

Current Status and Issues
of Concession PFI

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Contents

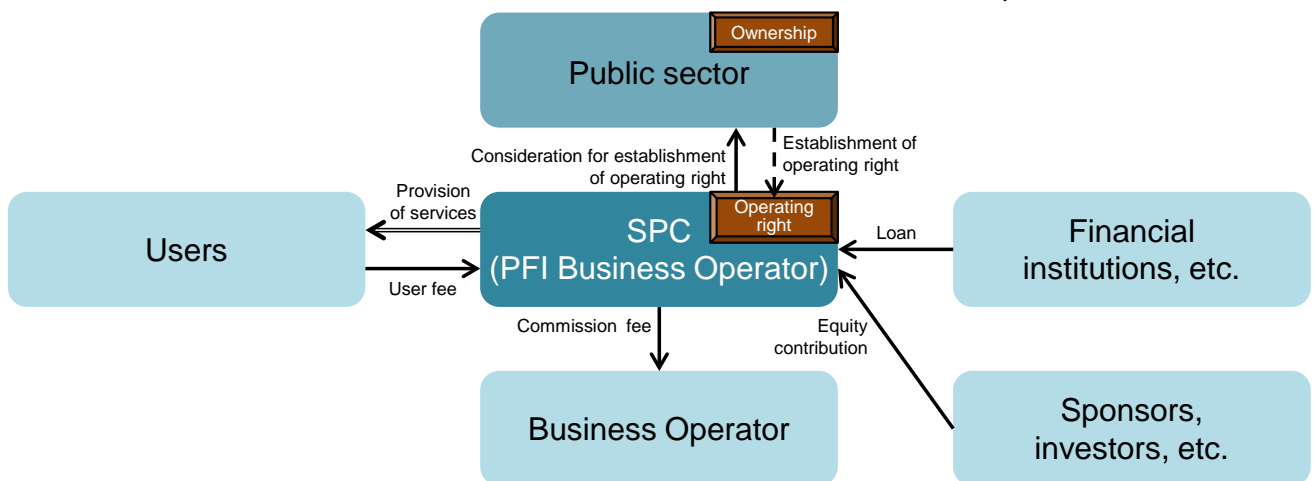
I	Background.....	1
1	Infrastructure dealt with in this report.....	1
2	The narrowing gap between supply and demand	2
2-1	Needs of public sector (supply side)	2
2-2	Needs of investors (demand side).....	3
3	Social significance of public infrastructure market and introduction of concessions	3
3-1	Social significance of public infrastructure market.....	3
3-2	History of public-private partnerships in Japan and introduction of concessions	4
II	Current Status of Concession PFI in Japan	6
1	Size of market for concession PFI	6
2	Current status of concession PFI in general	7
3	Airports	8
3-1	Sendai Airport	8
3-2	Kansai International Airport and Osaka International Airport (Kansai International /Itami)	13
3-3	Other airport projects under examination	18
4	Roads	20
4-1	Aichi Prefectural Road Public Corporation	20
4-2	Other road projects under examination	25
5	Water systems	25
5-1	Osaka City Waterworks Bureau	25
5-2	Other water system projects currently under examination	29
6	Sewages.....	30
6-1	Hamamatsu City Seien sewage treatment plant	30
6-2	Osaka City Sewage Works.....	32
6-3	Other sewage projects currently under examination	33
III	Issues of Concession PFI in Japan	34

I Background

1 Infrastructure dealt with in this report

There are various methods of classifying infrastructure, for example, “economic infrastructure” and “social infrastructure”, or “greenfield” and “brownfield”. Another method is to focus on the owning and operating entities and to classify infrastructure into “public infrastructure” and “private infrastructure”. There are, in fact, various cases, and infrastructure cannot always be clearly classified but, broadly speaking, in Japan’s case, infrastructure such as water systems and sewages, airports, roads, ports and harbours can be described as public infrastructure, while renewable energy facilities, nuclear power, thermal power and other power plants, telecommunication facilities such as base stations, and most railways can be described as private infrastructure. The reason for intentionally saying “in Japan’s case” is that the situation differs from country to country, and infrastructure such as roads and airports that is being privatized overseas is still public infrastructure in Japan, while railways that are often positioned as public infrastructure overseas have been privatized in Japan.

Table 1.1 Basic scheme for concessions introduced in Japan



Source: SMTRI

Such “partial privatization” where the government grants a private-sector business operator the right to operate public infrastructure on a long-term basis is called a “concession” and was first introduced in Japan at the time of the amendments to the Act on Promotion of Private Finance Initiative (“PFI Act”) in 2011. However, in Japan, concessions are only granted for operational (brownfield) public infrastructure that

generates user-fee revenues, and they are not granted for availability-based infrastructure (the type where service payments from the government go up or down depending on the degree of attainment of service requirements). More specifically, concessions may be granted for projects such as toll roads with toll revenue, airports with revenue from landing fees, terminal buildings, etc., and water systems and sewages that generate user-fee revenues.

This report deals with public infrastructure that generates user-fee revenues and is eligible for concessions in Japan, and discussion of other kinds of infrastructure will be saved for another occasion.

2 The narrowing gap between supply and demand

The introduction of the concession scheme in Japan looks set to create opportunities for investors (financial investors) to invest (equity) in public infrastructure, hardly ever seen before. In other words, a market for public infrastructure-related transactions will be borne in Japan.

The formation of such a market requires a “matching of supply and demand” between the public sector that is the supplier of infrastructure and the investors that are the demand side and, currently, due to the needs of the respective sides and the changing environment, the gap between supply and demand appears to be narrowing.

2-1 Needs of public sector (supply side)

Japan’s public infrastructure was generally increasingly constructed from the period of high economic growth in the 1960s until its peak around 1995 after the collapse of the bubble. As this infrastructure stock gradually reaches the age of 50, the expanding burden of maintenance, management and replacement costs is starting to become a major social issue.

In the meantime, most public sector entities in Japan, including national and local governments, are finding it difficult to secure budgets to spend on the maintenance, management and replacement of infrastructure because they are hard up financially and there is also no prospect of a future increase in tax revenues due to a declining birth rate and aging population and companies shifting to overseas operations.

Against this backdrop, national and local governments are starting to recognize that they will have to rely on private-sector investment capital to cover the shortfall that is still going to arise despite the implementation of various measures to reduce future maintenance, management and replacement costs such as rehabilitation, reduction and disposal. The approach that it is more effective to utilize private-sector expertise and capital with respect to maintenance, management and replacement is also

beginning to catch on.

2-2 Needs of investors (demand side)

Investors currently find themselves in a situation where it is difficult to invest. They have the capital to invest but there are no appropriate investment targets due to sustained low interest rate environments around the world. In particular, an alternative to bond investment offering stable long-term cash flows is required, and infrastructure investment is considered to meet such needs. In addition, infrastructure has a low correlation to traditional assets such as equity and bonds, and is also consistent with the needs of investments who want to achieve diversification benefits. Furthermore, infrastructure investment is starting to be considered suitable from the viewpoint of socially significant investment, which has become a requirement among investors in recent years.

There are also quite a few Japanese investors who have already made infrastructure investments. However, most of these are investments in overseas infrastructure (funds) because there is no market in Japan. The establishment of an infrastructure investment market in Japan would also have huge advantages for such investors by making it possible for them to invest in infrastructure that is closer to home without assuming exchange rate risks. Meanwhile, Japan's public infrastructure has the potential to attract attention from overseas investors as the infrastructure of a nation that is stable in terms of its national circumstances and legal system.

3 Social significance of public infrastructure market and introduction of concessions

3-1 Social significance of public infrastructure market

The establishment of a market for public infrastructure-related transactions would not only bring benefits for the public sector, investors and other direct market participants. It also has enormous social significance.

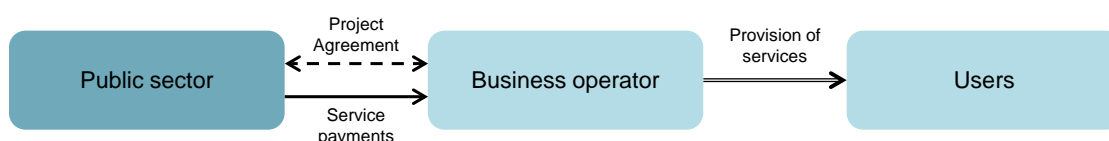
To begin with, the establishment of a new investment market would lead to the circulation of investment capital inside and outside of Japan, and revitalization of the economy (regional economies) and growth in employment could be expected. Moreover, the introduction of market discipline to public projects that tend to be sloppily managed could also be expected to improve operation efficiency and increase transparency.

3-2 History of public-private partnerships in Japan and introduction of concessions

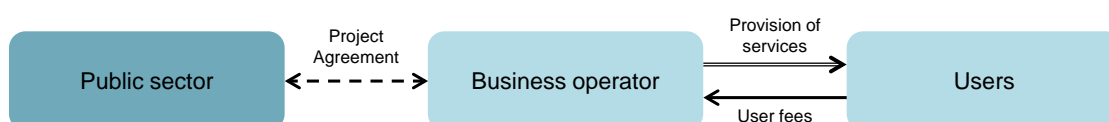
Public-private partnerships in Japan are said to have started in earnest in 1999. This is because this was the year when the Act on Promotion of Private Finance Initiative, modeled on PFI in the UK, entered into force. Since then, Japan has built up a decent PFI track record, undertaking a total of 468 PFI projects costing 4.3942 trillion yen as of the end of September 2014. However, the nature of such projects is heavily biased towards “services sold to the public sector” out of the three types of PFI, and this has been regarded as a problem. Especially in the case of PFI consisting simply in the development of a public facility (called *hakomono* in Japanese) by a construction company, etc. and deferred payment of the consideration by the public sector side, most of the project costs are supplied by banks in the form of public sector debt and the construction company in question makes a slight equity contribution, and so investment opportunities for general investors were rarely ever seen.

