<sup>th</sup>, November, 2000. However, the distrust for the public co nstruction and the blockade sensation of the concerned parties are not removed i n the least, at the present time of 2005. In addition, because the public investm ent decreases and a market economy based on free competition was introduced from the beginning of the 21st century, many problems such as the unreasonable pres sure on the subcontractor companies because of the cost reduction without cost m anagement, the spread of promissory notes on sites over the long term, the bad q uality because of the construction work done with some corner-cutting, and the f act that bad companies act high-handedly are not solved yet.

### 2. Course

In 1992, the Fair Trade Commission admonished that the Saitama Saturday associat ion be excluded because of the doubt over "Damage". And, in 1993, for only one y ear later, twenty six persons including the prefectural governors at Miyagi and Ibaraki, the Mayor of Sendai, and the management executives of a big constructio n company were arrested under the suspicion of requesting to ensure the nominati on of nominative bids for public constructions. As a result, the distrust for pu blic constructions was heightened remarkably. From 1994, the Ministry of Land, T ransport, Infrastructure (the Ministry of construction and Ministry of Transport in those days) has made "transparency, objectivity and competition" as the keyn ote. It has introduced the open bid instead of the nominative bid. It has been t rying to decrease the cost by reviewing the ceiling price and the cost estimatio n. It has executed the pilot project such as the total technology proposal syste m, VE (Value Engineering), DB (Design Build), CM (Construction Management) and P FI (Private Finance Initiative) etc as the new system of bid and contract. In or der to make understood the "the law of promoting the proper contract and bidding for the public construction" (which was promulgated on 27<sup>th</sup>, November, 2000) com pletely, the transparency and the competition of the bid and contract have been increased. The dishonesty has been excluded. The public constructions have been enforced properly. Various improvements have been introduced to create the const

ruction market where the companies which have good technology and management can grow.

However, the distrust for the public construction and the blockade sensation of the concerned parties are not removed in the least at the present time of 2005.

## 3. Cause

The way of payments of public constructions in our country is remarkably differe nt from that of the payment of the international standard of foreign countries (Figure-1 reference) .

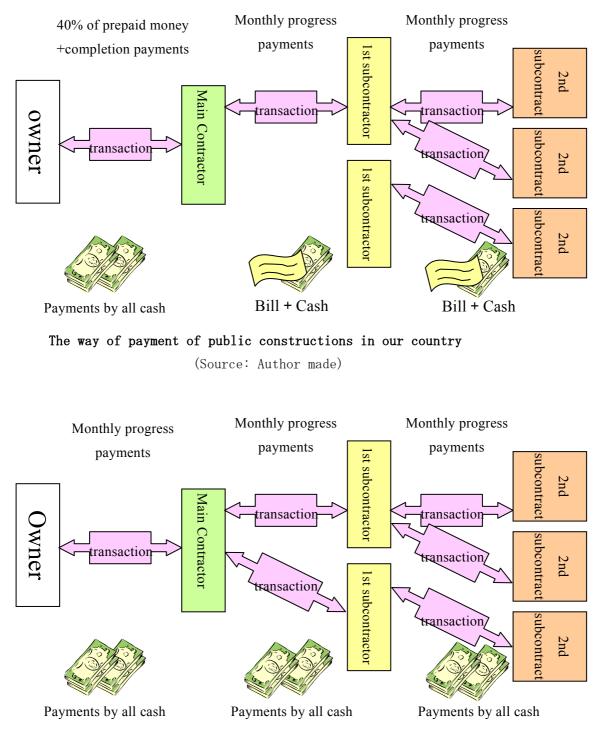
- That is to say, not only in European countries and America but also in the devel oping countries of Asia and Africa, it is common sense that the payment of pu blic constructions from the public owner to the contractor (main contractor) is paid by cash (including checks) according to monthly progress. (Figure-1 (b) reference)
- However, in Japan after agreeing on the contract the way of the payment from the public owner to the contractor is that 40% of the yearly contract payment is always paid into the bank account of the contractor within 2weeks though the r

eal construction is not done. The public owner reserves the remaining 60% unt il the time of completion (the end of construction) regardless of the type of the service (the construction contract or the design commission service). And the remaining 60% is adjusted and paid so as to correspond with the planned bu dget of the beginning of the year and the additional correction by considering the design change.

