



PPIAF
Enabling Infrastructure Investment

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Vietnam: Capacity Building Program for Promoting Private Sector Participation

REFERENCE GUIDE ON KEY ISSUES (foreign laws and practices)



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Background: The Government of Vietnam is seeking to use Public Private Partnerships (PPP) to deliver top priority infrastructure projects, such as projects for water supply and solid waste management, and to establish a new decree on PPP investment. In order to promote PPP infrastructure projects, it is essential to learn legal frameworks and practices used in foreign countries, in order to identify and analyze the issues with the present regime, and to build consensus for understanding of PPP.

During the period 26 May through 6 June 2014, PPIAF, in association with JICA, sponsored a series of legal and financial training sessions for members of central and local government bodies in Vietnam, under the title:

Vietnam: Capacity Building Program for Promoting Private Sector Participation

Purpose of this document: This reference guide addresses some of the key issues discussed during the PPIAF and JICA supported training sessions regarding foreign laws and practices. This reference guide is structured as follows:

- Unit 1 identifies requirements for the success of PPP/PFI projects and illustrates the legal framework for PPP/PFI utilized in Japan
- Unit 2 introduces the PPP/PFI project cycle
- Unit 3 discusses investor expectations in PPP projects
- Unit 4 illustrates principles of risk allocation between the public sector and the private sector, and analyses risk allocations in a PPP solid waste management project
- Unit 5 analyses risk allocations in a PPP water supply project
- Unit 6 addresses principles of project finance

Annex 1 introduces the Yokohama Kawai Water Treatment Plant in which Japanese PFI has been adopted

UNIT 1: REQUIREMENTS FOR THE SUCCESS OF A PPP PROJECT AND THE PPP / PFI LEGAL FRAMEWORK

The Japanese government began studying PFI in late-1997, at a time when the government was struggling to cope with its fiscal deficits. At the outset, the Japanese government studied the U.K. model for PFI, and tried to import that model. However, the Japanese government quickly realized that it would not be easy or appropriate to copy the U.K. model.

There were several possible reasons for this, including the following. First, there were huge differences between the legal systems and the structures of markets of the U.K. and Japan.

Second, Japanese local governments seem to have broader autonomy than their U.K. counterparts. In Japan, so-called “basic local governments”, such as cities, towns and villages, but not including prefectures, provide local residents with a wide range of public services on a day-to-day basis, and for that purpose those basic local governments have implemented many PFI projects, but on a small scale. In other words, Japanese PFI has been implemented in order to improve the efficiency and effectiveness of conventional procurement, but not to introduce a new method of public procurement.

Third and more importantly, there was strong resistance in Japan to implementation of PFI, because PFI could cost governments more, due to the payment of higher interest on private debt and dividends on private equity. Rather, the Japanese government could raise the necessary funds through issuance of long-term government bonds with a lower interest rate, despite facing financial difficulties.

Therefore, the Japanese government decided to design our own version of PFI, which was not quite the same as the U.K. model of PFI, and use it to overhaul the public procurement system. After these discussions, the PFI Act was established in 1999.

In summary, PFI was introduced in Japan for purposes that are different from the reasons that applied in the U.K. Japan now accepts that PFI has two roles:

First, to improve the method of public procurement. Second, to raise funds through project financing in order to implement public works under difficult financial conditions where governments are not otherwise able to borrow money.

Since Japan now faces financial difficulties, the government is trying to reform the Japanese PFI model in order to attract private funds more aggressively.

Currently, one important question is whether the Vietnamese government will introduce PPP in order to improve public procurement, or to attract private money to help ongoing development of the country proceed quickly and smoothly.

1. WHAT JAPANESE PFI HAS ACHIEVED

There are four key expressions in Article 1 of the Japanese PFI Act, which are important to understand the Japanese approach to PFI. These expressions are as follows:

- to improve social infrastructure, efficiently and effectively
- affordable and good services
- provision of Public Facilities, etc.
- utilization of private finance, management abilities and technical capabilities

Article 1 of the Act reads as follows:

The purpose of this Act is **to improve social infrastructure efficiently and effectively** and to ensure the provision of **affordable and good services** to citizens by taking measures for promotion of **provision of Public Facilities through utilization of private finance, management abilities and technical capabilities**, thereby contributing to sound development of the national economy.

Among these key words, “Public Facilities, etc.” embodies the characteristics of Japanese PFI very well, as more fully described later in section 4. item 5), below.

The PFI Act is a basic law that provides governing principles in the abstract. So, it does not replace the current system of regulations. However, it provides guiding principles for the procedural aspects of public procurement and the tendering process that apply pursuant to those regulations.

2. OUTLINE OF JAPANESE PFI PROJECTS

Total Number and Cumulative Costs of PFI Projects

The number of PFI projects as of March 31, 2012 was over 400.

The total Value for Money (VfM) for the first 395 projects was 783 billion yen, slightly less than USD 8 billion.

Contracting Authorities by Sector

SECTOR	CONTRACTING AUTHORITIES			TOTAL
	NATIONAL	LOCAL	OTHERS	
Education, Culture (Educational and Cultural facilities)	1	102	35	138 (33%)
Life and Welfare (Social Welfare Facilities)	0	19	0	19 (5%)
Health and Environment (Hospitals, Waste Disposal)	0	73	2	75 (18%)
Industry (Commercial Promotion Organizations, Agricultural Promotion Organizations, etc.)	0	13	0	13 (3%)
Town Planning (Roads, Parks, Sewage Water, Ports)	7	43	0	50 (12%)
Security (Police Offices, Fire Stations, Offender Rehabilitation Facilities)	7	14	0	21 (5%)
Official Facilities and Accommodation (Government Buildings and Accommodation)	45	10	1	56 (13%)
Others (Complex Facilities, etc.)	6	40	0	46 (11%)
Total	66	314	38	418

As of 2/28/2013 (Cabinet Office)

Here's a breakdown of the 418 projects. The three numbers provided in the table will give a general indication of what our PFI projects look like.

First, there are 66 national projects; 45 of these projects are government buildings and accommodation facilities. Second, there are 314 local projects; these projects constitute 75% of the total number of PFI projects. Finally, out of the 38 projects that belong to the "other" category, 35 of these are educational and cultural facilities. Basically, they are mainly for national universities.

PFI Projects Implemented According to Prefectures

Finally, the size of PFI projects is relatively small, because more than 75% of the total PFI projects in Japan (that is, 341 projects) have been implemented by around 300 local governments.

In this regard, please note that because local governments in Japan have strong autonomy, there is no office at the national government level that has the authority to legally coordinate these local PFI projects. Therefore, there is no appropriate forum under the law for formally discussing “best practices”.

The Cabinet Office of the central government has provided consultations not only to ministries, but also to local governments, and has published various guidelines, forms of standard contracts, and circulars on its home page. In addition, consultants are actively advising local governments on PFIs, and helping them to obtain the necessary information and to exchange views with other local governments.

In this regard, please note that although Japan does not have any regulatory framework that provides a “One-Stop-Shop”, there are services made available to assist with PFI, and you can see a consistent approach to PFI in practice all over Japan.

3. CHARACTERISTICS OF JAPANESE PFI PROJECTS

PFI has four major characteristics.

- 1) The majority of these PFI projects are “building PFIs.” Although the expression “Public Facilities” includes not only buildings, but also civil engineering projects, such as roads, bridges, and tunnels, many of these engineering projects were completed during the “high economic growth period” from 1954 to 1973. Therefore, there have not been many civil engineering projects utilizing PPP/PFIs.

In addition, generally speaking, governments seem to have preferred that such engineering projects be built through conventional methods, rather than through PFI, since they are technically difficult and the private sector does not seem to wish to share the construction risks involved. As a result, there are only a few civil engineering PFI projects.

- 2) Roads, bridges and tunnels, city parks, sewage water treatment facilities and certain other projects are only permitted to be conducted by central and local governments. For these projects, private companies are engaged solely to conduct the business of construction, operation and maintenance through contracts with and outsourcing from governments.
- 3) Few PFI projects are “self-sustaining.” First of all, it is quite difficult for private companies to assume so-called ridership risks involved in, for example, a toll road project. Second, such toll roads, railways, and LRTs in urban areas which are supposed to be profitable have been constructed, and these are less profitable and attractive green field projects than other projects in Japan.

- 4) The scale of PFI projects is rather small. Since around 75% of PFI projects are implemented by local governments, most of which are rather small cities, towns and even villages, it is not surprising that they are small PFI projects with amounts of capital expenditure of an amount equivalent to around USD 10 to 20 million.

4. LEADING CASES

Japanese central and local governments have used PFI for a wide variety of projects, but generally speaking, governments seem to have preferred that engineering projects be built through conventional methods, rather than through PFI. Leading Japanese PFI projects include, among others, new international passenger and cargo terminals and apron in the International Zone at Haneda International Airport, office buildings for Diet members, office complexes, a police station, a public hall, waste treatment plants and heat supply facilities together with a swimming pool used for competitions, rehabilitation facilities, funeral halls, an observatory, a museum and satellite control centers.

In addition to building PFI projects, there is an urban redevelopment project in Takeshiba, a commercial district in downtown Tokyo.

For the purpose of this project, the Metropolitan Tokyo government provided the site where the buildings of the commercial complex will be erected, and the private sector proposed a plan and provided the necessary funds. In this sense, this project would be classified as a PPP project; however, it is not, technically speaking, a PFI project, because the commercial complex to be built is not classified as Public Facilities. There are a number of projects with a similar scheme.

The Takeshiba area is rather isolated from other commercial districts by an Expressway, and does not have direct access to other areas, including Hamamatsucho Station.

Excellent features of the proposal are as follows:

- First, the passenger walkway directly connects the site with Hamamatsucho Station for both JR lines and the Tokyo Monorail.
- Second, the passenger walkway crosses over the Tokyo Metropolitan Expressway, Inner Circular Route.
- Third, the passenger walkway leads to the Public Conference Hall, which is well-located in the commercial space of the commercial complex building.

These features could attract a large number of people, and produce a large turnout, which Minato-ward is eager to see.

5. ADVANTAGES OF PFI

Life Cycle Costs

It can be said that Japanese PFI has been successful based upon an increase in the number of PFI projects. This is because PFI makes it possible to be effective and efficient.

The first decisive advantage of PFI is the reduction of life cycle costs. Under conventional procurement methods, the construction of a project such as a plant was based on competitive bidding, but the outsourcing of operation and maintenance services was not. That was because the contractor used unique technology, so there was no room for competition.

The government simply had to pay what the contractor demanded for the O&M services. The introduction of PFI allowed the government to change its procedures. For example, in case of a waste disposal plant in Fukushima, the city government used a “Design-Build-Operate (DBO)” model.

Now, contractors must submit a proposal that includes O&M costs, and then go through the bidding process. Naturally, this has led to a significant reduction in costs over the long run.

Design-Build

The second advantage of PFI is that it facilitates better design.

Under the conventional procedure, the bidder needs to propose a price, on the basis that its design will follow the input specifications set by the government. The advantage of bidding on input specifications is that capable engineers retained by governments decide the most suitable designs and methods of construction, and any private companies that satisfy certain specified qualifications can participate in bidding processes. However, unique technology owned by a potential bidder, even if excellent, cannot be utilized. In contrast, in a PFI project, a bidder can propose to reduce costs through unique methods of construction based upon new techniques.

Under the PFI process, because bidders were required to submit excellent proposals in terms of both cost and design, it turned out that the designs proposed by the bidders were much better than the original plans created by the local governments for reference purposes.

For example, in the case of the Ehime Prefectural Central Hospital, a new hospital building had to be rebuilt on the same site as an old hospital building that was still in operation, because the Prefecture could not procure a site for the new building.

The contractor proposed unique measures. First, it completed the upper floors of the new building, which overhung the old hospital building. Then, after the old building was removed, the contractor built the lower floors of the new hospital building.

O&M

The third advantage of PFI is that it improves the quality of operation and maintenance services.

Before PPP/PFI, one-year contracts for O&M used to be the norm. Because the contracts were short, the contractors had no incentive to improve quality. In addition, new contractors cannot provide good services at the beginning of a contract, because they are not well-prepared. With PFI, multi-year contracts have become more popular.

In the past, the government outsourced the operation and maintenance services of national government parks for one year, from April to March the following year, comprising a fiscal year.

In Japan, the busiest season for public parks is April to May. This meant that a new contractor that acquired a contract from April to March of next year had almost no time to prepare, because realistically speaking, contractors need at least two months for preparations, such as placing advertisements for various events.

By switching to multi-year contracts and to “low season to low season”, contractors are able to provide much better services.

Procurement

The final advantage of PFI is the efficiency and effectiveness of the procurement method.

Under traditional methods, goods and services were purchased in small batches, so that small producers and providers could compete with large companies. This may have been good for small businesses as a way of enhancing social welfare, but it wasn't really the most efficient or effective method.

Hospitals are a good example. When a hospital project is contracted through PFI, the consortium is in charge of construction, O&M, and procurement; that is, in charge of everything except for providing medical services. So in addition to buying a hospital building, local governments also buy medicines and medical equipment through an SPC.

Under conventional procurement methods, all of these services were purchased separately, and there was competitive bidding on every single item to be procured. But once PFI was introduced, since an SPC is a private company and not subject to the rigid procurement regulations, it turned out to be more efficient and effective to purchase medicines and specific sets of medical equipment in bulk from contractors, because they could provide such items at cheaper prices.

6. AGEING INFRASTRUCTURE AND FINANCIAL DIFFICULTIES

Rising Demand for Rebuilding Infrastructure

Based upon figures in 2007, the number of bridges that were built more than 50 years ago was calculated to be 8% in 2009. But between 2009 and 2029, the number will quickly rise and reach 51%. A similar pattern applies to tunnels built more than 50 years ago.

The reason is because a lot of bridges and tunnels were built during the so-called “high-economic growth period” between 1954 and 1973. This means that Japan will need to replace or repair bridges and tunnels in the near future.

High Public Debt

The problem is that the government faces financial difficulties. Japan has the highest “public debt-to-GDP” ratio among advanced industrial nations. As of 2013, Japan's public debt has hit the equivalent of USD 10 trillion, which is 247% of GDP.

Population Decline in an Ageing Society

On the other hand, another big problem is that there may not be enough people to pay off the debt. Japan's population is ageing rapidly, with more and more people over 65 years old, and fewer and fewer people under the age of 15. In addition, it's clear that Japan's population will decline for the foreseeable future. Basically, the working age population, the number of people who pay the taxes, is going down. Meanwhile, the number of people over 65, people who receive pensions, is going up.