Fig. 1.2 Three types of PFI project in Japan

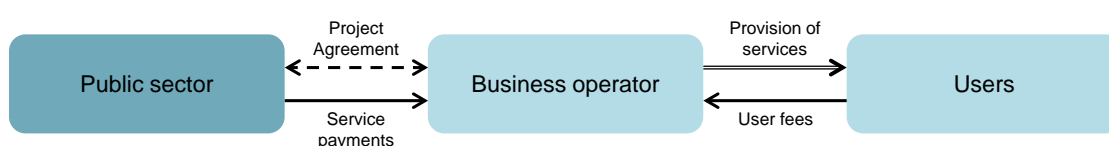
- Services sold to the public sector



- Financially free-standing projects



- Joint ventures



Source: SMTRI

Since this can hardly be called full utilization of private-sector capital and expertise and also deviates from the original aim of public-private partnerships, from around 2009, 10 years after enactment of the PFI Act, examination began with a view to further promoting financially-free standing projects (and joint ventures), and this led to the establishment and entry-into-force of amendments to the PFI Act in 2011. The system which was then introduced to Japan for the first time as part of this reform was the concessions system.

After that, despite the change of government from the Democratic Party of Japan to the Liberal Democratic Party in December 2012, policy on public-private partnerships remained unchanged and was if anything pushed more strongly. In June 2013, the Private Finance Initiative Promotion Corporation of Japan, a PPP infrastructure fund for financing (investing in the preferred equity and subordinated bonds, etc.) of PFI projects that are either financially free-standing projects or joint ventures, was established, giving fresh impetus to the supply of risk money for PFI projects. The Action Plan Toward Fundamental Reform of PPP/PFI was also announced, specifying a numerical target for the first time by saying that “the Japanese government would promote PPP/PFI projects totaling 12 trillion yen over the next 10 years (2013 ~ 2022)”. A year later, the government also set ambitious targets with regard to concession PFI projects included in this action plan, saying it would accelerate the implementation of 2 to 3 trillion yen worth of this type of PFI project and implement 19 projects (six airports, six water systems, six sewages and one road) over a three-year intensive implementation period running to the end of FY2016.

Fig. 1.3 History of public-private partnerships in Japan and background to the introduction of concessions

Date	Matter
September 1999	Entry-into-force of Act on Promotion of Private Finance Initiative (PFI Act)
October 2009	Start of concrete discussions on amendments to PFI Act by the Growth Strategy Council
June 18, 2010	Approval of the New Growth Strategy by the Cabinet ✓ Incorporation of measures to enhance the PFI system, including introduction of concessions
March 11, 2011	Approval of Amended PFI Act by the Cabinet
November 30, 2011	Full entry-into-force of Amended PFI Act ✓ Full entry-into-force of amendments including “introduction of concessions ”, and “introduction of proposal system by private sector”
June 5, 2013	Passing of bill for partial amendment of PFI Act ✓ Establishment of Private Finance Initiative Promotion Corporation of Japan
June 6, 2013	Publication of PFI Act Guidelines Approval of Action Plan Toward Fundamental Reform of PPP/PFI ✓ Government decides to promote PPP/PFI projects totaling 12 trillion yen over the next 10 years (2013 ~ 2022)
June 16, 2014	Approval of Initiatives during the Intensive Implementation Period of the Action Plan Toward Fundamental Reform of PPP/PFI ✓ With regard to concession-type PFI projects included in the Action Plan Toward Fundamental Reform of PPP/PFI, the Government decides to accelerate the implementation of 2 to 3 trillion yen worth of this type of PFI project and implement 19 projects (six airports, six water systems, six sewages and one road) over a three-year intensive implementation period running to the end of FY2016 .

Source: SMTRI

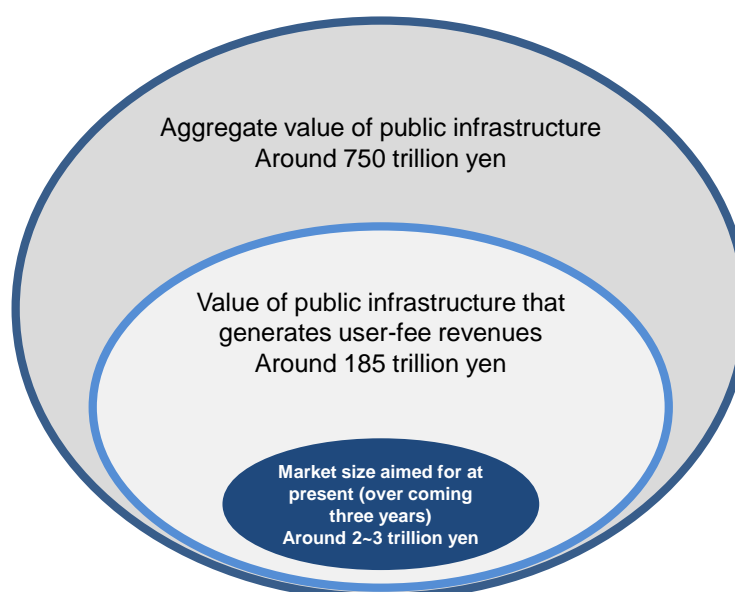
II Current Status of Concession PFI in Japan

1 Size of market for concession PFI

As explained earlier, in Japan, concessions are granted only for public infrastructure that generates user-fee revenues. The materials for the meeting of the Industrial Competitiveness Council on April 17, 2013 go into detail about the scale of such infrastructure. When we aggregate asset amounts for each type of infrastructure, for example, 92 trillion yen for sewages, 46 trillion yen for toll roads, and so on and so forth, public infrastructure that generates user-fee revenues amounts to 185 trillion yen. In other words, this amount represents the maximum potential size of the market for concession PFI in Japan.

Meanwhile, we estimated, mainly from the Annual Report on National Accounts of 2013, that Japan's entire public infrastructure, including public infrastructure that does not generate user-fee revenues, amounts to around 750 trillion yen. In other words, Japan's public infrastructure amounts to around 750 trillion yen on a stock basis and, of this, public infrastructure that generates user-fee revenues and is eligible for concessions amounts to 185 trillion yen. And, for the present (the coming three years), it is the government's target as explained above to aim to create a market with respect to around 2 to 3 trillion yen worth of such projects.

Fig.2.1 Japan's public infrastructure and size of market for concession PFI

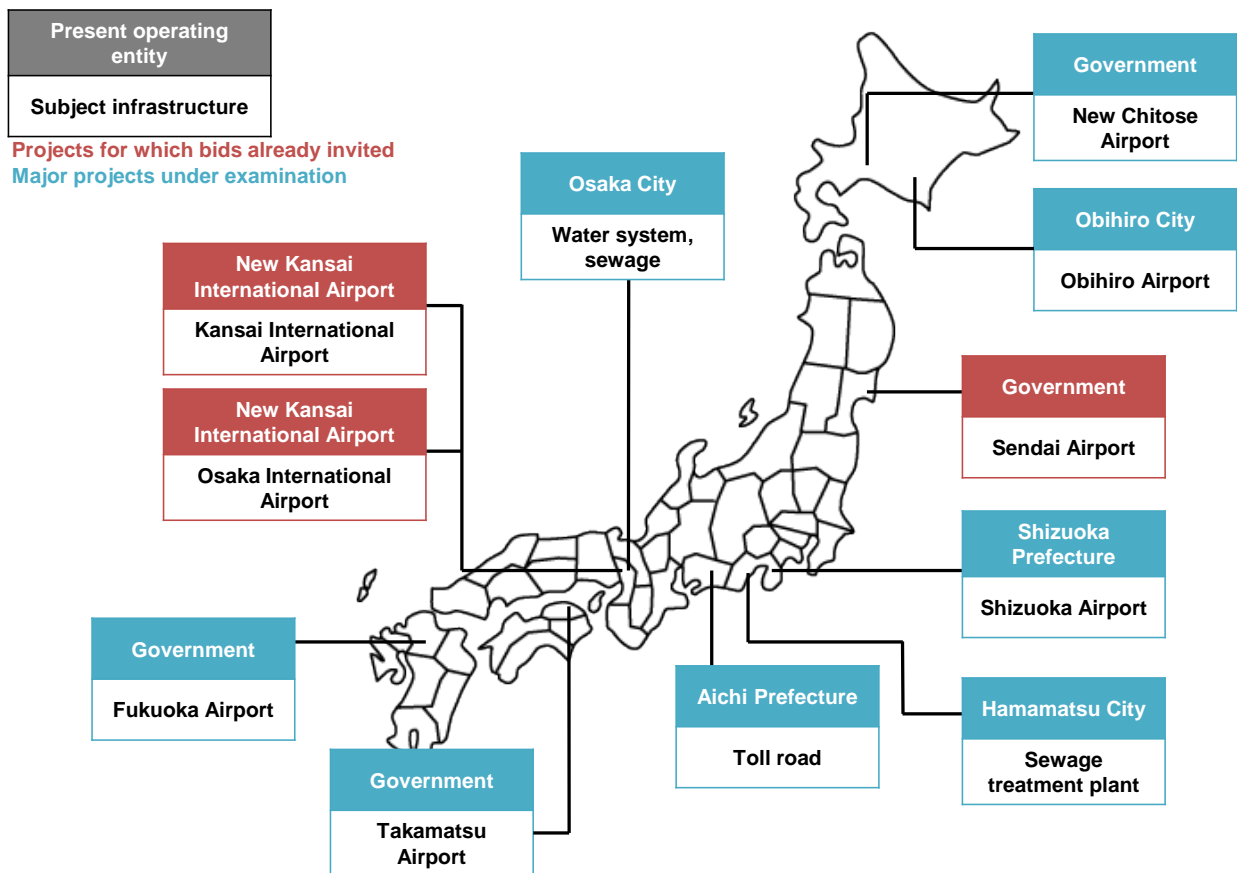


Source: SMTRI

2 Current status of concession PFI in general

As explained earlier, the government has set itself the target of accelerating implementation of 2 to 3 trillion yen worth of concession PFI projects in Japan and implementing 19 projects (six airports, six water systems, six sewages and one road) over a three-year period running to the end of FY2016, and the public and private sectors are currently striving to achieve this target.

