KOREA'S BEST PRACTICES
IN THE TRANSPORT SECTOR



# Korea's Railway PPP(Public-Private Partnership) Projects

by PARK Jinyoung, MUN Jinsu

#### **KOTI Knowledge Sharing Report**

#### Korea's Railway PPP (Public-Private Partnership) Projects

#### KOTI Knowledge Sharing Report: Korea's Best Practices in the Transport Sector

#### Issue 11: Korea's Railway PPP (Public-Private Partnership) Projects

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#### ISSUE 11

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#### Preface

Over the past half century, Korea has achieved phenomenal economic growth at a rapid and unprecedented rate. As a result, the international community has paid attention to Korea over the past half century and Korea has achieved phenomenal economic growth as a middleman between advanced and developing countries. Furthermore, there is a growing demand in the international community for knowledge sharing concerning Korea's experience in the transport sector, which served as a cornerstone of the nation's economic growth.

In response to such demand, the Korea Transport Institute (KOTI) has launched a research and publication project titled Knowledge Sharing Report: Korea's Best Practices in the Transport Sector. The project is designed to share lessons and implications experienced by Korea in implementing its transport policies with developing countries. This book is the eleventh output of the project and deals with the theme of Korea's Railway PPP (Pubic Private Partnership) Projects.

PPP is the system to build and run infrastructure; roads, railways, schools and sewage arrangements which used to be run by government budgets. It was introduced to compensate the government's limits in budgets and enhance the quality of public services, using the private sector's creativity and efficiency.

PPP project allow not only public infrastructure but also reserve capacity for other financial spending. This means a reduction of financial investment in social overhead capital (SOC) can be saved for other sectors thereby easing the government's budget constraints. PPP projects require use of private capital and an increase in financial efficiency to build SOC.

Railway are one of the main sectors of PPP implementation. Applying a successful PPP on railway project eases the financial burden toward

infrastructure. A PPP railway project is assumed an advisable scheme for economic growth and performance improvement. Particularly, as developing countries lacking in financial support for railway infrastructure, PPP project could be a good option for providing SOC at the right time. But despite of all the positive impacts, negative issues does exist as well. We hope that with an observation of recent Korean railway history, the same mistakes will not repeated. Over estimation of passenger demands, lack of professionalism, changes in investment conditions, and subsidy issues are important issues that must be carefully dealt with. Successful PPP projects will be only available by understanding and managing all these issues.

I hope this knowledge sharing report could make a contribution to improve developing countries' transport infrastructure leading to inclusive growth.

KIM Gyeng Chul
President

The Korea Transport Institute

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He graduated from the Engineering Department of Seoul National University, and completed his Ph.D. in Transport Engineering at the Department of Civil and Environmental Engineering, Imperial College London, UK.



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He has been involved in several governmental committees as an advisor of railway policy in Korea. He has experiences as a lecturer at several universities in Korea. His expertise was recognized through his name being published as a railway expert in the 2011 edition of Who's Who in the World.

He obtained a B.A. at the University of Seoul in Urban Engineering; and M.A. at Seoul National University in Urban & Regional Planning. He obtained a Ph.D. at the University College London, UK, in the field of Transportation Planning in 2002.

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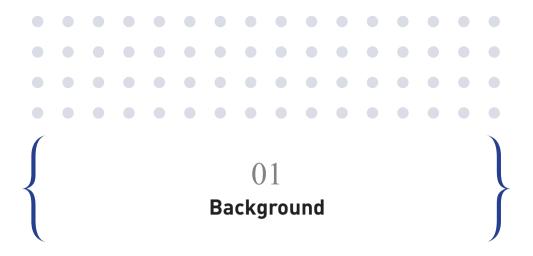


#### **CHAPTER 1**

## Introduction



- **01** Background
- 02 History of PPP Projects in Korea



Domestic social overhead capital (SOC) investments were involved in Korea's Land Development Plan of the 1960s and were expanded with national budgets, based on the 5-Year Economic Development Plan in 1970s; the beginning stage of economic development. Although SOC investments decreased in the 1980s, due to increases in other financial spendings, active investments in SOC have begun with organized SOC expansion conditions since the 1990s. In particular, the Act of Transport Infrastructure Special Account established in 1993, act as momentum to promote SOC investments. Public-private partnership (PPP) projects are a system to build and run various forms of infrastructure, including roads, railways, schools and sewerage systems which have traditionally been run by the government. It was introduced to compensate the government's budgetary limitations and enhance the quality of public services using the private sector's creativity and efficiency. Domestic PPP projects began with the Promotion of Private Capital into Social Overhead Capital Investment Act which was established in August, 1994. However, the results of implementing PPP schemes was poor due to lack of experience and capabilities in PPP projects, especially during the Asian Economic Crisis. In turn, Korean government revised the Act in 1998 and 2005 in order to promote PPP projects.

# History of PPP Projects in Korea

While Korean PPP projects were carried out sporadically along identified cost methods in the 1960s, they were introduced actively with the Promotion of Private Capital into Social Overhead Capital Investment Act which was established in August 1994. The act was designed to supplement government budgets thereby enhancing the quality of public services using the private sector's creativity and efficiency. In 1995 PPP projects were carried out actively. In the beginning, BTO (Builtd Transfer-Operate), which is the system that builds and run roads, railways and harbors with private funding, was mostly implemented. However, the results of implementing BTO scheme was poor because of problems with choosing project partners, an unstable financing market, lack of experience and capabilities in private sectors and the Asian Economic Crisis in 1997. As a result the government the Act into Act on Private Partnership in Infrastructure in Decembe 1998 to promote private investment and improve institutions. To booster the economy through expanding investment and foreign inward investment, various institutions such as minimum revenue guarantee (MRG) were introduced. After the Act on Private Partnership in Infrastructure was changed into the Act on Public-Private Partnership in Infrastructure in January 2005, subjects and implementation procedures of PPP project were added to the new law.

According to the new law, public facilities-schools, residences for military and health care facilities became the subjects of PPP projects. Consequently, it allowed the private sector to use build-transfer-lease (BTL) methods to invest in more educational, cultural and welfare facilities. In December 2008, the National Assembly introduced advanced resolution of PPP projects to secure the PPP project process.

Table 1.1 History of PPP development

Section	Laws	Contents
Phase 1 (1968-1994)	ldentified cost method	Proceed sporadic private investment business due to the identified cost method (Road Act, Harbor Act, etc.) Unable to build private investment business due to lack of system maintenance
Phase 2 [1994-1998]	Promotion of Private Capital into Social Overhead Capital Investment Act establishment (1994 Aug. 3)	Introduced "inducement of private investment facilitation techniques on infrastructure facilities" Private investment system, then systematize separate by 1st class facility (BTO) and 2nd class facility (BOO - Build-Own-Operate) Lack of the government's leadership in business construction and low participation of private bring less investment The government and private sectors all lacked in experience and understanding of private business Insufficiency base of financial market and financial engineering tools Private investment business officially suspended due to the Asian financial crisis
Phase 3 (1999-2004)	Act on Private Partnership in Infrastructure revision (1998 Dec. 31)	Reformed into the Act on Private Partnership in Infrastructure The government's active support and reinforcement on the roles of division of labor to vitalize private investment Abolition of 1st and 2nd class facility separation and brought diversification of business progress
Phase 4 (2005-present)	Act on Public-Private Partnership in Infrastructure revision (2005 Jan. 27)	Introducing BTL way and obligates an eligibility investigation on private investment business     Vitalization of infrafunds through contest method     Intensifying competition and exacerbation of profitable business proceeding condition

Source: Byungrok SONG, "Public Duty and Right Policy Direction of SOC Private Investment Business," Traffic Demand Prediction Reliability Improvement and Private Investment Business Regulation Improvement Experts Conference, The Korea Transport Institute, 2011.

#### **CHAPTER 2**

# Korea's PPP Project System and Current Status



- **01** Types of PPP Projects
- 02 PPP Promotion Procedures
- 03 PPP Project Related Law and Policy
- 04 Current Status of PPP Projects

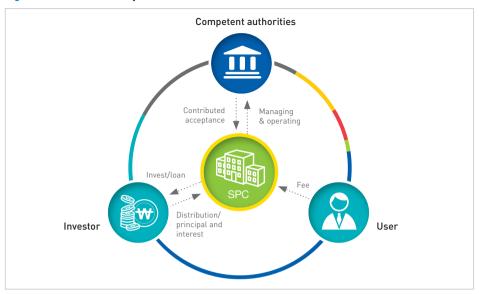


PPP projects are divided into four types: build-transfer-operate (BTO), build-transfer-lease (BTL), build-own-transfer (BOT), and build-own-operate (BOO) depending on the project implementation style. Also, it can be divided into a government-initiated project or private-proposed project by the project proposal style. Lastly, it can be divided into BTO and BTL by how the private investments are collected. Furthermore, when private sectors propose or suggest changes, projects can be administered in a way that can be approved by a competent authority, such as the court, to establish a PPP project plan. According to the provisions in the Act on Public-Private Partnership in Infrastructure, the main types of private investment projects are as follows below.

#### **Build-Transfer-Operate (BTO)**

As soon as social infrastructures are completed, their ownership goes to either the central or local government. Afterwards, project implementing partners are given the right to run the project for a certain period, which allows them to retrieve their investment plus profit. In case of most BTO facilities, PPP

Figure 2.1 BTO business style



<sup>·</sup> Source: Ministry of Construction and Transport, Construction & Transportation Private Investment White Paper, 2006.

project partners charge a fee for usage, based on the right to run the project; most BTO facilities are mainly roads or railways which are easy to retrieve their investment plus profit through collecting a toll.

#### Build-Transfer-Lease (BTL)

Introduced in 2005 as a way private investment funds construct social infrastructures, such facilities are owned by either central or local governments. Afterwards, the facility management operating rights are given to private operators during the operating period (10-30 years), which private operators acknowledged and leased to the governments. In turns, the governments should pay the cost of rent. BTL is mainly conducted in schools, cultural facilities, and other places where the fees are too small to cover the initial investment, so BTL project operators receive facility rent and operating costs from the government.

Figure 2.2 BTL business model



<sup>•</sup> Source: Ministry of Construction and Transport, Construction & Transportation Private Investment White Paper, 2006.

#### **Build-Own-Transfer (BOT)**

BOT project types are when infrastructures are completely built, the ownership of facilities is given to the project operators for a specified duration and then ownership of facilities reverts back to either central or local governments at the expiration of the lease period.

#### Build-Own-Operate (BOO)

Ownership of facilities is simultaneously acknowledged with the completion of infrastructure concession.



#### **Government-Initiated Projects**

Profitable Private Projects<sup>1)</sup>

#### Specify the Target Project

If a PPP project costs more than 50 billion Korean Won (about 50 million US Dollars) and is supported by the Treasury with more than 30 billion Korean Won, the competent authorities should apply a pre-feasibility study. The Minister of Strategy and Finance who receives the results of the pre-feasibility study should seek comment on which project type; public-financed or PPP, is better and justified in the pre-feasibility study commissioned by the specialized agencies.

Before specifying a PPP project, the competent authority should conduct a feasibility study commissioned by experts. the competent authority should decide whether the PPP project is more valid than a public-financed project, considering a comparative study of the alternative driven by the government and one by PPP. While making a choice, the authority should make a judgement using quantitative and qualitative analysis. When the eligibility of a PPP project is ensured, a financial analysis must first be conducted to calculate the proper expenses, royalties, government financial aid and PPP scheme alternatives.

If the project total budget is more than 200 billion Korean Won, the competent authority should make a request to the Minister of Strategy and Finance for a hearing of the review deliberations to specify the PPP project. For projects less than 200 billion Korean Won, the competent authority is able to choose PPP projects without PPP review committee deliberations, if the project is eligible to be promoted itself.

#### **Establishing and Announcing Facility Project Plans**

Facility project plans are project proposals requesting the private sector for project proposals or bids. The competent authorities should announce a facility project basic plan for at least 90 days to let the private sector create and submit proposals.

A facilities project basic plan should include the following information:

- Qualifications of the concessionaire (capital requirements, the company's largest investor and founder, the company's type)
- Performance requirements, such as specific facility performance levels and quality of service
- How to choose or cancel a bid
- Requirements for bid bonds and project performance guarantees to ensure the implementation of the contents
- Submission formats of project plan and deadlines
- How to determine and specify concessionaire, in case of single bidder
- Deadlines for negotiation and concession agreements
- Details about proposed changes for the facility project basic plan

The competent authorities in charge of establishing a facility project basic plan should consult and adjust the plan with other relevant ministries in advance. In addition, authorities should consult in advance with either the Minister of Environment or local environmental authorities in order to maintain the adequacy of environmental standards and preservation of the natural environment.

The authorities should obtain approval from the deliberations of the review committee to announce the facility project basic plan in the government gazette and more than three daily newspapers, in case of projects whose total budget is more than 200 billion Korean Won.

#### **Project Proposal Submission**

Operators who want to administer a PPP project should submit a project proposal based on the facilities project basic plan guidelines announced by the competent authorities. In the project proposal, the following information should be included.

- Organization of the concessionaire
- Plans to purchase facility land
- Application of construction technology
- Letter of the investment founders of the expected incorporation, letter of loan intent, loan letter of commitment or conditional loan letter of commitment issued by bank or financial company, warranty letter of intent issued by industry-based credit guarantee fund, etc.

#### Review and Evaluation of the Project Proposal

Project applicant must meet the necessary qualifications or skills in the eligibility pre-screening, or if there is no eligibility pre-screening, the applicant should include project eligibility requirements in the basic plan.

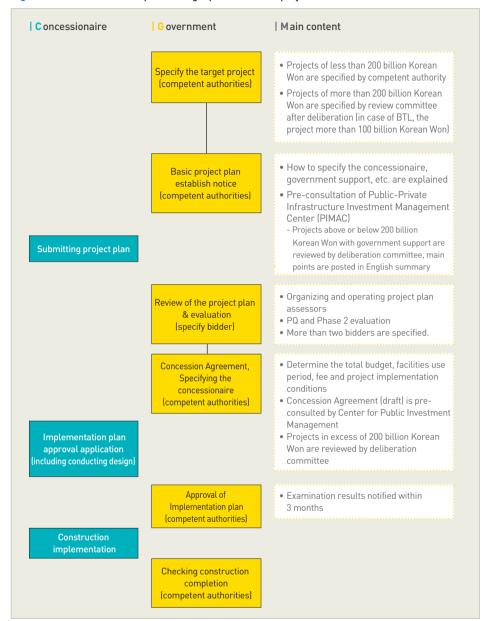
Evaluation elements of the project proposal are mainly comprised of technical and price elements which should not overlap or conflict one another. Cost elements should be converted to the same condition as other cost factors such as total project cost, yield, demand, fee, operating expenses, and financial subsidies. After which, it shall be evaluated by focusing on elements that could lead to cost competition.

#### **Specifying Concession and Concession Agreement**

The competent authority designates a project operator by signing agreement concession which includes the bidder and project implementation conditions. The main contents of the concession agreement are as follows.

- Designation of the concessionaire, use and operation of the facilities, administration period, rights and obligations of the parties to the convention, PPP project basics such as cancellation of designated concession and disposal for ordinance violations.
- Processing basics of conducting the project such as the establishment of the corporation, implementation planning application, project performance guarantee, risk-related matters, and safety and environmental management
- Necessary measures, including starting period of construction, construction period, construction supervision, and compensation due to construction delays
- Total budget, determining and changing the fee, goals, target earning rate (after-tax project earning rate, shareholders' expected earning rate, in addition to the pretax project return should be clearly written), and other operating costs and incomes
- Support from the competent authority or relevant local governments which possess financial support standards and procedures: risk-taking investment support and licensing support
- Facilities maintenance, maintenance management, and operational concerns
- Criteria of classifying dangers and risk-sharing principles
- Conditions and procedures of agreements' early termination and termination payment standards and procedures due to said termination
- Requirements and methods of appraisal rights
- Other concerns related to agreement termination and handling procedures of disputes, etc.