7. FUTURE CHALLENGES

Although PFIs have contributed greatly to the improvement of public procurement, there remain a few challenges that still need to be solved and overcome, in order to further promote PFI in the future.

As mentioned at the outset, it is not sufficiently understood that when governments face financial difficulties, PFI/PPP is an effective method of raising funds from the market, which can be applied to public works required for the acceleration of further growth of the country's economy.

As a result, PFI was structured as a way to improve the efficiency and effectiveness of public works, but it has failed to build up a Japanese PFI market with an "investor-friendly" investment climate.

If PPP/PFI remains a method of improving the efficiency and effectiveness of public procurement, then to achieve lower prices is a key to its success. In circumstances where the government cannot afford to build infrastructure out of its tax revenue or borrowings, it is important to build a competitive market where more private entities are induced to participate so that the private sector can fulfil this function.

Now the Japanese government is trying to expand the PFI market in Japan. As a part of the "Growth Strategy" published in June 2013, the government announced that it would attempt to expand the size of the PFI market to JPY 12 trillion in the 10 years from 2013 to 2022, while comparable figures from 1999 to 2012 were only JPY 4.1 trillion. However, it is clear there is no silver bullet to achieve this outcome.

"Price-first" Approach

Problems to be solved, in order for Japanese PFI to be successful in the future, are as follows.

1) Value for money

To implement public works through PPP/PFI it will be necessary for PPP/PFI to deliver value for money.

In Japan, the Guideline for Value for Money was published in 2001 and amended in 2008 and 2013, after the PFI law was enacted in 1999.

This guideline provides that PSC (Public Sector Comparator) shall be the net present value of the total amount of all costs that would be incurred by the public sector in connection with the design, construction, operation, and maintenance of public facilities, adjusted to reflect the risks to be transferred and certain other factors, including taxes to be collected. PFI-LCC (Life Cycle Cost) shall be the net present value of the total amount of all costs that would be incurred by the private investor in connection with the design, construction, operation, and maintenance of public facilities.

VfM shall be compared on the basis that the quality of services to be provided through the method of traditional procurement and that through PFI must be the same. It is, however, silent as to the situation where services to be provided through PFI are of a higher standard than those provided through traditional procurement. Hence, it is understood that when ascertaining Value for Money, the quality of services is not treated as highly important in comparison to monetary considerations.

According to the “Report on Implementation of PFI by Local Governments” published by the Ministry of Internal Affairs and Communications, VfM averages, at the time of the feasibility study, designation of public work as PFI, and successful bidder selection were 8.7%, 10.0%, and 19.9%.

2) Selection of a successful bidder

The proposal of the price of a project tends to be regarded as more important than the substance of the proposal. This means that the bidder who has submitted a proposal with superior substance is not necessarily always selected as the winning bidder, if there are other bidders with lower prices.

In Japan, the successful bidder is selected through a so-called “Comprehensive Evaluation”, where points are given to both the price and merits of each item of the proposal, according to the selection criteria. The proposal with the highest total points is chosen as the successful bidder.

In certain types of PPP projects where non-monetary value, such as design, is far more important, more points are assigned based on the substance of proposals than the bid prices; however, a common criticism is that this does not always work well in practice.

When a selection committee reviews and examines proposals submitted by bidders, that committee sees not only the technical aspects of the proposals, but also financial aspects, including cash flows and financial plans. Since the terms of PPP/PFI projects are normally 15 to 30 years, it is important to ascertain whether financing will be made available.

“Ceiling Price”

Second, the use of a ceiling price - an upper price limit - is still appropriate for PPP.

Even for biddings on public works based on output specifications, it is important that EPC and O&M are required to be implemented within the limit of a budget set by the government.

It is vital to provide budgets for PPP projects where only output specifications, but not input specifications, are published, and where no concrete plans are provided to bidders, since this incentivizes bidders to propose the best possible substance for a project within the specified budget by utilizing their engineering capabilities.

There are two problems to be solved in this regard in Japan. These problems arise in cases where:

- proposed ceiling prices are lower than the prices calculated based on the service level specified in output specifications; and
- ceiling prices are not published for certain projects.

In relation to the first problem, current market prices are sometimes higher than those used for the calculation of various items necessary for such services, which are quoted from previous public works as adjusted by price indexes. As a result, ceiling prices published by governments are lower than the market prices.

As for the second problem, the central government does not publish the ceiling price for its PFI projects in advance. Therefore, it is very difficult for bidders to propose bid prices within the ceiling price for these PFI projects, and to prepare their proposals with superior substance.

Japanese law does not address the relationship between ceiling prices on one hand, and PSC and PFI-LCC, on the other, however, PSC is normally treated as the ceiling price.

In relation with this, it is worth noting that two approaches are taken by private investors, i.e., “Engineering driven” and “Cash flow or Modeling driven.”

Japanese engineering companies and manufacturers tend to follow an “Engineering driven” approach, where engineers prepare business plans, including design and specifications, and propose prices for projects. This approach is easier to understand, but sometimes fails to propose affordable prices to the government.

Japanese investors prefer the “Cash flow or Modeling driven” approach, where investors fix their equity returns in advance. They then collect and select preferable proposals from EPC contractors and O&M contractors, and even debt providers, including banks, in order to enable them to propose acceptable prices to the government and select the most preferable proposal.

If all EPC contractors and O&M contractors can provide the same services, then it is wise to choose those who propose the cheapest prices. However, if the quality and reliability of the respective services are different, it is not necessarily preferable to choose the cheapest prices.

Aggressive Risk Transfer

Third, governments tend to transfer too much risk to sponsors, which the private sector cannot bear. This is because governments often misunderstand that the transfer of risk from a government to the private sector would reduce costs to the government, and therefore is essential to the success of PFI.

As a result, it is difficult in Japan to make self-sustaining PFIs successful, except for the Passenger Terminal Project for the International Zone at Haneda Airport. While the private sector can bear only risks related to EPC and O&M, it cannot bear other risks, such as long-term demand risks.

Risk sharing can be regarded as a form of cost sharing.

A good example of this can be explained by referring to an earthquake. Since there are a lot of earthquakes in Japan, an anti-earthquake standard applicable to new buildings is very important. In the past 20 years, two of the strongest earthquakes occurred in Japan. One was the Kobe earthquake on January 17, 1995, and the other was the Great East Japan earthquake on March 11, 2011. During the Kobe earthquake, a lot of buildings were destroyed and more than 6,000 people lost their lives. During the Great East Japan earthquake, there was a huge amount of damage, and more than 15,000 lives were lost, mainly due to the resulting tsunami, rather than the earthquake itself.

After the Kobe earthquake, anti-earthquake building standards were amended in order to cope with huge earthquakes. In this way, earthquake risks could be transferred to the private sector.

However, increased construction costs arising as a result of the private sector complying with such new standards are shared with (or perhaps even borne by) governments, which pay service fees, or users, who pay user fees. It is therefore regarded as reasonable to transfer such risks to the private sector, because they can manage without difficulties by, for example, increasing charges and fees to a reasonable extent.

On the other hand, transferring risks such as the fluctuation of foreign exchange rates, should not be deemed reasonable, since the private sector either does not have any means to hedge such risks, or the costs necessary for hedging such risks are not commercially reasonable.

It is reasonable to buy insurance premiums in order to cover losses and damages incurred in connection with transferred risks, as long as the costs of insurance premiums are economically reasonable. On the other hand, governments are always able to achieve risk diversification by collecting taxes from the public. Therefore, it is reasonable to bear the risks that cannot be hedged by the private sector through insurance or other measures.

Constraints on Market Sounding

For PFI projects to be successful, the market needs to be competitive. Therefore, the government should discuss with the private sector in advance in regard to how to share risks and other matters, so that as many potential bidders as possible can actually participate in the tender for a PPP project.

However, many Japanese government sectors lack experience in interacting with market participants, including market sounding in PFI projects. In addition, politically, they are often not willing to share information with the private sector before reporting to the city council.

Competitive Dialogue

Under the PFI Act, having dialogue with the private sector is not forbidden, but rather is recommended, as long as the tendering process remains fair and transparent.

Up to now, however, most of the dialogue has focused on clarifying output specifications, instead of allowing the bidders to submit variant bids or to negotiate the details of projects. This is simply because under traditional procurement procedures, it has been strictly prohibited for governments to communicate with potential bidders once a tender process has commenced.

Lack of Incentive Mechanisms

The last problem is the lack of incentive mechanisms to induce the private sector to actively participate in PPP projects.

It is well understood that PPP works well using the following structure in overseas markets, where PPP is much more commonly utilized:

- The bidder is a sponsor, consisting of an EPC contractor, an O&M contractor, and a financial investor.
- During the construction phase, the EPC contractor is engaged in the engineering, procurement, and construction. Then, after project completion, the financial investor who bears the construction risk, and the EPC contractor, who has completed the construction, would often transfer their shares in the SPC to institutional investors, and obtain reasonable capital gains.
- During the operation period, the O&M contractor is engaged in the operation and maintenance of the PPP project.

While it is obvious that an incentive mechanism works well in those markets, it does not work well in the Japanese domestic market.

There are several reasons for this. One of the basic obstacles is that in order to sell their shares in the SPCs, it is necessary for sponsors of PFI projects to obtain the prior approval of local governments in Japan.

The sponsors are eager to sell SPC shares; however, the local governments are usually reluctant to approve such sales, because if the Shareholders change, it may affect the stable operation of PFI projects.

If sponsors can sell their shares and turn a profit, there will be a greater incentive to participate in PFI projects.

8. THE FUTURE OF JAPANESE PPP/PFI

What Japanese PFI has achieved, and where it is heading in the future.

First, because governments were able to easily and inexpensively raise large amounts of long-term funds necessary for public works by issuing governments bonds, PFI has not been considered as a means to close the infrastructure financial gap, but it has had an impact in fundamentally transforming the methods of Japanese public procurement in many ways.

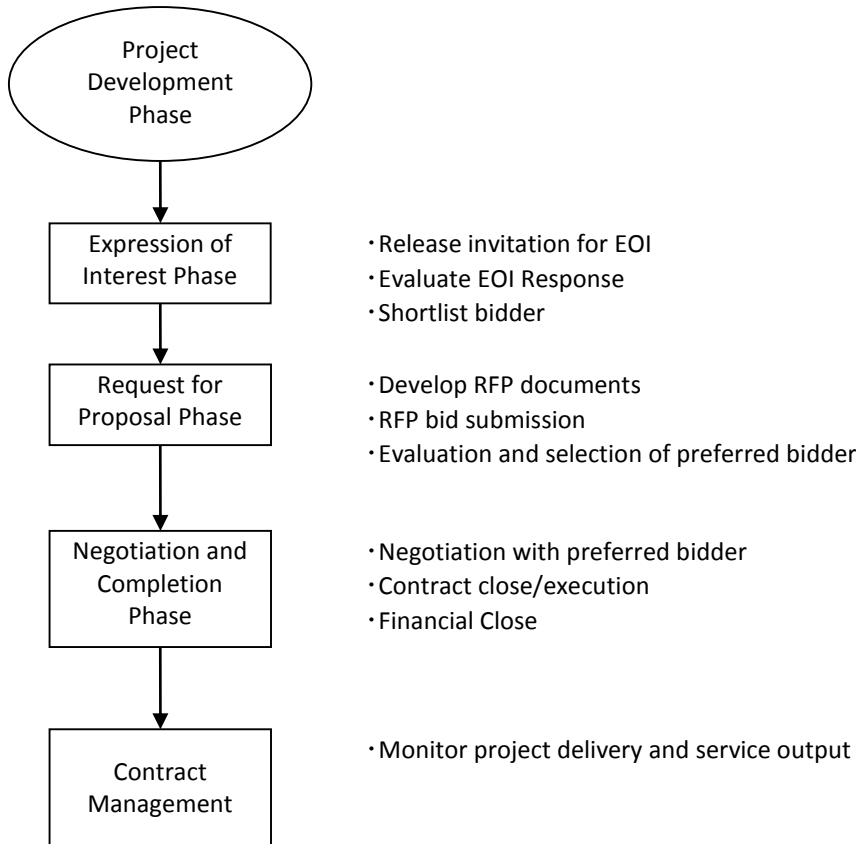
Second, Japan faces difficulties due to its ageing infrastructure. Considering the ageing infrastructure of Japan, there will be greater demand for public works in the near future. This demand will be for not only new projects, but also for renovation of existing infrastructure.

Third, the government does not have enough money or cannot raise adequate funds by issuing government bonds. Facing financial difficulties, it is highly likely that the government will depend heavily on the use of PPP/PFI.

Finally, to summarize, the Japanese government is now required to solve two problems. One is investment in Japan's ageing infrastructure, and the other is the reconstruction of public finances. In order to meet these challenges, Japanese PPP/PFI needs to be remodeled in order to attract private funds.

1. OVERALL PROCESS OF PPP

The following shows the flow of a typical PPP procurement process in international practice. Project Development Phase requires 3 or more month, and Project procurement/tendering process requires 12 to 18 month.



(Based on the National Public Private Partnership Guidelines, Practitioners’ Guide (Australia) p.5)

Before releasing the invitation for EOI, the delivery model must be selected and VFM assessment must be completed for the purpose of selecting PPP delivery method. The procurement authority also must establish the timetable of the bidding process.

The process for selection of the preferred bidder comprises a two step selection. In the first step (EOI phase), the procurement authority will issue a brief summary and shortlist the bidders from among the EOI proponents. In the second step (RFP phase), the procurement authority issues descriptive documents of the project to the shortlisted bidders. The submitted proposals will be evaluated and finally the preferred bidder will be selected. When the procurement authority and the preferred bidder agrees after negotiation, the PPP contract will be executed and the project will be financially closed.

2. PROJECT DEVELOPMENT PHASE

In this early stage of the project, the government must decide whether it will invest in the project and if it does, which delivery model must be applied.

1) Whether the government invests in the project

The government must decide whether it will invest in the project. Sometimes this may be a political decision.

The economic feasibility of the project is tested by cost/benefit “C/B” analysis. If C/B exceeds 1, then the project is economically feasible. In this test, benefit means the social benefit obtained from the project, and costs include overall costs for the project.

2) Delivery models

There are several options to deliver infrastructure projects. They include the following:

- PPP (including PFI)
- design & construction (separately)
- design & construction (Design Build)
- alliance contracting
- managing contract model

In the design and construction (separately), the procurement authority places a design order with the design company and a construction order with the construction company. This is traditionally the most common way to implement public projects in Japan.

In the design and construction (design build), the procurement authority places an order for design and construction integrally to a single company or consortium comprising a design company and construction company.