Fig. 2.2 Major concession PFI projects currently under examination in Japan



Source: SMTRI

With respect to airports, projects at airports such Obihiro Airport, New Chitose Airport, Shizuoka Airport, Toyama Airport, Kobe Airport, Hiroshima Airport, Takamatsu Airport and Fukuoka Airport are apparently being examined, in addition to the two projects at Sendai Airport and Kansai International Airport/Osaka International Airport (Kansai International/Itami) for which bids for operating rights have already been invited, and the target of 6 projects is beginning to look achievable.

Examples of overseas projects suggest that roads have even more hidden potential.

However, there is currently an institutional obstacle posed by the Act on Special Measures concerning Road Construction and Improvement, which does not permit the collection of fees by the private sector, and the only project under examination is a project by Aichi Prefectural Road Public Corporation, which is trying to overcome this obstacle through the utilization of a Structural Reform Special Zone. That said, the target for roads is one project ~ possibly due to an awareness of the difficulties ~ and is thus also very achievable.

Meanwhile, the area in which the government is said to be furthest away from achieving its target is water systems and sewages. The target is six water systems and six sewages, making 12 projects in total, but apart from water system and sewage projects in Osaka City and a sewage project (sewage treatment plant) in Hamamatsu City, no other projects are currently being examined in earnest.

As for the target of implementing around 2 to 3 trillion yen worth of concession PFI projects in total, since the cost of the Kansai International Airport/Osaka International Airport project (Kansai International/Itami) alone is expected to amount to around 2 trillion yen, the target will be almost achieved through this project, resulting in a lack of balance compared with the number of projects.

3 Airports

Previously, airports in Japan have been operated mainly by national and local governments. However, there are now calls for more efficient operation utilizing private-sector capital and expertise against the backdrop of competition with neighboring countries to capture demand for air transportation, amongst other factors. After concessions were introduced following the amendments to the PFI Act in 2011, a framework for utilizing concessions in airport operations became evident through developments such as the enactment of the Act on Operation of National Airports Utilizing Skills of the Private Sector in 2013, and examination of the privatization of airports suddenly progressed. As a result, out of the four areas mentioned as targets for introduction of concessions by the government, airports is the area in which most projects are currently underway.

3-1 Sendai Airport

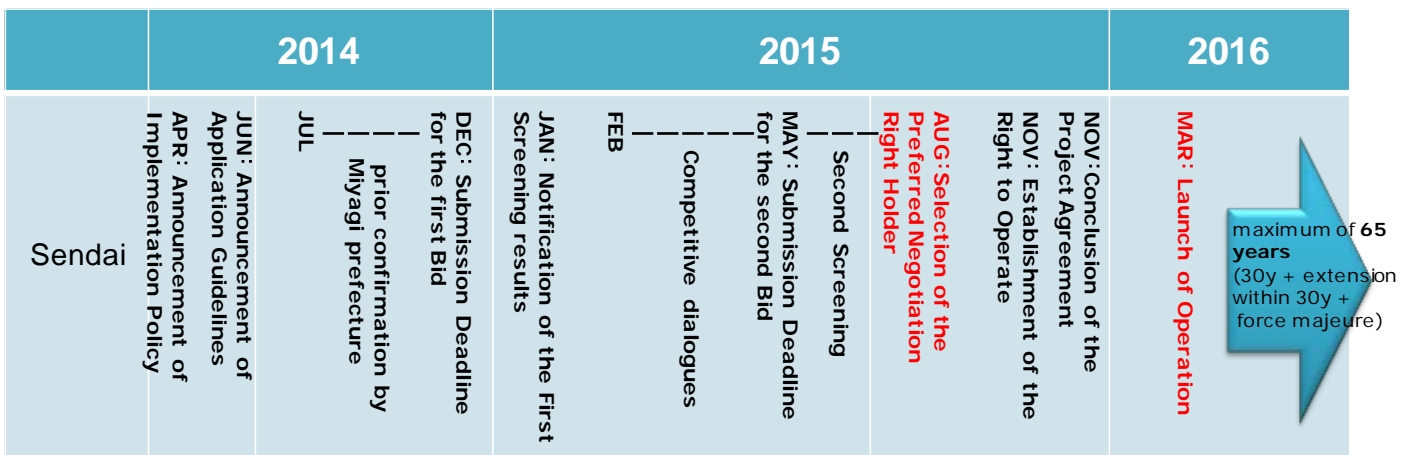
Background

The number of passengers using Sendai Airport, which is a national airport, and the volume of cargo handled in the airport has been decreasing since a peak of 3.35 million passengers in 2007 and 24,000 tons in 2000, respectively. However, Sendai Airport has

enormous potential, with sufficient facilities and functions for international flight services and an excellent location that benefits from convenient transport links with Sendai City, the diverse regional resources of the Tohoku region, and clusters related to automotive and other industries. Through revitalization of the surrounding areas, the airport is also expected to play a role as a driver of the recovery from the Great East Japan Earthquake.

The government now aims to privatize the operations of Sendai Airport and to realize integrated and flexible management of Sendai Airport by integrating the operations of the basic airport facilities, passenger building facilities, cargo building facilities and parking facilities. Through revitalization of the airport, the government also aims to expand the non-resident population visiting from other parts of Japan and overseas and revitalize the Tohoku region as a whole.

Fig. 2.3 Current Schedule for privatization of Sendai Airport

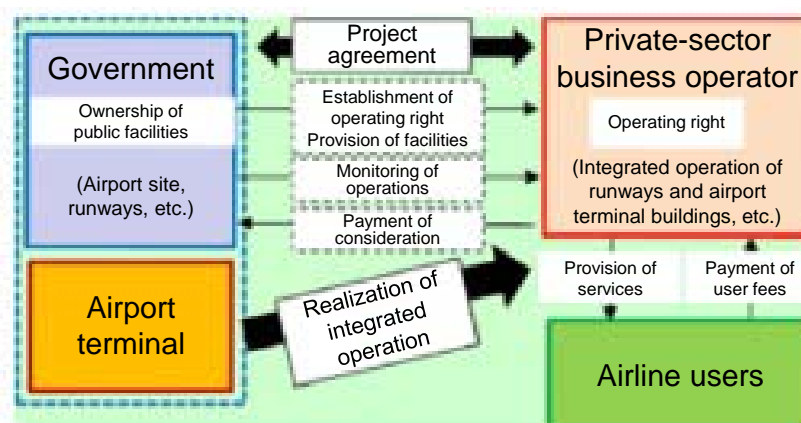


Source: Produced by SMTRI based mainly on MLIT data

Project scheme

The government will select an operating right holder (SPC intended only for this project) by inviting bids. The selected private business operator will operate the runways, etc. (including collection of landing fees, etc.) by being granted the right to operate public facilities, etc. by the government and will perform integrated operation of terminal buildings, etc. by acquiring shares in the building company.

Fig. 2.4 Sendai Airport concession scheme



Source: MLIT data

Conditions of concession, etc.

—Scope of the business

The implementation policy specifies (i) ~ (iv) below as airport operating businesses and (v) as building facilities, etc. business, and states that integrated operation with the Sendai Airport Access Line is also possible.

- (i) Airport Operating etc. Business (maintenance, administration and operation of runways, etc., setting and collection of the landing fees, etc.)
- (ii) Airport air navigation facility operating etc. business (maintenance, administration and operation of aeronautical ground lights, etc.)
- (iii) Environmental measures business (development and maintenance of green zones and other buffer zones)
- (iv) Other incidental businesses (parking facility business, businesses and services proposed by the Preferred Negotiation Right Holder (businesses and services for a symbiotic relationship with local communities, businesses and services for promoting the use of the Airport, etc.)
- (v) Buildings facilities business (passenger building facilities and cargo building facilities)

—Project Period

The period of the project is 30 years and there is an option for extension during the 30 years (only once). Even in the case of extension due to force majeure, etc. the maximum period of operation is 65 years.

—Setup of Usage Fee and bearing of costs

The project is a so-called financially free-standing PFI project where the operating right

holder sets and collects the landing fees and other user fees, and pays all costs necessary for implementation of the project out of such revenues.

—Treatment of the Replacement Investment etc.

The operating right holder may, at its own discretion, carry out maintenance on and administration (replacement investment) of the facilities subject to operating rights, and the facilities are owned by the government. The operating right holder may not, however, construct (new investment) or rehabilitate the facilities subject to operating rights.

—Consideration for the Operating Right

The operating right holder shall pay consideration for the acquisition of the shares issued by the passenger building facility operator and the cargo building facility operator, consideration for the acquisition of the assets for transfer, and consideration for the grant of the operating right. However, the consideration for acquisition of the shares of the passenger building facility operator and the cargo building facility operator is around 5.7 billion yen, and the implementation policy states that “only the proposal for an amount more than 0 yen will be accepted” as the consideration for acquisition of the operating right.

—Risk Allocation

The implementation policy states that since the Operating Right Holder may establish and collect the landing fees and other user fees, any risk associated with the project shall be borne by the operation right holder. However, risks listed in Fig. 2.5 are envisaged as risks that will be exceptionally borne by the government, including the risk of force majeure such as a large disaster.

Fig. 2.5 Risks borne by public and private sectors in Sendai Airport concession PFI

Risks (excerpt)	Government	Private Sector (Operating Right Holder)
Business risks in general, including airport demand	-	○
Force majeure (large natural disaster, etc.)	○	(Required to purchase insurance)
Liability for latent defects	○ (Latent defects founds within 6 months)	-
Particular change of acts (applicable to the project)	○	-
Emergency events (Article 29, Paragraph (1), Item (ii) of the PFI Act)	○	-

Source: Produced by SMTRI based mainly on MLIT data

Status of invitation and selection

Following the announcement of the Implementation Policy on the Qualified Project Etc. for Sendai Airport Operation on April 25, 2014, MLIT announced the Application Guidelines on the Qualified Project Etc. for Sendai Airport and Miyagi Prefecture announced Participation Requirements for Selection of Business Operator Applicants on June 27, 2014. Later, following a briefing on the application guidelines, submission of statements of interest in participation, and notification of the results of participation requirement screening, MLIT closed applications for the first screening on December 5, 2014. At this stage, the media reported that the following four groups had applied. On January 26, 2015, it was also reported that MLIT had notified all these four groups that they had passed the first screening.