Through the progress of payments to the subcontractors (the special construction company) and the maker of machinery and materials, in order to cope with the si tuation the public owner does not pay by cash according to the progress. The mai n contractors always pay partly by cash and by many promissory notes (like bonds of debt) in order to prevent a stream of substantial money from them. The promi ssory note will be just a waste paper if the main contractors go bankrupt. The s ubcontractor (the special construction company) and the maker of machinery and m aterials which received the promissory note, which may be extended beyond six mo nths, cannot help going to the monetary facilities discounting in order to chang e the promissory note into cash. By being deducted commission rate and confidenc e risk burden charge, the promissory note of 1 million yen can end up being 9000 00yen or less in real cash terms.

For public constructions, it is the world commonness to expect "the flow effect" such as regional development and reflation countermeasure by the public funds(t ax) redistribution. However, only main contractors and financial institution, ca n get benefit by the way of payment of the public constructions in Japan. Even i f the investment of public construction is increased, the level of consumption o f the majority (nation) who are related to the construction industry cannot be a ctivated. If the payment is not paid according to the progress, the price of co nstruction cannot be calculated exactly. The situation where the balance between cost and process is good is not secured.

So, the way of payment of public constructions of our country is Donburi-Kanjyo.



# The way of payment of public constructions of foreign countries (it is international standard)

Figure-1: The difference of payments (Source: Author made)

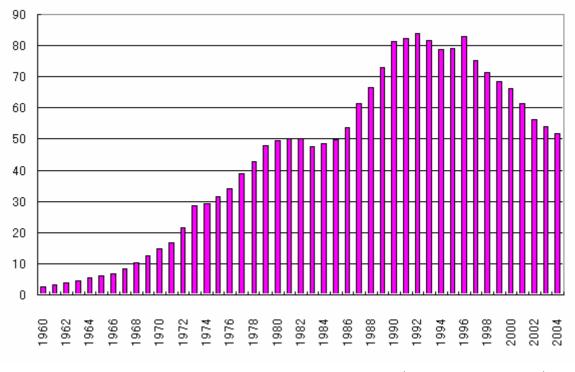


Figure-2: The transition of construction investment (Source: Author made)

The meaning of Donburi-Kanjyo is using money haphazardly without calculating a balance (from Daijirin dictionary second edition). Donburi- Kanjyo derives from the episode where money was put in "Donburi" of a craftsman's abdomen and could be taken in and out easily (Donburi is not the "bowl" of Chinese noodles soup or the eel bowl).

When those concerned with the public constructions in our country are told that they have been troubled with a malignant chronic illness saying Donburi-Kanjyo syndrome, many of them say "it is nonsense" and get angry. Though the public constructions are exposed to many credibility gaps and much infamy in 2005, the persons concerned do not have the subjective symptoms, which is the reason for it to be called a "chronic illness". It is like the lifestyle habit illness such as hypertension or diabetes of the people who are fat because of intemperance and inactivity.

The way of payment of construction is one of the basic aspects of the contracts of public constructions. The symptoms of a malignant chronic illness saying Donb uri-Kanjyo syndrome are shown as followings.

- (1) In our country, progress payments which are the contract of international standard according to the progress of constructions and monthly payments do not exist.
- (2) In the public constructions of foreign countries, it is essential for the

engineers of the public owner and the contractors to discuss daily a series of processes which are inspections, acceptances, assessment, design changes, and monthly fare adjustments. In our country, the public constructions have a series of processes which are inspections, acceptances (always), assess ments, design changes, and the fare adjustment of a year budget by the way of Donburi-Kanjyo. This happens only once when the construction begins. So, the public owner and the contractor have little influence as an engineer. It is natur al that the social standing of civil engineers in our country is remarkably lower than in foreign countries.

(3) Public constructions in Japan are made of lump-sum contracts. Regardless of the type and the classification of the construction, the unit s of specification etc, in short, money and cost, the public owner contracts with the contractors. The unit price contract (the lump-sum contracts) is the mainstream contract on public constructions in foreign countries (the inter national standard). The public owner contracts with the contractors with considering the type and the classification of the construction, the units of specification etc, in short, cost. Between the public owner and the contractors in our country, the "Public" unit price which is agreed does not exist.

(4) In the public constructions of our country, the public owner pays 30%-40% prepaid money of the cost of construction immediately to the construction struction company which concluded the contract of construction.