Alliance contracting means various alliance arrangements between the public sector and the private parties. The typical form of alliance contracting in Japan is where the procurement authority and the private parties establish a project company that will implement the project. The project costs will be funded by the borrowing of the project company (guaranteed by the sponsors in many cases) or capital funding by the sponsors.

The arrangement of managing contract models involves the procurement authority as a principal appointing a head contractor (the managing contractor) who engages subcontractors to deliver the design and construction work. The managing contractor is responsible for overseeing these subcontractors and accepting some delivery risk.

3) Selection of delivery models

The following five-step process is recommended to decide the delivery model.

In the **data-gathering phase**, data regarding the objectives of the project, project risks, unique project characteristics, market interest, and capability are gathered and analyzed.

In the **shortlist stage**, the procurement authority considers the suitability of the delivery model for the project. Generally PPP, alliance, or a managing contract may be suitable for a complex project.

In the **validation phase**, the procurement authority also considers what precedent exists for the project, and what the market thinks.

Finally, in the **selection stage**, the procurement authority decides which delivery model will best achieve the requirements and objectives, and reduce risk. In evaluating the delivery model, the following factors are important:

- operational flexibility
- risk management
- time for project delivery
- market interest
- value for money

The final phase of selecting the delivery model involves the preferred structuring model. In the case of selecting PPP, governmental approval is required (depending on the jurisdiction).

4) Delivery models - Advantage of PPP delivery model

To select the PPP delivery model, the government must confirm that the application of the PPP delivery model is the most advantageous among all the delivery options.

The following are the advantages of the PPP delivery model. If the government confines these advantages to be realized by adoption of the PPP delivery model, then the PPP delivery model may be a possible choice.

- Full Integration of all phases of the project (design, construction, financing, operation, maintenance, and refurbishment responsibilities)
- Greater risk (including price risk) transfer to private party during each phase of the project
- Opportunity to develop innovative solution
- Efficient design and quality construction will be achieved by transfer of lifecycle cost risk to a private party. To put it another way, the transfer of lifecycle cost risk to the private party encourages efficient design and good-quality construction, and the certainty of a maintenance standard for a long period will be secured.
- Potential for lower costs of asset development and service provision
- No need for finance by government and payment commences following completion of facility

5) Dialogue with private sector in the early stage

Preliminary dialogue with the private sector and market sounding is important even in the early stage of the project. In this early stage, the issues to be discussed with the private sector include the scope of project, timetable of project, risks, rough cost estimation, etc.

Disclosure of information regarding the project to the private sector is necessary to have a dialogue with the private sector. Probity consideration is necessary. Because of the high-risk profile of the PPP project and the limited information disclosed to the private sector, the cost estimation by the private sector at this stage tends to be higher than the government expects. This is one of the reasons for the difficulty in PSC estimation, since the calculation of PSC must consider the project risks of which valuation may require opinion from the market.

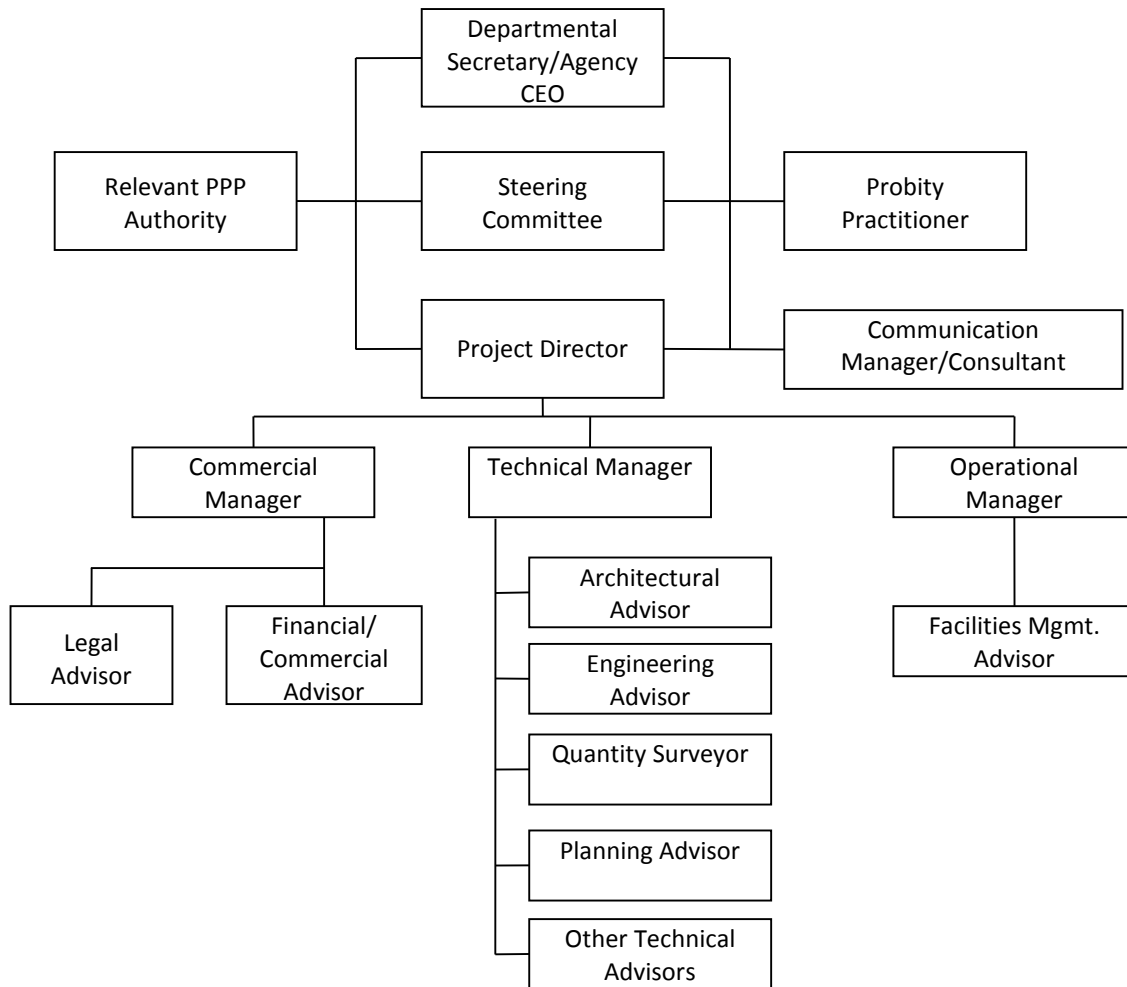
3. EXPRESSION OF INTEREST (“EOI”) PHASE

After the PPP delivery model is selected and the project is developed extensively, the formal process for selecting the preferred bidder is commenced. The first step is the “expression of interest” phase.

1) Project management structure

Since the quality of project resources is one of the most important factors in the success of the project. The procurement authority is recommended to establish a secure team structure with clean lines of accountability. Allocation of adequate funding to project management of the PPP projects is also recommended.

The National Public Private Guidance, Practitioners’ Guide (Australia) p.37 recommends the following team structure. The team structure may be smaller in a small or simple project (including, for example, a small project where the project finance is not available).



2) Invitation for EOI

Issue of the Invitation for EOI purposes:

- formally advise the market of the project, the service that the procurement authority seeks, proposed timeframe, evaluation criteria, etc.;
- confirm the level of market interest in the project and provide an opportunity for the potential bidder to comment on the proposed project plan; and
- receive an EOI response from the potential bidder.

For that purpose, an invitation for EOI must include the following:

- Background information (a brief description of the procurement authority, overview of the project and its objectives, government's strategic plan, etc.)
- Project scope and timetable (details of infrastructure and the services that the procurement authority seeks, proposed timeframe for the project, etc.)

- Financial and commercial information (risk allocation, payment mechanism, government support, if any, etc.)
- Evaluation criteria (understanding of project, project objectives, government's requirements, major project issues and its solution, experience with similar projects, proposed commercial structure, proposed funding structure role and risk allocation of the consortium member.)

3) EOI response and evaluation

The requirements of the EOI response should be tailored to match the specific evaluation criteria to ensure that the project team receives the information it requires to measure responses against stated criteria.

An EOI response will be evaluated to select the bidders who are permitted to proceed to the next phase. Usually, the shortlisted bidders include three parties to ensure adequate competition in case of a party's withdrawal.

The procurement authority must, prior to the submission of the EOI response, arrange an evaluation plan and establish an evaluation panel. A project director and external advisors will support the evaluation panel. Generally, the panel is entitled to ask questions and invite the bidders to give a presentation or an interview, if the panel deems it necessary.

4. REQUEST FOR PROPOSAL ("RFP") PHASE

RFP Development Phase

The purpose of RFP is to seek a fully committed and binding response from the shortlisted bidders.

The RFP is the final bid document issued by the procurement authority. RFP is the most important document in the PPP process because RFP contains comprehensive information on the project and bidding, and the bidding process. Project documentation includes:

General information: an overview of the RFP, background, project scope, tender process, PSC.

Commercial framework summary: the major contractual terms, such as duration of the project, site issues, payment mechanism, force majeure, change in law, termination and step-in rights, end-of-term arrangements, and finance clause.

Evaluation criteria: design, construction, operation/services, commercial structure, finance structure, and project management.

Design brief: the specification of the social infrastructure. In the PPP project, the construction and services for the project are defined by the output specification.

Draft Contractual Documents: Draft Project Agreement, Service Specifications, Schedules including Payment Mechanism and Direct Deeds, and Annexures.

Other information: other information related to the project.

RFP Bid Phase

The period between the issuance of RFP and submission of the proposal is referred to as the “RFP Bid Phase”. In the RFP Bid Phase, many chances are given to discuss project requirements and shortlisted bidders’ development of their concept and designs.

- i) **Query process:** Shortlisted bidders can seek clarification and feedback on their concepts and designs through the interactive process. Query processes will help clarification of the requirements established by the procurement authority.
- ii) **Dialogue:** Moreover, the procurement authority has the option to hold a series of interactive workshops (Australia) or a dialogue meeting (UK) with an individual shortlisted bidder.

The management of such an interactive process is difficult. The method of conducting interactive communication is flexible. The dialogue process is conducted in the following way:

- a dialogue may take place in successive stages in order to reduce the number of solutions to be discussed during the dialogue stage by applying the selection criteria.
- it may continue until the procurement authority can identify one or more solutions capable of meeting its requirements.
- the procurement authority must not treat the bidders unfairly. It must not provide information in a discretionary manner that may give some bidders an advantage; further, it must treat shortlisted bidders’ commercially confidential information and intellectual property material appropriately to ensure that a bidder’s competitive advantage is protected.
- it is recommended to have a core team involved in all of the dialogue sessions, and noted that a separate team for dialogue sessions may be arranged only in the largest, most complex procurements.

To manage the dialogue process effectively, the following matters should be noted:

- **Staying within the scope:** The dialogue must work within the parameters informed to the bidders at the outset.
- **Extensive planning:** The procurement authority must plan in advance and in detail how the entire process will be run.
- **Competitive tension:** Competitive tension will be present during the entire dialogue process.
- **Substantial resources:** Substantial costs and resources may be required for the procurement authority to have a productive dialogue.
- **Solutions to be well developed before close of dialogue:** The procurement authority and bidders must be clear before dialogue is closed about whether a bid is likely to be acceptable.

REP Evaluation Phase

When the interactive process has closed and the final bids are submitted by the shortlisted bidders, the evaluation process begins.

As in the evaluation process of the EOI response, an evaluation panel must be established within the procurement authority. In a complex project, sub-panels may be created for specific evaluation items. An evaluation team is also established to support the evaluation panel. It is common to establish separate teams to assess the service delivery, design solution, and commercial elements of proposals.

During the evaluation process, the evaluation team may ask for clarification of the proposal to the bidders; further, depending on the nature of the project, the evaluation panel may invite all of the shortlisted bidders to present their proposal.

When a preferred bidder is selected, an evaluation report must be prepared and published.

5. NEGOTIATION AND COMPLETION PHASE

Why is the Negotiation Necessary?

The principle is that the final bid must be final and not subject to change or negotiation. However, there are certainly issues to resolve after the close of dialogue (details of subcontracts, complete design detail, detailed planning application, etc.). Changes to clarity, specificity, or fine-tuning are also possible, to the extent that such changes do not affect the basic features of the bid. The results of the dialogue are not always appropriately and timely reflected in the RFP documents. Moreover, in the UK, the procurement authority may allow bidders to submit variant tenders in addition to their standard offering. For these reasons, negotiations between the procurement authority and the preferred bidder may be necessary after the selection of preferred bidder.

How is the Negotiation Conducted?

It is advisable for the procurement authority to establish a negotiation team led by the project director. A smaller team may be more efficient.

For the first step, the negotiating team and the preferred bidder need to work together to establish a framework for contract negotiations. The procurement authority will have the right to lead the negotiation. The framework must provide for the following items to conduct the negotiation efficiently:

- **Timetable:** The negotiation team must present a clear timetable for the negotiation to the preferred bidder, and the parties must agree on the timetable. Agreement on the timetable is important because it will prevent any delay. It must show the meeting schedule and the target date for execution of the contract. Usually negotiation meetings take place every two or three weeks.

- **Definition of negotiating issues:** The issues to be negotiated must be set out, together with the procurement authority's position on each issue. Without this structure, the negotiations could move into areas that are otherwise settled.
- **Control of drafting:** The drafting process must be managed by the legal advisors to the procurement authority, including management of version control and assessing which parties need to review changes.
- **Recording of agreed matters:** All matters agreed upon during the negotiation must be recorded in writing. In Japanese practice, minutes will be prepared for each meeting to record the results of the meeting including the agreed matters.
- **No revisiting agreed issues or introducing new ones:** The parties must fully understand that for effective negotiation, the agreed matters must not be revisited; furthermore, they must not raise new issues after the scope of negotiation has been agreed to.

Once all the negotiation matters have been agreed and the necessary approval process is complete, the contract is awarded to the preferred bidder. A suitable date and venue are nominated for contract execution, where the government's representative signs the contracts after all other parties have signed. It is common practice for a public announcement of the contract and the preferred bidder to be made when contracts have been executed.

Project Monitoring

In the implementation phase of the project, the roll of the procurement authority is mainly to monitor the project and payment to the contractor. The payment system is closely provided for in the PPP contract. Monitoring is conducted as follows.

The PPP contract provides for a system for performance monitoring to monitor, on a timely and effective basis, whether the contractor is delivering services that meet service specifications.

In the PFI/PPP project, the contractor must monitor its own performance, subject to the procurement authority's rights of review and audit.