Fig. 2.6 Four Groups reported to have applied for right to operate Sendai Airport

Mitsubishi Estate, Taisei Corporation, Japan Airport Terminal, ANA Holdings, Sendai Television
Mitsubishi Corporation, Rakuten
Tokyu Corporation, Tokyu Land Corporation, Maeda Corporation, Macquarie Group (Aus), Toyota Tsusho
AEON Group, Kumagai Gumi

Source: Produced by SMTRI based on Nihon Keizai Shimbun (December 5, 2014) and other media reports.

Points for attention in the future

The Sendai Airport project has been called a “good project” by those involved as the price is affordable and there are also few restrictions. The four groups that passed the first screening are all strong candidates and, whichever group becomes Operating Right Holder, there will no doubt be high expectations for the revitalization of the airport and the surrounding area after the start of operation.

On the other hand, it is feared that the degree of capital market involvement such as financial investors and project finance will be limited because the expected consideration for the operating right is not very high and, on the strength of this project alone, there is little hope of the establishment and development of the infrastructure investment market in Japan.

There are also reports that the deadline for the second screening is expected to be extended due to delays in the proceedings.

3-2 Kansai International Airport and Osaka International Airport (Kansai International /Itami)


Background

As a result of the management integration of Kansai International Airport and Osaka International Airport on July 1, 2012, the operations of both airports were transferred to the wholly government-owned New Kansai International Airport Company, Ltd. “the NKIAC”), to promote improvement in the efficiency of operations and expansion in air transport demand through collaboration between the two airports. The NKIAC decided to establish operating rights on the two airports mainly for the following three purposes and to consign the business to a private-sector business operator.

- (i) Revitalization and enhancement of the function of Kansai International Airport as an international hub airport including improvement of transit between international and domestic flights
- (ii) Operation of Osaka International Airport as an environmentally friendly urban airport, improvement of airport access for meeting the needs of users, etc.
- (iii) Early and certain repayment of debts using the consideration received for the operation right

The NKIAC then announced the Implementation Policy on July 25, 2014 and the Application Guidelines on November 12, 2014 and is now in the process of selecting a preferred negotiation right holder in preparation for the start of operation around January 2016.

Fig. 2.7 Current Schedule for privatization of Kansai International Airport and Osaka International Airport (Kansai International/Itami)

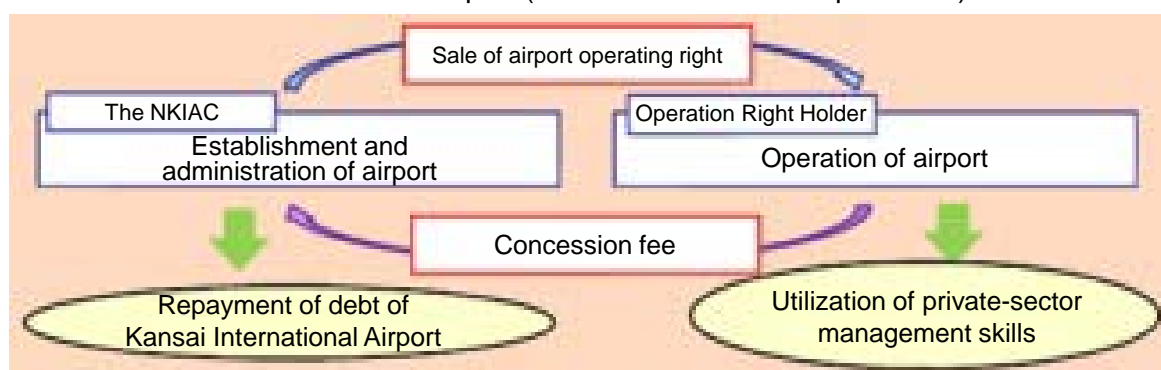
	2014	2015	2016	
Kansai Osaka	<p>JUL: Announcement of Implementation Policy</p> <p>NOV: Announcement of Application Guidelines</p> <p>DEC: Notification of participation requirements screening results</p>	<p>FEB: Submission deadline of the Intent Statement of Participation</p> <p>— Pre-competitive dialogues</p> <p>— Competitive dialogues</p> <p>MAY: Submission deadline of the First Screening Documents</p> <p>JUN: Submission deadline of the Second Screening Documents</p>	<p>SEP: Execution of the Project Agreement</p> <p>SEP: Grant of the Operating Right</p> <p>JUL: Selection of the Preferred Negotiation Right Holder</p>	<p>JAN: Commencement of the Project</p> 

Source: Prepared by SMTRI based mainly on data released by the NKIAC

Project scheme

The preferred negotiation right holder that is selected by the NKIAC and concludes a basic agreement will establish an SPC intended only for the execution of the project. The SPC will become the operation right holder upon being granted operating rights with respect to the airport site and facilities necessary for implementing specified businesses located in the vicinity of the airport including runways, taxiways, aprons, parking facilities, passenger facilities, cargo facilities, offices and retail outlets (airport facilities). The operation right holder will conclude a project agreement with the NKIAC and implement the project upon transfer of the stock, agreements and movables of New Kansai group companies from the NKIAC in accordance with the provisions of said agreement.

Fig. 2.8 Concession Scheme of Kansai International Airport and Osaka International Airport (Kansai International Airport/Itami)



Source: MLIT data

Conditions of concession, etc.

— Scope of the business

The scope of the airport operation project for the Kansai International Airport and Osaka International Airport (Kansai International/Itami) consists of the mandatory businesses (i) to (vii) below and optional businesses (businesses that serve the purpose of the project and require the approval of the NKIAC).

- (i) Operation, maintenance and administration of the Basic Airport Facility etc. (runways, taxiways, aprons, car parking lots, water discharge facilities and roads)
- (ii) Operation, maintenance and administration of the Airport Air Navigation Facility
- (iii) Operation, maintenance and administration of the Airport Function Facility (passenger facilities, cargo facilities and Aircraft Fueling Facility)
- (iv) Operation, maintenance and administration of Airport Convenience Facility

(offices, shops, accommodation facilities, resting facilities, observation facilities and facilities for tour)

- (v) Environmental Measures Business
- (vi) Operation, maintenance and administration of the Access Facility (excluding the Kansai International Airport Access Bridge (road part) and the railway facilities of the Kansai International Airport Access Line)
- (vii) Incidental Business (Lease of land to the airport offices and CIQ, etc., Operation, maintenance and administration of company housing, etc.)

— Project Period

The period of the project is from project commencement date until March 31, 2060, and will not be extended.

— Setup of Usage Fee and bearing of costs

The project is a so-called financially free-standing PFI project where the operation right holder may set and collect the usage fees such as landing fees, air navigation facility user fees, passenger facility user fees and parking facility user fees.

— Treatment of the Replacement Investment etc.

In principle, the operating right holder may, at its own discretion and expense, carry out maintenance, repair and expansion of the airport facilities, and such facilities will belong to the NKIAC. The operating right holder may, however, not make new investment in the construction of runways, etc., which is outside the scope of the operation rights or rehabilitate the facilities.

— Consideration for the Operating Right etc.

The minimum proposal amount of the consideration for the Operating Right shall be the amount of the base price (39.2 billion yen (annually)) after deducting the estimated amounts of Revenue Sharing Fees (voluntary) and the estimated amounts which taking into account an equivalent to the interests of the Performance Guarantee Deposit.

To secure the performance of the Project Agreement, in addition to the consideration for the Operating Right, etc., the Operating Right Holder shall pay Performance Guarantee Deposit. The minimum amount of Performance Guarantee Deposit shall be 175.0 billion yen, and only such proposals with amounts in excess of this amount shall be accepted. If the Operating Right Holder has been properly performing its obligations in accordance with the Project Agreement, the Performance Guarantee Deposit shall be returned to the Operating Right Holder in proportion to the years that have elapsed

since the Project Period commenced.

— Risk Allocation

The implementation policy states that since the operating right holder may establish and collect the landing fees and other user fees, any risk associated with the project shall be borne by the operation right holder, in principle. However, risks such as the following are envisaged as risks that will be borne by the NKIAC to a limited extent, including the risk of force majeure such as a large disaster.

Fig. 2.9 Risks borne by public and private sectors in the Kansai International Airport and Osaka International Airport (Kansai International/Itami) concession PFI

Risks (excerpt)	Government	Private Sector (Operating Right Holder)
Business risks in general, including airport demand	-	○
Force majeure (large natural disaster, etc.)	○	(Required to purchase insurance)
Liability for latent defects	○ (Latent defects found within 24 months/12 months)	-
Particular change of acts (applicable to the project)	○	-
Emergency events (Article 29, Paragraph (1), Item (ii) of the PFI Act)	○	-
Ground settlement of the Airport site (additional measures)	○	(Borne to the extent specified in the Requirements)

Source: Prepared by SMTRI based mainly on data released by the NKIAC

Status of invitation and selection

The results of Participation Requirements Screening were announced on December 26, 2014, and 20 companies from both inside and outside of Japan passed the Participation Requirements Screening.

Fig. 2.10 Companies which passed the Participation Requirements Screening regarding the Qualified Project, etc., for Airport Operations of Kansai International Airport and Osaka International Airport (Kansai International/Itami)



Source: Produced by SMTRI based on release of the New Kansai International Airport Company (December 26, 2014)

Points for attention in the future

In the case of the Kansai International Airport and Osaka International Airport (Kansai International/Itami) concession PFI, the high level of the consideration for the operation right, which is said to amount to around 2 trillion yen over the total period of the project, is a general point of concern. Even if EBITDA (earnings before interest, taxes, depreciation, and amortization) is 70 billion yen, the consideration is around 30 times this, far exceeding 15~20 times EBITDA, which is said to be the average in similar cases overseas. There is, therefore, concern over the small number of business operators that applied and when, on February 10, 2015, the deadline for submission of the first screening documents, which was initially February 16, was extended for three months, these concerns grew even bigger. As a result of this extension, extension of the rest of the schedule is also expected.