Figure 2.3 Procedures of implementing a profitable PPP project



#### Approval, Implementation and Completion of Implementation Plan

Concessionaires should submit the implementation plan's approval application to the competent authorities to obtain approval of the plan. The competent authority should try to shorten the duration of the implementation plan and embark on a basic environmental impact assessment before designating concession to speed up the implementation of project.

When concessionaires complete construction of the facility in accordance with the implementation plan, they need to submit the construction completion report and construction completion from the competent authorities.

#### BTI

#### Formulation of a Project Plan and Feasibility Study

The competent authority should establish an investment plan for each facility and specific project plans about the facility's size, operation procedures, and other contents. When project plans are established, private operators should be responsible for the design, financing, construction, and operation. It helps to maximize the efficiency of investments caused by integrated project management. When a project, whose total costs are more than 50 billion Korean Won and government support exceeds 30 billion Korean Won, and is carried out in the private sector, its pre-feasibility study should be submitted to the Minister of Strategy and Finance. The competent authority for all project units should conduct a feasibility analysis based on the "Detailed Guidelines on the Feasibility Analysis - Lease." The results of the study be reviewed by the Chief of Public and Private Infrastructure Investment Management Center (PIMAC) and the Chief's review comments should be submitted to the competent authorities and the Minister of Strategy and Finance.

#### Submission of a Project Plan and Coverage Requirements

Competent ministries should submit the new project, which lasts for five fiscal years, and mid-term plan for the on-going project to the Minister of Strategy and Finance by Jan. 31 of each year. The Minister of Strategy and Finance should announce the guidelines for next year's lease limit settting guidelines to competent ministries. Afterwards, the competent ministries should submit their own requests for next year's limits, based on the instructions of BTL

project limit, to the Minister of Strategy and Finance.

#### Limit Setting and Congressional Deliberations and Resolution

After reviewing each ministry's limit request, the Minister of Strategy and Finance makes a preset limit for total limits, target limit by each facility and unpredictable spending limits. This should be submitted to congress at least 90 days prior to the beginning of the fiscal year. If there is a change request for an individual facility's limit, competent ministries should review the need for change through deliberation and then submit the limit change requests with self-hearing briefs by a competent facility agency to the Ministry of Strategy and Finance.

#### Planning and Announcing Facility Basic Project Plans

A competent ministry should plan and announce the facilities project basic plan to make the most of the private sector's creativity and efficiency to take full advantage of the facility's project basic plan. Additionally contents about the basic project plan and level of the facilities should be consistent with results from feasibility analysis.

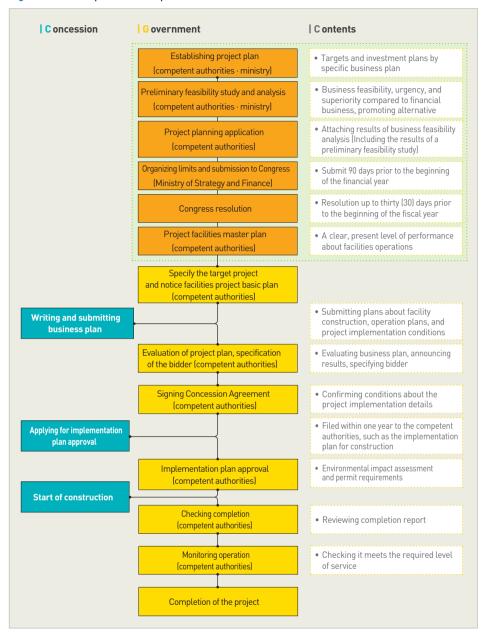
#### **Evaluating Project Proposal and Specifying Bidders**

After pre-screening an eligibility assessment for reducing costs and efficient evaluations, project proposal evaluations use a two step evaluation concerning project applicants who passed the technical and cost evaluations. The first step of the project proposal is to disqualify ineligible operators, based on the assessment of the performance ability to construct, operate and finance the facility. The second step is a comprehensive evaluation concerning technical and cost elements. The rating proportion is one to five but be adjusted, considering the difficulty of operating.

#### Signing a Concession Agreement

When the competent authority makes the concession agreement with the bidder, including project implementation conditions, the concession is now

Figure 2.4 BTL implementation procedures



specified. However, the authority should attach the review comments of the Chief of PIMAC and request the deliberations of the Review Committee to the Minister of Strategy and Finance in case of projects that exceed 100

billion Korean Won or is supported by government support agreements (except for local government project with less than 30 billion Korean Won subsidies). Negotiations for the concession agreements should be conducted based on the standard agreement to adjust conditions which will be included in the agreement. Unless there is a reasonal excuse, the bidder can not propose conditions which are more favorable than conditions present in the project application documents.

#### Implementation Plan Approval, Construction, etc.

According to the submitted plan, the concessionaire should establish its corporation before the approval of implementation plan, unless the competent authority approves of any change. When the concessionaire submits the project plan, they should notify the competent authorities with a Letter of Commitment to participate and commit to subcontracts, Regarding BTL project promotion procedures, additional government regulations should be applied in the same way as government projects procedural provisions.

#### **Private Sector Project Proposals**

#### Submitting Proposals

Private operators can suggest a private offering project not designated as a PPP project to promote private investment to the competent authorities. The first private offering project submitted as an additional responsibility as additional groups cannot apply for the same project after the first offering has been submitted. The time of receipt for the offerings is important as it creates a clear standard for the ordering of applicants. From initial submission to official section of the PPP, third parties are ineligible in applying.

#### Consideration for Outline of Proposal and Project Designate

Once a project proposal has been submitted, the competent administrative agency will investigate if the development proposal is financially sound. Then, if the proposal contains all required conditions and suits the competent administrative agency's policy, PIMAC should be consulted.

Eligibility investigations should include estimation demand based on costbenefit analysis for projects whose total cost is more than 200 billion Korean Won. For projects with a cost of less than 200 billion Korean Won, eligibility investigations still apply but can be simplified considering the nature and the time of the project.

#### Third-Party Proposals

If the competent administrative agency decides to proceed with a PPP project proposed by the private sector, the proposer shall be notified and allowing third-parties to submit proposals as well. However, for acceptable emergency cases, considering project size and characteristics, the agency can select a time frame of more than 30 days.

#### First Proposer Reference and Evaluation of Proposal

The Competent administrative agency can consider marking the project as 'priority' during the eligibility investigation in order to provide preferential treatment. Preferential treatment is not acceptable if the government suggested the project with a feasibility study and basic design. However, it is acceptable if design detail has been improved in order to decrease operation expenses or increase the usefulness of facilities.

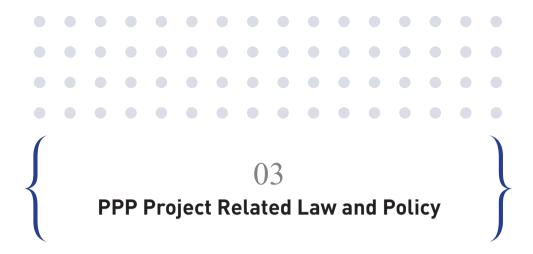
If there is a submitted third-party proposal within the set period, the agency should consider and evaluate the proposal of the first proposer and the-third party's proposal to decide the designated bidder. As long as no special reason is given, according to the evaluation result two or more parties can be ranked and selected as designated bidder.

#### Signing Implementation Plan and Appointing Project Operator

If the competent administrative agency believes there's need for reinvestigation of demand estimation, a third expert can be requested for estimation. Negotiation of implementation and negotiator determination is same as a government announced project. Private offering projects can differ based on procedure and follow government announced project otherwise.

Project operator G overnment | Major contents Private / competent administrative Summit proposal Receive proposal agency • Competent administrative agency Request examination of proposal / public investment control center (within 30 days of receipt) Inform denial of proposal (competent administrative Examine details of proposal PIMAC agency · proposer) (eligibility check) · Within 60 days (except eligibility check) PIMAC→ competent administrative Submit opinions on examination agency, Ministry of Strategy and Finance • C ompetent administrative agency→Ministry of Strategy and YES Finance Announce proposal details • Financial plan for projects over 200 competent administrative agency) billion Korean Won, or project with support of National Treasury below 200 billion Korean Won No alternatives Alternatives Decide proposer as negotiator Consider proposal / evaluate Choose negotiator Designation of project operator Apply approval of enforcement plan (working design included) Approval of enforcement plan • Notification of decision within (competent administrative agency) 3 months Begin construction Confirm completion (competent administrative agency)

Figure 2.5 Private offering project proposal procedure



#### **Related Law and Plans**

PPP projects were introduced to Korea from the Promotion of Private Capital into Social Overhead Capital Investment Act in August 1994. However a lack of experience with public and private joint projects as well as the Asian financial crisis in 1997 brought poor project results. From there the government massively reformed the Act into Act on Private Partnership in Infrastructure in order to expand foreign investment, infra-funding and the introduction of minimum revenue guarantee (MRG). In January 2005 Act on Private Partnership in Infrastructure was changed into Act on Public-Private Partnership in Infrastructure. Additionally, private investing in schools, military residential facilities, and health care facilities were added along with the newly introduced BTL.

In addition, to promote the development of land, competition of industry and public convenience, the government establishes Basic Plans for PPP Projects annually. In 2012 the Light railway PPP project management Guide was enacted to increase overall efficiency.

Table 2.1 Major changes of PPP related rules

Year	Characteristics
1999	Incentive regulation introduced (shorten construction period, reduction of working expenses, etc.)     Enhance advanced feasibility study, MRG, stipulate the right to request purchase
2000	• Finance improvement (expansion of internal funds), strictness of selecting object enterprise (project over 200 billion Korean Won → every project)
2001	Establish medium/long-term private investment plan, improvement on negotiation control system, allowing public-finance/PPP project intervention
2002	Enhance project information supply (publish help center homepage), reinforce project management system
2003	Investor diversification (raise financing rating system) and boost competition (reward proposal cost, expansion of announcement term)     MRG period/level adjustment, mitigate private/finance fee gap, verification of project enforcement condition
2004	Streamline refinancing regulations, changes of rate of return indicator, rationalize enforcement condition
2005	Introduce private eligibility check, cut enforcement plan approval time
2006	MRG reduction (government notice) or abolition (private offering), introduce demand prediction revalidation system
2007	Change refinancing provisions (including investor changes)
2008	Reflect incremental construction price changes in BTL projects (change after initial setup)
2009	<ul> <li>Shorten project preparation (private eligibility check for small-scale BTL project)</li> <li>Mitigate equity ratio: BTO, 25% → 20% (financial investors are own over 50%, then equity changes from 20% → 15%) / BTL, 5% to 15% → 5%</li> </ul>
2010	Reform general planning system (provision, combine profitability with guidelines on leasing private projects)

<sup>•</sup> Source: Byungrok SONG, "SOC Public Duty and Right Policy Direction of PPP Project," In Expert Open Forum on Improve Direction of Traffic Demand Prediction Reliability and PPP Project Regulation, The Korea Transport Institute, 2011.

#### Act on Public-Private Partnership in Infrastructure

The Promotion of Private Capital into Social Overhead Capital Investment Act was introduced in August 1994 followed by changing the Act on Private Partnership in Infrastructure into the Act on Public-Private Partnership in Infrastructure in January 2005, which is still in effect today. The Act on Public-Private Partnership in Infrastructure was created to stimulate private investment into more creative and useful infrastructure. The main contents are as follows.

- Ways to proceed with a PPP project
- Install, arrange, and operate a PPP project consideration council
- Establishment of Basic Plans for PPP Projects

- Conditions and regulations to begin a project
- Basic Plans for PPP Projects details
- Infrastructure management, operation agenda
- Guarantee of funds based on industry, infrastructure, financing company, etc.

#### Basic Plans for PPP Projects

Basic Plans for PPP Projects is regulated by legislature. The Ministry of Strategy and Finance annually establishes and announces the policy direction of PPP projects and work procedures. Basic Plans for PPP Projects is matching with mid and long-term plans and national infrastructure investment projects to construct creative and effective conditions for private investors and fairness at the same time.

The following are key issues covered.

- PPP infrastructure policy direction
- Method and steps preceding PPP projects
- PPP project designated principle
- PPP project investment range, method, and conditions
- PPP project management and operation
- PPP project support
- PPP organization's role
- Other PPP project related policies

#### Light Rail PPP Project Process Guide

The Light Rail PPP Project Process Guide was created through the Urban Railway Act, and is meant to increase the efficiency and organization of light rail PPP. It states the light rail PPP project standard, investment project organization, operation, local government and related organization's role as well as the proceeding steps private projects must complete.

Table 2.2 Main contents of light railway PPP project process guide

Section	Main contents
Enforcement criteria	For cities with a population over 700 thousand people, except those with financial and economic feasibility
Economic and financial analysis	Secure validity, analyze financials, and confirm economic feasibility according to traffic facility investment appraisal guide
Consideration of financial conditions	Examine financial conditions and obtain local government plan, allowing only for local government with solid financial history
Phased construction	Sublate parallel construction over 2 routes per city, proceed construction step by step as a rule
Strengthening local government capacity	Complete training by Korea Development Institute and Korea Rail Network Authority
Role of municipal government	If the competent authorities are local government, state finance division ratio of local and municipal government on implementation agreement includes local government in negotiation

#### **PPP Project Related Policy**

In order to solve poor financial conditions which bring difficulties to private projects in late 2008, the Korean government provided vitalization plans in both February and August of 2009. In order to bring stabilization, the government has recently provided stable project control and environment conditions as well as establishing PPP Project Basic Plan Changes.

The First Private Project Vitalization Plan (February 2009)

The main contents of the First Private Project Vitalization Plan are first, special loan and expansion of credit guarantee to relieve PPP project's financial difficulties. Also, the public and private sectors share the burden of wild fluctuations in interest rates, in order to improve long-term investment safety thereby attracting more investors.

Second, start providing incentives to shorten preparation time for projects. Shorten the time to begin construction for small facilities from 30 months  $\rightarrow$  12 months, large facilities from 32 months  $\rightarrow$  16 months, as projects who managed to shorten their time have increased profitability.

Third, allow private projects to more easily participate by decreasing the ratio of owner's equity by 5% to 10% and simplifying procedures to support

flexibility.

The government strengthened the enforcement inspection for private projects to be vitalized in the early stages. Also, the government confirms the project will bring job creation and infrastructures.

The Second Private Project Vitalization Plan (2009 August)

In order to relieve budget constraints the government provided the First Private Project Vitalization Plan, but it was insufficient. Therefore they arranged the Second Private Project Vitalization Plan in August 2009. The basic goal of the second plan was to improve project structure, financing and reliability to minimize the financial burden and create an active investment environment.

First, to improve PPP project structure, subsidiary enterprise for profitability supplementation was activated. If a private project is canceled, the government will expand the size of compensation for related facilities. In addition, the minimum revenue guarantee was repealed and a new project model was launched to lower startup costs.

Second, to improve financing to include SOC investment contribution and improve the investment environment for financial institutions, the government decided to create a 1 trillion Korean Won (about 1 billion USD) public infrastructure fund. Additionally, three more years of value-added tax exemption was created  $(2009 \rightarrow 2012)$  to expand support.

Third, financial burden from PPP projects is relieved by activate refinancing and increasing revenue efforts. Project operator's MRG reduction report was mandatory and a settlement committee was founded to reliable and promptly solve any issue.

Last, green infrastructure projects including bicycle roads, new energy facilities, etc., are included in the category of private projects. Efforts were made to increase participation and competition as well as increased eligibility investigations.

# Changes in Basic Plans for PPP Projects (2012)

In order to nurture an active investment environment and secure project organization, the followings are changes in the plan.

# Vitalization of Government Initiated Projects

BTO has been proceeded mainly on private proposal, but it has problems with comparing to other long-term infrastructure projects. Meanwhile, the government suggestion is much complicated compared to private offering project, bringing concerns of competent administrative agency avoiding the threats expected. Hence, validity investigation has been reduced by 3 stages to single stage for the government initiated project, and introduction of AHP analysis, expansion of sharing investment risk, and support of PIMAC when RFP have made in order to vita

# R(Rehabilitate)-Project Vitalizations and Diversification of PPP Project Model

For PPP projects, apart from BTO, BTL, BOT, BOO, it is possible to proceed with any model under verification of the competent authority. There have been no results for R-projects due to the limitation and lack of validity. Therefore a new model has been requested to increase the size of the projects. The government also created a feasibility study to establish mixed BTO+BTL projects.