- **Periodic Performance report:** The contractor must prepare a regular periodic performance report that is delivered to the procurement authority. The relevant monitoring periods will depend on the nature of the project. However, it is usual for performance reporting to occur on a monthly basis and within a set number of days from the end of each month.
- **Procurement authority review:** The procurement authority may also monitor and review the contractor's performance by measures other than to review and audit the reports from the contractor. Except where costs are payable by the private party, such monitoring and review by the procurement authority will be at its cost. These additional monitoring rights may include the use of the following:
 - (a) customer satisfaction surveys;
 - (b) audit processes;
 - (c) scheduled and unscheduled reviews and inspections; and

- (d) feedback from facility users as to the adequacy and quality of the facility or the services being provided by the contractor.

The contractor must provide such assistance and access as the procurement authority requires in the exercise of its performance monitoring rights.

- **Access to the contractor's management resources:** The contractor must grant and provide ready access to any performance data upon the provision of reasonable notice by the procurement authority. Copies of all information, documents, and data relevant to the performance monitoring or the provision of the service by the contractor must be kept for the agreed period after their creation of production.

1. HISTORY AND CURRENT STATUS OF FOREIGN INVESTORS IN PPP PROJECTS IN VIETNAM

Main Investment Area - Power Plants in the Form of BOT

Phu My 2-2 and Phu My 3 power plants were formed in the late 1990s to the early 2000s. After Phu My 3, few foreign investors have succeeded in signing a BOT contract except for those in some recently approved power plants such as Mong Duong.

Some large-scale foreign trading companies have been selected as investors by the Vietnamese government, but it takes many years (on average 5 years) to complete negotiations to sign a BOT contract.

Numerous FS for PPP Projects Conducted for Many Types of Infrastructure Facilities

Many potential foreign investors conducted FS for PPP projects for many types of infrastructure facilities such as roads, seaports, airports, clean water facilities, waste water treatment, waste disposal facilities, etc., but many of them were found not to be viable or feasible as PPP projects if investment were to be made as requested by the Vietnamese government.

Perception gaps regarding PPP

Generally, private investors tend to limit investments to only the profit making portion of the entire infrastructure facility such as container terminal of seaport facilities (they do not build, own and operate the seaport), terminal building of airport facilities (they do not build, own and operate the airport), and purchasing and operating of the cars on railroads (they do not build, own and operate railroads).

On the other hand, the Vietnamese government demands that private investors should build even common user facilities surrounding PPP infrastructure facilities at their own expense while it is reluctant to provide viability gap funding like a minimum revenue guarantee, or availability payments.

This causes lack of viability and feasibility of PPP projects.

Foreign investors perceive that PPPs are projects which construct and operate public infrastructure which should be originally done by the government at its cost, and private investors participate in them only to the extent that they are paid, while the Vietnamese government perceives that PPP is a special grant to private investors. Therefore, investors should do everything at their cost.

Foreign investors assert that private investors cannot bear risks which they cannot control, while the Vietnamese government asserts in other non-PPP projects private investors bear risks which are beyond their control, such as force majeure. Therefore, why in PPP projects should private investors not bear risks which are not within their control?

Foreign investors found that incentives given to PPP projects which are allocated to foreign investors could be different from those given to domestic investors.

In a highway project in North Vietnam, a domestic investor was granted not only the right to collect tolls, but also the right to develop housing projects along the highway. In contrast, in a city railway project in North Vietnam, a potential foreign investor conducted FS but found no land to develop along the planned railway. The sole source of revenue was tolls. Thus, the project was less profitable for the foreign investor than the domestic investor, who was granted the right to build housing near the target infrastructure.

2. CONCERNS ABOUT PPP IN VIETNAM RAISED BY BUSINESS ASSOCIATIONS

There are 9 concerns about PPP in Vietnam raised by business associations in Vietnam:

1. Change in law;
2. Foreign exchange risk;
3. Land clearance;
4. Construction of surrounding infrastructure;
5. Minimum revenue guarantee & availability payment;
6. Guarantee to avoid competing projects;
7. International arbitration and choice of governing law;
8. Strong leadership of the authorized state agency to coordinate relevant state agencies;
9. State and private investment ratio.

3. 9 CONCERNS ABOUT PPP IN VIETNAM

1. Change in Law

Change in law could cause an increase in cost or decrease in revenue. Also, it negatively affects investors' (suppliers' or governments') ability to perform PPP contracts.

Protections for investors from change in law are compensation for damages, adjustment of the contracts, extension of the operation period, and exit from the contract by termination.

The Law on Investment of Vietnam provides some protections for investors from change in law and some BOT contracts have successfully incorporated these protections.

However, those protections in the Law on Investment are not exclusive and they are subject to negotiations with the competent authorities.

Foreign investors expect that the PPP decree could include more specific protections from change in law.

2. Foreign Exchange Risk

- 1) Availability and convertibility of Vietnamese dong to hard currencies, and transferability of hard currencies to outside Vietnam

Historically, in Vietnam, availability of hard currencies like the US dollar has been very tight, and the convertibility of Vietnamese dong to US dollars has been restricted. Given this situation, a guarantee by the government is a must for projects financed by overseas banks.

2) Exchange rate

The 4th draft PPP decree provides that the government will not provide a guarantee for the exchange rate.

Hedges for exchange rate fluctuation such as forward FX, cross currency swap, FX options may be provided by banks, but may be inadequate to cover the volume and length of the FX transactions required in PPP projects due to banks' capital regulations and illiquidity as well as high costs.

Foreign investors in large-scale PPP projects such as power plant projects question why a guarantee for exchange rate risk is not available under the law as a default rule.

3. Prolonged Land Clearance and the Cost of Land Clearance

1) Land clearance

Pursuant to the Land Law of Vietnam, the government, specifically, the Provincial People's Committee which governs the project site is responsible for implementation of land clearance, compensation, and resettlement and the government must pay compensation as necessary.

However, in fact, many road or bridge projects in Vietnam experience significant delays due to the time required for land clearance, and some contractors or investors are currently seeking damages against the Vietnamese government (i.e., in the Nhat Tan bridge project).

2) Who bears the cost

The Land Law of Vietnam is silent on who should bear the costs of land clearance, such as compensation to be paid to land users and support for resettlement of land users. Under Decree 108, the project company is basically responsible for the costs for compensation, land clearance, and resettlement for land users (Article 30.2). The only exception to this rule is for urgently needed or some important projects (Article 6.2).

If the project company must bear the cost of compensation, land clearance, and resettlement, its profitability will be reduced, and this could make the project financially unfeasible.

Also, negotiations with the government for approval for exceptions to this rule impose a heavy burden on the investor.

Foreign investors expect that the Vietnamese government will do better with respect to land clearance, and increase its share of the costs.

4. Guarantee to Build Surrounding Infrastructure

Although investors in a PPP project are responsible for constructing the target infrastructure, in order for the target infrastructure to function well, the government must build and maintain surrounding infrastructure (common user facilities).

For example, in a seaport project in the form of a PPP, in order for the seaport to function, the operator must ensure that the surrounding sea, bay, and river maintain a certain depth of water to allow sea ships to go through.

Therefore, the government must periodically dredge the basin of the surrounding water.

If the private investor bore the cost for constructing and maintaining such surrounding infrastructure, costs would rise to such a scale that the project would lose viability, and no private investor would be able to participate.

5. Minimum Revenue Guarantee and Availability Payment

1) Minimum revenue guarantee

According to the minimum revenue guarantee concept, a government grants to a private party a minimum level of revenues for a project period. Yearly government payment is defined as the difference between the predetermined level of income as defined in negotiations between the parties and the actual income. That means whenever a private party does not reach the predetermined level of income, the government will pay the private party the difference between the predetermined level and the actual income.

Currently in Vietnam, PPP projects for public transportation services are often not feasible, since tolls for public transportation services are set very low, and the costs for constructing and operating them cannot be recovered from such low tolls. If the government wishes to encourage PPP projects in public transportation, it should allow project companies to flexibly set and change the tolls for public transportation services. Also, investors' demand forecasting (for example, of the number of users, and the volume of traffic) may be overly optimistic, due to circumstances which are not within their control. It is quite difficult for a private investor to forecast actual demand, and these forecasts are based on many unconfirmed assumptions.

This can be a serious problem in the case of a toll road, where toll revenue comprises the sole revenue source in the project.

Therefore, governments need to provide a minimum revenue guarantee, to cover shortages of demand in areas where the service price is controlled by the government to protect the life or business of the end-users.

2) Availability payment

In availability payment arrangements, a private investor to a PPP project provides the design, construction, financing, and long-term operations and maintenance for the project, while the government retains any demand risk and makes periodic payments to the private investor during the operating period based on achievement of quality and performance standards. Availability payments serve to compensate a private investor in a PPP project for its design, construction, operation, and/or maintenance of infrastructure facilities, such as roads or seaports, for a set period of time. These payments are made by a public project sponsor.

Governments often offer availability payments for toll facilities that cannot be expected to generate adequate revenues to pay for their own construction and operation. In this case, the public project sponsor, rather than the private partner, retains the underlying revenue risk associated with the toll facility.

In a competitive bidding process, investors compete to offer the lowest availability payment, assuming that the project is sufficiently equipped with preconditions. If the Vietnamese government solicits foreign investors to bid on less profitable PPP projects, it should consider measures such as availability payments, to attract private investors and make the PPP projects viable as businesses.

6. Guarantee to Avoid Competing Projects

In pivotal traffic infrastructure projects such as highways, sea ports, and airports, if the government permits competing projects near the site of a PPP project after approving the PPP project, this will drastically change the demand forecast, and could cause the failure of the project.

Once the government has approved a PPP project, it should guarantee that it will not approve competing projects, and should modify the relevant master plans so as not to approve projects which could damage existing PPP projects.

Investors and project companies expect the Vietnamese government to compensate them appropriately if it grants approval to competing projects that cause damage to an already-approved PPP project.

7. International Arbitration and Choice of Governing Law

1) General

PPP projects involving foreign investors must have a foreign arbitration clause, as well as a choice of governing law clause, which is accepted as transparent and foreseeable, particularly, by the overseas financing parties for the PPP project.

If such clauses are lacking, foreign investors will experience difficulties in obtaining financing from overseas banks, which generally require foreign arbitration in a neutral third party country.

Also, arbitration awards and choice of law in the project contract should be honored by domestic courts, and the government should honor contracts governed by foreign law.

2) Arbitration in Vietnam

In the Tyco vs. Leighton case, the Supreme Court of Vietnam overturned the Ho Chi Minh Economic Court's decision to approve the enforcement of an Australian arbitration award which favored Tyco, a Singaporean sub-contractor, due to its mere failure to administratively-register as a subcontractor, despite the MOJ of Vietnam opining that the agreement was enforceable in Vietnam.

Since the end of 2012, media outlets have reported that numerous domestic arbitration awards which favored foreign parties, and that were rendered by the Vietnam International Arbitration Center (VIAC), have been consecutively revoked by Vietnamese provincial courts, due to “procedural errors” or simple “violations of Vietnamese law”, which did not amount to violations of the “public policy” of Vietnam.

This rash of cases seriously discouraged foreign investors, as well as financing parties for PPP projects in Vietnam, as it damaged the image of fair arbitration in Vietnam, and gives the impression that even if foreign parties carefully draft project contracts and retain the best lawyers for arbitration, contract provisions that do not favor Vietnamese parties will ultimately never be enforced in Vietnam.

The Vietnamese government would be well advised to have the Supreme Court of Vietnam and the MOJ of Vietnam issue a joint circular encouraging implementation of the Law on Arbitration, and other relevant laws (i.e., the Code of Civil Procedure), in order to control judges’ discretion to revoke arbitral awards.

3) Choice of governing law

The Civil Code of Vietnam currently provides that foreign law may be applied to a contract if it is not contradictory to Vietnamese law, and Decree 108 bears a similar provision (Article 22 of Decree 108).

However, in practice, in many cases, courts or governmental agencies neglect to apply foreign law at all, and solely apply Vietnamese law, even if the contract officially signed by the government clearly stipulates the application of foreign law.

In Vietnam, for many foreign infrastructure construction projects, the government has signed construction contracts based on the templates of the International Federation of Consulting Engineers (Fédération Internationale Des Ingénieurs-Conseils, FIDIC).

However, when the State Inspectorate or the State Treasury checked the legality of the implementation of such construction projects or the payments from the government budget, it ignored the FIDIC-based construction contracts, and cited the foreign contractors for violations of, for example, a circular of the Ministry of Construction, even where the FIDIC-based contracts clearly stipulated the application of foreign law, or provided provisions based on foreign law.

Therefore, foreign contractors are now experiencing some doubt as to whether foreign law is enforceable in Vietnam at all.

This situation will affect financing for PPP projects, since overseas bankers typically request the application of foreign law, which is accepted internationally as transparent and foreseeable (typically English law or Singapore law).

8. Strong Leadership by the Authorized State Agency to Coordinate the Relevant State Agencies

Foreign investors in PPP projects often encounter the problem that when they propose a project scheme to the competent state agencies, they receive merely the stock response that the investors should check directly with the Prime Minister’s office for its opinion. Investors also

feel that cooperation by the relevant ministries is insufficient, and the lack of cooperation hinders and prolongs formulation of PPP projects.

Foreign investors wish to have one state agency with which to consult, with strong power and responsibility, to integrate opinions on all issues relating to PPP laws and regulations.

9. State and Private Investment Ratio

Currently, the state and private investor investment ratio is fixed at 49-51 or 30-70, under Decree 108 and Decision 71; however this fixed ratio was eliminated in the 4th draft PPP decree.

Originally the ideal was for public infrastructure to be built and operated by the government, at its cost.

However in order to prevent the increase of public debt and to utilize the advantages of private enterprise, the government should invite private investment.

The government should keep the state investment ratio high enough to make PPP projects feasible for private investors.

From this viewpoint, the definition of “state capital” or the “state participation portion” should be clear enough, and this should not include non-cash support, such as guarantees by the government, or any other support.