On the other hand, with ORIX expressing its intent to participate in collaboration with VINCI Airport, there are those who see the consideration for the operation right, which is generally considered high, as valid provided there is an appropriate growth strategy that includes tapping into demand for air transport among LCCs, and attention is focused on the future moves of candidate companies.

Since the consideration for the operation right will in any case be high, attention is also

focused on the capital structure, which will include the Private Finance Initiative Promotion Corporation of Japan, a public-private investment fund.

3-3 Other airport projects under examination

Takamatsu Airport (local government-administered airport)

Kagawa Prefecture began properly examining introducing consignment of the operating rights of Takamatsu Airport using MLIT's "innovative public-private partnership support project" scheme in FY2013. Later, in March 2015, the prefecture revealed plans for privatization by the spring of 2018. This fiscal year, Kagawa Prefecture began preparations in earnest, including a survey of the current status of airport facilities, renewal of the implementation policy and project agreement, and examination of the proposed project scheme, and plans to announce the bidding conditions, etc. in the spring of 2016 at the earliest.

Shizuoka Airport (local government-administered airport)

Since the opening of Shizuoka Airport in 2009, an airport operating company (Mt. Fuji Shizuoka Airport Co., Ltd.) established through capital contributions exclusively from local companies has operated the passenger terminal buildings and also performed administrative operations for the basic airport facilities as designated administrator. However, after much deliberation, including a feasibility study for introduction of the right to operate a public facility, etc. as an innovative public-private partnership support project adopted by MLIT in FY2012 and meetings of Shizuoka Prefecture's Council of Experts, it was decided that the final airport operating structure should be a private-sector entity which was assigned the right to operate a public facility, etc., and Shizuoka Prefecture is now working towards realization of this plan. In 2014, as part of this, Shizuoka Prefecture made a capital contribution to the airport operating company (becoming a major shareholder alongside two private companies). It also bought the passenger terminal buildings, strengthening prefectural involvement in airport operations while maintaining the framework of the designated administrator system. At the Prefectural Assembly in December 2014, Governor Kawakatsu said that "The right to operate a public facility, etc. will be introduced at the earliest in FY2019 after expiration of the current designated administration period. To this end, there will be statements of interest from private-sector business operators in FY2017 and procedures for entering into an agreement in FY2018."

Obihiro Airport (specific local government-administered airport)

Obihiro airport is a specific local government-administered airport. The central

government established the airport and commissioned Obihiro City to administer it. The airport is being examined as an innovative public-private partnership support project adopted by MLIT in FY2014, including a project feasibility study for operation of a public facility, etc.

New Chitose Airport (central government-administered airport)

The operation of New Chitose Airport has been the subject of discussion at an advisory panel of experts since 2011, and a report proposing changes such as the integration of airport operation, the commissioning of operation to the private sector and the integrated operation of other airports within Hokkaido area was published in March 2012. Later, in June 2014, Hokkaido Airport Terminal Co., Ltd., which operates the airport buildings, stated that it was aiming for privatization within five years, but Hokkaido has been said to be cautious about the privatization of New Chitose Airport. However, expectations for airport privatization are picking up again, with the Hokkaido Shimbun reporting in January 2015 that the Hokkaido Prefectural Government was considering approving privatization. However, it was also conveyed that the integrated operation of other airports within Hokkaido area will be addressed in the future and that, for the time being, the prefectural government will consider the privatization of New Chitose Airport only. The plan appears to be to increase New Chitose Airport's ability to attract passengers as the hub airport within Hokkaido area and create synergies for other airports within the prefecture through increased connecting flights via New Chitose. In any case, New Chitose Airport is seen as one of the most high quality projects and it could become a major project with a sale price exceeding 100 billion yen.

Fukuoka Airport (central government-administered airport)

The "Fukuoka Airport operations consultative committee," established by Fukuoka Prefecture and Fukuoka City in 2013, looked at outsourcing the operations of Fukuoka Airport to the private sector, and submitted its report in October 2014. The following month, the Governor of Fukuoka Prefecture and the Mayor of Fukuoka City together expressed their consent to the consignment of airport operations to the private sector. They revealed a plan to increase the convenience of the airport by consigning its operation to the private sector, including using part of the proceeds from the sale of the operating right to build a second runway, and to link this to regional development. They plan to announce the Implementation Policy by the end of FY2016, select the Business Operator that will be consigned the operating right from the spring of 2017, and privatize the airport around April 2019. They aim to complete the new runway, which is estimated to cost 180 billion yen, around 2024.

4 Roads

Under existing legislation in Japan, privatization of toll roads using the concession system is difficult. This is because the Act on Special Measures concerning Road Construction and Improvement only allows road administrators such as prefectural governments and local road public corporations and expressway companies to build or rebuild roads and collect tolls, and does not permit the operation of toll roads by private-sector business operators. Another major obstacle has been that the act also assumes that road construction costs will be recovered through the toll revenues collected within a certain period (full-cost-recovery principle) and the roads will then be toll-free. It does not allow inclusion in tolls any margin of profit beyond construction, reconstruction, maintenance, repair and administration costs.

Against this background, Aichi Prefecture is attempting to realize operation of toll roads by a private-sector business operator through utilization of the system of special zones for structural reform. However, there are no other projects under examination at the present time. That said, the target for concession PFI roads projects by the end of FY2016 is one project, and the Aichi Prefecture project will probably be the only project that will be granted a concession for the time being.

4-1 Aichi Prefectural Road Public Corporation

Background

Aichi Prefectural Road Public Corporation is attempting to get a private-sector business operator to operate eight of the roads for which it collects tolls, thereby creating new business opportunities, providing affordable, high-quality services through private-sector ingenuity, and revitalizing the local economy including development of the areas served by the roads.

In May 2014, following a proposal from Aichi Prefecture, the government (Headquarters for the Promotion of Special Zones for Structural Reform) approved a plan to make an exception to the Act on Special Measures concerning Road Construction and Improvement, including granting authority to collect tolls to a private-sector business operator that has the right to operate a public facility, etc., to enable operation of toll roads by a private-sector business operator. In October 2014, a bill was submitted to an extraordinary session of the Diet, but the bill was shelved and then scrapped when the House of Representatives was dissolved for a general election. On April 3, 2015, the bill was resubmitted to the 189th ordinary session of the Diet. If the bill is passed in this session of the Diet, this will be a big step towards realization of the privatization of toll roads, and the operation of toll roads by a private-sector business operator is expected

to start in 2016.

Fig 2.11 Events leading to the examination of privatization by Aichi Prefectural Road Public Corporation

Date	Matter
March 2012	Proposal of special zone for structural reform (21st proposal) by Aichi Prefecture, asking for special measures to allow entry of private-sector companies to the toll-road sector
August 2012	In the government's plan in response to 21 st proposal of special zone for structural reform (decision by Headquarters for the Promotion of Special Zones for Structural Reform), the government decides to consult promptly with Aichi Prefecture and reach a conclusion by May 2013.
May 28, 2013	Proposal "for realization of operation of toll road business by private-sector business operator" by Aichi Prefecture ✓ Operation of toll road business by private-sector business operator ✓ Granting of incentives to private-sector business operator ✓ Continued collection of toll revenues to improve and maintain convenience of roads
April ~ June 2014	"Gathering of opinions on operation of toll road business by private-sector business operator" by Aichi Prefecture
May 19, 2014	Government's plan in response to 24 th proposal of special zone for structural reform (decision by Headquarters for the Promotion of Special Zones for Structural Reform) ✓ Special regulatory measures to be taken in special zone for structural reform "An exception shall be made to the Act on Special Measures concerning Road Construction and Improvement, including granting authority to collect tolls to private-sector business operator that has right to operate a public facility, etc. to enable operation of public corporation-administered toll roads by a private-sector business operator."
October 2014	Bill to amend part of the National Strategic Special Zones Act and Act on Special Districts for Structural Reform submitted to the Diet in order to enable operation of public corporation-administered toll roads by private-sector business operators
November 2014	Bill shelved and scrapped
December 2014	Aichi Prefecture passes bill to change business of Minamichita Road, Chitahantō Road, Chitaōdan Road and Chubu International Airport Connecting Road. Extends toll collection period to March 31, 2046.
April 3, 2015	Bill to amend part of the National Strategic Special Zones Act and Act on Special Districts for Structural Reform resubmitted to the Diet

Source: SMTRI based mainly on data released by the Cabinet Office's Regional Revitalization Promotion Office and data released by MLIT

Also in tax system reform requests for FY2015 related to this matter, the following two changes were approved.

- (i) Reduction in the rate of registration tax for registration of the right to operate a public facility, etc. in relation to the toll road business of a local road public corporation to 0.0005% (usually 0.001%) for a limited period of two years (period of application: FY2015 ~ FY2016)
- (ii) Toll roads administered by local road public corporations come under "roads for public use" and are, therefore, not subject to fixed asset tax and will still not be subject to fixed asset tax even in the event of utilization of the concession system

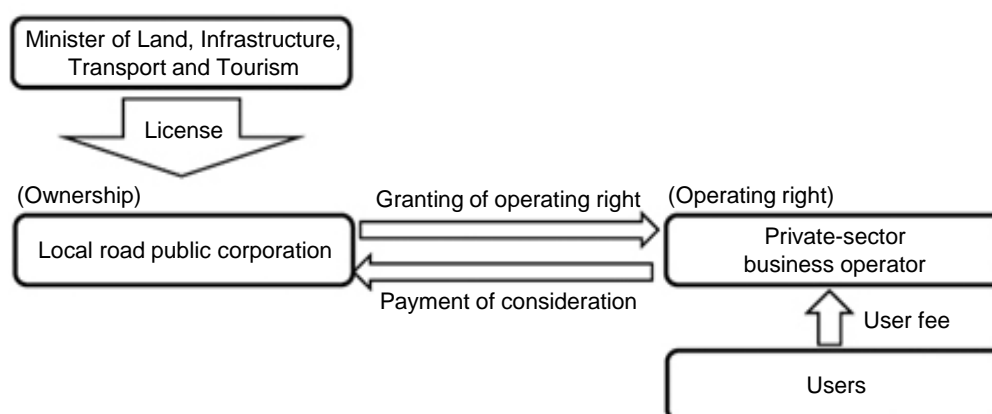
The total revenue of the eight roads in question is around 17 billion yen (FY2013) and none of roads is making a loss. Around half of this revenue was applied to recovery of construction costs, etc. but there are also apparently some roads where recovery of

costs is not going as initially planned. This is why the introduction of concession is being examined, but there are also growing expectations for various synergies such as the expansion of business opportunities related to the project and the creation of new jobs.