# BTL Construction Interest rate Application Improvement

The competent authorities or PPP project operator has to pay for risks of fluctuating BTL facility rental fees due to fluidity in interest rates. In other words, if the request for proposal base rate increases, the total private investment is increased more than the original proposal, decreasing the burden on the government and increasing that on the private operator. Therefore, the request for proposal base rate period was expanded to 120 days from choosing negotiator, and an average rate must be determined to neutralize the threat of fluctuation in interest rates.

### **Improved Profit-Sharing Plans**

The ratio of profit sharing was 50:50 for the competent authorities and project operator. Depite the difference of the government's contribution, the same profit share ratio is applied to projects with or without MRG. Therefore, for PPP projects without MRG, the share ratio is set to 30:70 between the competent authorities and project operator.

## Plan to Ease MRG Burden

MRG payments towards private investment projects has brought an expensive burden on the government. The competent authorities and project operator can ease the MRG burden by changing contract conditions. However there is a lack of creative improvement since revenue development plans (ex: fee systems, interchange expansion, business units, etc.) are up to the project operator. Therefore, in order to divide MRG demand risk, the project should specifically state its' condition is flexible and under the leadership of the competent authority.

# **Subordinated Debt Including Calculated Termination Fees**

If an operating period is cancelled due to actions of the project operator, it is hard for a PPP project to proceed as long as construction avoid share participation, therefore, till 2012 the projectes having financial contract will include for payment of principle at termindation (excluding accrued interest), and for the guarantee of project procedure set actual operation revenue as 50% of implementation revenue prediction.

# Free Use Period and Managing Operating Rites with Expiration of Contract Period

In order to organize and operate PPP project during free use period, there needs to be consultation with Ministry of Strategy and Finance. Thus, the competent authorities prepared expiration processing procedure plans and obligated prior consultation with the Ministry of Strategy and Finance.

# Easing the Government's Financial Burden and Evaluating the Level of Contribution

When submitting project plans, there was lack of planning regarding reduction of the government's financial burden regarding MRG. As such problems occurred due to individual PPP projects having their own evaluation standard. Therefore, the government applied a number of regulations to ease the financial burden such as shortening the operation period or dividing the cost of land acquisition.

## Supplementing the Construction Subsidy System

It was possible to pay for construction subsidies on facilities already included in the project. But there have been problems of increasing operating expenses due to a decrease of traffic if operators ask for subsidies without proof of losses or contingency plans. According to this, subsidies have been provided after revalidating the project and consultations through period extensions and reducing construction costs.

# Financial Support Scheme<sup>2)</sup>

PPP projects initially used their money to construct infrastructure, but many times supported by the government. From the Act on Private Participation in Infrastructure (Article No. 53, No.37), the government can pay subsidies for excessive land acquisition costs, operation costs, and foreign-exchange lossess. For BTO projects, first the cost of land acquisition is 100% paid for by government subsidies. Recently, some are paid by private investors (eg, Pyeongtaek-Siheung and Anyang-Seongnam highways). Second, construction subsidies were estimated at 30%-50% (roads 30%, railways 50%) of total investment, but recently there has been a reduction of subsidies. Third,

<sup>2)</sup> National Assembly Budget Office, Private Investment Project, 2010.

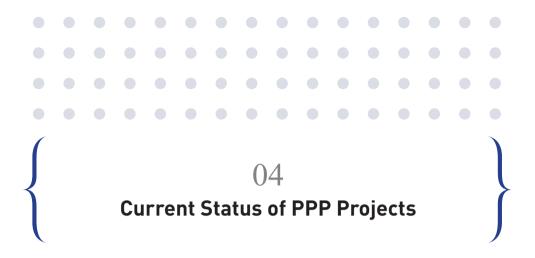
the public provides subsidy to guarantee the private sector's revenue. But according to the PPP Project Basic Plan, if the actual revenue is less than 50% of the agreement, the public does not provide any guarantee of revenue. MRG was revoked in 2006 and was completely abolished from government-led projects from 2009.

BTL projects are operated with facility rent and operation fees provided from the government to preserve private investment.

As PPP projects have been increasing, the government's financial support as increased as well. Therefore, the financial burden of the government should be efficiently managed. The Korean government manages the financial burden of PPP using less than 2% of the total government budget.

- Financial burden (A): Land acquisition cost, construction subsidy, MRG,BTL government payments
- Government budget (B): Central government + local government's accounts(including special education account)

In addition, the National Assembly's pre-reviewing process for BTL projects has been introduced to reinforce clarity of long-term financial burdens.



Revenue-produced projects and BTL projects are operated in Korea. Revenue-produced projects are divided into central government's and local government's projects. Big projects such as railways or ports are controlled by the central government, whereas small projects such as parking lots or, environmental facilities are controlled by local government. Most rail PPP projects are now central government projects.

# **Revenue-Produced Project**

PPP Projects under the Ministry of Land, Infrastructure, and Transport In May of 2010, PPP projects under the Ministry of Land, Infrastructure and Transport totals 61. Currently 33 are completed and operating, 13 of them are under construction, and the remainder 15 are being prepared. Total investment cost is about 35 trillion Korean Won (about 35 billion USD). Private investment is 24 trillion Korean Won, and public investment is about 10 trillion Korean Won. Seven projects including the Incheon Airport Highway, Cheonan-Nonsan highway and Incheon Airport Railroad Express are MRG applied projects. About 1.5 trillion Korean Won is public subsidy

### for MRG of private sector till 2009.

Table 2.3 Ministry of Land, Infrastructure and Transport's revenue-produced PPP projects (May, 2010) (Unit: 100 million Korean won)

	Description		Total			
	PPP projects		61 projects			
	Total	investment	354,073			
Manking over an acc	Private	249,715				
Working expenses	Public	Construction subsidies	64,605			
	investment	Land acquisition cost	39,753			
	MRG subsidy					

Source: National Assembly Budget Office, PPP Project Manual, 2010.

In terms of project type, government-initiated projects are 36 (59%), and private-initiated projects are 25 (41%). According to the sector, there are 21 (34.4%) road projects, 18 (29.5%) port projects, 13 (21.3%) airport projects, and 4 (6.6%) railway projects.

Table 2.4 Revenue-produced PPP projects (May, 2010)

Section	Road	Rail	Port	Airport	Logistics	Total
Government-initiated	6	1	13	13	3	36
Private-initiated	15	3	5	-	2	25
Total	21	4	18	13	5	61

<sup>•</sup> Source: National Assembly Budget Office, PPP Project Manual, 2010.

Between 1995-2009, for PPP projects under the Ministry of Land, Infrastructure and Transport, investment by the private sector was around 25 trillion won. Public sector's investment was 10 trillion Korean Won.

 Table 2.5 Total investment in revenue-produced PPP projects under the Ministry of Land,

 Infrastructure and Transport (May, 2010)
 (Unit: 100 million Korean won)

	Total investment								
Year	Private	Pul	Public						
	Filvate	Construction subsidies	Land acquisition cost	Total					
1995	14,602	1,232	-	15,834					
1996	18,522	6,229	-	24,751					

1997	12,802	4,786	1,344	18,932
1998	17,960	6,812	2,705	27,477
1999	-	-	-	-
2000	16,809	6,134	2,941	25,884
2001	6,724	3,078	-	9,802
2002	-	-	-	-
2003	16,951	1,932	-	18,883
2004	7,059	1,518	-	8,577
2005	31,300	14,663	11,361	57,324
2006	29,505	9,631	4,794	43,930
2007	25,645	-	8,144	33,789
2008	44,314	2,074	7,159	53,547
2009	7,522	6,516	1,305	15,343
Total	249,715	64,605	39,753	354,073

<sup>•</sup> Source: National Assembly Budget Office, PPP Project Manual, 2010.

Among PPP projects under the Ministry of Land, Infrastructure and Transport, there are seven MRG projects with subsidy around 1.5 trillion Korean Won.

Table 2.6 MRG subsidies for revenue-produced PPP projects under the Ministry of Land, Infrastructure and Transport (May, 2010) (Unit: 100 million Korean won)

Project	-2002	2003	2004	2005	2006	2007	2008	2009	Total
Incheon Airport Expressway	1,275	953	1,010	660	710	763	900	948	7,219
Cheonan - Nonsan Expressway	-	404	386	390	404	390	472	502	2,948
Daegu - Busan Expressway	-	-	-	-	-	-	668	478	1,146
Seoul External Expressway	-	-	-	-	-	-	-	63	63
Mokpo New Port Stage 1-1	-	-	-	7.6	-	25.3	52.1	74	159
Mokpo New Port Stage 1-2	-	-	-	0.2	1.4	-	7.4	26	35
Incheon Airport Railroad Express	-	-	-	-	-	-	1,040	1,645	2,685
Total	1,275	1,357	1,396	1,058	1,115	1,178	3,140	3,736	14,255

<sup>•</sup> Source: National Assembly Budget Office, PPP Project Manual, 2010.

In order to secure operation revenue, railway PPP projects have been implemented in the capital area and other large cities. There are four revenue-produced railway PPP projects and currently Incheon Airport Railroad Express and Shinbundang Line (between Gangnam - Jeongja) are operating.

Table 2.7 Railway PPP projects under the Ministry of Land, Infrastructure and Transport

[Unit: 100 million Korean won]

Project	Stage	Initiated body	Total cost	Starting date	Opening date	Operation period
Incheon Airport Railroad Express	Operating	Government	32,957	2001 April	Stage 1: March 2007 Stage 2: December 2010	30 yrs
Shinbundang Line (Gangnam - Jeongja) double track subway	Operating	Private	11,690	2005 July	2011 December	30 yrs
Shinbundang Line (Jeongja - Gwanggyo) double track subway	Constructing	Private	10,257	2011 February	-	30 yrs
Shinbundang Line (Yongsan - Gangnam) double track subway	Contract approved	Private	8,721	-	-	30 yrs

<sup>•</sup> Sources: 1) Ministry of Strategy and Finance, PPP Project Status and Progress Performance, annual.

Currently there are two railway PPP projects under the Ministry of Land, Infrastructure and Transport (Table 2.7). 81 billion Korean Won for construction subsidies by public sector and 255 billion Korean Won by private sector investment has been made in 2011. During 2008-2011, total public subsidies of 888 billion Korean Won and 3 trillion Korean Won by private sector has been put into the projects. 132 billion Korean Won of MRG subsidy has been given for Incheon international airport railway in 2011, and total 519 billion Korean Won of MRG subsidy has given during 2008-2011.

Table 2.8 Amount of Investment for Railway PPP Projects (Under the Ministry of Land, Infrastructure and Transport) (Unit: 100 million Korean won)

Project	Construction subsidy						Private investment				MRG subsidy				
Project	2008	2009	2010	2011	Total	2008	2009	2010	2011	Total	2008	2009	2010	2011	Total
Incheon Airport Railroad Express	1,280	1,551	-	-	2,831	2,615	3,480	4,375	-	10,407	1,040	1,645	1,188	1,322	5,195

<sup>2)</sup> National Assembly Budget Office, PPP Project Manual, 2010.

Shinbundang Line (Gangnam - Jeongja) double track subway	2,170	1824	1248	811	6,053	1,316	1,850	1,995	2,300	7,461	-	-	-	-	
Shinbundang Line (Jeongja - Gwanggyo) double track subway	-	-	-	-		-	-	-	225	225	-	-	-	-	
Total	3,450	3,375	1,248	811	8,884	3,931	5,330	6,370	2,555	18,186	1,040	1,645	1,188	1,322	5,195

<sup>•</sup> Source: Ministry of Strategy and Finance, PPP Project Status and Progress Performance, every year.

### PPP Projects under the Local Government

Five railway PPP projects have been conducted under the local government in Korea. The first stage of Seoul Subway Line 9, Busan-Gimhae LRT, U Line in Uijeongbu City and YongIn EverLine are operating, and the Ui LRT is under construction. Only the Ui LRT is a private-initiated project, the rest are the government-initiated projects.

Table 2.9 Railway PPP projects under local governments

[Unit: 100 million Korean won]

Local government	Project	Stage	Initiated body	Opening date	Operating period (year)
Seoul	Line 9 1 <sup>st</sup> level (upper part)	Operation	Government	2009 July	30
	Ui LRT	Construction	Private	2016 (Estimate)	30
Busan	Busan-Gimhae LRT	Operation	Government	2011 September	30
Yongin	YongIn EverLine	Operation	Government	2013 April	30
Uijeongbu	U Line (LRT)	Operation	Government	2012 July	30

<sup>•</sup> Source: Ministry of Strategy and Finance, PPP Project Status and Progress Performance, annual.

Local government invested 133 billion Korean Won on railway PPP project and private sector invested 2,781 billion Korean Won in 2011. 957 billion Korean Won was given by public sector and 2 trillion Korean Won was given by private sector for local government's railway PPP projects during 2008-2011. 13 billion Korean won of MRG subsidy has given to Seoul's 9<sup>th</sup> subway line in 2010, and 29 billion Korean Won in 2011. Because Uijeongbu's Light Railway and Busan-Kimhae Light Railway are expected to have lower number of passengers than estimated demand in implementation contract, MRG subsidy seems to increase in the future.

Table 2.10 Investment for railway PPP projects under local governments

[Unit: 100 million Korean won]

Droinet	(	Construction subsidy					Private investment					MRG subsidy			
Project	2008	2009	2010	2011	Total	2008	2009	2010	2011	Total	2008	2009	2010	2011	Total
Line 9 Stage 1	563	320	-	-	883	4,066	3,299	-	-	7,295	-	-	-	-	-
Ui LRT	-	94	990	501	1,585	-	27	347	94	468	-	-	-	-	-
Busan-Kimhae Light Railway	903	231	247	129	1,510	925	1,188	922	-	3,035	-	-	-	-	-
U Line	473	899	674	395	2,441	205	281	705	1,109	2300	-	-	-	-	-
Total	3,247	3,042	1,956	1,329	9,574	6,826	6,10	4,224	2,781	19,841	-	-	131	293	424

<sup>•</sup> Source: Ministry of Strategy and Finance, PPP Project Status and Progress Performance, annual.

# **Build-Transfer-Lease (BTL) PPP Projects**

BTL is a new PPP project type introduced in January 2005, private sector invests on construction of infrastructure and ownership is redeployed to the country or local government, paying rental fee to the private operator. Based on May 2010, 236 of BTL projects is proceeding, 11.5 billion Korean Won has been invested by private sector. Among all these projects, Ministry of Land, Infrastructure and Transport managed 5 railway projects and 1 maritime museum project. Total private investment is 1 trillion Korean Won.