1. PRINCIPLES OF RISK ALLOCATION

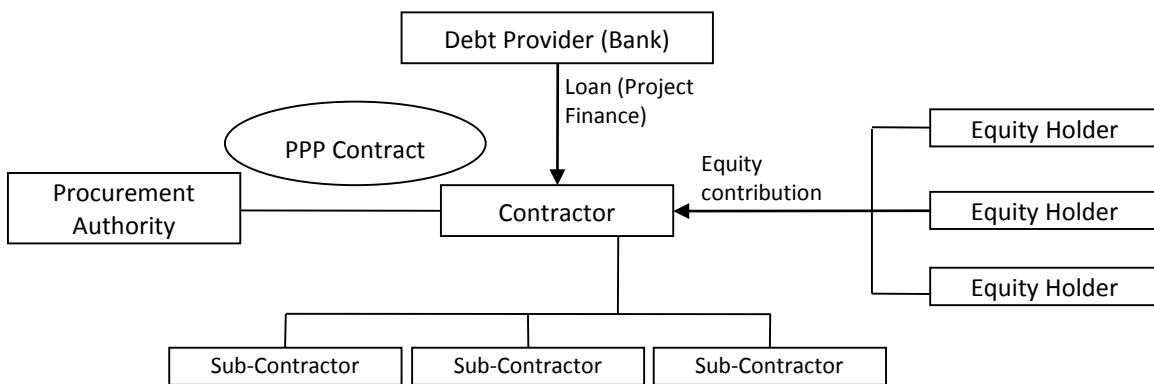
Overview

Risk allocation is the most important factor for successful PPP.

There is no clear definition of risk allocation. In the Japanese Guideline on Risk Allocation, “risk” is defined as the likelihood of loss caused by an event of which the parties are not able to assess the result if such an event occurs. Thus, risk allocation is a determination of which party shall bear the loss caused by such an uncertain event.

Since a PPP project is a complex project, a case-by-case analysis is necessary.

In the context of the contractual structure of PPP, risk allocation means an allocation between the procurement authority and the contractor (private party). In the contractual structure of the PPP project as shown below, there may be risk allocation between the contractor and the debt provider, or among the consortium members. Such risk allocation is an issue negotiated and decided among the private parties and does not mean risk allocation in the PPP context. Since the PPP contract is the main document to bind the procurement authority and the contractor, all risk allocation must be eventually prescribed in the PPP contract.



Basics of Risk Allocation

The principle is that each risk shall be allocated to the party who is best able to manage the risk. “Manag[ing] the risk” means having the opportunity to reduce the likelihood of the risk eventuating or to control the consequences caused by it. For example, the private party bears the risk of construction completion because requirements allow the private party to plan the construction; further, the private party can monitor the progress of the construction process.

In the case of risk outside each party’s control, the allocation is determined by considering the following factors:

- Does a private party have any measure to avoid or minimize the consequences caused by the risk event?

- If it does, how much is the cost and degree of minimizing it?
- The cost to the government if it takes the risk and its ability to mitigate the consequences.

As we discuss later, a force majeure is a typical example of the risk that neither party can control. In Japan, since the private parties do not have measures to avoid or mitigate the loss and damage caused by force majeure other than insurance, the common perception is (i) that incurring the risk of a force majeure is a heavy burden for the private sector, and therefore (ii) that the government bears the force majeure risk not covered by insurance.

Risk Allocation & Payment Mechanism

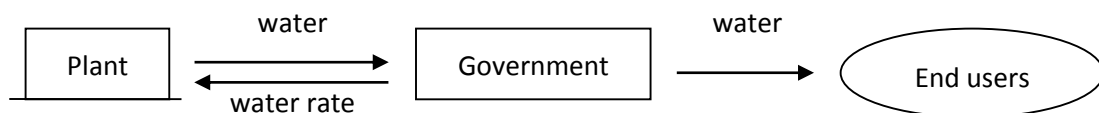
The payment mechanism is closely connected to risk allocation in the project, in which the government pays for the service provided by the private party. This is because it establishes the incentives for the private party to deliver the services to the government. Incentives in the individual project are different so that a case-by-case analysis is required.

Consider the following two projects where the operation of the facility is interrupted by force majeure:

1) Water purification plant

Assume that the government pays a water rate calculated by the quantity of water delivered to the government multiplied by the unit price of the water.

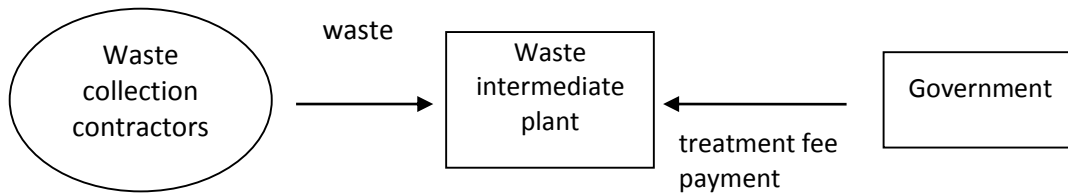
No delivery of water to the government during the interruption period. The contractor loses the revenue that might be obtained during the interruption period. The contractor does not have a chance to recover the lost revenue. Therefore, the compensation for lost revenue will be an important issue here.



2) Waste disposal plant

Assume that the government pays to the contractor the treatment fee calculated by the quantity of incoming waste multiplied by the unit price of treated waste.

No intermediate treatment during the interruption period, but incoming waste can be stored within the plant facility up to the storage capacity. The stored waste can be treated after operation of the plant is resumed. The contractor can recover the revenue that might be obtained during the interruption period.



The above cases show the close connection between risk allocation and payment mechanism, and a case-by-case analysis is indeed important.

Examples of Risk Allocation

Risk allocation is often presented by a matrix. The below table is an example of a risk matrix showing the allocation of risks during the design and construction period of a project.

DESIGN AND CONSTRUCTION RISKS		
TYPE OF RISK	RISK BORNE BY	
	PROCUREMENT AUTHORITY	PRIVATE PARTY
Land acquisition	○	
Legal challenges to any approval	○	
Pre-existing and migratory contamination	○	
Soil contamination during the construction of project		○
Construction delays caused by force majeure	Shared	
State-initiated variations to specifications	○	
Design defect		○

The risk allocation table simply shows which of government and the private party shall take risks. In an individual project, however, the risk allocation is more complicated. The details of risk allocation shall refer to the provisions of the PPP contract.

2. TYPICAL PPP PROJECT RISKS

Design

The contractor is responsible for the design. The private party shall complete the design of the facility and submit design documents in accordance with the agreed timetable.

Consultation with the authority is necessary during the development process, and such consultation and adaption of the procurement authority's comment is at the contractor's risk. However, the changes beyond such minor changes required by the procurement authority shall be at the authority's risk.

It is important for the procurement authority to set the requirements that will maximize the incentive to the private sector. In the solid waste plant project, for example, the capacity of the facility is designated by the procurement authority. In Japan, the procurement authority designates that the plant shall have a treatment capacity of 300 tons of waste per day. Under the guideline established by the Ministry of Environment in Japan, the annual operation days of the plant shall be 280 days, and the plant will be inspected and repaired during the out-of-service period. Therefore, under the Japanese guideline for waste plants, a treatment capacity of 300 tons equals the treatment capacity of 84,000 tons per year. However, some plant makers may claim that the out-of-service period can be shortened. Such plant makers may construct a smaller plant, which can satisfy the treatment capacity requirement of 84,000 tons per year. Clearly, the latter requirements encourage the private party's innovation and eventually serve good VFM.

Construction

The contractor shall complete construction of the facility and commence operation by the date agreed in the PPP contract. The contractor is in the best position to manage the scheduling, procurement, and construction work, so that the private party shall bear the risk of construction.

1) Definition of completion and defects

Definition of construction completion is defined in the PPP contract. Usually, the definition of completion includes physical completion and other requirements (the performance of the plant in the case of a waste plant project, for example). Physical completion and satisfaction of the requirements established by the procurement authority are confirmed by the authority.

If any defects or non-fulfillment of the requirements are found in the operation phase, due to design or construction defect, such non-fulfillment or defects shall be cured by the contractor at its cost. The procurement authority's confirmation shall not relieve the contractor of its responsibility for such defects.

2) Completion delay

In many projects, commencement of service is the critical date. Usually a delay in the commencement of service will subject the contractor to a penalty provided in the PPP contract. Since the service cannot be provided before the completion of construction, the delay in completion shall seriously impact the project. Moreover, a PPP contract usually provides for termination of the contract if completion is delayed for a certain period after the agreed completion date.

Land

In most projects, the project site is provided by the procurement authority. Traditional risk allocation is that the procurement authority discloses the surveyor's report and other available information to the bidders, and the bidders verify this information and bear the risk. No warranty is made by the procurement authority regarding such information provided by it. The private parties are reluctant to pay for the cost of verification that may be great, and too many verification costs discourage the incentive for bidding.

The public sector is also aware that costly due diligence by the bidders will harm VFM. From this view, recent PPP reform includes suggestions (i) to allow the authority to give warranty to the contractor regarding the title of the land (UK PF2 contract, p.96), and (ii) risk sharing between the parties if unidentified pre-existing contamination is found or latent geotechnical conditions are unexpectedly bad (Practitioner's Guide (Australia), p.13).

In Japan, the information provided to the bidders regarding the geo-technical conditions or soil contamination in the project site is not adequate in many projects, mainly due to the procurement authority's limited budget. Because of this background, the procurement authority bears the risk of increased costs arising due to the geotechnical conditions or soil contamination that cannot reasonably be foreseen from the information provided by the procurement authority. On the other hand, title issues rarely arise in Japan because the registration system for land title is adequately equipped.

Financial Risk

The private party is responsible for financing the project. The private party shall procure the funds necessary to implement the project.

The project cost is procured by equity and debt finance. The ratio of equity and debt finance differs according to each project, taking into account the degree of risk in the project.

1) Equity

Certain financial institutions or funds (pension funds, government funds, etc.) are expected to be providers of equity. Because of the high-level of risk in the construction period, the consortium members (especially a construction company, plant maker, operator, and other major members) are usually required to provide equity.

Once the construction of the facility is completed and provision of service is commenced by the contractor, or if the management of the project becomes stable, the initial equity holders including a consortium member may be allowed to sell its equity. This may become a great incentive for such equity holders.

In Japan, the disposal of the contractor's equity is subject to the procurement authority's consent. It is believed that the holding of equity shows the holder's commitment in the project. However, to require private parties to hold equity during the project term may be too much of a burden on them. Therefore, because of this restriction, private parties other than consortium members are not interested in holding equity. In this regard, a recent revision of the Japanese contract guideline recommends clarifying the conditions for the authority's consent.

2) Debt finance

For debt finance, project finance is applied to a PPP project. In project finance, the term is usually long and repayment is based on the borrower's income stream. The private party will face the following two difficulties in borrowing by way of project finance, which has these features.

i) Interest rate risk

Generally, loans are extended with a fixed-rate or floating-rate interest. In a PPP project, the private party will bear the risk of fluctuation in market interest rates. A private party can use financial products (such as interest-rate swap) to mitigate such risk.

In the case of developing countries, however, the financial market is so young that long-term financial products are not available. This suggests the need for government assistance. This risk will be mitigated if the procurement authority approves refinancing by the private party if long-term debt finance is not available for the contractor. In such a case, the general risk allocation is that the procurement authority will bear the market interest-rate risk and the private party will bear the margin risk.

ii) FX risk

Project finance is often sourced from foreign lenders in a foreign currency. On the other hand, revenue obtained from the project is generally denominated in local currency. The private party has to buy the foreign currency in the market for repayment, yet the currency exchange rate is subject to market fluctuation. The private party can use financial products (such as currency swap) to mitigate such foreign exchange risk; however, again, long-term financial products are not available in the young financial markets of developing countries.

This suggests the need for government support, for example, (i) payment by the government is made in the currency in which the loan is denominated, or (ii) a PPP contract provides for a mechanism to adjust revenues from the project to compensate for any relevant changes in the foreign exchange rate.

Operation Risk

The private party is under an obligation to provide a service that meets the requirements established by the procurement authority. When the service provided by the private party does not meet the requirements, the payment by the government is reduced in accordance with the PPP contract. The contractor shall, therefore, monitor and manage its operation and the level of service provided by it. The contractor bears the risk of managing the operation of the project.

If the sub-contractor's performance is insufficient or, even where the sub-contractor goes bankrupt, the contractor shall appoint a substitute sub-contractor to continue providing the service. The contractor shall bear the increased costs caused by such substitution.

Demand Risk

If the revenue obtained by the contractor is linked to the quantity of service provided by it or the number of users of the facility, the demand risk in the project can be deemed to be allocated to the private sector. Generally, the project in which the private sector bears the demand risk is deemed to be a high-risk profile project.

The most difficult issue is the estimation of demand:

- if the estimation of demand is excessive, the private party cannot obtain sufficient revenue to repay the project costs; and
- if the estimation of demand is underrated, good VFM cannot be achieved.

Usually, the procurement authority discloses the demand estimation during the bidding process, and the authority does not give any warranty on the estimation. The private sector is solely responsible for its demand estimation.

Since the project in which the private sector bears the demand risk is deemed to be a high-risk project, and in fact there have been many cases in which projects failed because the actual demands were substantially below the demand estimation, the procurement authority may consider giving some assurance to ensure revenue stream is earned by the private party.

Such assurance includes the following:

- To give warranty for the authority not to engage in any activity that will negatively impact on the demand of the facility.
- When tariffs are only private party revenue, to provide the private party with an arrangement to change the amount of tariff to cover the increase in the project costs that the private party does not have the ability to mitigate.
- To provide a government subsidy or compensation to the private party to ensure minimum revenue.

Force Majeure

1) Definition:

Force majeure usually means a limited category of exceptionally severe events that are outside the party's control. In order to avoid uncertainties, the PPP contract shall define force majeure in detail. The following are examples of force majeure:

- i) lightning, cyclones, earthquakes, natural disasters, landslides, tsunamis, and mudslides;
- ii) civil riots, rebellions, revolutions, terrorism, insurrections, military and usurped power, act of sabotage, and war;
- iii) ionising radiation, contamination by radioactivity, nuclear, chemical or biological contamination unless caused by the private party or sub-contractors;
- iv) fire, flood or explosion caused by events referred to in paragraphs (i) or (ii) above; and
- v) during the operating phase only, one or more utility services required for the operation of the facility is not available for use at the mains connection to the site, due to a major distribution or transmission system failure, except to the extent the non-availability is because of an act or omission of the private party or its sub-contractors including failure to comply with any of its obligations such

as having to provide back-up or other security requirements, or a dispute between the private party and the relevant utility supplier.

The definition and treatment of force majeure differs in each jurisdiction. For example, a UK PPP contract defines supervening events by dividing them into three categories: Compensation Events, Relief Events, and Force Majeure Events. In the case of Relief Events, the contractor will be given no financial support by the government, but relieved from termination for failure to provide a full service.

2) Occurrence of force majeure:

The impact of force majeure on the project differs in each project. The force majeure clause needs to be tailored to the project in question. The following contractual issues shall be considered in each individual project:

Which party bears the risk?: Generally, the risk of force majeure is allocated to the procurement authority. Although a force majeure is beyond the control of both parties, such risk allocation is justified by the public nature of the infrastructure project, and by the government's intention to provide a good investment environment for domestic and foreign investors.