Project scheme (planned)

Aichi Prefectural Road Public Corporation will grant a private-sector business operator the right to operate toll roads (authority to collect toll charges, etc.) in accordance with the Act on Special Measures concerning Road Construction and Improvement. The operating right holder will be allowed to undertake operations such as the maintenance and repair of the subject roads, collection of toll charges and traffic administration, and will also be allowed to undertake businesses aimed at revitalization of the local economy such as development of the areas served by the roads.

Fig. 2.12 Scheme of Aichi Prefectural Road Public Corporation’s concession project



Source: MLIT data

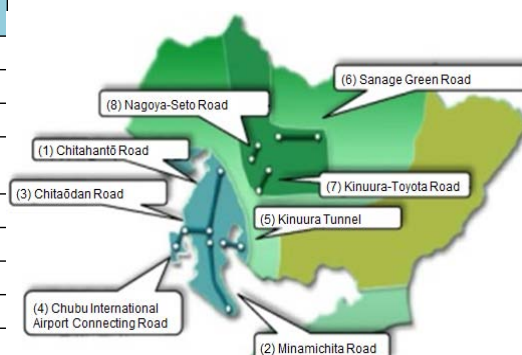
Conditions of concession, etc. (Planned)

— Scope of the business and Project Period

The scope of the project is eight out of the roads for which Aichi Prefectural Road Public Corporation collects tolls (total length 72.5km). The project will end with the expiration of the toll collection period of each road licensed by the Minister of Land, Infrastructure, Transport and Tourism. In December 2014, the Prefectural Assembly passed a bill changing the business including the construction of interchanges and parking areas with respect to four out of the eight roads in question: Chitahantō Road, Minamichita Road, Chitaōdan Road and Chubu International Airport Connecting Road. As a result, the toll collection period was extended to March 31, 2046.

Fig. 2.13 Roads included in Aichi Prefectural Road Public Corporation’s concession project and toll collection periods

Name of road	Length (km)	Toll collection period
(1) Chitahantō Road	20.9	July 15, 1970 - March 31, 2046
(2) Minamichita Road	19.6	March 1, 1970 - March 31, 2046
(3) Chitaōdan Road	8.5	April 1, 1981 - March 31, 2046
(4) Chubu International Airport Connecting Road	2.1	January 30, 2005 - March 31, 2046
(5) Kinuura Tunnel	1.7	August 1, 1973 - November 29, 2029
(6) Sanage Green Road	13.1	April 1, 1972 - June 22, 2029
(7) Kinuura-Toyota Road	4.3	March 6, 2004 - March 5, 2034
(8) Nagoya-Seto Road	2.3	November 27, 2004 - November 26, 2044
Total	72.5	



Source: Prepared by SMTRI based mainly on MLIT data and Aichi Prefecture data

— Setup of Usage Fee, bearing of costs and Treatment of the Replacement Investment etc.

The tolls will be determined flexibly by the operating right holder up to the amount for which Aichi Prefectural Road Public Corporation received a license, etc. from the Minister of Land, Infrastructure, Transport and Tourism. It is assumed that Aichi Prefectural Road Public Corporation will establish certain rules and grant incentives to the operating right holder with respect to net income and expenditure of operating activities, including increased revenues or cost savings. If development of facilities is necessary to increase convenience, including large-scale replacement or interchanges (including in the event of proposals by the private-sector business operator), the private-sector business operator will be allowed to undertake such activities but will recover the costs necessary for the development of facilities, etc. from toll charge revenues. The construction of new roads or road reconstruction is considered outside the scope of the operating right and the operating right holder may not engage in such activities at its own discretion.

— Consideration for the Operating Right

The consideration for the operating right to be paid to Aichi Prefectural Road Public Corporation by the operating right holder will be determined based on the proposal of the private-sector business operator after the public corporation has estimated and presented a standard price.

— Risk Allocation

Since Aichi Prefectural Road Public Corporation is entrusting every aspect of management, including the authority to collect toll charges, to the private-sector business operator, all business risks including fluctuation in demand and economic

conditions will basically be borne by the private-sector business operator. It is, however, envisaged that the risk of construction of a competing road or a force majeure event such as a large disaster or the risk of a change in laws and regulations that relates to the road project will be borne by the public corporation.

Fig. 2.14 Risks expected to be borne by public and private sectors in the Aichi Prefectural Road Public Corporation's concession PFI

Risk (excerpt)	Public sector	Private sector (Operating right holder)
All business risks including road demand	-	○
Competing road risk (new construction, etc.)	○	-
Large-scale rehabilitation risk	-	○
Force majeure (large natural disaster, etc.)	○	-
Particular change of acts (applicable to the project)	○	-

Source: Prepared by SMTRI based mainly on Aichi Prefecture data

Points for attention in the future

The Bill to amend part of the National Strategic Special Zones Act and Act on Special Districts for Structural Reform already submitted to the Diet must be passed and enacted before the concession can be introduced. If this happens, Aichi Prefecture will apply for approval of a plan for a special zone for structural reform, and if this is approved, Aichi Prefectural Road Public Corporation will carry out procedures in accordance with the PFI Act to enable operation by a private-sector business operator at last.

Another point to watch is the concession conditions that will no doubt be examined in detail in the future, including the project scheme, the risks borne by the public and private sectors, and the consideration for the operating right. The consideration for the operating right was initially estimated at around 100 billion yen, but due to the extension of the toll collection period of the four roads, some say it will exceed 150 billion yen. Currently, interest among private-sector players, especially construction, automotive, trading, real estate and expressway companies, is said to be extremely high.

In the meantime, there is also talk that Aichi Prefecture is planning a toll-free Nishi Chita Road on the west side running almost parallel with the Chitahantō Road and the truth of such rumors and the effect of such a plan also needs to be borne in mind.

4-2 Other road projects under examination

As explained earlier, partly because the concession system cannot be applied to toll roads unless the system of special zones is used and an exception is made to the Act on Special Measures concerning Road Construction and Improvement, there are no other projects besides the Aichi Prefectural Road Public Corporation project currently under examination. Given that the government target is one road project, it could be construed that this project marks the end of introduction of the concession system to roads. However, other local governments are thought to be watching the developments and if this project turns into a huge success, the possibility that similar initiatives will suddenly take off cannot be ruled out.

5 Water systems

There are hardly any previous examples of the privatization of water services in Japan, partly because the Water Supply Act (Article 6, paragraph (2)) stipulates municipal operation in principal, and the “consignment of operations” (especially partial consignment which involves consigning only a part of operations) has been the main form of public-private partnership. Consequently, the idea that water services are operated by the public sector is widespread among the general public in Japan and the introduction of the concession system may not only require the pursuit of economic advantages but also a change of mind set on our part.

Partly because of this backdrop, the only project currently being examined in earnest is the Osaka City Waterworks Bureau’s project, and the target of six concession PFI projects by the end of FY2016 is at risk of not being met.

5-1 Osaka City Waterworks Bureau

Background

Although Osaka City’s water services have been profitable every year except FY2001, there is no prospect of any halt in the decline of water demand in the future and the business outlook, including the high ratio of corporate bonds to sales (water supply revenues), is by no means optimistic. Moreover, a large amount of business costs are considered necessary in the future for the downsizing of water purification plants in response to reduced water demand, improvement in the ratio of aged pipelines (pipelines that have exceeded their statutory useful service life of 40 years) and acceleration of the introduction of earthquake-resistant pipeline.

Meanwhile, Osaka City has an eye on expanding a wide range of businesses utilizing

Osaka City’s high level of technology and knowhow, including aiming for wide-area operation and actively promoting business expansion both inside and outside of Japan. Osaka City, therefore, set forth a privatization plan through the “separation of infrastructure and operation” using the “system of right to operate a public facility, etc.” as a management technique that would allow it to (i) demonstrate management freedom and aim to ensure business efficiency, sustainability and development potential and (ii) ensure the public nature of water services. Examination is currently underway aiming for the start of operations in April 2016.

Fig. 2.15 Events leading to examination of privatization by Osaka City Waterworks Bureau

Date	Matter
November 11, 2013	With respect to the privatization of water services, Osaka City’s strategic council selected the separation of infrastructure and operation using the system of the right to operate a public facility, etc. as the method that would increase efficiency and development potential while ensuring the public nature of the services and also offers the possibility of early realization and decided to aim to formulate a basic plan.
April 9, 2014	Osaka City’s strategic council approved the policy and direction of project operation (ensuring safety and security, accelerating introduction of earthquake-resistant pipeline and realization of merits including a review of water service tariffs) and the details of a estimate schedule draft for the start of operations.
April 14, 2014	Osaka City announced “Osaka City Water Services Privatization Basic Policy (Draft) ~ Utilization of System of Right to Operate a Public Facility, etc.” and invited public comments and conducted market-sounding.
August 12, 2014	Osaka City announced the results of public comments and market-sounding.
November 19, 2014	Osaka City’s strategic council approved a detailed implementation plan for utilization of the system of right to operate a public facility, etc. (establishment of operating right holder, formulation of implementation policy draft, estimate schedule draft, etc.)