(5) The remaining 60-70% of construction payments is paid in order to make the fiscal result which coincides with the budget which the public owner planned at the beginning of the year (including the additional supplementar y budget) in order to adjust the increase and the decrease of construction costs by design change after the inspection of the completion of the construction.

(6) It is necessary for the public owner to use up the yearly pla nned budget(including the additional supplementary budget). When the surplus of payments of constructions is expected, the urgent (in case, imag inary) constructions are created. And the owner uses up the budget. When the loss of the payments of constructions is expected, the owner makes the contractors cover it and afterwards will take care of them.

(7) In the public constructions of our country, the public owner "actually" does not worry that the planned budget can be sufficient for the construction cost. (The owner does not need to worry.)

(8) In the public constructions of our country, the contractors(t he construction contractors) pay the subcontractors, who are the sp ecial construction companies and the makers of machinery and materials , by not only cash but also the promissory notes (Recently, 210 days was extended in some

construction field.) Japan is the only country where the promi ssory note which is equal to the amount of the debt is allowed as a method of pay ments among companies concerned with the public constructions. The payments in the construction industry of foreign countries are paid by only cash (including a check).

(9) In the public constructions of our country, the price of payments of constructions are higher because of the additional various financial cost s caused by the distribution of the promissory note.

(10) The public constructions of our country have the characteristics which mean cost management cannot be done though cost finance budget management, price management and profit management can be done well because of the Donburi-Kanjyo syndrome. It becomes remarkably difficult for the cost reduction to be scientifically and rationally practiced, if the cost management cannot be done.

#### 4. Immediate Action

The indication that public works in Japan had become ill because of Donburi-Kanjo syndromes and the discussion concerning it began in April 2000. In March 2001, the Ministry of Land, Infrastructure and Transpor t started the trial of "Progress Payments" in 2 constructions that Chugoku Regional Department Bureau and Tohoku Regional Department Bureau ordered. Mie Prefectural Lan d Development Department, which had carried out the advanced administrative reform under the directions of Masayasu Kitagawa, Governor of Mie Prefecture, decide d to try "Every Month Progress Payments" of public works from fiscal 2002 and began to use it in 34 constructions in fiscal 2002.

It was decided that the system which changes the price for public works to completed amount payment every month from fiscal 2002 was tried in the prefectural land imp rovement division by the adva nced admin istrative reform under the supervision of the Masayasu Kitagawa, Governor of Mie Prefecture, and it started in fiscal 2002 in 34 constructions.

#### 5. Countermeasure

The verification of the effects and the extraction of the problems caused by the introduction of the "Progress Payments System" were carried out through the monitoring of the trial construction, the examination of the implemental method, the survey on the actual situation of the construction price pay ment method in the foreign countries, and so on by Mi nistry of Land, In frastructure and Transport and Mie Prefecture.

As a result, the public owners from the Ministry of Land, Infras tructure and Transport and Mie Prefecture confirmed the effects of the "Progress Payments

System" introduction, while they clarified many problems. The problems consisted of the decision of the inspection technique standard, the treatment method of construction progress, the method of the inspection and the office work, the efficiency improvement of the payment desk work, and so on. At last the y expanded its trial and they attempted to introduce it seriously after fiscal 2005.

In the meantime, the (super) major construction companies have disagreed wit it and have been negative, and the regional small and medium-sized construction companies have agreed with it and have been aggressive concerning the stance of the contractors (construction companies) involved in public works in Japan. It seems that there are about 600,000 companies in Japan, but Sa dao Ueda (the president of KAJIMA CORPORATION) CEO of Japan Civil Engineering Contractors Association, which consists of the top one hundred and several companies, stated that the usefulness of "Progress Payments" was doubtful at the press conference in June of 2002. In September of 2002 Yasuharu Maeda (the president of MAEDA CORPORATION) CEO of A 11 Japan Constructors Association, which co nsists of the top several thousand companies, announced to the Ministry of Lan d, Infrastructure and Transport that he wanted to protect the then current payments system and disagreed with the introduction of "Progress Payments System".

But in 2003 it was written that "Progress Payments System is effective" in the editorial of the house organ of Japan Civil Engineering Contractors Association. Some companies, which were related to the construction industry, abolished the esettlement by promissory notes and aimed to drastically reduce their publication. Also the scientific and rational problems on the design change p rocedure happened, and the actual situation of the nonpayment and the late payment to the subcontractors became tangible. Then, the effects which improved the finance condition of each private party concerned with public works have been recognized thanks to "Progress Payments System".