Table 2.11 Central Government's BTL projects (May, 2010)

(Unit: 100 million Korean won)

Ministry	Facility type	Projects	Budget ceiling	Actual budget	Private sector's project cost	Private sector's investment
Ministry of	Military residential facilities	72 (41)	55,935	36,267	27,129	30,169
Ministry of National Defence	Military communication facilities	1 (1)	2,595	2,367	1,587	1,680
Ministry of Education, Science	National Univ.'s technician facilities	16 (15)	13,050	9,435	8,621	9,357
and Technology	Science museum facilities	6 (3)	1,368	814	545	595
Ministry of Culture, Sports and Tourism	Cultural facilities	26 (20)	8,471	7,710	5,216	5,793
Ministry of Health and Welfare	Public health facilities	10 (6)	2,527	2,172	1,668	1,737

Sewer management facilities	91 (76)	66,639	60,710	46,645	55,241
Polytechnic colleges facilities	4 (4)	2,040	1,965	296	303
Railway facilities	5 (2)	63,076	50,683	8,089	10,044
Maritime museum	1 (1)	1,072	1,072	892	1,019
Sejong City school facilities	3	1,850	871	-	-
Teenager training facilities	1	592	581	-	-
Total			174,647	100,688	115,938
	facilities  Polytechnic colleges facilities  Railway facilities  Maritime museum  Sejong City school facilities  Teenager training facilities	facilities  Polytechnic colleges facilities  Railway facilities  Sejong City school facilities  Teenager training facilities  71 (76)  4 (4)  5 (2)  Maritime museum  1 (1)  3  Teenager training facilities  1	Facilities  Polytechnic colleges facilities  Railway facilities  Facilities  Railway facilities  Railway facilities  Facil	facilities         91 (78)         66,639         60,710           Polytechnic colleges facilities         4 (4)         2,040         1,965           Railway facilities         5 (2)         63,076         50,683           Maritime museum         1 (1)         1,072         1,072           Sejong City school facilities         3         1,850         871           Teenager training facilities         1         592         581	facilities         91 (76)         66,639         60,710         46,645           Polytechnic colleges facilities         4 (4)         2,040         1,965         296           Railway facilities         5 (2)         63,076         50,683         8,089           Maritime museum         1 (1)         1,072         1,072         892           Sejong City school facilities         3         1,850         871         -           Teenager training facilities         1         592         581         -

<sup>•</sup> Source: National Assembly Budget Office, PPP Project Manual, 2010 February.

Currently three BTL railway PPP projects have been conducted; Jeolla (Iksan-Sinli) double track line, Gyeongjeon (Hanan-Jinju) double track line, and Sosa-Wonsi Line. Jeolla (Iksan-Sinli) double track line opened and is operationing from October of 2010. The other two projects are under construction. A total of 905 billion won has been invested between 2008-2011 with 327 billion of that in 2011.

Table 2.12 BTL Railway PPP double track projects

(Unit: 100 million Korean won)

Duningt	Chama	Contract	Opening	ening Operating investment cost					st
Project	Stage	date	date	period	2008	2009	2010	2011	Total
Jeolla (Iksan-Sinli) Line	construction	2007.4	2011.10	20	435	1,494	1,916	1,579	5,424
Gyeongjeon (Haman-Jinju) Line	construction	2007.5	-	20	110	725	1,025	952	2,812
Sosa-Wonsi Line	construction	2010.12	-	20	-	-	73	741	814
Total	-	-	-	-	545	2,219	3,014	3,272	9,050

<sup>•</sup> Source: Ministry of Strategy and Finance, PPP Project Status and Progress Performance, annual.

Note: ( ) are contracted projects.



# **CHAPTER 3**

# Issues and Improvement Efforts of Railway PPP Projects in Korea



- **01** Railway PPP Project Status and Issues
- 02 Railway PPP Project Issues
- 03 Improving Railway PPP Projects



# **Seoul Subway Line 9**

# **Project Outline**

The Seoul Metropolitan Government was deeply effected by the Asian economic crisis in 1998. With changed investment priorities, Stage 3 of the Seoul Metro Plan was reduced from four lines stretching 117 km to only one line; Line 9. Line 9 included plans of running local and express trains, installation of side track and a direct link with Incheon Airport Railroad Express. In 1998, Seoul Metropolitan Government had a total debt of 5.5 trillion Korean Won and subway related debt was 4.8 trillion won, 87% of total debt. Most debt belonged to Seoul Metropolitan Rapid Transit Corporation and Seoul Metro. Hence the need of a PPP project for 9 Line was considered with other organization efficiency improvement plans.

In order to ease the financial burden and improve railway operation efficiency, Seoul Metropolitan Government proceeded with a PPP project for the first section of the line (1<sup>st</sup> section 25.5 km, remainder 12.5 km) where demand was highest with additional phases following. economical efficiency, social equity (fare level), reality of project (financing), the PPP project was proposed as focusing on upper facilities only.

Table 3.1 Agreement for Line 9

Section	Contents
Operating period	• 30 years from opening (2009 July - 2039 July)
Total project budget	Total project budget: 900 billion won Private investment: 480 billion won Public investment: 420 billion won
Minimum revenue guaranteed (MRG)	<ul> <li>Apply MRG for 15 years from the opening, but decrease by stages</li> <li>If there's revenue shortage after opening, compensate 90%, 80%, 70% in 5 year segments. If there's an excess, return 110%, 120%, 130% in 5 year segments</li> <li>Exclude if actual revenue is less than 50% of estimated demand</li> <li>Include 2<sup>nd</sup> stage estimated revenue (based on 15 years)</li> </ul>
Rate of return	Set project's after-tax rate of return as 8.9%, agree on no changes until to the end of operation period  If operating expenses increase according to Seoul Metropolitan Government policies, Seoul Metropolitan Government will pay for it and the decrease will be reflected on the fare reduction
Fare level	Choosing under the agreed boundary, if the operator wants to charge exceeding fare, operator should make an agreement with the Mayor of Seoul. First year's basic fare will be 1,000 won (2003 constant price) applying inflation rate (3.41% yearly average) during construct period. Future fares are based on previous year's fare by applying inflation rate. * Real fare increasing rate: 10 years from opening 3.41%, 1.49% after 5 years

Figure 3.1 Seoul Subway Line 9 route map



# **Project Progress Details**

- 2000 December: Line 9 PPP feasibility study (Seoul Development Institute)
- 2001 March: Line 9 PPP project approval (Ministry of Strategy and Finance)
- 2001 October: Line 9 PPP project bidding announcement
  - Ultra Construction Consortium (project proposer) was chosen as a single negotiator but negotiations failed

- 2002 April: Beginning of construction (public sector)
- 2003 May: 2<sup>nd</sup> PPP project bidding announcement
  - Two consortiums applied in 2<sup>nd</sup> bidding, Hyundai Rotem Consortium was chosen as prior negotiator
  - Hyundai Rotem (25%), Hyundai Construction (15%), five national banks (10% each), additional seven organizations (10%)
- 2005 April: Approval of investor change
  - Rotem (25%), Macquarie Korea (24.525%), Shinhan Bank (14.9%), Hyundai Construction (7.64%) etc.
- 2005 May: Signing of implementation agreement and appointment of project operator
  - Private investors pledge 480 billion won; 53.3% of total upper facility construction cost (900 billion won with constant price based on January 2003)
- 2006 June: Beginning construction of Line 9 upper facilities
  - Architecture, tracks, power transmission, catenary lines, elevators, facilities, rolling stock, etc.
- 2008 April: Operation test
- 2009 July: Line opened

### Main Issues

# Applying Lower Fare Than the Agreement

In 2005, when Seoul Metropolitan Government and Line 9 project operators made an agreement setting the basic fare rate as 1,264 won for 2009 and to adjust for inflation 1,398 Korean Won was be set as the basic fare in 2012. Based on the agreement, Seoul Metro Line 9 Corp. asked for 1,300 won as the basic fare from the beginning. However Seoul Metropolitan Government had concerns that higher fares than other lines would bring complaints from riders, which would result in a political burden. In addition, because of the domestic financial crisis, Seoul Metropolitan Government set the fare as 900 won and decided to adjust it again after 12 months if necessary. Afterwards, despite constant requests from the operator to increase the fare, it has fixed-

rate for the following three years. Finally it increased to 1,050 Korean Won in 2012, but this was still 250 won less than the original agreement. In 2009 Line 9's passenger demand was set at 165,525 persons per day. But actual number of passenger was 130,275 persons in July 2009 at opening and 176,704 daily riders in 2010. This means the number of passengers increased from 78.7% to 106.6% of demand estimation prescribed in the agreement. However, fare revenue compared to the agreement was 46.4% (July 2009) to 62.1% (July 2010), remained fairly low. Fare revenue from each passenger of Line 9 was 727 won; 80% of basic fare in 2010. It is similar to other Seoul lines, but because of the limit in the fare increase, actual revenue was lower than revenue expected.

Table 3.2 Comparison of passengers and revenue

(Unit: thousand won/day)

Date	Daily number	of passengers	evenue	
Date	No. of passengers	Rate	Revenue	Rate
Contract agreement (2009)	165,625	-	205,695	-
July 2009	130,275	78.66%	95,483	46.42%
January 2010	160,130	96.68%	117,305	57.03%
July 2010	176,604	106.63%	127,646	62.06%

<sup>•</sup> Source: Seoul Metro Line 9 Corp., Ltd., Line 9 Fare Debate Data, 2010.

The reasons for the reduction of actual fare revenue compared to the expectation stems from the application of the same fare level as the publicly held Seoul Metropolitan Subway lines, losses from free transfers to other lines, and an increase of receiving free rides (agreement estimate was 8.2%, actual 12.6%). Therefore the Seoul Metropolitan Government created an MRG subsidy of 13 billion won in 2010 and 29 billion won in 2011. The MRG subsidy has become a financial burden on the city government.

Seoul Metropolitan Government and operator have continued negotiations for the increase of fare since opening, Seoul metro Line 9 Corp., declared a unilateral increase of 500 won via their website on April 14, 2012. Seoul explained to the public that the increasing fare was the sole action of

the private operator, and Seoul Metropolitan Government asked apology from the operator to its' riders and ceased fare negotiation. In addition, Seoul imposed a fine on the operator.

# High Financial Rate of Return

Financial rate of return is decided with a financial management model, assuming 100% of expected revenue by the private operator. There are some debates that Line 9 operator's rate of return of 8.9% is high considering current conditions. By comparison, the Shinbundang Line, which was completely funded by PPP, despite MRG disadvantages (80-90% in 10 years) has a real rate of return of 8%.

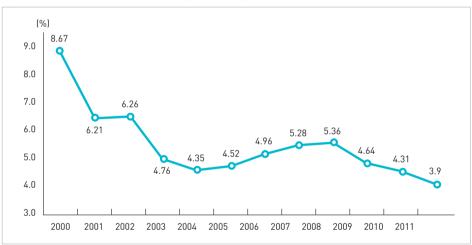


Figure 3.2 Rate of return for Korean 5 year treasury bonds

# Incheon Airport Railroad Express (AREX)

# Project Outline

In the early 1990s when the Inchoen international airport was planned, other Asian countries' airports in such places as Japan, Hong Kong, and China had been constructing or completed airport railways. Therefore, it was essential to build an airport expressway and railway to become an airport hub in East

Figure 3.3 Incheon Airport Railroad Express route map

Asia. The airport railway was originally considered a government project, but changed into a PPP project at the Economic Ministerial Meeting in 1996, in consideration of the lack of financial capability of the government. Hyundai consortium has selected as the project operator in 2001.

Incheon Airport Railroad Express began construction in 2001 as a double track electrified railway servicing Incheon Airport - Gimpo Airport - Seoul Station over 61 km. Hyundai Construction Company was the lead manager with an additional 10 private enterprises joining the consortium. The first section consisting of Incheon Airport - Gimpo Airport (40.3 km) section, opened March 2007, followed by the Gimpo Airport - Seoul Station stretch (20.7 km) in December 2010. It totals ten stations and one depot with six stations in the first section and four in the second. After construction was completed, the ownership forwarded to the government. But the project operator, Incheon Airport Railroad Co., Ltd., has free operation rights for 30 years in BTO to recover investment costs and collect profit.

Table 3.3 Agreement for Incheon Airport Railroad Express

	Contents
Total project budget	2.788 trillion won (based on constant price of 1999 June 30)     government subsidies 914 billion won
Total operation cost	• 6.528 trillion won (based on constant price of 1999 June 30)
Operation period	• 30 years from opening the 2 <sup>nd</sup> section - 2007 (1 <sup>st</sup> section opening) to 2010 is pay-free period
Rate of return	• Real return of return: 10.43%
Investors	• 12 companies - Hyundai Construction (27%), Daelim Industrial Co. (17.5%), Posco (11.9%), government (9.9%), others (33.7%)
MRG	Revenue is guaranteed if below 90% of revenue estimation, redemption if revenue exceeds     110% estimation
Fare level	750 won for first 10 km via local line, additional 65 won for every additional km     1,875 won for first 10 km via express line, additional 162.5 won for every additional km     (based on constant price of won for local     Fare at opening: 3,100 won for local, 7,900 won for express (Incheon Airport - Gimpo Airport)

### **Project Progress Details**

- 1997 April 7: Approved as a PPP project
- 1998 June 25: Announcement of bidding plan
- 1998 December 31: Selection of prior negotiator (Hyundai Consortium)
- 1999 June 25: Announcement of PPP project plan
- 2001 March 19: Approval of the PPP project by Ministry of Strategy and Finance
- 2001 March 19: Appointment of project operator and implementation agreement, establishing corporate body (Incheon International Airport Railway Co.)
- 2001 March 31: 1<sup>st</sup> section (Incheon international Airport Gimpo Airport, except depot) track construction contract approval
- 2001 April 30: Start of 1st section track construction
- 2003 December 31: 2<sup>nd</sup> section construction contract approval
- 2006 June 29: Private operator changed the company name to Airport Railway Co., Ltd.
- 2007 February 3: Test runs begin
- 2007 March 23: Opening of 1st section
- 2009 June 29: Airport Railway Co., Ltd. takeover memorandum of understanding has been made between Korail and Hyundai Consortium

- 2009 September 17: Korail acquired 88.8% shares of Airport Railway Co., Ltd. from Hyundai Consortium
  - Shares: Korail 88.8%, Ministry of Land, Infrastructure and Transport 9.9%, Hyundai Insurance 1.3%
- 2010 December: Opening of 2<sup>nd</sup> section (Gimpo Airport Seoul Station)

# Main Issues<sup>3)</sup>

### **Excessive Demand Estimation**

Incheon Airport Railway Express (AREX) received great concerns about excessive demand estimation before opening. After first stage construction completed in 2006, the Incheon Airport - Gimpo Airport segment had a passenger demand of only 7% of estimation in the implementation agreement. The main reasons are because of applying various development plans, applying high mode share ratio and lack of awareness for competitive mode of airport limousine buses. The government has given 104 billion won to the private operator in 2008 for the minimum revenue guarantee of 2007. Also considering the demand investigation so far, with the 2<sup>nd</sup> stage transversing Gimpo Airport - Seoul Station completed, it is unlikely to achieve the original estimation of passenger demand. From this reason, the burden for government financial support has increased with additional MRG subsidy.

In order to decrease the financial subsidies, the government made Korean Railway Corporation (Korail) to takeover the airport railway in November 2009. The level of MRG has decreased from 90% to 58% with new contract.

# **High Rate of Return**

The Korea Transport Institute suggested a 7.7% rate of return in the "Incheon Railway PPP Feasibility Study and Feasibility Enterprise Strategic Plan Research" in 1996, but Hyundai Construction demanded 12.4% in 1998. After the negotiation, rate was set at 10.43%. This was a very high

<sup>3)</sup> Gapsaeng KANG, "PPI Policy Improvement Plan on Incheon Airport Railroad Express Case," Master's Thesis, SNUST, 2009, pp. 31-55.

rate compared to other PPP projects such the Incheon International Airport Expressway (9.7%), Munhak Tunnel Tollgate (9.7%), Mokpo New Port (9.62%), Incheon Northern Dock (9.0%) and Incheon Bridge (8.5%).

# Lack of Competitiveness for Airport Railway

The main competitor of the airport railway is the airport limousine bus network. The limousine buses not only travel from the airport to inside Seoul but also connect to Incheon, Gyeonggi and other provinces even as far as Gangwon and Gyeongsang. Compared to the airport railway, the strength of the limousine bus is that there is no need for transfer to get to the airport. From the opening of Incheon International Airport, the Ministry of Land, Infrastructure and Transport built the limousine bus network to connect the entire country, which now has become a strong competitor. Passengers are already satisfied with the convenience of the limousine bus service, therefore an increase in ridership for the airport railway seems to be limited.

Also, limited accessibility of the railway stations is another reason for the low demand. This came about due to lack of consideration on the part of riders but based only the perspectives of the operators.