Source: Prepared by SMTRI based mainly on Osaka City Waterworks Bureau data

Project scheme (planned)

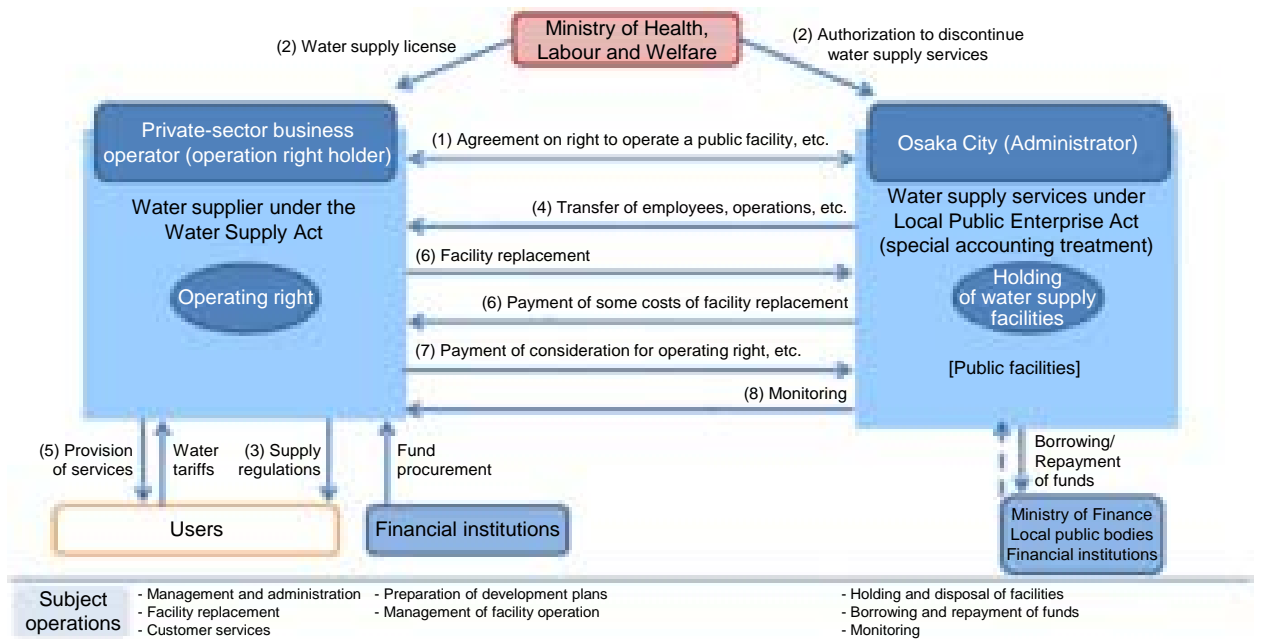
Osaka City, holder of the assets, will aim to improve management efficiency through privatization based on the scheme of separating infrastructure and operation, and the operating right will be granted to a private-sector business operator (operation right holder). The private-sector business operator will acquire a water supply license, and will take over the majority of water supply operations, from the direct collection of tariff revenues to maintenance, administration and facility replacement.

However, the “private-sector business operator” in the envisaged scheme will be a joint-stock company wholly owned by Osaka City (water supply business accounting), and Osaka City will transfer city officials relating to the water supply business (transfer of employment, dispatch of employees) to the new joint-stock company (operating right holder) before granting it the operating right and having it implement the project. The city’s contribution will be around 11 billion yen ~ 14 billion yen, including contribution in kind. The city will examine a partial sale of shares on the condition of securing the

public nature of the services on a time-scale of 3~5 years after commencement of the project.

The operating right holder will establish an integrated group management structure with subsidiaries and associates, inviting equity contributions exceeding 50% from the private-sector, and will ensure appropriate division of roles. For example, it is assumed that the operating right holder will be in charge of city water supply services while subsidiaries and associates will be in charge of business development inside and outside of Japan.

Fig. 2.16 Scheme of Osaka City Waterworks Bureau’s concession project



Source: Osaka City Waterworks Bureau data

Conditions of concession, etc. (planned)

— Scope of the business

The project consists of businesses the operating right holder is obliged to undertake (specified businesses) and businesses besides the specified businesses that the operating right holder can opt to undertake (optional businesses). Specified businesses refers to all operations undertaken with respect to the city water supply services, including the operation and administration of water supply facilities, water quality control, the formulation of facility development plans, the replacement, maintenance and preservation of facilities, recovery from major disaster, etc., water meter inspections and the collection of water tariffs. Meanwhile, optional businesses could be businesses such as the undertaking of operation and administration for the purification plants of other towns and cities, the undertaking of overseas water supply projects, and

the manufacture and sale of bottled water.

— Project Period

The period of the project is 30 fiscal years.

— Setup of Usage Fee, bearing of costs and Treatment of the Replacement Investment etc.

The city will determine an upper limit for water tariffs according to existing water tariffs, and the operating right holder will set the tariffs within these limits. The operating right holder may revise tariffs at its own discretion provided they do not exceed the upper limit and upon receiving authorization for a change in supply conditions such as water tariffs from the Minister of Health, Labour and Welfare.

Changes in the upper limit for the water tariff will be made upon consultation with the city in a review every five years and via procedures which will include referring the matter to a panel of independent experts for their opinions, obtaining the approval of the City Assembly, revising the relevant ordinances and obtaining the authorization of the Minister of Health, Labour and Welfare. The operating right holder may request cancellation of the agreement for reasons on the city side if a proposal for the revision of tariffs is not passed by the City Assembly and no agreement is reached despite subsequent consultation with the city on matters such as contractual amendments.

The operating right holder will make replacement investment and the replaced facilities will belong to the city. The operating right holder will depreciate the replaced facilities over their statutory useful lives and will pay the city in cash an amount equal to depreciation and amortization during the period of the project. However, the amount equal to depreciation and amortization occurring after the period of the project will be borne temporarily by the city and recovered through consideration, etc. obtained from the operating right holder in subsequent fiscal years.

— Consideration for the Operating Right

The operating right holder will pay the city an amount equal to depreciation and amortization that will be incurred during the period of the project on existing facilities owned by the city (around 300 billion yen). The operating right holder will also pay the city an amount calculated based on estimated revenues obtainable from the specified businesses during the project period less expenditure required for the specified businesses. In both cases, payments will be spread over the project period.

It is assumed that the city will use such consideration and other revenue to cover costs such as principal and interest redemption cost on issued bonds (corporate bonds

issued by the city prior to the project start date), expenditure related to ownership of facilities and monitoring of the operating right holder.

— Risk Allocation

Any risk associated with ordinary business operation will be borne by the operating right holder, in principle.

Regarding the risk of physical damage to water supply facilities as a result of a disaster or other force majeure event, the city will, however, ensure sources of revenue for recovery, including government subsidies, and formulate a facility recovery plan upon consultation with the operating right holder. The operating right holder will bear the cost of measures necessary for recovery within the scope of water tariff revenues. If it is difficult to ensure the recovery of facilities and business continuity even through measures such as government subsidies, the city will take necessary measures including financial measures, revision of water tariffs and extension of project period.

Points for attention in the future

Osaka City is currently in a state of political flux and the success or failure of this project may also end up being determined by how this situation pans out. There are still a number of difficult issues including consultation with the labor unions over the transfer of city employees and their working conditions, and various twists and turns are expected before target start date of the project in April 2016.

5-2 Other water system projects currently under examination

Besides the Osaka City Waterworks Bureau, the authorities of other cities such as Otsu City and Nara City appear to be in the initial stages of examining introduction of concessions. However, Otsu City and Nara City are both aiming for introduction of a concession covering both the water and sewage systems, and their plans are different from those of Osaka City.

Judging from the current situation, the target of six projects by the end of FY2016 is at risk of not being met. However, as explained earlier, almost all water supply services in Japan are managed by municipalities and the business scale of individual services is, therefore, by no means large, and today, when local authorities are faced with the problem of aging facilities, wide area supply, in other words, the M&A of water supply services is considered inevitable. It is expected that the introduction of concessions will be examined to coincide with such structural reorganization.

6 Sewages

Sewages are deemed to have an even stronger 'public good' quality than water systems, mainly because measures to deal with rainwater are linked with disaster measures, and the Sewerage Act (Article 3) stipulates that establishment, reconstruction, repair, maintenance and other administration shall be undertaken by municipalities, and there are no previous examples of utilization of the concession system or privatization.

Public-private partnerships for sewages as for water systems have been widely undertaken in the form of the "outsourcing" (especially orders placed with given specifications) to the private sector. With respect to the administration of pipelines and sewage treatment facilities, more than 90% of service providers are said to have already introduced outsourcing to the private sector. PFI projects are also increasing in the area of facilities for the effective utilization of sewage sludge.

Against this backdrop, MLIT established the Study Group on the Utilization of PPP/PFI in the Operation of Sewage Facilities in December 2012. The Group presented a plan for starting with "partial concessions", which would involve introducing concessions to certain sewage service operations such as the administration of treatment plants and effective utilization of sewage sludge, and for gradually developing this into full package concessions. Additionally, to encourage introduction of concessions, MLIT drew up Guidelines for the Implementation of Business Operations, etc. of Public Facilities, etc. in Sewerage Works (draft) in March 2014, and also set up the "sewerage project for the promotion of private sector vitality and innovation," which is a subsidy program to support sewage projects utilizing PPP/PFI.

Nonetheless, the only two projects being examined in earnest at the present time are Hamamatsu City's Seien Basin sewage project and Osaka City's sewage project, and, as is the case with water systems, the target of six concession PFI projects by the end of FY2016 is in danger of not being met.

6-1 Hamamatsu City Seien sewage treatment plant

Background

Hamamatsu City's sewage works has many treatment areas and facilities and, at the same time, it was faced with the challenges of (i) meeting long-term demand for funds to strengthen the earthquake resistance of facilities and replace aging facilities, (ii) slow growth in user-fee revenues mainly due to the declining population, and (iii) concerns over technology transfer due to the decrease in and aging of employees. Under such conditions, the Seien Basin sewage works will be transferred from Shizuoka prefecture

to Hamamatsu City at the end of March 2016, and it was decided to examine operation based on a new public-private partnership technique with the aim of improving business efficiency and creating a sustainable structure.