The consequence of force majeure: The private party is relieved from its contractual obligation to the extent that the private party cannot perform the contract due to the occurrence of force majeure.

Financial support by the government: Payment of a service fee and compensation for increased costs (including actual damages) and lost revenue shall be considered. In Japan, the government will give financial support for increased costs not covered by insurance with a minimum risk sharing by the private party.

Termination of the contract: The conditions of termination shall be provided in the PPP contract. Generally, the parties may terminate the contract where the private party cannot provide the service for a certain period or all, or almost all, of the facility has been devastated.

Change of Law

The risk of change of law is outside private sector control. The procurement authority is often not in a position to control the change of law as well. For example, local government does not have a measure to avoid legislation by the central government.

Generally, the change of law is classified into two categories: general change in law (change in law other than a specific change in law); and specific change in law (change in the law applied specifically to the project), and the risk allocation is as follows:

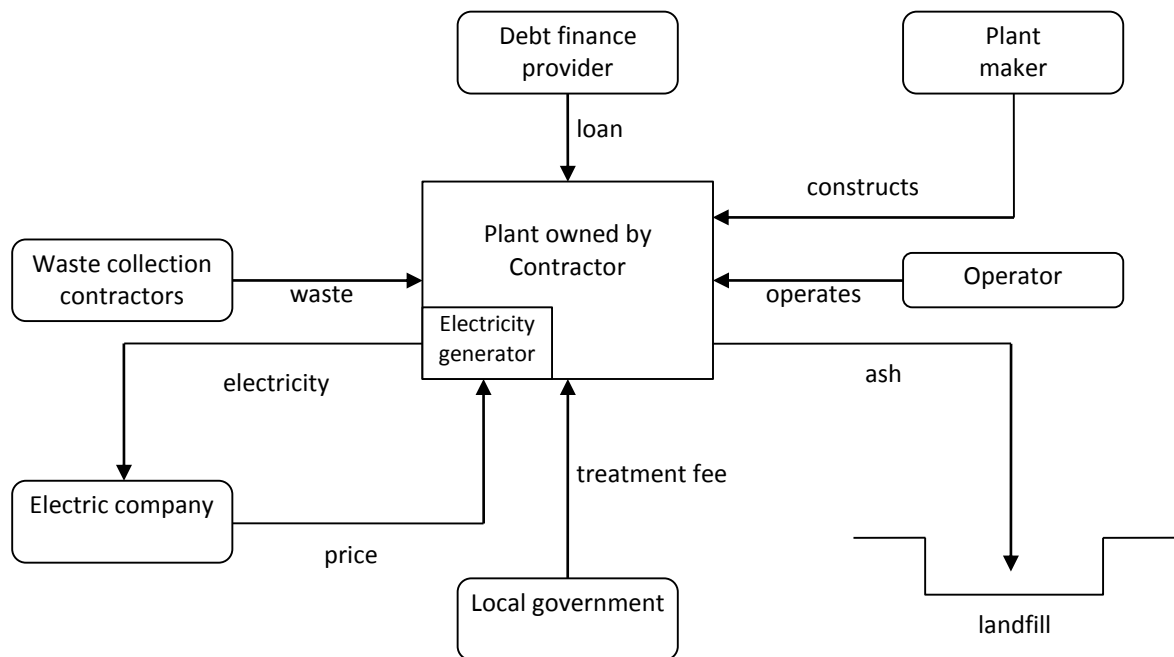
- the contractor shall bear the risk of increase in cost caused by the general change in law
- the authority shall bear the risk of general change in law affecting cost of capital expenditure
- the authority shall bear the risk of increase in cost caused by the specific change in law

The above approach takes into account the assumption that the index by which the service fee is revised reflects the increase in cost caused by the general change in law, yet their indexation mechanism will not assist the private party regarding capital expenditure required by the changed law.

3. RISK ALLOCATION (SOLID WASTE MANAGEMENT)

The general idea of risk allocation shall be applied in a PPP Solid Waste Plant project as well. Risks that are specific to a solid-waste plant project will be discussed in the following. The risk allocation issues discussed below all relate to “input risk.”

1) Contractual scheme of BOT for solid waste plant project



2) Risk related to quantity of incoming waste

In a solid waste management project, a minimum quantity of incoming waste shall be secured because:

- if the treatment fee is calculated based on the quantity of incoming waste, incoming waste below the minimum quantity does not generate sufficient revenue to the private party to cover its minimum cost for operation.
- since the generated electricity is used for the operation of the plant first and residual electricity will be sold to the electric company, the electricity generator cannot generate adequate electricity to be sold to the electric company if the incoming waste is insufficient.

The quantity of incoming waste is outside the private party's control, and since the capacity requirement of the waste plant was provided by the local government, the local government shall bear the risk. To take such a risk, the local government will establish a minimum quantity guarantee or adopt the two-step fee scheme comprising of a fixed fee to be always paid, subject to the availability of the plant and floating fee calculated based on the quantity of treated waste.

3) Quality of incoming waste

Usually the quality of incoming waste is presented by the local government; further, the plant maker designs and constructs a plant that can incinerate such incoming waste, meeting environmental requirements established by the local government.

The quality of incoming waste may vary. However, when the quality of incoming waste substantially departs from the quality of incoming waste presented by the procurement authority, the contractor may face financial problems caused by the following:

- an increase in cost because incineration of low-quality waste needs a combustion improver; and
- a decrease in revenue because incineration of low-quality waste does not generate sufficient heat for the electricity generator, which cannot generate sufficient electricity for selling.

Quality of incoming waste is outside the contractor's control. The local government shall bear the risk of a low-level quality of incoming waste. Financial compensation may be the best choice. In Japan, a generally accepted compensation measure is that if the quality of the incoming waste departs from the standard quality established by the local government and the degree of departure exceeds the agreed level, then the local government shall compensate the increase in cost and lost revenue from the sale of electricity that has been derived from the deviation exceeding the agreed level.

4) Risk of waste that cannot be processed through the facility

Sometimes the incoming waste includes waste that cannot be processed through the facility ("prohibited waste"). Generally, the private party is under a duty to perform the contract with its duty of care provided in the contract. Moreover, the private party shall as far as possible comply with the operating manual that usually designates the removal of prohibited waste. Under the private party's contractual duty, the risk allocation is as follows:

- Since the waste is collected by the private party selected by the local government, the local government shall bear the risk of prohibited waste that cannot be identified by the private party.
- If the facility is damaged by the prohibited waste or eventually the operation is interrupted, the local government shall compensate the costs for repair and the

lost revenue that the Contractor has incurred or received during the interruption period.

As explained in Unit 4, project risks should be allocated to the party best able to assess, control and manage them, or to those with access to hedging instruments or the greatest ability to diversify or to mitigate them at the lowest cost^[1]. Risk allocations are closely related to the role sharing of each party in the project, and they equate to who will be responsible for costs resulting from project risks.

In infrastructure PPP projects in developing countries, the government often tries to transfer as many risks as possible to the private sector. However, the risk is likely to be transferred back to the government in the form of higher risks, risk premiums, and project issues. In a PPP water supply project, the government may be required to pay a higher water tariff than necessary or the long-term sustainability of the project may be jeopardized and the project may lose bankability. Appropriate risk allocations between the parties are essential to ensure a successful project.

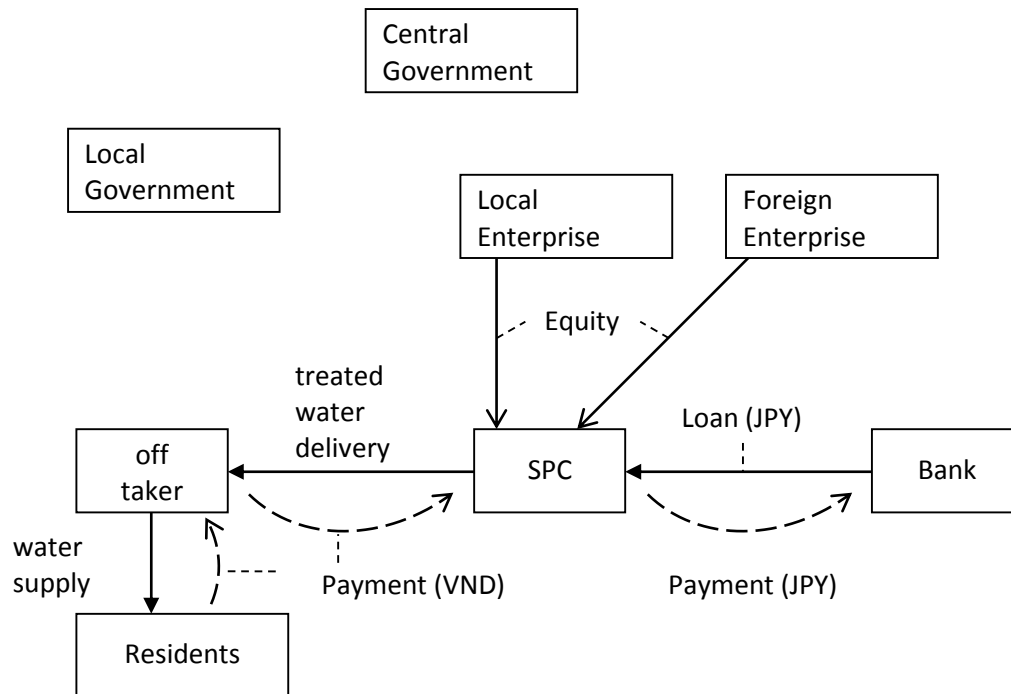
1. FEATURES OF RISKS IN A PPP WATER SUPPLY PROJECT

- Water supply services are often considered essential by residents, and they are traditionally provided by the public sector. Together, these factors increase political sensitivity to the prices charged.
- Strict standards to ensure a supply of safe and reliable water that meets or exceeds the prescribed water quality guidelines apply. If the contracting authority (the local government) alters the standards after implementing the project, the private sector may be required to make additional investments to meet the new standards; consequently, the project costs may increase. In this sense, the water supply project is likely to be adversely affected by the change of law risks.
- The water tariff will be calculated based on the operation cost to maintain water quality.
- The off-taker is a company owned/operated by local government. In many developing countries, the financial conditions of the local government are not transparent to foreign investors and are even unstable due to a lack of taxation power. Its source of revenue is normally limited to retail water tariff collected from the residents. However, the water tariff is set at quite a low level in developing countries. Therefore, it is very important for the private sector to deal with the risks of the off-taker's non-performance.

¹ UNCITRAL Legislative Guide on Privately Financed Infrastructure Projects (United Nations, New York 2001) ("UN Guide"), p.42

2. CASE STUDY: A HYPOTHETICAL PPP WATER TREATMENT PROJECT

Assumptions



- A Vietnamese local government has developed a master city development plan, which estimates that the population would rapidly grow. The existing water treatment facilities are old and would not be able to satisfy the expanding demand for high-quality drinking water to all the residents in the near future. Therefore, the local government decided to implement a greenfield water supply project. It aims to introduce expertise and management skills from foreign business practice, and enters into a BOT agreement (the "BOT Agreement") for a long period with the private sector.
- The private sector is entrusted by the local government to find a financing source, and to organize construction and on-going management of a water treatment facility pursuant to the BOT Agreement.
- Domestic investors (e.g., the local government-owned/operated water business company) and foreign investors (e.g., engineering firms, construction companies, and facilities management companies) jointly form a project company.
- In Vietnam, a long-term loan at a low interest rate is not available in the domestic financial market. Therefore, the project company borrows money from foreign commercial banks and/or foreign public financial institutions to implement the project in foreign hard currency (e.g., JPY).
- The project company executes a water sales and purchase agreement ("WSPA") with the local government-owned/operated water business company (in such a capacity, the "off-taker") and sells bulk water to it, which in turn distributes and supplies water to the residents. The water tariff for bulk water payable by the off-taker to the project

company and the retail water tariff that the project company collects from the residents are both made in local currency (VND).

3. RISK IDENTIFICATION AND ANALYSIS

(1) Risks in Construction, Operation, and Maintenance of the Facility

In the construction phase, the failure to complete the project according to the budget (construction cost overrun risk) and in a timely manner (completion risk), and in accordance with the physical or engineering specifications specified by the public sector (performance risk) are a fundamental risk. Since the construction costs account for a significant portion of the project costs, these risks are likely to affect all stakeholders involved in the project. The project company may be required to alter the operating plan; distribution to the project sponsors and debt service to the lenders may be delayed; and the project company may have to incur additional construction cost and financial cost due to the delay in debt service. Likewise, in the operation and maintenance phase, there is a risk that the completed facility cannot be effectively operated or maintained to produce the expected capacity, output or efficiency (performance risk).

These risks stem from failure to manage construction progress or optimistic budget estimate, inadequate design and/or building materials choice, all of which are generally attributable to EPC contractors, the project company and/or the sponsors. The private sector will generally take these risks and agrees to complete construction of the facility within the limit of the capped costs and by a certain deadline agreed in the BOT Agreement and WSPA, according to the agreed specification. The project company passes the completion risk, construction cost overrun risk or performance risk to contractors with sound track records under an EPC contract on a fixed-price, fixed-completion date, and on a turnkey-contract basis.

On the contrary, the public sector will bear the costs and risks resulting from its roles and acts. For example, if the construction cost exceeds the estimate due to inappropriate specification designated by it, change of its policy, and its failure to perform its obligations under the contract, it shall bear the costs resulting therefrom.

(2) Government Approvals and Licenses in the Design Phase

The private sector will be in charge of obtaining the necessary government approvals and licenses in accordance with the specification. However, sometimes personal turnover at the top level or bureaucracy reconciliation increases logistics and causes delay. It would be difficult for the private sector to control if there were delays by local or central government in granting such approvals and licenses. The public sector may control such proceedings better than the private sector. Therefore, such risks must be allocated to the public sector.

(3) Sites and Water Rights

A delay in securing access to the sites and water rights can lead to project delays and are considered best resting with the government. It is difficult for the private sector (especially foreign parties) to manage the relevant parties such as river administrators. This is easier for

the public sector to control. The BOT Agreement and WSPA should provide access to the sites and water rights as conditions precedent to entering into the agreements.