# **Shinbundang Line (DX Line)**

# Project outline

The Shinbundang Line was built to provide a transport solution to the the southern area of Seoul including Bundang and Yongin to link with Gangnam and later central Seoul. The southern area of Seoul has undergone a rapidly increasing population after 1990, but there was a lack of urban infrastructures. In addition, despite the increase of passenger demand towards Seoul, the existing Bundang line has a poor transferring network which created severe vehicle traffic congestion. From the Ministry of Land, Infrastructure and Transport's "Traffic Improvement Measures for Southern Areas of Seoul" (2000 April), building a new (shin) Bundang Line was

considered a major priority project.

To compliment the existing Bundang line and to ease the traffic congestion of the southern area, construction of the Shinbundang line began in 2001. The feasibility study showed the construction should begin from the first section, and the format of a PPP project was suggested.

Construction of the 1<sup>st</sup> section, Gangnam - Jeongia, began in March 2005 under the implementation agreement with Shinbundang Railroad Line Co., Ltd., and the line opened in October 2011 utilizing the BTO form. After completion of construction, ownership goes to the government and the private operator has authority to operate for the next 30 years. There are six stations and total length is 20.8 km. Total project cost was 1.2 trillion Korean Won (constant price based on May, 2002) and 54% of the cost, 661 billion won was paid by private investors.

	Yongsan- Gangnam	Gangnam- Jeongja	Jeongja- Gwanggyo	Gwangyo- Homaesil
Extension	7.7 km	18.5 km 12.8 km		11.1 km
Expenses	913 billion won	1.23 trillion won	1.03 trillion won	820 billion won (estimation)
Construction period	2012-2018	2005-2011 2011-2016		2014-2020
Status	Signing implementation agreement	Opened (2011 October 28)	Under construction (2011 February 8)	Project plan announcement (2006 July)

Figure 3.4 Shinbundang Line route map



### **Project Progress Details**

- 2002 July 16: Submission of project proposal to Ministry of Land, Infrastructure and Transport
- 2003 December 24: Appointment of PPP project negotiator (Shinbundang Railroad Co.,Ltd.)
- 2005 March 18: Decision of project operator and signed implementation agreement
- 2005 May 30: Shinbundang Railway Co., Ltd. and Neotrans Co., Ltd. established andwork commitments agreed upon
- 2005 June 24: Approval of Shinbundang Line (Gangnam Jeongja) PPP project implementation agreement
- 2005 July 21: Beginning Shinbundang Line (Gangnam Jeongja) construction
- 2005 December 22: Signing of project finance agreement
- 2010 May 3: Rolling stock and rail operation testing
- 2010 July 6: Change of PPP project implementation plan (extension of operation period) approved
- 2011 July 21: Full system operation testing
- 2011 October 28: Opening
- 2011 December 20: Total project cost change approved, final construction approval

### Main Issues

# Low Passenger Numbers

Ridership on the Shinbundang Line is currently around at 30-40% of demand estimation at implementation agreement. The reasons for low passenger volume includes the delay of railway network construction and improvement of other transport modes. Particularly, because railway network construction of the region was delayed 2-5 years, it is difficult to increase the passenger volume with railway network integration.

Table 3.5 Regional railway projects

	Opening yea	Opening year scheduled		
Project	Scheduled opening per implementation agreement (2005)	Actual opening	Actual opening	
YongIn EverLine LRT	2008	2013	5 years	
Bundang line extension (Seolleung - Wangsimni)	2008	2012	4 years	
Bundang line extension (Ori - Suwon)	2010	2013	3 years	
Seongnam - Yeoju double track line	2012	2015 (est.)	3 years	
Shinbundang Line (Jeongja - Gwanggyo)	2013	2016 (est.)	3 years	
Shinbundang Line (Yongsan - Gangnam)	2016	2018 (est.)	2 years	

For the Shinbundang line, PPP operator can not receive any revenue guarantee when ridership is less than 50% compared to the implementation agreement. Currently passenger volume is about 30% of estimation, hence the operator cannot receive any MRG subsidy from the government. If the passenger volume and revenue increase more than 50% of the agreement, the financial burden of the government will increase.

Table 3.6 Shinbundang (Gangnam - Jeongja) passenger volume

(Unit: Persons/day, 100 million Korean won/day)

	Implementation agreement				% of actual rider-	
	Estimation	Weekday	Weekend	Average	ship to agreement	
Daily ridership	245,899	107,252	69,755	96,538	39%	
Daily revenue	2.95	0.99	0.62	0.88	30%	

### Lower Revenue than Predicted

At opening the fare was 1,600 won. Now it is 1,750 won, which is 700 won higher than the other lines of the Seoul Metropolitan Subway. There were expectations that connecting to the integrated fare system of the Seoul Metropolitan Subway would increase the number of passengers. However the travel discount lowered the unit fare below the original agreement. Furthermore, in the implementation agreement an estimated 5% of riders would qualify for free senior tickets, but in actually turned out to be 17%. Therefore the revenue is lower than expected at the signing of the contract.

# YongIn EverLine Light Rail Transit (LRT)

### **Project Outline**

The YongIn EverLine was constructed in order to provide and cover the increase of travel demands due to Yongin City's development plans. It is a BTO project with ownership going to Yongin City but operation is managed by YongIn Rapid Transit Co. Ltd for 30 years after opening. Total length is about 18 km and total project cost is 728 billion won according to 2001 constant price.

The YongIn EverLine Project was established with construction and operation plans in 1996, announced the PPP project schedule in 2001, began construction in December 2005 and completed civil engineering and construction in December of 2009. However, due to the MRG subsidy burden by an excessive passenger demand estimation, noise complaints, and other issues delayed operation.

Table 3.7 YongIn EverLine project details

	Contents				
Project type	<ul> <li>Construction/operation: YongIn Rapid Transit Co. Ltd. (BTO type)</li> <li>Ownership: Yongin City</li> </ul>				
Route	Giheung - Kangnam Univ Jiseok - Eojeong - Dongbaek - Chodang - Samga - City Hall/ Yongin Univ Gimyangjang - Stadium Songdam Univ Gojin - Bopyeong - Dunjeon - Jeondae/Everland				
Main facilities	Mainroute: 18.143 km     15 stations, 1 depot				
Construction period	4 years and 6 months				
Total project budget	• 728 billion won (constant cost based on 2001 Dec.)				
Operation period	• 30 years				

<sup>•</sup> Source: Myungsik DO, Kiju CHOI, "Current Situation of Traffic PPP Project and the Future View of EverLine LRT," *Traffic Technology and Policy*, Vol. 8 No.2, Korea Transportation Society, 2011, pp. 30-31.

# **Project Progress Details**

- 1996 December: Establishment of YongIn EverLine Construction and Operation Plan
- 1997 April: Approved as a PPP project, not enough bidders

Figure 3.5 YongIn EverLine project route map



- 1999 December: Re-announcement as a PPP project
- 2001 December: Announcement of PPP project strategic plans
- 2002 July: Submission of project proposal for PPP project (Daelim Industrial Co., Consortium single bidding)
- 2002 September: Bidder chosen
- 2004 July: Approval of project operator and signing complementation agreement (30 year operating period)
- 2005 November: Announcement of implementation plan approval
- 2005 December: Construction commences
- 2008: Change of implementation plan
  - Adjustment of MRG: MRG applied passenger volume decreased from 90% to 79.9%
- 2010: Operation delays
  - Yongin City: in order to reduce financial burden of MRG once construction officially completed, the city wanted operation to begin without paperwork declaring construction to be finished
  - Private operator: desiring to get construction payments, the operator asked for construction to officially be completed before opening the line

- 2011 Jan.-Feb.: Cancellation of implementation agreement and request forarbitration
  - Yongin Rapid Transit Co., Ltd. sent cancellation notification to Yongin City and requested arbitration for construction payment and compensation due to the denial of construction completion approval
- 2011 October: First judgement from international arbitration court
  - International arbitration court ordered Yongin City to pay 516 billion won to Yongin Rapid Transit Co., Ltd. which was the project cost before the cancellation of implementation agreement
- 2012 June: Second judgement from the International Court of Arbitration
  - Yongin City had to pay 263 billion won in compensation to the company for lost opportunity costs
  - Total compensation was 779 billion won to Yongin Rapid Transit Co., Ltd.

### Main Issues

# Concern about Excessive MRG Subsidy

When the YongIn EverLine Project was agreed upon in 2001, the predicted daily passengers would be 140,000. However, other competitive public transport modes were improved in the interum and there was a delay of constructing the Bundang Line extension which would form a transfer station with the YongIn EverLine. Gyeonggi research institute estimated passenger volume was only 32,000 passengers per day which shows a huge difference from the original estimation. Hence estimated total loss would be 2.5 trillion Korean Won for 30 years operation period. It would be difficult difficult for Yongin City to pay 90% of MRG, so the city requested creating a refinancing plan but failed to reach an agreement and requested arbitration.

# Conflict between Yongin City and Private Operator

Due to the rejection of Yongin City's construction completion approval and Yongin Rapid Transit Co., Ltd.'s project cancellation notification, the project was completed but the opening delayed. Since construction of the Bundang Line extension with transfer station was delayed, Yongin City rejected construction completion approval being worried about an increase of MRG subsidy and LRT demand shortage. Yongin Rapid Transit Co., Ltd. claimed "Operation is ready to begin, the city is purposely delaying." Yongin City rebutted claiming "The system needs more time to solve problems with noise and other complaints."

Yongin Rapid Transit Co., Ltd. claimed that there was no operation budget for the project, making it particularly difficult to pay the 490 billion won interest. The company eventually announced arbitration for the cancellation of implementation agreement, requesting compensation for 760 billion won to the International Court of Arbitration under the International Chamber of Commerce. The court ruled again the city and declared compensation of 779 billion won would be paid to the operators. EverLine started service in April 2013.

### **Busan-Gimhae LRT**

## **Project Outline**

Gimhae City lays to the west side of Busan City. The only transport connection between them is the Namhae Expressway and National Route No.14. To solve traffic congestion, new LRT mass transit was suggested via PPP.

The project spanned 23.9 km between Busan Sasang District to Gimhae Samgae Neighborhood. 21 stations and an AGT vehicle system was selected. The total project cost amounted to 774 billion won with a 2000 January constant price. 482 billion won (62%) of the total was invested by the private sector with the remaining 292 billion won paid by the city governments of Busan and Gimhae and the central government. The ownership goes to the cities of Busan and Gimhae, and Busan-Gimhae Light Rail Transit Co., Ltd. has operation right 30 years from the beginning of operation as a BTO type project.

Table 3.8 Busan-Gimhae LRT project

Section Total			Private			
		Total (100%)	Central government (50%)	Busan (25%)	Gimhae (25%)	sector (62.25%)
Investment costs	774	292	146	73	73	482

<sup>•</sup> Source: Busan-Gimhae LRT homepage (http://www.bglrt.com)

Figure 3.6. Busan-Gimhae LRT route map



### **Project Progress Details**

- 1992 August: Central government designated the project as a light railway demonstration project
- 1995 March: Designated as a PPP project
- 2000 January: Announced project plan
- 2000 May: Bidding for private operator
- 2000 August: Selection of priority negotiator
  - 1<sup>st</sup> negotiator Kumho Consortium had a breakdown in negotiations due to differences in investment return rates and foreign exchange risk compensation
- 2002 January: Change of priority negotiator
  - Kumho Consortium → Hyundai Development Co., Consortium
- 2002 December: Signed implementation agreement
  - Implementation agreement with  $2^{\rm nd}$  negotiator Hyundai Development Co., Consortium
    - \* MRG condition: 90% of estimated operationrevenue for 20 years

- 2005 December: Changing implementation agreement
  - MRG condition changed: 80% of estimated operation revenue for first 10 years, 78% after 10 to 15 years, and 75% after 15 to 20 years
- 2006 April: Construction begins
- 2011 September 16: Opened for service

### Main Issues

# Excessive Demand Estimation<sup>4</sup>

Demand estimation of Busan-Gimhae LRT Project was based on reports submitted by Hyundai Construction Consortium through government negotiation, from June to September 2000. Implementation agreement predicted demand at 176,358 passenger per day in first opening year of 2011 with 295,270 in 2020 and 322,545 in 2030.

Table 3.9 Estimate passenger demand agreement for Busan-Gimhae LRT

Demand	2011	2015	2020	2025	2030
Person/day	176,358	221,459	272,220	295,270	322,545

Source: Cheolgook CHOI, The Problems and Improvement Plans for Busan Kimhae Light Railway, Busan Development Intitute, 2010.10.

However, actual daily ridership was only 30,755 in Sept. of 2011, early stage of opening. In April of 2012, it increased to 40,854 but actual demand was only 22% of the estimation.

The reason for excessive demand estimation was a population reduction in Busan. National statistics estimated the population of Busan at only 3.4 million in 2020, and population of Gangseo District and Sasang District also reduced to 55,817 and 274,423 respectively by 2006. But demand estimation report showed an increase in population for Busan up to 4.3 million in 2021, Gangseo District and Sasang District were also expected to increase to 141,790 and 323,326 respectively by 2006. In addition, demand of

<sup>4)</sup> Chulgook CHOI, Problems and Investment Plan of Busan-Gimbae Light Rail Transit, 2010.10.

Gimhae International Airport which affected LRT demand was also predicted excessively. Airport usage decreased by 8% to 19,141 people per day because of the high-speed railway. Estimations for 2005 pegged the daily number of airport passengers at 55,189.

Comparing demand estimations with the Seoul Metropolitan Subway, with has similarities with the Busan-Gimhae LRT, the demand of the Bundang line (18.5 km) was 70,000 passengers per day at opening with population at 800,000 (1995) and 61,000 passenger per day in Ilsan with a population of 650,000 at initial opening of the Ilsan Line (19.2km, later merged with Seoul Subway Line 3) demand estimation was considered relatively high compared to the area population of 400,000.

# Civil Complaint and Safety Issues

Busan-Gimhae LRT was scheduled to open in April 2011, but due to the subcontractor's bankruptcy and the view from nearly located apartments mixed with noise pollution, the operation was delayed and finally opened September 16, 2011. Before the actual opening, there was a problem controlling the opening and closing of the gate doors. Open the line commenced service the error occurred on two more occasions.

# Uijeongbu LRT

# **Project Outline**

Since the Feasibility study of subway Line 7 extension, Uijeongbu City proceeded with a new transport mode designed to deal with public passenger demand within the region, which lead to conducting a feasibility study and strategic plan. After the Korea Transport Institute established the U Line construction/operation strategic plan Linked with subway Line 7 in 1998, the U Line Project was chosen as a PPP project (February 1998, Ministry of Strategy and Finance). As a result, the Strategic Urban Railway Plan Ministry of Land, Infrastructure and Transport) was established.

Through the feasibility study of light railway construction operation strategic plan (September 1999, The Korea Transport Institute) Uijeongbu City calculated the total project cost and determined a track length of 10.3 km in a project feasibility study. And from this, it was approved again as a PPP project (December 1999, Ministry of Strategy and Finance) and a government priority project (March 2000, Ministry of Strategy and Finance).

In addition, the Urban Railway Strategic Plan dictated track length be changed to 10.3 km (Nov. 2000, Ministry of Land, Infrastructure and Transport) and approved the Infrastructure Strategic Plan (September 2001, Ministry of Strategy and Finance). Through the PPP Project Strategic Plan Notification (November 2001, City), the PPP project operators were invited to sign an implementation agreement and project operator was appointed April 14, 2006.

After signing the implementation agreement, Gyeongi Province 2<sup>nd</sup> Province Office/Uijeongbu City, declared the planned route was not possible as sections would be built in the middle of a stream. To adjust the route to go beside the stream, it would require an additional length of track 643 meters longer than initially expected bringing the total route length to 11.076 km.

Table 3.10 U Line project

Contents				
Line	• Singokdong - Gosandong (11.08 km)			
Construction period	• 2001-2012			
Total project cost	• 475 billion billion won (private investment: 247 billion won, public investment: 228 billion won)			
Project type	BTO type (ownership: city, management and operation: Uijeongbu Light Railway Company)			
Operator	• Uijeongbu LRT Co. LTD.			

<sup>·</sup> Source: Uijeongbu LRT data.