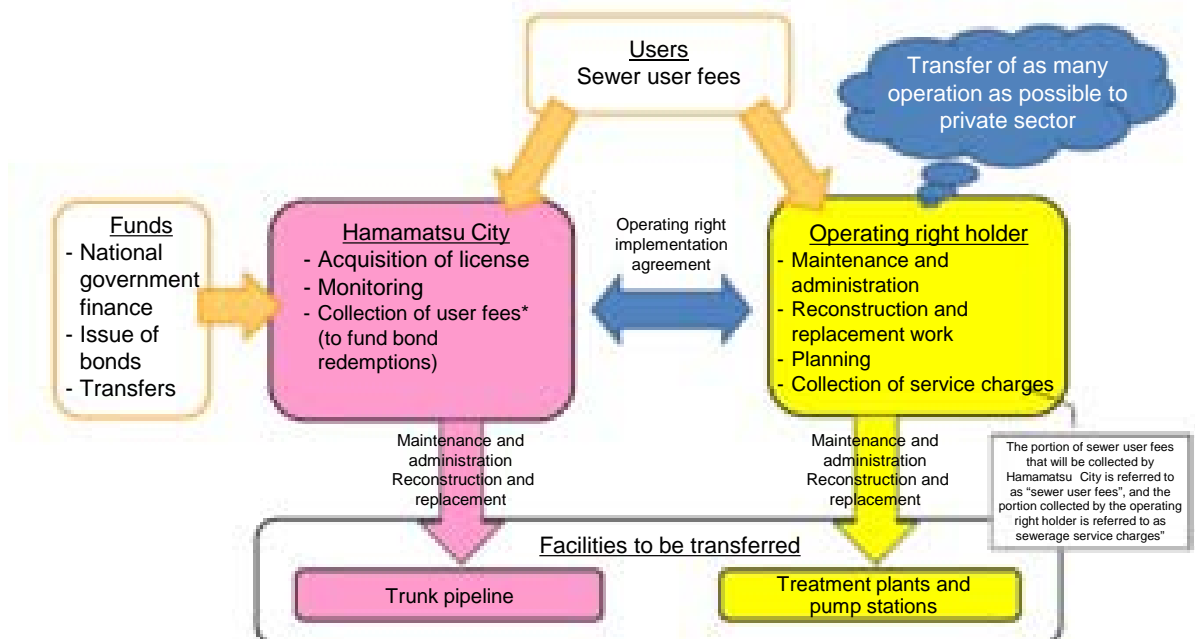
Project scheme (planned)

Hamamatsu City decided that, in FY2018, it will introduce a joint venture-type concession for the Seien Basin sewage works whereby a private-sector business operator will itself collect fees, while Hamamatsu City will also have a certain degree of involvement. The subject facilities include the Seien purification center, two relay pump stations, and the trunk pipeline.

It is assumed that as many operations as possible, including maintenance and administration of the purification center and pump stations, reconstruction and replacement work, planning, and collection of service charges, will be transferred to the private-sector business operator, while sources of revenue for reconstruction and replacement will be procured by Hamamatsu City, and maintenance and administration and reconstruction and replacement of the trunk pipeline will also be undertaken by the city.

The project agreement period is 20 years. It is assumed that reconstruction and replacement work will be carried out in line with a plan for extending the life of infrastructure and will be reviewed every five years.

Fig. 2.17 Scheme of concession project for Hamamatsu City Seien sewage treatment plant



Source: Data of committee meeting to examine management issues of Hamamatsu City Sewage Works (November 10, 2014)

Points for attention in the future

When the work of selecting a business operator started in FY2015, the city aimed to start operations based on the concession system in FY2018. However, there has still not been any announcement of the details of the project and all eyes are on whether the project will proceed smoothly according to the estimate schedule in the future.

6-2 Osaka City Sewage Works

Background

For Osaka City's sewage works, the business environment is expected to grow more challenging because, in recent years, water consumption (user fees) have been trending downward (decrease of around 14% in user-fee revenues over the eight years to FY2013), and the need for reconstruction, replacement, etc. will increase in the future.

The Bureau of Construction of Osaka City, therefore, drew up "Management Reform of Osaka City Sewage Works ~ Basic Policy and Implementation Plan ~ (Draft)" in November 2012, aimed mainly at ensuring the sustainability of sewage works. It decided to continue with a review of the management format based on introduction of the scheme of separating infrastructure and operation.

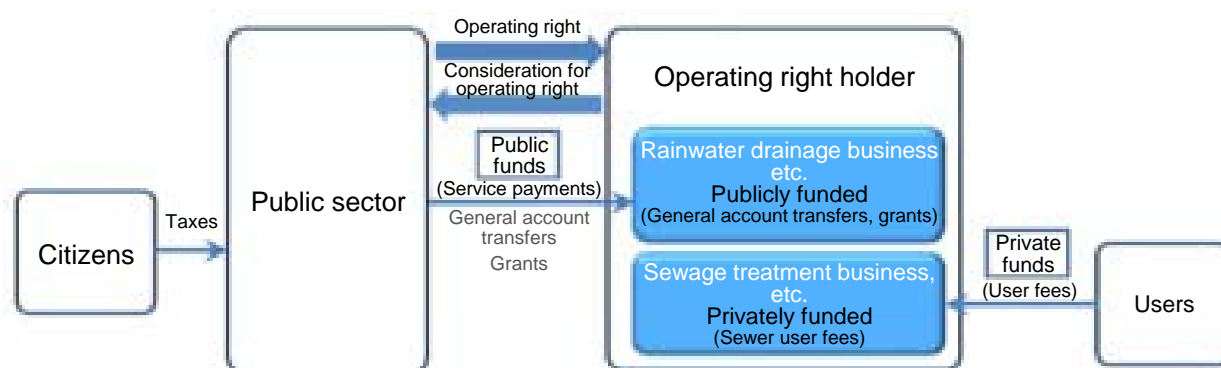
Then, from April 2013, the bureau comprehensively outsourced operation, maintenance and administration operations for sewage facilities under the jurisdiction of the western office to the Urban Infrastructure Technology Center Foundation. From FY2014, the bureau also outsourced the maintenance and administration operations of sewage facilities across the entire city. Such outsourcing was positioned as a trial stage (phase 1) with an eye on the establishment of a new organization and, in the future, the bureau plans to switch to the establishment of a new organization, including the transfer of city employees (phase 2). It is assumed that the new organization will have a structure enabling business expansion inside and outside of Japan through the provision of comprehensive sewage services, and at the same time, the bureau has also decided that, in the phase 2 period, it will examine the funding scheme including subsidies and general account transfers which are an issue when it comes to introduction of a concession scheme.

Project scheme (planned)

The Osaka City Sewage Works project assumes adoption of a joint-venture type concession. This is because Osaka City uses a combined sewer system (where sewage and rainwater flow through the same pipes) and there will, therefore, be operating rights combining publicly funded (general account transfers, etc.) operations

relating to the rainwater and privately funded (user fees) operations relating to sewage. Other detailed concession conditions have yet to be presented, but the project agreement period is said to be around 20 to 30 years.

Fig. 2.18 Scheme of Osaka City Sewage Works' concession project



Source: Basic Policy for Review of Management Format of Osaka Waterworks Business (Draft)

Points for attention in the future

Like the water system, the success or failure of this project may also be determined by political developments in Osaka City. However, the Basic Policy (Draft) for this project was just announced in February 2015 and the public had until April 24 to comment. Final introduction of the concession system (phase 3) is assumed to take place during FY2018 at the earliest, but there are still various issues and matters for consultation and adjustment, and twists and turns are expected.

6-3 Other sewage projects currently under examination

Besides Hamamatsu City's Seien Basin sewage project and the Osaka City sewage project, Otsu City and Nara City are currently examining introduction of concessions covering both the water and sewage systems, as mentioned in the section on water systems, and Narashino City is examining introduction for the sewage system alone. In all cases, examination seems to be in the initial stages and it is expected to take some time before the projects are examined in earnest.

Judging from the current situation, the target of six projects by the end of FY2016 is in danger of not being met. However, an increasing number of private-sector enterprises are acquiring ISO55000s certification, the international standard for asset management only just released in January 2014, in order to tap into the maintenance and administration business, suggesting that interest in the sewage works business is by no means going to fade. The introduction of concessions is expected to increase in connection with this trend.

III Issues of Concession PFI in Japan

Promotion of project creation

As described above, with regard to the introduction of the concession system for public infrastructure in Japan, a reasonable number of projects are in progress, including the Sendai Airport and Kansai International Airport and Osaka International Airport (Kansai International/Itami) concessions for which bids for the operating rights have already been invited. However, none of the projects have reached the agreement stage and it is fair to say that the pace of introduction needs stepping up further.

A more serious issue is that there is little expectation of a flurry of new projects in the future, and there is also concern over just how long investors will remain interested in Japanese infrastructure. The creation of projects will require energetic efforts on the local authorities that currently own and operate the infrastructure and it may, therefore, be an effective strategy to offer some kind of incentives or to ensure that public and private sectors are on an equal footing.

More proactive initiatives for road projects

It seems strange that, as explained earlier, there is only one road project currently under consideration in Aichi prefecture when there are many cases of privatization overseas. If the Japanese concession system is to be applied only to toll roads, then the government should promote system reforms to allow examination of private-sector operation without using the system of special zones so that the kind of initiative seen in Aichi prefecture spreads to other regions, and the government should also stop treating expressway companies like Metropolitan Expressway, which can, in fact, hardly be called privatized, as sacred, and promote initiatives to enable the granting of concessions.

Introduction of availability-based infrastructure projects

The introduction of availability-based concessions with more emphasis on maintenance and administration might be an effective strategy in the sense of increasing possibilities for project creation because it would broaden the scope of projects to include toll-free general roads in the case of roads and public infrastructure that does not generate user-fee revenues in the case of other types of infrastructure.

Availability-based infrastructure projects ought to be afforded more attention in the sense that they also meet the needs of investors who do not want to take on excessive business risks. What investors expect from infrastructure in Japan, a mature nation with

a well-established legal system, is probably not an amazing growth story but rather long-term steady cash flows. If this is the case, then availability-based infrastructure projects may well be the perfect way to make use of private-sector capital in Japan's aging public infrastructure.

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