(4) Opposition Movement

The project may be interrupted and/or delayed due to an opposition movement by local residents against the project. It could be the one evoked by a sense of aversion against the foreign private sector's taking charge of the water supply business, or could be against the choice of location, design, specification, etc. of the facility. Determination of where and how to implement public infrastructure is left to the government. In addition, the government has stronger power and more options to present to the opposing residents than the (especially foreign) private sector. The general notion for a project involving construction of public infrastructure is that the public sector is supposed to take responsibility for construction interruption and/or delay due to such movement (unless the movement is only related to the sponsors, in which case the risk allocations must be discussed between the parties). The BOT Agreement should clearly provide the government's responsibility for this matter. The government should explain to the residents the rationality of the project by way of PPP as well as its selection of location, the (foreign) private investors, etc. Further, if the opposition movement is threatening construction work in progress undertaken by the private sector, the government should guard it to prevent any delay. If the movement actually adversely affects construction progress, it should be regarded as a force majeure under the BOT Agreement and the WSPA; accordingly, the public sector should refrain from imposing a penalty resulting from the interruption.

(5) Demand Risks

In the operating phase, the project company operates the water treatment facility and sells treated water in bulk to and receives a water tariff from the off-taker. The off-taker provides treated water to the residents.

A demand for water may increase or decrease over time during the project period. A retail water tariff that the off-taker collects from the residents is affected by future population increase/decrease in the region, distribution, and their demand for water supply. If the water price per agreed unit is left as it is upon the execution of the BOT Agreement and the WSPA and actual demand for water decreases, the off-taker's revenue is reduced. The public sector may request that the bulk water price payable by the off-taker to the project company be reduced in accordance with the decrease in demand by the residents.

However, a change in demand is generally out of the private sector's control where the service entrusted to the private sector is limited to the management of a water treatment facility. The private sector has no means to recover or raise any additional demand.

Infrastructure is a long-term project. Accurate demand projection is difficult for the private sector. In projecting the future demand, the private sector has to rely on data prepared by the public sector (e.g., the government's own demand projection, master development plan, and so forth). Where such data is not available or incorrect, or the public sector's assessment is very optimistic, the demand may change beyond such estimate. Further, water supply is one of the most important and basic public services where the public sector is responsible for the residents in that region. Accordingly, in the WSPA, a take-or-pay basis arrangement should be adopted so

that the project company can receive payment to meet the debt service to the lenders and a certain level of profit, irrespective of a change in demand.

If the private sector bears the risk, its cash flow decreases and the debt service may be affected. Should the project company fail to service the debt, the project company will default and may not be able to provide water supply services. In addition, the private sector has to estimate the bulk water tariff at a high level based on conservative projection. As a result, the estimated bulk water price could deviate from the retail water tariff, and the project may not be realized.

It is natural that the project parties have to try to provide a sophisticated demand projection, but a minimum guarantee and government support for revenue would also be desirable.

(6) Non-performance by the Off-taker

There is a risk that the off-taker may lack the cash flow with which to pay the water tariff to the project company or become insolvent in the future. If the private sector takes such risks, the project company will not be able to repay the loan and will be insolvent. In such a case, the water will not continue to be supplied. The government must be responsible for providing public utility services to residents. Therefore, such risks must be allocated to the public sector.

In such a case, certain government support is necessary. For example, the local governments may be asked to provide assurances that a government-owned/operated water company will honor its contracts (WSPA) with the project company from which it buys water. The government must secure sufficient budget in order to be able to pay compensation as well.

(7) Force Majeure

A force majeure means any unforeseen or extraordinary events that the parties cannot control, which hinders a contract party's performance of all or part of its obligation. There are two types of force majeure:

- natural force majeure such as natural disasters (e.g., extreme floods); and
- political force majeure such as riots or terrorist attacks.

A force majeure may cause construction delay, loss of revenue, and physical damage to the facility. Those effects could last indefinitely, but are temporary in most cases; further, the project will revive if the damages are adequately compensated or the cause of the hindrances is removed.

In the case of a natural force majeure like an extreme flood, the public sector tries to transfer the risks to the private sector. However, how to allocate the risks between the parties is decided based on case-by-case negotiations. This relates to whether the private sector can buy the insurance to cover the losses, which depends on the value of the constructed facility. The basic and fundamental request of lenders is that events beyond the control of the developer should be covered by the off-taker in cases where insurance is not available. The public sector must bear the costs not covered by the insurance.

In the case of political force majeure like a riot or terrorist attacks, the public sector must take the risks as the government must control public order and security in order for foreign investors and the financial provider to join the project smoothly.

(8) Regulatory Risks

Regulatory risks are the risks that regulations regarding the project have not been implemented or are immature, and the operation of the project is hindered due to them. Among others, the change of law risk, a situation where legislation is changed during the course of the project, has a huge impact on project matters. A change of law includes new legislation, tightening of existing legislation, and changes to the interpretation of applicable law by a court.

There are two examples, as follows:

- (x) Under the amendment to a certain law, the water quality standard that was agreed between the parties must be changed; as a result, additional construction becomes necessary in order to supply water. The water quality standard may be changed during the project period. Such change by the enactment of laws is controlled by the government.
- (y) Under the amendment to a certain law-related foreign investment, the private sector must amend the joint venture agreement between (local and foreign) sponsors. In such a case, the project lenders are not comfortable taking legal risks associated with changes in the legal regime that affects the economics of a project. Therefore, certain government support (e.g., guarantees or undertakings, or the grandfathering of an existing project) is necessary, and a clear compensation principle regulation shall be in force to address such changes.

(9) Expropriation Risk

Expropriation risk is a risk that the host country takes privately-owned assets (project assets) without the private owner's consent to protect national interests. It is well accepted that every government has an expropriation right. Since the government has full control over this risk, it must retain it. A legal expropriation must be in the public interest, non-discriminatory, must take place under due process of law and against prompt adequate and effective compensation.

(10) Exchange rate Risk

An infrastructure project is capital intensive, but it takes quite a long time (10-30 years) to recover the costs. Local financing in local currency on such a long term is hardly available in Vietnam, so the project company has to borrow money from foreign financial institutions in foreign hard currency (e.g., USD, JPY).

Exposure to currency risk is critical in infrastructure project investment in a developing country. Like in the hypothetical case, project revenues are often generated in local currencies, while the servicing of foreign debt and equity involves payment in a foreign currency. If the exchange rates move drastically (local currency devaluation), revenue becomes short to recover capital costs in the foreign currency. Fluctuations in the exchange rate of the local currency create risk for foreign investors and financiers.

The public sector may wish to transfer the risk to the private sector. However, private developers and/or lenders cannot take such long-term risk, especially in developing countries where the economic environment is less stable. Although hedging the local currency risks might be possible in some cases, the charges associated with it are generally extremely high and the purpose of such exercise will be relatively short, not covering the loan purpose.

It would be impossible for the private sector to take such risks after the water tariff has been fixed at low level. It calls for a mechanism to adjust water price under the WSPA if there are fluctuations in the exchange rate of the local currency. Government support to secure the off-taker's payment obligation if there is an enormous water price hike would also become necessary. A mechanism shifting the cost onto the retail water price would be worth considering as well. Without those mechanisms, foreign investors and financial institutions cannot invest in and make loans to Vietnamese infrastructure projects. If adopting those mechanisms is difficult, the implementing authority is required to decrease the amount of foreign funds in the relevant projects and/or narrow the scope of the projects.

(11) Exchange Convertibility and Transferability Risks

If the government restricts the foreign exchange (e.g., from VDN to JPY or USD) or money transfer to foreign financial institutions, the project company cannot repay its debt to the lenders.

Such risks are outside the private sector and must be taken by the public sector. The public sector must make arrangements to provide the private sector with certain government support under which the private sector may seek compensation for damage to local/central governments if the governments breach their covenants.

(12) An Example of a More General Risk Allocation Table

The above analysis focuses on the 11 most heavily negotiated risk categories in PPP water supply projects in developing countries; therefore, it is not exhaustive. An example of a more general risk allocation table follows for the readers' reference. Please note that it deals with risks in a project in which no foreign investors have participated (therefore, no reference is made to exchange rate risk and the like).

Risk allocation table for water purification plant of Otogawa, Okazaki City, Aichi, Japan

RISKS COMMON TO ALL PHASES OF THE PROJECT				
Item of Risk		Type of Risk	Risk Taken by:	
			City	Contractor
Bidding documents		changes or changes of statements	○	
Execution of contract		delay or cancellation of the contract due to reasons attributable to the City	○	
		delay or cancellation of the contract due to reasons attributable to the contractor		○
Institutional matters	Political	interruption or change of contract due to merger or abolishment of the Facility	○	

		expansion or reduction of the operation of the contractor	○	
	Legal System	change of laws affecting the project directly	○	
		change of law other than the above		○
	Delay in permission/ approval	delay in permission/approval to be filed by the contractor		○
		delay in permission/approval other than the above	○	
	Taxation	change of tax law regarding the tax imposed on profit		○
		change of consumption tax	○	
Social	Compensation of damage incurred by a third party	damage due to reasons attributable to the contractor		○
		damage due to reasons attributable to the City	○	
	Handling of residents	residents' protest against the project or requirements established by the City	○	
		Residents' protest against researches, construction, maintenance of the Facility		○
Environmental issues	environmental issues caused by the proposal or operation of the contractor		○	
Other risks	Incidents involving visitors	occurrence of incidents involving visitors caused by the deterioration of the Facility or inappropriate maintenance of the Facility		○
	Security	security in contractor's research, construction, and maintenance		○
	Subcontractors	changes to the order of work that the contractor assigns to the subcontractor		○
Interruption of the project		interruption of the project caused by reasons attributable to the City	○	
		interruption of the project caused by reasons attributable to the contractor		○
Force majeure		war, earthquake, or other matters for which neither of the City nor the contractor is responsible	○	△

Risks in the Construction Phase			
Item of Risk	Type of Risk	Risks Taken by:	
		City	Contractor
Survey of land and other researches	risks arising in connection with the survey or researches conducted by the City	○	
	archaeological materials	○	
	survey and researches other than the above		○
Change of planning, design, or	those due to the City's request	○	

requirements	those due to the contractor's proposal		○
Government subsidy	delay, cut or non-payment of government subsidy	○	
Site	securement of the project site	○	
	securement of the construction site other than the project site		○
	materials found under the soil	○	
Delay in construction	delay in construction completion due to reasons attributable to the City	○	
	delay in construction completion due to reasons attributable to the contractor		○
Construction management	matters relating to the management of the construction site		○
	matters relating to construction management		○
Increase in construction cost	increase in construction cost due to reasons attributable to the City	○	
	increase in construction cost due to reasons attributable to the contractor		○
Quality	non-satisfaction of the requirements		○
Securement of safety	occurrence of incidents on the construction site		○
Change in construction cost	change in construction prices during the construction phase	○	△

RISKS IN THE MAINTENANCE PHASE			
ITEM OF RISK	TYPE OF RISK	RISKS TAKEN BY:	
		CITY	CONTRACTOR
Change of planning	change of planning due to the change of work or use of the Facility	○	
	change of work or use of the Facility due to reasons other than the above		○
Performance	non-satisfaction of the requirements		○
Defect in the Facility	defects found in the Facility constructed by the contractor		○
Damage to the Facility	damage to the Facility due to deterioration		○
Increase in maintenance costs	increase in maintenance costs due to the change of work or use of the Facility due to reasons attributable to the City	○	
	increase in maintenance costs due to reasons other than the above (except for the change of price index)		○

Change in quantity and quality of raw water	increase in maintenance costs in the case of non- satisfaction of the requirements caused by the change in quantity and/or quality of raw water that exceeds the level expected by the historical data	○	
	increase in maintenance costs due to reasons other than the above		○
Renewal of equipment	problems occur in the renewal of equipment for the Facility		○
Increase in repair costs	repair costs exceed the estimate shown in the long- term repair plan.		○
Effective use of dehydrated cakes	increase in costs for the effective use of dehydrated cakes (when the bidder proposes the effective use of dehydrated cakes)		○
	the effective use of dehydrated cakes becomes difficult due to force majeure (when the bidder proposes the effective use of dehydrated cakes)	○	△
	the effective use of dehydrated cakes becomes difficult due to reasons relating to the operation of the Facility (when the effective use of dehydrated cakes is not proposed by the bidder)		○
	the effective use of dehydrated cakes becomes difficult due to force majeure (when the effective use of dehydrated cakes is not proposed by the bidder)	○	
Changes in the scope of maintenance and inspection	changes in the number of facilities outside the plant	○	△
Price fluctuation	price fluctuation during the maintenance period	○	△
Handover	Increase in costs for handover and liquidation of the contractor		○

"△" means the contractor shall bear part of the risk.

4. GOVERNMENT SUPPORT

In order to ensure fair and bankable projects, government support is essential. Investors often seek additional assurances that any compensation due to them under the terms of their contract will actually be paid. The project's likelihood of being financed increases when lenders are more secure in their belief that they will recover their money.

There are various forms of financial support including the following arrangements:

- Guarantees

- Undertakings/Assurances
- Informal agreements (e.g., comfort letters, side agreements, nonbinding tariff increases)
- Equity contribution or subordinated public loan
- Subsidies
- Preferential tax treatment

Each form of government support more or less amounts to cash flow to support a project. Preferential tax treatment, subsidies, and equity contribution or subordinated public loans directly enhance the project's cash flow; while guarantees, undertakings and assurances are targeted at particular risks, such as the risk that a government-owned/operated party will honor its obligation. This support gives the private sector investing in infrastructures assurances that money due to them will be paid when due, in the currency they require.

The government's obligations to provide support can be defined in laws, decrees, statutes, licenses, concessions or project agreements, contracts or other legally binding documents. In whatever form it takes, it is important for the private sector to have a channel to seek a remedy against the government if it breaches its covenants.

5. DISPUTE RESOLUTION

How the project risks are allocated must be stipulated in detail in the project contracts in order to avoid future disputes. Failure to provide how the public sector and the private sector will bear the risks in a PPP contract will be likely to cause disputes between the parties.

On top of that, the legal system in which the interests and rights of the private sector are protected per the language of the contract is also essential. It must be ensured that the language of the project contract is respected during dispute resolution (whether court or arbitration), and that the judgment is neutral. Establishing a stable legal system under which an arbitral award made in a third country is recognized and enforced is important.

1. WHAT IS “PROJECT FINANCE”?

Definition

As far as we know, there is no fixed and unified definition of PF. Accordingly, there are a number of different answers to the question: “What is PF?”