# **Project Progress Details**

- 1994-1995: Establishing U Line construction and Operation Strategic Plan (Uijeongbu City)
- 1999 December: PPP project reassignment announcement (Ministry of

Figure 3.7 U Line route map



# Strategy and Finance)

- 2001 September: PPP strategic plan approved (Ministry of Strategy and Finance)
- 2001 November: PPP project plan announced (Uijeongbu city)
- 2004 August: Selection of priority negotiator (GS Construction Consortium)
- 2006 April: Signing implementation agreement and appointment of project operator
- 2007 August: Construction initiated
- 2012 June: Construction completion
- 2012 July: Line opening

### Main Issues

### **Exclusion from Transfer Fare Discount**

Gyeonggi Provincial Government began public transport transfer fare discounts in July 2007 and subsided the revenue loss for subways and buses. However due a worsening financial situation, in April 2012 the government declared it would not subsidise transfers for U Line. Because of this, the U

Line opened and has operated without a transfer discount or handicapped/senior citizen discounts. Because Uijeongbu is a satellite city of Seoul, more of the population works in Seoul than in Uijeongbu. Thus two out of three passengers were estimated to transfer to Seoul via the U Line. Because a lack of transfer discount increases the cost for light rail riders, it weakens the LRT's competitiveness and is a reason for the lack of demand.

U Line passenger numbers was only 16% of estimation by July 2012, the first month of opening, which is 12,000 passengers out of the estimated 79,045.

### Increased Construction Costs Due to Route Change

The U Line Project is a government initiated project. The operator submitted project proposal based on administrative agency's project strategic plan and signed implementation agreement on April 2006. The plan called for building platforms and concrete supports in a stream bed as per the agreed route. However an environmental assessment could add upwards of an additional 12 months to the project timeline. As such, the route was changed to travel next to the stream.

As the route changed to avoid the stream, the line was extended another 643 m. This now upset the spacing between stations and so one more station was added as a fix.

Additionally, as the line is elevated, the administrative agency was concerned about privacy issues in the nearby residential areas. To mitigate possible grievances by the public, the agency asked the project operator for another route change.

Table 3.11 The Increase of construction cost due to the U Line route change

(Unit: million Korean won, Sept. 2004)

Issues	Cost
Additional station	11,177
Route change of beginning and ending stations	6,467
Cost of handling underground facilities	16,872
Total	34,516

<sup>.</sup> Source: U Line internal data.

Apart from the mentioned route changes, the total construction cost including other changes increased about 72 billion won (15.2% of original total construction cost of 458 billion won). But it was difficult for the administrative agency to cover all the cost increases, so 70% of the total 72 billion won was agreed to be paid by the project operator. The operator faced difficulties in delivering these finances during the construction period.



#### **Excessive Passenger Demand Estimation**

The estimation of passenger demand on railway often contains uncertainties which brings error and variations. Statistical averages have shown that actual ridership of urban railways in Korea was only 26% of the original estimation. In the capital area, subway Line 8 showed the highest accuracy at 63%, whereas Incheon Subway Line 1 was only 16% of original estimation. The overall average was only 34%. It shows that other urban area have even bigger difference between estimations and actual their estimations and most. Daegu's Line 1 and Gwangju's Line 1 only showed 12% of their estimations and most showed around 10% of original estimations.

The reasons for these gaps is as follows. First, uncertainty of related plans. Normally passenger demand estimation applies to urban development plans and land development plans. If there are cancellations or reductions of development projects, opening delays of related roads or connected roads, or development of competing modes, it is inevitable to produce difference in estimation and actual figures. Particularly, introducing new competitors such as the airport limousine bus and express buses linked to Incheon International Airport has hugely affected the passenger demand of airport railway. Also,

Table 3.12 Gap between estimation and actual passenger volume in Korea's urban railways

[Unit: passengers/day]

Region	Metro Line #	Opening-year passenger volume estimation (A)	Opening-year actual number of passengers (B)	Gap (B/A)
	1	395,255	87,060	0.22
	2	156,499	58,750	0.38
61	5	1,725,000	524,714	0.30
Seoul	6	1,319,276	246,803	0.19
	7	897,220	380,464	0.42
	8 241,229		150,963	0.63
Incheon	1	711,369	116,376	0.16
Gyeonggi	Ilsan Line	110,266	44,104	0.40
Busan	2	1,462,448	213,521	0.15
Busan	3	395,014	55,852	0.14
D	1	1,128,055	137,705	0.12
Daegu	2	912,468	124,595	0.14
Guangju	1	257,100	30,573	0.12
Daejeon	1	420,096	93,483	0.22

Source: Kangsu KIM, The Problem and Development of the Urban Railway Demand Exceeds Estimation, The Korea Development Institute, 2011.

in order to secure the project feasibility, reflection of the unrealistic future development plans make passenger demands more excessive.

Second, lacking primary data to estimate traffic volume and limitations in demand estimation models can lead to gaps. Projects with excessive passenger demand estimations were prepared before the national transport database (KTDB) was established. They used secondary survey results or simple statistics most of the time (Jongsuk CHO, 2011). In addition, passenger demand estimation models currently used reflect only a couple of actual travel behaviors. Particularly urban railways or light railway projects are hard to make realistic models because of transfers and modes changes which results in larger gaps than seen in road projects.

Lastly, pushing projects without feasibility projects can result in bad estimates. This is a pitfall of implementing agencies as active projects brings in larger budgets and staff which leads to a stronger desire in leading projects. This desire can lead to more optimistic outlooks presented in feasibility studies. In the case of PPP projects as well, if the government

takes sole responsibility passenger demand estimations, private investors will be indifferent with the numbers (Kangsu KIM, 2010). Also, urban railway projects might be abused as a political tool for those in elected office.

#### **Excessive Minimum Revenue Guarantees**

The minimum revenue guarantee scheme guarantees sufficient revenue for private investors to maintain project operation, based on estimated passenger demand. PPP projects initially had problems due to lack of government support, lack of understanding the public sector, and trial and error. Even with the Asian economic crisis, the Korean government tried to vitalize PPP projects by introducing minimum revenue guarantees.

On the other hand, too much MRG subsidy towards PPP projects produces a larger financial burden on the local and cental government. The MRG rate of private railway project for passenger demand is around 70% to 90%, whereas actual demands are only 10% to 40%. PPP projects such as the Shinbundang Line and U Line do not guarantee MRG under 50% of passenger demand estimation. Despite this, some of the projects that proceeded in early 2000 are seriously damaging local government's financial soundness. Considering most PPP projects guarantee operation for 30 years from the opening, MRG burden will continue for a significant time in the future.

Table 3.13 Railway PPP projects' MRG subsidies

(Unit: 100 million Korean won)

Duniant		N	Note			
Project	2008	2009	2010	2011	Total	Note
Incheon Airport Railroad Express	1,040	1,645	1,188	1,322	5,195	
Seoul Line 9 1st stage	-	-	131	293	424	
Busan-Gimhae LRT	-	-	-	-	-	2011 Sept. opened
YongIn EverLine	-	-	-	-	-	2013 April opened
U Line	-	-	-	-	-	2012 July opened
Total	1,040	1,645	1,319	1,615	5,619	

<sup>·</sup> Source: Ministry of Strategy and Finance, PPP Project Operating Situation and Result, annual.

PPP project's MRG subsidies can be a large burden on the government in the future. Even though one of the reasons for introducing PPP projects was to minimize financial strain on the government, too optimistic passenger demand estimations and MRG will cause bigger financial responsibility for central and local governments. 60-90% of MRG is provided for projects operating currently, 80-90% was guaranteed for 20 years for PPP projects conducted in the early stages of the PPP scheme introduction. In 2004, the guarantee period of 20 years was changed to 15 years. And if the actual revenue is less than 50%, the project is excluded from MRG to prevent processing unfeasible projects. MRG options were not implemented from 2006 for private-initiated projects and for government-initiated projects from 2009. MRG was introduced to vitalize PPP projects affected with excessive demand estimation and ended up producing a big financial burden on the government.

## Optimistic Project Promotion by Local Government<sup>51</sup>

One problem with railway PPP projects is the local government becomes the administrative agency and supervises the project. Most local government not only lack in railway expertise but also in experience with proceeding PPP projects. Therefore, it is hard for them to evaluate, negotiate, implement, and construct these projects by themselves.

However, local government political reasons allow for conducting light railway projects without proper detailed analysis which brings unreliable construction plans. Also, when a local government conducts an LRT project, there's a high chance of establishing the route solely within the district without sufficient links within the regional network or neighboring district. In other words, if the purpose of LRT is not area traffic volume management

<sup>5]</sup> Dongju PARK, "The Problem and the Development Plan of Light Railway PPP Project," *Traffic*, Vol. 159, The Korea Transport Institute, 2011. 5, p. 8.

but the extension of linked regional transport, there will be difficulties with surrounding areas.

#### **Difficulties of Securing Project Feasibility**

The loss from free rides in Seoul's metro was 222 billion won in 2008 and 2009 and 223 billion won in 2010 (18% of total revenue). Over the last five years the total loss was 1.052 trillion won. Free rides are believed to increase with the aging population and a decline in births which creates a threat to PPP projects. An estimated 5% of total revenue would be applied to free ride for those over the age of 65 on the Shinbundang Line, but the actual number was 17%. Considering the loss, the U Line is operating without supplying free rides to the elderly or handicapped. Losses due to free rides are supported by the government for public projects, but for PPP projects this turns is a threat for securing feasibility.

The transfer discount was introduced with the Seoul bus system reform in July 2004. The discount is implemented at transfers between buses or subways. It was expanded to Gyeonggi Province in July 2007 and resulted in an increase of transfers between buses and subways. This brought an increase in ridership, but revenue decreased since rides are now discounted.

Korea's low fare level for railways is another difficulty to secure project feasibility. The cost of a single trip was 1,166 won in 2010, but after transfer discounts and free rides, the actual fare collected was only 760 won resulting in a loss of 406 won per trip. Compared with foreign metro fare levels, such as 2,280 won in Tokyo, 3,150 won in London, 2,460 won in Paris, and 2,590 won in New York, Korea has much a cheaper fare level than overseas systems.

For PPP projects, a higher fare than public operated lines is agreed upon in implementation agreements. However, these higher fare levels become a political issue which results in a lower fare at opening. It brings not only lower revenue for the private operator but also leads to government distrust for not following the implementation agreements.



#### **Institutional System Improvement**

Because of mentioned PPP project issues, PPP-based road and railway ridership is much lower than estimations and the government is undergoing a great financial burden from MRG subsidies.

Therefore in order to prevent an excessive financial burden on the government, the central government revised the Construction Technology Management Act and other rules to place responsibility and punishments those who made improper estimations. The Act states that if a company intentionally conducted incorrect demand estimations, penalties, imprisonment, or fines can be imposed.

In Construction Technology Management Act Enforcement Regulations, if demand estimation was poorly created with error margins of more than 30%, either by mistake or intentional, suspension of business and penalties are imposed.

Introducing the enforcement regulations was seen as an improvement to increase reliability for demand estimation. However, due to uncertainty predicting circumstances a decade or two in the future and limitations with passenger demand estimation models, it seems hard to make accurate

Table 3.14 Demand estimation related Construction Technology Management Act revision contents (December 2007)

Article	Contents
20-4 (Suspension of Construction Engineer Who Provided Such Services as Design, from Performing Services)	The Minister of Land, Transportation and Maritime Affairs may suspend the construction engineer from providing services as design for a specified period of one year or less if any of the following safety or construction issues has taken place:
21-4 (Determination of Fraudulent Construction Work)	② If construction work or design was fraudulently done, a fraud estimate will be conducted and those in fault will be fined
41-3 (Penal Provisions)	if projects result in a loss due to intentionally conducting false estimates for demand during feasibility studies, provider can get jail time up to 5 years or a fine up to 50 million Korean Won     If projects result in a loss due to gross negligence while conducting estimates for demand during feasibility studies, provider can get jail time up to 3 years or a fine or a fine up to 30 million Korean Won

Table 3.15 Construction Technology Management Act Enforcement Regulations revision (December 2007)

Insolvent/violated contents	Service suspension	Penalty points
Wrong demands estimation on purpose	12 months	3
Wrong demands estimation by mistaken	6 months	2
Receiving a criminal penalty by making wrong demands estimation on purpose	3 months	1

predictions with margins of error under 30%. Due to liability resting with the individual or individuals who made the estimation, this clause can scare experts away from participating which may shrink social overhead capital transport projects.

The main issue of railway PPP projects is the MRG subsidy. This subsidy is such a large financial burden not only on local governments with poor financial status but also on the central government. It is not a short-term burden but could continue for two or three decades. The Korean government abolished MRG from private-initiated PPP projects in 2006 and brought total abolishment of MRG in 2009. Transport PPP projects shrunk since the abolishment of MRG with exception for BTL and BTO projects in Seoul where the government financial condition is relatively sound.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BTO type PPP project	1	1	-	1	2	1	-	-	2	-	-	1
BTL type PPP project	-	-	-	-	-	-	2	-	-	1	-	-
Total	1	1	-	1	2	1	2	-	2	1	-	1

#### **Enactment of Guidelines**

In order to improve proceeding procedures and support LRT PPP projects, the Ministry of Land, Infrastructure and Transport combined the policies of PPP Project Strategic Plans and Light Railway Construction Subsidies Guideline, by Ministry of Strategy and Finance, and its own guideline into the Light Rail PPP Project Management Guideline in May 2012.

In the guideline, the local government must obligate prior consultation with the Ministry of Land, Infrastructure and Transport when a feasibility study has been requested as analysis leads to cuts in the project cost. Also, to improve accuracy of demand estimations with projects operated by the local government, the Ministry of Land, Infrastructure and Transport requires use of their Transport Facility Investment Evaluation Guide and makes provincial government to support the cost.

Light railway projects were only allowed to proceed with local governments who have fair financial conditions, construction follow step-by-step, and prohibiting more than two lines in each city. In addition, suggestions have been made to reinforce the Urban Railway Act when establishing light railway project plans and plans should be coordinated with regional and urban development plans. Local government's LRT project officers should complete education provided by PIMAC. If local government is the administrative agency, the financial division with the provincial government should be clearly mentioned in the implementation agreement and include the provincial government during the project process.

Furthermore, the Ministry of Land, Infrastructure and Transport

published the New Public Transport Mode Selection Guideline in July 2012 in order to lead local governments to choose the right public transport system based on their urban conditions. The guideline covers not only analysing the feasibility of public transport mode, but also selecting the most appropriate mode considering every options which are already being used such as light railway, BRT and even new transport mode under development.

The local government should select a transport mode with appropriate revenue which can cover annual operation costs and could cover their own portion of the financial burden. The guideline also suggests that the capacity of new mode can handle peak hour passenger demand.

#### Improvement of Passenger Demands Estimation Reliability

The government has been carrying out national transport surveys in order to improve inefficient investment due to a lack of primary data and to proceed with a proper traffic policy. The National Passenger Demand Survey and DB Project analyses and organizes basic data and information needed for policy and plans in a comprehensive and standard way.

Passenger demand estimation is affected by origin-destination passenger volume, networks, and other primary data. Therefore additional effort should be concentrated toward the accuracy and reliability of the primary data.

The research on improving reliability in the national transport DB has begun from the Improvement on National Passenger Demand Survey Efficiency annual series first started in 2003.

The research focuses are an improvement on origin-destination analysis reliability, route assignment accuracy and sample survey result reliability. These efforts are believed to improve reliability of railway passenger demand estimation as well.