In December 2004, the Ministry of Land, Infrastructure and Transport announce d that they had seven new pavement constructions, which were directly controlle d by them, targets and would begin the trials in the whole country in order t o switch to the unit price type cost estimation system.

The unit price type cost estimation system means that public owners use the unit price and estimate cost. Then in case of this system, after public owner and contractors conclude the "contract" at the total contract price, they each other agree with the unit price in the every unit division. Therefore, it seems that they can attempt to make not only the contracted office work procedure smooth but also the cost estimation efficient.

"Public owners and contractors agree with each other over the unit price in the

every unit division" which can make the contracted office work procedure o f "Every Month Progress Payments" smooth. This is the contract sy stem of the international standard.

We can say that Japanese contract system of public works approached the dawn of the restoration at last.

#### 6. Knowledge

"Progress Payments" on public works is the tool that makes come true th е following things as a kind of c ontract system. It can keep the relationship between owners and contractors being equal even with their strai ns. It can achieve accountability against taxpayers. Thanks to it engineers can exert their skill to construct high quality infrastructures. It can make the partie s concerned attempt the technology improvement with each other. On the sound company management it can return tangible and intangible profits to society. We should introduce "Progress Payments" into public works in Japan as soon as possible and make eff ort to cure the malignant chronic disease c alled Donburi-Kanjo syndromes.

#### 7. Background

The construction payment method (Fig.-1), that is to say, the contract system of public works of in Japan, was Donburi-Kanjo (rough accounting). We should recognize that we could rapidly achieve the infrastructure facil ities' development and improvement what became the foundation of today' s rich economic society, as it suited the Japanese society in recovery age after the World War This is why, it can be said that Donburi-Kanjo was the system which suited II. the past society. In the past Japanese society, the budget scale of public works was small, and the plan designs and constructions were carried out by the direct control of the public owner. The mission of the em ployment measures and the economic improvement countermeasures were remarkably enforced on public works as it was the poor age. In addition, it can be said that people strongly required that the public owners, from the viewpoint of the government, should protect and train the private contractors (builders). The modern Japanese s ociety after 1990's has been the rich age, and the budget scale of public works rapidly increased, and the public owners came to be in the position of p rocuring During This time, public works which were not us constructions. ed in the principle as the economic improvement countermeasures began to grow up, and the construction industry matured. It has become unreasonable for the government to protect and train people by public works. We can say that it is natural to need to change the contract system, which suited the past society, in order to suit

the modern society under the present finance condition when the country an d local government, which should cover government funds for invest ments and loans of public works, have been tight.

When the finance condition becomes tight, that is to say, the money which the private companies involved in public works receive, in a society which keeps Donburi-Kanjo, the parties concerned in weak positions will have a hard time. That present state is left will do retain the hard bully in the public work system.

#### 8. Sequel

In a trial construction which the Ministry of Land, Infrastructure and Transport carried out in 2001, the construction manager of the contractor seemed to really have trouble. Every month he had submitted the bill to the staffs of the construction work office in the Ministry of Land, Infrastructure and Transport, and had frequently negotiated the withdrawal amount o f money in the atmosphere that is the biased view of the remarkable official power, which gave him too big a stress, so he was very timi d at first. But he seemed to feel "Progress Payments" were reasonable by reason of the method that public orders accurately assessed the construction progress and aggressively paid the construction price even if the advanced payment was zero.

At the beginning the public owners have expressed the strong fear over increasing the quantity of office work because of inspections, a cceptances, and assessments, and on the division supervision business and inspection business. But "Progress Payments" contributes to highlight many problems, and provide s many solution measures in order to carry out businesses without any seriou s errors and in order to introduce it earnestly within the range of the operation of the current laws and rules.

#### 9. On the Side

The improvement and innovation of tender contract system in Japan was carefully planned by using the scandal about the public work in 1993 as an opportunity. And the active scientific research in Japan and the survey on ac tual situation of the supply system of public works in European and American co untries and Asian countries has been car ried out, and many research reports have been published. But the very important matters (that the contract sys tem of public works in European and American countries and Asi an countries was based on "Progress Payments" and it is ordinary that there was not previous payment) were not mentioned in any report at all. It is a mystery. It is possible that, sometimes, things which are too taken-for-granted ar failed to be reported.

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(note 1).

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