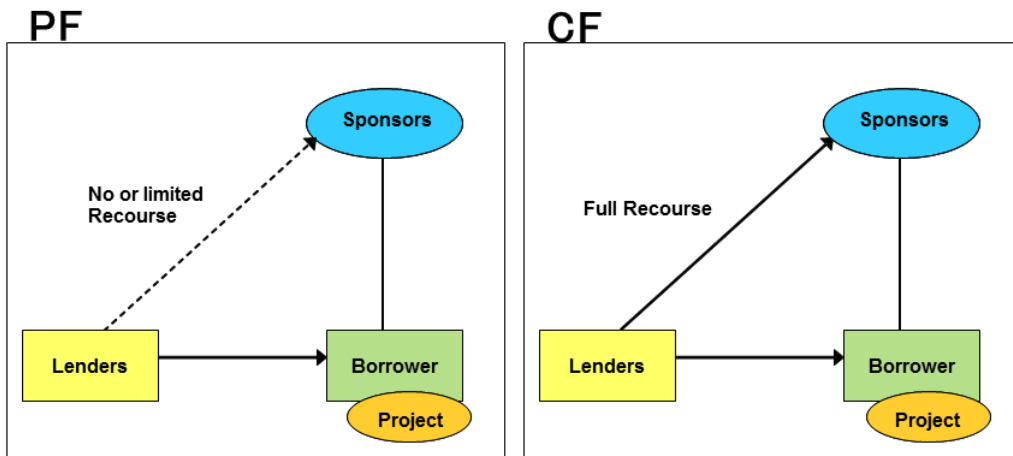
In essence, PF (i) is a method of financing the development and implementation of a project; (ii) is typically provided as a loan by financial institutions (including public financial institutions such as JICA and ADB, and commercial banks); and (iii) is to be repaid principally out of revenue generated from the project.

These three elements may seem very simple, but many people find it difficult to differentiate between PF and other similar types of finance correctly.

PF vs. CF

It is important to understand the difference between PF and Corporate Finance (“CF”). Whereas CF can also be a loan intended to finance the costs of implementing a certain project, there is an essential difference between the two. CF is a type of debt on a full recourse, corporate basis, where the lender relies on the credit capability of the sponsors (equity owners) of the borrower. In contrast, PF is finance where the lender mainly relies on the project’s cash-flow, and not on the credit capacity of the sponsors.

<PF vs. CF>

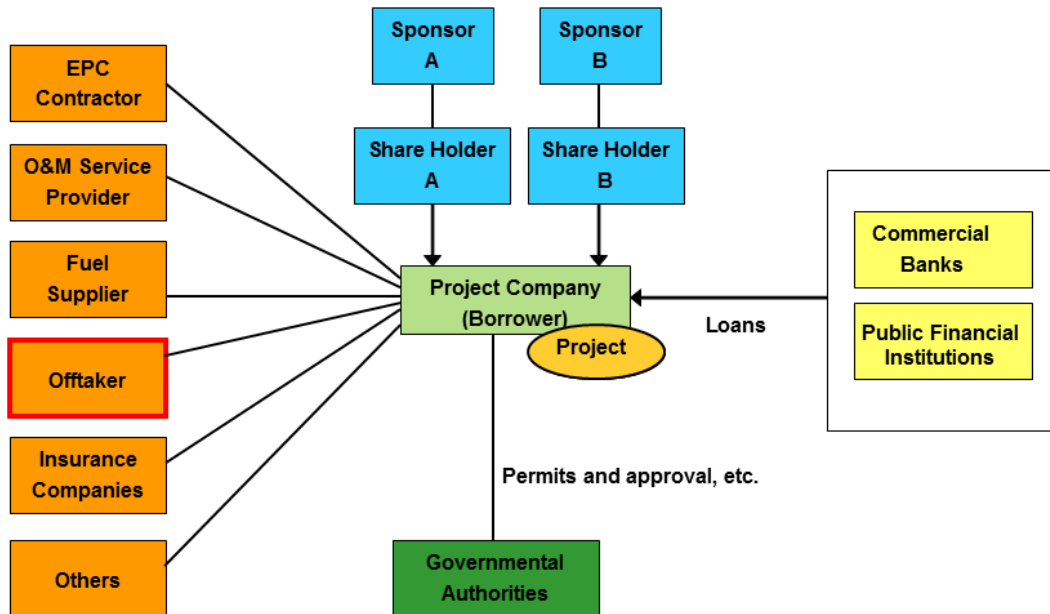


For example, even if finance is provided to cover the costs for a certain project, financing where the sponsors (such as a parent company) fully guarantee the payment of a debt is not PF but CF. Many people might consider any type of finance for the costs of a certain project as PF, but this is not necessarily correct. In PF, the lender mainly focuses on the ability of the project to generate revenue/cash-flow, and not on the sponsors’ creditworthiness.

2. KEY PARTICIPANTS

Here is an overview of key participants in an international PF case. For better and easier understanding, we have picked up a conventional independent power producer (“IPP”) project that is comparatively simple compared to other projects.

<Financial Structure of International PF (IPP Project)>



1) Project company

The most important- participant is the Project Company. It is usually a single purpose company (“SPC”) newly established for the project with no assets other than the project. The Project Company will construct a power plant, and thereafter operate the power plant in order to purchase electric power produced by the power plant for many years. The Project Company needs a large amount of money for the initial costs of setting up the project and constructing the plant in the early stage before generating revenue from the project. Revenue will be generated only during the operating phase. That is the reason why the Project Company needs to borrow money.

2) Sponsors

Sponsors develop the project and become equity owners of the Project Company. They desire to generate profit to achieve their business goal.

3) Host government

The ways that a host country government gets involved in and sets its objectives for a project vary across projects. The host government provides permits, approval, and/or concession. In an IPP project, the off-taker can be an electric utility that is a government-owned entity.

4) EPC contractor

We call a contractor who designs and builds the facilities (e.g., a power plant) necessary for a project an “EPC contractor”. EPC means “Engineering, Procurement, and Construction”.

5) O&M service provider

An O&M service provider manages the project after construction is completed. “O&M” stands for “Operation and Maintenance”.

6) Off-taker

We generally call a purchaser of the output, such as goods and services, etc. from a project, an “off-taker”. In an IPP project, the off-taker is a power purchaser. Most of the project revenue derives from the compensation amount for the output of the project (e.g., electric power); therefore, the credit capability of the off-taker for the years after project completion is very important.

7) Fuel supplier

A fuel supplier is a supplier of fuels necessary to produce the outputs of a project (e.g., electric power by the power plant). It may be advisable that the supply agreement between the Project Company and fuel supplier is a long-term agreement to assure a steady supply.

8) Insurance companies

In order to mitigate and hedge against the project risks, insurance is useful. In most of the projects, insurance is taken out for certain types of project risks such as force majeure throughout the project period.

9) Other participants

There are other project participants including advisors, consultants, other contractors, and so on.

10) Lenders

We call the financial institutions, etc. who lend the money to the Project Company “Lenders”. In a typical international PF case, lenders consist of commercial banks and public financial institutions including Export Credit Agencies (ECAs). Commercial lenders such as commercial banks may be mainly driven by profit from lending, whereas public financial institutions aim to achieve certain public interests. ECAs mainly intend to promote the supply of goods and/or services from their own countries by lending money and providing political risk insurance for commercial banks.

3. MAIN FEATURES OF PROJECT FINANCE

Here, we pick up the three main features of PF compared with other types of finance such as CF.

1) Limited recourse

The loans are recourse in principle solely to the project revenue and assets owned by the Project Company, and sometimes can be a limited recourse to the sponsors only for a certain period and in a situation such as completion guarantees by sponsors. We call this feature “non-recourse” or “limited recourse”.

2) Risk assessment and allocation

Since the lenders cannot have full recourse to the sponsors in PF if the Project Company is unable to pay its debt due to the project’s failure, the lenders face almost the full risk of loss from the project (i.e., it can be impossible to collect the debt). At the same time, the lenders will not enjoy any of the up-side of project performance because the debt return is commonly fixed. Therefore, the lenders are generally more risk averse than the equity investors such as the sponsors. For lenders, it is necessary for the project to be “bankable” so that project cash-flow is predictable, sufficient, and stable. In order to evaluate and further make the project predictable, sufficient and stable, the lenders need to identify, allocate, and mitigate the risks of the project before deciding whether they can lend money to the Project Company.

A project risk is an undesirable event that could negatively impact the project cash-flow, such as an increase in costs and a decrease in revenue.

There are many types of project risks, all of which can be roughly categorized as (i) commercial risk, (ii) political risk, and (iii) others. Examples of commercial risks are completion risk (the possibility of the project facilities not being constructed as expected on time or within the budget), technology risk, operating risk, and offtake (revenue) risk. Political risks include political Force Majeure (e.g., labor strikes and civil or political disruptions), expropriation, currency transfer restriction, privatisation, etc. Other risks are currency risk, natural Force Majeure, environmental risk, regulatory risk, etc. Force Majeure is a legal concept meaning an event or effect that can be neither anticipated nor controlled.

For lenders, each project risk should be identified by due diligence, allocated adequately to the participants in each agreement to be entered into, and mitigated through structuring the project.

In order to allocate the risks, we have to consider which participant is best capable of managing or mitigating the risk in question.

After identifying, allocating and mitigating the project risks, the lenders will consider which risks the Project Company ultimately has to take and how large the impact would be, etc. If the lenders are satisfied with the Project Company’s ability to generate revenue after considering the risks taken by it, then the project can be “bankable” for them.

3) Security packages

There is no unified definition; however, in general, we call the measures to ensure the collection of the debt structured by the lenders a “security package”. A security package consists of various measures such as creation of securities/collateral, direct agreements between the lenders and each participant in the project, a support letter by the sponsors, cash waterfall (which is a priority-of-use mechanism for the project’s cash-flow), borrower’s (the Project Company’s) covenants under the loan agreement, and so on.

One of the most important measures is creation of securities/collateral, which enables the lenders to have the right to initiate and control restructuring or any workout necessary for the project to survive the difficulties that the project may face during the project period. We often call the lender’s right a “step-in right”. The lenders usually take almost all of the assets necessary for the project such as (i) shares in the Project Company that sponsors have and (ii) contractual rights, immovable assets, land, bank account, insurance policy rights, etc. owned by the Project Company.

4. OBJECTIVES OF USING PF FOR SPONSORS

Sponsors desire to generate profit from the project.

By PF financing through the Project Company, the sponsors can do the following:

- limit their exposure to project risks;
- achieve financing primarily off-balance sheet with limited recourse finance; and
- achieve a higher rate of return (IRR) by leveraging their equity investment with a third-party loan.

On the other hand, the cost of financing is generally higher than corporate finance. The arrangement fee to the loan arrangers and the legal fees are more expensive. The interest rate also tends to be higher.

5. WHAT IS A PROJECT SUITABLE FOR PROJECT FINANCE?

In order for a project to be “bankable” for lenders, we understand that the project needs to meet the following requirements:

- 1) A project that requires a large amount of initial cost such as construction cost.
 - Arranging PF costs time and money since a careful assessment and allocation of project risks will be required. Therefore, the size of the project should make it worth doing.

- 2) A project that produces predictable and stable cash-flow.
 - For the requirement, at least, the technology utilized in the project has to be proven technology, the fuels and materials necessary for the project should be steadily supplied, and the off-taker should be creditworthy.
- 3) There is the substitutability of operator (O&M service provider).
 - If the existing operator goes insolvent, there should be another company who possesses enough technology and know-how for the operation. If only the existing operator possesses that, it will be impossible to continue the project.

Examples of such projects are as follows:

- Exploration and development project of energy resources (e.g., oil and natural gas) or metallic resources (e.g., copper and nickel);
- Infrastructure project such as toll road, railway, water, waste processing, etc.; and
- Electric power project (e.g., steam-power project and water-power project), etc.

Especially, infrastructure projects have been consummated as PPP projects in many countries.

6. PF FOR PPP

PF for PPP

There are a lot of PPP projects where PF is adopted to finance project costs globally.

In Japan, PF is also commonly used for PPP/PFI projects. In the PFI project of Yokohama Kawai Water Treatment Plant, the financing was arranged by a Japanese leading commercial bank as PF. There are some waste-processing PFI projects in which PF was utilized.

Benefit for the Government from Using PF to PPP

- The objectives of PPP/PFI are to transfer the costs and risks of the project traditionally implemented by the public sector to the private sector that can seek the best “value for money”, thereby making the project more efficient.
- Using PF for PPP can attract more investors to the project and facilitate more competition, thereby possibly lowering overall costs for the project.

7. POINTS TO KEEP IN MIND WHEN YOU HANDLE A PPP PROJECT FINANCED BY PF

In a PPP/PFI Project, a national government, local government or other governmental agency will enter into a PPP/PFI agreement with a project company.

In a PPP project using PF, the borrower is the Project Company, not the host government itself. However, lenders will want the host government to cooperate with them in structuring the project. Lenders will/may ask the government (i) to understand the significance of risk allocation and to accept taking some project risks that cannot be taken or mitigated by the private sector through a PPP agreement with the Project Company, (ii) directly to enter into an agreement setting out the rules on how lenders and the government will be involved in the project (we call this agreement a “Direct Agreement”), and (iii) to approve the Project Company’s rights against the government under a PPP agreement in order to become subject to the security/collateral for the lenders’ step-in right, etc.

For the project to be successful, finance is important. Understanding what PF is and how PF works will help you consider the overall structure of the project and negotiate with the Project Company and the lenders.

1. OVERVIEW

- Kawai Water Treatment Plant is one of the water plants in the City of Yokohama located in the northeastern part of the city.
- The Purpose of the PFI project of Kawai Water Treatment Plant “Project” is to by way of PFI, remove old facilities and build New Facilities that will be operated by a private sector.
- “New Facilities” include a water purification plant, effluent treatment facility, distributing reservoir, and other ancillary facilities.

2. SUMMARY OF PROJECT

Location	Asahi-ku, Yokohama, Kanagawa
Purpose	Removal of existing facilities and construction, operation, and maintenance of New Facilities
Execution of Contract	February 27, 2009
Project scheme	BTO
Contract amount	Approx. ¥27,679 million
Project Authority	Water Bureau of Yokohama City
Preferred Bidder	Consortium represented by METAWATER CO., Ltd.

3. TIMETABLE

October 2007	Publication of Implementation plan
June 2008	Publication of bidding documents
September 2008	Proposal submitted
November 2008	Selection of Preferred bidder
February 2009	Execution of PFI contract

4. FEATURES TO BE NOTED

- The Project is a BTO project, in which the contracting authority (Water Bureau of the City “Bureau”) holds ownership during and after the project period.
- Under the Japanese Water Supply Act, the Water Bureau of the City is the licensed water business operator, and is under the obligation to supply water to the residents of Yokohama. The Contractor is not obliged to supply water to the residents.
- The requirements established by the City require applying a membrane filter process to the water purification plant. Kawai is the largest water treatment plant applying a membrane filter process in Japan.
- The Bureau pays a fixed amount of service fee quarterly. The service fee is subject to indexation and deduction due to bad performance. The contractor does not bear the demand risk of water.