Table 3.17 National Transport DB improvement efforts

	Stage 1 Establishing national transport DB (1998-2005)	Stage 2 Reliability and availability improvement (2005-2010)	Stage 3 Reliability enhancement and expertise improvement (2010- )
Survey	Public labor project     Non-professional     workforce survey	Secure specialized survey and research resources Use video equipment for traffic survey Use internet-based data processing program Prepare traffic survey manual	National household transport survey     Joint survey in regional and national level     Provide national O/D survey manual
Analysis	National O/D construction (2001)     Regional O/D construction (2002)	National Transport DB Information Strategy Planning (2006)     Establish National Transport Survey Plan (2009)     Operate National Transport DB Management Team (external experts)	Reinforce joint study cooperation with local government     Operate Action Committee of National Passenger Demand Verification
Other	• Transport System Efficiency Act Enactment (1999)	National Transport DB Information Strategy Planning (2006) Establish National Transport Survey Plan (2009) Operate National Transport DB Management Team (external experts)	Reinforce joint study cooperation with local government     Operate Action Committee of National Passenger Demand Verification

<sup>•</sup> Source: Jongsuk CHO, "National Transport DB Constructed Situation and Passenger Demands Estimation Reliability Improvement Plan, The Korea Transport Institute," In Passenger Demands Estimation Reliability Improvement and PPP Project Development Direction Expert Conference, 2011.

Table 3.18 National Transport DB improvement strategy

Improvement strategy				
	Increase survey range and improving quality of data			
Survey	Active use of new-technology survey technology			
	Maximize use of survey data			
Passenger	Improve demand analysis by detailed traffic zone and network			
demand analysis	Develop model reflecting traffic condition variations			
Statistics	Improve national statistics reliability     Provide new statistical indicators			
Related institutions	Reinforce research cooperation with local government     Maximize the use of national transport DB for individual transport projects			

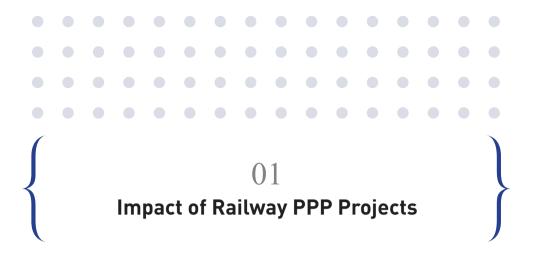
### **CHAPTER 4**

The Impact and Implication of Korea's Railway PPP Projects



01 Impact of Railway PPP Projects

02 Implications



#### Social Overhead Capital (SOC) Investment Acceleration

Korea has actively promoted PPP Act on infrastructure (Jan. 2005) and Act of private investment on SOC (Aug. 1994) to improve system. With this efforts, Korea pushed forward 419 PPP projects by 2008, with 65 trillion Korean Won. Share of PPP project has increased in total SOC project market for last 10 years. (Ministry of Strategy and Finance, 2010)

The government's financial demand has been rapidly increased due to the rise in unemployment, and financial capacity was insufficient to provide SOC after Asian financial crisis in 1997. Therefore, if PPP project institutional reform hasn't been introduced well after 1994, it was expected that investment for SOC could be very poor. "Inducement of PPP Comprehensive Countermeasures on Infrastructure" (Korea Research Institute for Human Settlements, 1998) pointed and quoted, "Investment on infrastructure has been increased rapidly. But the government finance has been faced its limit, so government desperate needed PPP as alternatives."

PPP railway projects began with the Incheon Airport Railroad Express in 2001, Busan-Gimhae LRT (2002) and YongIn EverLine (2004). After opening of Incheon Airport Railroad Express in 2007, Shinbundang Line between

Jeongja-Gangnam (2011), Busan-Gimhae LRT (2011) also opened as result of PPP. However, most of these projects started from the mid 1990s. After abolition of MRG in 2009, PPP scheme only applied to projects with sound revenue estimation based on sufficient demand such as the Shinbundang Line extension and Ui Trans LRT in the Seoul area.

Table 4.1 Korean railway PPP projects

Year	Project	Agreement	Start construction	Operation
2001	Incheon Airport Railroad Express	0	0	
2001	• Seoul Line 9		0	
2002	Busan-Gimhae LRT	0		
2003	-			
2004	YongIn EverLine	0		
	Shinbundang Line (Gangnam - Jeongja)	0	0	
2005	• Seoul Line 9	0		
	YongIn EverLine		0	
2007	• U Line	0		
2006	Busan-Gimhae LRT		0	
	Incheon Airport Railroad Express			0
2007	• U Line		0	0
2007	Incheon Airport Railroad Express     U Line     Jeolla Line (Iksan-Sinli) double track line     Gyeonjeon Line (Haman-Jinju) double track line	0		
	Gyeonjeon Line (Haman-Jinju) double track line	0		
2008	-			
	• Ui Trans LRT	0	0	
2009	• Seoul Line 9			0
	Shinbundang Line (Jeongja - Gwanggyo)	0		
2010	Sosa-Wonsi Line	0		
	Shinbundang Line (Gangnam - Jeongja)			0
	Busan-Gimhae LRT			0
2011	Shinbundang Line (Jeongja - Gwanggyo)		0	
	Jeolla Line (Iksan-Sinli) double track subway*			0
	Sosa-Wonsi Line		0	
2012	• U Line			0
2012	Shinbundang Line (Yongsan - Gangnam)	0		

<sup>•</sup> Note: BTL projects, rest are BTO projects

## Impact on Economic Growths

PPP project provides not only public infrastructure but also reserve capacity for other fiscal spending. Reduction of financial investment in SOC can be saved for other sectors thereby easing the government's budget constraints.

PPP infrastructure construction has increased since the late 1990s. The government's investment rate in construction decreased from 46.6% in 2000 to 30.8% in 2008, whereas private investment increased from 1.7% from 2000 to 5.1% in 2008.

PPP's impact on GDP growth due to BTL projects expanded from 2005 estimates starting at 1.16 trillion won (0.127%) in 2006, 1.50 trillion won (0.154%) in 2007, and 1.94 trillion won (0.198%) in 2008.

Table 4.2 Impact of PPP on economic growth estimation

(Unit: 10 billion won)

Year	GDP	PPP	Impact on GDP growth	Effect on GDP (%)
2001	65,142	115	23	0.035
2002	72,054	130	38	0.052
2003	76,711	133	37	0.048
2004	82,689	225	49	0.06
2005	86,524	345	82	0.094
2006	90,874	467	116	0.127
2007	97,501	617	150	0.154
2008	97,779	805	194	0.198

<sup>.</sup> Source: Ministry of Strategy and Finance, PPP Project Total Evaluation, 2010.

#### **Budget Spending Reduction and Improvement of Efficiency**

The government introduced PPP Project Feasibility Measures in 2005. Based on the measure, the government only proceed with a PPP project when the project could reduce the government's financial burden compared to a fully

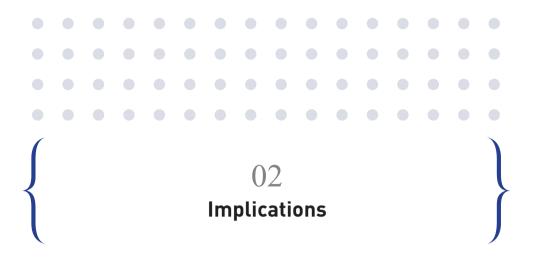
<sup>6)</sup> Ministry of Strategy and Finance, Comprehensive Assessment of PPP Project, 2010.

government funded project. PIMAC analysis shows the financial burden reduction from one hundred BTO projects was 1.548 trillion won between 2005 to 2009. PPP projects not only substituted the government budget, but reduced construction and operation costs and eased financial responsibility (Ministry of Strategy and Finance, 2009).

Researches of developed countries reported positive effects of PPP projects. According to Her Majesty's Treasury in the UK, 21 PPP projects have brought an approximently 17% of budget reduction effect. Reports from the US show 30-40% of costs can be cut by PPP. Australia also reported on cost efficiency but cited an insignificant time shortening effect (Ministry of Strategy and Finance, 2009).

By analysing BTL projects conducted since 2005 in Korea, project cost has been reduced and construction was completed within the scheduled time frame by the project operator who directly controls the project budget.

An efficient use of PPP has brought solutions to ease the government's financial burden and expand investment on the other sector as well. PPP schemes can also prevent project delays and risk of increasing project costs.



PPP project require private capital and increase financial efficiency to build SOC. Applying PPP to railway projects eases the financial burden toward infrastructure. PPP railway projects are assumed an advisable scheme for economic growth and efficiency improvement.

Particularly for developing countries lacking financial support for railway infrastructure, PPP could be a good option for providing properly timed SOC. As such, developing countries are actively proceeding PPP projects in railway infrastructure.

Despite of all the positive impact, a warning needs to be given towards PPP railway projects as revealed in recent Korean cases. Issues to constantly watch include over estimation of passenger demands, lack of professionalism, changes in investment conditions, and MRG issues. Successful PPP projects will be only available by understanding and managing all the above issues.

# Improvement of Passenger Demand Estimation Reliability

Because of low reliability of passenger demand estimations for YongIn EverLine, Busan-Gimhae LRT and Incheon Airport Railroad Express, a

negative image has been cast on PPP railway projects due to the financial burden from large MRG subsidies. Use of unreliable basic data and uncertain urban development plans resulted in excessive passenger demand estimations. Also, project agencies forced the project to proceed and used it as a political achievement. These factors brought a sizable gap between estimation and actual ridership which led to MRG subsidies and eventually increased the financial burden of the government.

It is hard for a developing country to produce reliable passenger demand estimations because the lack of primary data and information. Therefore, the country needs to establish an organization which all primary data and analysis are contained to develop reliable passenger demand estimations. In Korea, the Korea Transport Database was launched under the Korea Transport Institute and gathered all necessary data for passenger demand estimation. It has successfully improved accuracy and reliability. In the past, PPP railway projects used data and information before the national transport DB was established. Because of this, accuracy of passenger demand estimations was poorly managed and ended in producing financial burdens for the government.

In addition, precise guidelines need to be provided to lead PPP railway projects in a more efficient and organized manner. The government also needs to require their use for PPP projects. Also the government should confirm the information used in the PPP project was government created to increase overall accuracy.

Korea operates the National Passenger Demands Survey and DB Building Project under the National Transport System Efficiency Act and constantly focuses on improving data reliability. In addition, to prevent poor passenger demand estimations, government prepared legal standard and reformed the Construction Technology Management Act to give more responsibility to PPP project teams. It is crucial for developing countries which want to conduct a successful PPP railway project to prepare proper a PPP project process system and institutions.

#### **PPP Project Agency Capacity Building**

Railway projects should be required to consult with the provincial government and central government in order to get network connectivity and prevent budget waste since the impact of network connectivity among lines is significant. Also, the central government should examine the financial capability of the local government before beginning any PPP project in order to prevent financial difficulties.

If there's a lack of capacity for managing a PPP project in the implementing agency, capacity building is necessary for the officials in charge to increase understanding of the railway PPP project. This could be achieved by inviting an external expert.

#### Flexible Implementation Agreement Considering Future Risks

Railway PPP projects require longer construction and operation periods compared to other SOC projects. Therefore the implementation agreement should be flexible in consideration of changes in future socio-economic conditions. As shown from PPP railway projects in Korea, the rate of return decided early on seemed to be reasonable, but might be considered excessive with changing financial conditions.

#### **Conservative Approach toward MRG**

MRG was the main supporting tool for Korean PPP project since the Asian economic crisis in the late 1990s and was utilized to solve shortages in the Government's SOC investment budget. PPP projects such as railways have been hugely vitalized since introducing MRG. It seemed these projects were sucesss to reduce the government's financial burden. But as a result, MRG created a huge financial burden for the central and local governments in the

long-term.

When a developing country starts a PPP railway project, the country needs to conservatively approach introducing MRG, by looking cases in Korea as examples. Once MRG is introduced, the failure of proper passenger demand estimation can bring a huge financial burden on a government.

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(in Korean)





# Act on Public-Private Partnerships in Infrastructure

[ENFORCEMENT DATE 16. SEP., 2011] [ACT NO. 11060]

CHAPTER I General Provisions

CHAPTER II Infrastructure Facilities Projects

CHAPTER II Supervision

CHAPTER IV Supplementary Provisions

CHAPTER V Penal Provisions

#### **CHAPTER I**

# **General Provisions**

#### Article 1 (Purpose)

The purpose of this Act is to contribute to the development of the national economy by encouraging the creative and efficient expansion and operation of infrastructure, by promoting the investment of the private sector in such infrastructure. <Amended by Act No. 7386, Jan. 27, 2005>

#### Article 2 (Definitions)

The definitions of terms used in this Act shall be as follows: <Amended by Act No. 5654, Jan. 21, 1999; Act Nos. 5835 & 5891, Feb. 8, 1999; Act No. 6021, Sep. 7, 1999; Act No. 6360, Jan. 16, 2001; Act No. 6776, Dec. 11, 2002; Act No. 6955, Jul. 29, 2003; Act No. 7016, Dec. 30, 2003; Act Nos. 7303 & 7304, Dec. 31, 2004; Act No. 7386, Jan. 27, 2005; Act Nos. 7459 & 7476, Mar. 31, 2005; Act No. 7571, May 31, 2005; Act No. 7676, Aug. 4, 2005; Act Nos. 8010 & 8014, Sep. 27, 2006; Act No. 8338, Apr. 6, 2007; Act Nos. 8343, 8345, 8347 & 8371, Apr. 11, 2007; Act No. 8466, May 17, 2007; Act Nos. 8616 & 8635, Aug. 3, 2007; Act No. 8976, Mar. 21, 2008; Act No. 9052, Mar. 28, 2008; Act No. 9282, Dec. 31, 2008; Act No. 9556, Apr. 1, 2009; Act No. 9705, May 22, 2009; Act Nos. 9772, 9773 & 9780, Jun. 9, 2009; Act No. 10303, May 17, 2010; Act No. 10359, Jun. 8, 2010; Act No. 10522, Mar. 31, 2011; Act No. 10789, Jun. 7, 2011; Act No. 10983, Aug. 4, 2011; Act No. 11060, Sep. 16, 2011>

- 1. The term "infrastructure facilities" means fundamental facilities which serve as the foundation of production, increase the efficiency of such facilities, and accommodate the convenience of users and in the lives of the public, and which fall under any of the following items:
  - (a) Roads and appurtenances thereof prescribed in Article 2 (1) 1 and 4 of the Road Act;

- (b) Railroads prescribed in subparagraph 1 of Article 2 of the Railroad Enterprise Act;
- (c) Urban railroads prescribed in subparagraph 1 of Article 3 of the Urban Railroad Act;
- (d) Harbor facilities prescribed in subparagraph 5 of Article 2 of the Harbor Act;
- (e) Airport facilities prescribed in subparagraph 8 of Article 2 of the Aviation Act;
- (f) Multi-purpose dams as prescribed in subparagraph 2 of Article 2 of the Act on Construction of Dams and Assistance, etc. to their Environs;
- (g) Waterwork systems as prescribed in subparagraph 5 of Article 3 of the Water Supply and Waterworks Installation Act and intermediate water works as prescribed in subparagraph 4 of Article 2 of the Act on Promotion and Support of Water Reuse;
- (h) Sewage systems as prescribed in subparagraph 3 of Article 2 of the Sewerage Act, public sewage terminal disposal facilities as prescribed in subparagraph 9 of Article 2 of the same Act, excreta treatment facilities as prescribed in subparagraph 10 of Article 2 of the same Act, and facilities for the reuse of sewage and wastewater prescribed in subparagraph 7 of Article 2 of the Act on Promotion and Support of Water Reuse;
- (i) River facilities as prescribed in subparagraph 3 of Article 2 of the River Act;
- (j) Fishery harbor facilities as prescribed in subparagraph 5 of Article 2 of the Fishing Villages and Fishery Harbors Act;
- (k) Waste disposal facilities as prescribed in subparagraph 8 of Article 2 of the Wastes Control Act;
- (l) Telecommunication facilities as prescribed in subparagraph 2 of Article 2 of the Framework Act on Telecommunications;
- (m) Electric source facilities as prescribed in subparagraph 1 of Article 2 of the Electric Source Development Promotion Act;

- (n) Gas supply facilities as prescribed in subparagraph 5 of Article 2 of the Urban Gas Business Act;
- (o) Integrated energy facilities as prescribed in subparagraph 5 of Article 2 of the Integrated Energy Supply Act;
- (p) Information and communications network as prescribed in Article 2(1) 1 of the Act on Promotion of Information and Communications Network Utilization and Information Protection, etc.;
- (q) Logistics terminals and logistics complexes as prescribed in subparagraphs 2 and 6 of Article 2 of the Act on the Development and Management of Logistics Facilities;
- (r) Deleted; <by Act No. 8616, Aug. 3, 2007>
- (s) Bus terminals as prescribed in subparagraph 5 of Article 2 of the Passenger Transport Service Act;
- (t) Deleted; <br/> <br/>by Act No. 6776, Dec. 11, 2002>
- (u) Tourist resorts and resort complexes as prescribed in subparagraphs 6 and 7 of Article 2 of the Tourism Promotion Act;
- (v) Off-road parking lots as prescribed in subparagraph 1 (b) of Article2 of the Parking Lot Act;
- (w) Urban parks as prescribed in subparagraph 3 of Article 2 of the Act on Urban Parks, Greenbelts, etc.;
- (x) Wastewater treatment terminal facilities as prescribed in Article 48 (1) of the Water Quality and Ecosystem Conservation Act;
- (y) Public treatment facilities as prescribed in subparagraph 9 of Article2 of the Act on the Management and Use of Livestock Excreta;
- (z) Recycling facilities as prescribed in subparagraph 10 of Article 2 of the Act on the Promotion of Saving and Recycling of Resources;
- (za) Specialized sports facilities as prescribed in Article 5 of the Installation and Utilization of Sports Facilities Act and public sports facilities as prescribed in Article 6 of the same Act;
- (zb) Juvenile training establishments as prescribed in subparagraph 1 of Article 10 of the Juvenile Activity Promotion Act;
- (zc) Libraries as prescribed in subparagraph 1 of Article 2 of the

- Libraries Act;
- (zd) Museums and art galleries as prescribed in subparagraphs 1 and 2 of Article 2 of the Museum and Art Gallery Support Act;
- (ze) International conference facilities as prescribed in subparagraph 3 of Article 2 of the International Conference Industry Promotion Act;
- (zf) Intermodal transfer center and Intelligent transport systems as prescribed in subparagraph 16 of Article 2 of the National Transport System Efficiency Act;
- (zg) Spatial information system as prescribed in subparagraph 2 of Article 2 of the National Spatial Data Infrastructure Act;
- (zh) Super-high speed information and communication networks as prescribed in subparagraph 13 of Article 3 of the Framework Act on National Informatization;
- (zi) Science museums as prescribed in subparagraph 1 of Article 2 of the Science Museum Support Act;
- (zj) Railroad facilities as prescribed in subparagraph 2 of Article 3 of the Framework Act on Railroad Industry Development;
- (zk) Kindergartens and schools as prescribed in subparagraph 2 of Article 2 of the Early Childhood Education Act, in Article 2 of the Elementary and Secondary Education Act and in subparagraphs 1 through 5 of Article 2 of the Higher Education Act;
- (zl) Installations necessary for education, training an barrack lives and other installations attached to military units, which are necessary for the welfare or sports of servicemen from among the national defense and military installations as prescribed in subparagraphs 1 and 7 of Article 2 (1) of the Act on National Defense and Military Installations Projects;
- (zm) Public rental housing, from among the constructed rental housing as prescribed in subparagraph 2 of Article 2 of the Rental Housing Act;
- (zn) Nursing facilities as prescribed in subparagraph 3 of Article 2 of

- the Infant Care Act;
- (zo) Residential care facilities medical care facilities, and facilities for home care for the elderly as prescribed in Articles 32, 34 and 38 of the Welfare of the Aged Act;
- (zp) Public health and medical service facilities as prescribed in subparagraph 1 of Article 2 of the Public Health and Medical Services Act;
- (zq) Facilities subject to a new harbor construction project as prescribed in subparagraph 2 (b) and (c) of Article 2 of the New Harbor Construction Promotion Act;
- (zr) Cultural facilities as prescribed in Article 2 (1) 3 of the Culture and Arts Promotion Act;
- (zs) Natural and recreational forest as prescribed in subparagraph 2 of Article 2 of the Forestry Culture and Recreation Act;
- (zt) Arboretums as prescribed in subparagraph 1 of Article 2 of the Creation and Furtherance of Arboretums Act;
- (zu) Infrastructure of ubiquitous cities as prescribed in subparagraph 3 of Article 2 of the Act on the Construction, etc. of Ubiquitous Cities;
- (zv) Welfare facilities for persons with disabilities as prescribed in Article 58 of the Act on Welfare of Persons with Disabilities;
- (zw) New and renewable energy facilities as prescribed in subparagraph 2 of Article 2 of the Act on the Promotion of the Development, Use and Diffusion of New and Renewable Energy;
- (zx) Facilities for bicycle riding as prescribed in subparagraph 2 of Article 2 of the Promotion of the Use of Bicycles Act;
- 2. The term "infrastructure facilities project" means projects involving work, such as construction, expansion, renovation or operation of infrastructure facilities;
- 3. The term "revertible facilities" means infrastructure facilities whose ownership are transferred to the State or local governments, as prescribed in each subparagraph (excluding subparagraph 4) of Article 4;

- 4. The term "competent authority" means the head of the administrative agency in charge of the affairs concerning infrastructure facilities projects pursuant to the related Acts and subordinate statutes;
- 5. The term "public-private partnership project" means any project proposed by the private sector as prescribed in Article 9, or any infrastructure facilities project conducted by the concessionaire as prescribed in subparagraph 7, in accordance with a master plan for a public-private partnership facilities project as prescribed in Article 10: Provided, That the part that is constructed in excess (referring to the construction conducted in excess of the project expenditure of the relevant year but within the scope that has been agreed upon between the State and a party to the contract; hereinafter the same shall apply) from among the Government placed projects that are funded by continuing expenditures under Article 23 of the National Finance Act shall be deemed a public-private partnership project;
- 6. The term "concession agreement" means the contract between the competent authority and a potential concessionaire to conduct the public-private partnership project concerning the conditions, etc. for the implementation of the project as prescribed in this Act;
- 7. The term "concessionaire" means corporations other than those in the public sector, which are designated as concessionaires under this Act, and which conduct public-private partnership projects;
- 8. The term "supplementary project" means any project falling under any subparagraph of Article 21 (1) which is conducted together with the public-private partnership project by a concessionaire;
- 9. The term "user fee" means the payment for the use of infrastructure facilities by users to the concessionaire of relevant facilities, regardless of the titles such as user fee, user charge, or fare, etc.;
- 10. The term "public sector" means the State, local governments and a corporation falling under any of the following items:
  - (a) Agencies designated by the Minister of Strategy and Finance from among the public agencies under the Act on the Management of

#### Public Institutions;

- (b) Various public corporations incorporated pursuant to the special Acts;
- 11. The term "private sector" means corporations (including foreign corporations, and public and private joint corporations incorporated pursuant to subparagraph 12), other than those in the public sector;
- 12. The term "public and private joint corporation" means a corporation incorporated by joint investment of the public and private sectors, which is the concessionaire as referred to in subparagraph 7;
- 13. The term "related Acts" means the Acts under subparagrpah 1 and the Acts falling under the following items, which apply to public-private partnership projects in connection with the implementation of infrastructure facilities projects:
  - (a) The Toll Road Act;
  - (b) The Railroad Construction Act;
  - (c) The Act on the Promotion of a New Airport for Seoul Metropolitan Area Construction;
  - (d) The Telecommunications Business Act;
  - (e) The Radio Waves Act;
  - (f) The School Facilities Projects Promotion Act;
  - (g) The Housing Act;
  - (h) The National Land Planning and Utilization Act;
  - (i) The Forest Resources Creation and Management Act;
  - (j) The Management of Mountainous Districts Act;
  - (k) The State Forest Administration and Management Act;
- 14. The term "other Acts" means Acts providing for matters, such as authorization and permission, etc. which are considered to have been granted pursuant to the provisions of the related Acts, and which a concessionaire requires in order to implement public-private partnership projects;
- 15. The term "national or public property" means any property owned by the State or a local government under the State Properties Act or the

Public Property and Commodity Management Act;

- 16. The term "financial institutions" means one of the following:
  - (a) Banks established with authorization as prescribed by the Banking Act;
  - (b) Korean Finance Corporation prescribed by the Korean Finance Corporation Act;
  - (c) Korea Development Back prescribed by the Korea Development Bank Act;
  - (d) Deleted; by Act No. 6776, Dec. 11, 2002.
  - (e) Export-Import Bank of Korea prescribed by the Export-Import Bank of Korea Act;
  - (f) Industrial banks of Korea prescribed by the Industrial Bank of Korea Act;
  - (g) Trust business entities and merchant banks prescribed by the Financial Investment Services and Capital Markets Act;
  - (h) Deleted; by Act No. 8635, Aug. 3, 2007.
  - (i) Insurance companies prescribed by the Insurance Business Act;
  - (j) Credit business sector run by the National Federation of Agricultural Cooperatives prescribed by the Agricultural Cooperatives Act;
  - (k) Credit business sector run by the National Federation of Fisheries Cooperatives prescribed by the Fisheries Cooperatives Act;
  - (l) Specialized credit finance business companies prescribed by the Specialized Credit Finance Business Act;
  - (m) Investment and financing collective investment schemes prescribed by Article 41;
  - (n) Persons engaged in industrial financing, determined by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 3 (Relationship, etc. to Related Acts)

(1) As for public-private partnership projects, this Act shall prevail over other

Acts.

(2) Except as particularly prescribed in this Act, other provisions of this Act shall not apply to the part of overconstruction of Government placed projects under subparagraph 5 of Article 2.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 4 (Implementation Methods of Public-Private Partnership Projects)

Public-private partnership projects shall be conducted in one of the following methods:

- 1. The mode (excluding cases falling under subparagraph 2) by which the ownership of the infrastructures shall be transferred to the State or a local government upon the completion of construction, and the concessionaire shall have the rights to manage and operate the infrastructure facilities for a specified period;
- 2. The mode by which the ownership of the infrastructures shall be transferred to the State or a local government upon the completion of construction, and the concessionaire shall have the rights to manage and operate the infrastructure facilities for a specified period, but the State or a local government, etc. shall rent them for a specified period as provided for in the agreement, and use them and make profits;
- 3. The mode by which the concessionaire shall assume ownership of the infrastructure facilities for a specified period after the completion of construction, and the ownership shall be transferred to the State or a local government upon the termination of the concession period;
- 4. The mode by which the concessionaire shall assume ownership of the infrastructure facilities upon the completion of construction;
- 5. Other than the modes as described in subparagraphs 1 through 4, a method presented by the private sector in proposing a public-private partnership project under Article 9 or in proposing a modification thereof under Article 12 and adopted by the competent authority as it deems reasonable;
- 6. Other modes by which the competent authority suggests in a master plan for public-private partnerships facilities project established in accordance

with Article 10.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 5 (Establishment of Public-Private Partnerships Review Committee)

In order to deliberate the following matters concerning public-private partnership projects, the Public-Private Partnerships Review Committee (hereinafter referred to as the "Committee") shall be established under the jurisdiction of the Minister of Strategy and Finance: Amended by Act No. 5982, May 24, 1999; Act No. 6776, Dec. 11, 2002; Act No. 7386, Jan. 27, 2005; Act No. 8852, Feb. 29, 2008; Act No. 9282, Dec. 31, 2008.

- 1. Matters concerning the formulation of major policies concerning private sector investment in infrastructure facilities;
- 2. Matters concerning the establishment and modification of the master plans for public-private partnerships in infrastructure as prescribed in Article 7;
- 3. Matters concerning the designation of an expected public-private partnership project as prescribed in Article 8-2;
- 4. Matters concerning the establishment and modification of the master plans for infrastructure facilities as prescribed in Article 10 (2);
- 5. Matters concerning the designation of a concessionaire as prescribed in Article 13;
- 6. Matters concerning the implementation of supplementary projects as prescribed in Article 21 (5);
- 7. Matters concerning the implementation of supplementary projects as prescribed in Article 21 (5);
- 8. Matters concerning the cancellation of designation of solicited projects as prescribed in Article 50;
- 9. Comprehensive evaluation public-private partnership projects under Article 51-2 (3);
- 10. Other matters which the Minister of Strategy and Finance suggests during a meeting of a public-private partnerships review committee for the promotion of active private participation in infrastructure projects.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 6 (Composition and Operation of Committee)

- (1) The Committee members shall be composed of the Minister of Strategy and Finance, the vice ministers of administrative ministries in charge of the affairs concerning infrastructure facilities, and eight or fewer members from the private sector with knowledge and experience in private investment, and commissioned by the Minister of Strategy and Finance. Amended by Act No. 5982, May 24, 1999; Act No. 6776, Dec. 11, 2002; Act No. 7386, Jan. 27, 2005; Act No. 8852, Feb. 29, 2008.
- (2) The Minister of Strategy and Finance shall be the chairperson of the Committee (hereinafter referred to as the "chairperson of the Committee"). Amended by Act No. 5982, May 24, 1999; Act No. 8852, Feb. 29, 2008.
- (3) If it is deemed that professional or technical advice is necessary for efficiency in the operation of the Committee, the chairperson may establish and operate a Public-Private Partnership Advisory Committee composed of experts in the related fields.
- (4) If it is deemed necessary for facilitating private investment projects, the head of the competent authority may establish and operate autonomously a deliberation committee of each competent authority in order to deliberate matters concerning public-private partnership projects. Amended by Act No. 6776, Dec. 11, 2002.
- (5) Matters on the operation, proedures, and other necessary matters for the Committee and the deliberation committees of competent authorities shall be determined by Presidential Decree. Amended by Act No. 6776, Dec. 11, 2002.

#### **CHAPTER II**

# Infrastructure Facilities Projects

#### **SECTION 1**

#### Master Plan for Private Participations in Infrastructure

# Article 7 (Formulation and Public Notification, etc. of Master Plans for Public-Private Partnerships in Infrastructure)

- (1) The Government shall formulate and publicly notify (including cases where announcement is made through the Internet) basic plans for public private partnerships in infrastructure to accommodate greater public convenience, raise the competitiveness of the industries of Korea, and encourage a balanced development of the national territory. The same shall apply to any modification of the publicly notified master plan.
- (2) The Government shall formulate the master plans for public-private partnerships in infrastructure as prescribed in paragraph (1) with due consideration for national investment priorities and mid- to long-term plans for infrastructure facilities. The plan shall be conducive to the creativity and efficiency of the private sector while ensuring the function of infrastructure facilities in serving the public interest.
- (3) Matters necessary for the formulation and modification of the master plans for public-private partnerships in infrastructure and the procedures for its confirmation shall be determined by Presidential Decree.

# Article 7-2 (Resolution on Aggregate Ceiling of Public-Private Partnership Projects, etc. by National Assembly)

(1) The Government shall submit the aggregate ceiling and limit amount by object project of a public-private partnership project under subparagraph 2 of Article 4 (hereinafter referred to as "build-transfer-lease project") to be conducted in the following year and the reserve limit amount (hereinafter referred to as "aggregate ceiling, etc.") to meet unexpected expenditures in the process of promoting the project to the National Assembly by 90 days before the fiscal year begins, and the National Assembly shall make resolution thereon by 30 days before the fiscal year begins.

- (2) The reserve limit amount under paragraph (1) shall be an amount within 20/100 of the total of limit amounts of the national projects and local government projects subsidized by the National Treasury.
- (3) When the Government submits the aggregate ceiling, etc. of build-transferlease projects under paragraph (1) to the National Assembly, it shall also submit the detail of use of reserve limit amount by object facility disbursed in the previous year.
- (4) Necessary matters concerning the aggregate ceiling, etc. of build-transferlease projects under paragraph (1) shall be prescribed by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

### Article 7-3 (Modification of Aggregate Ceiling)

- (1) The Government may modify the aggregate ceiling by prior resolution of the National Assembly.
- (2) The Government may modify (it shall not exceed the reserve limit amount) the limit amount by object facility within 20/100, and when the competent authority intends to modify the limit amount by object facility, it shall consult with the Minister of Strategy and Finance in advance.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

# Article 7-4 (Agreement to Increase, etc. in Limit Amount)

When the National Assembly intends to increase the aggregate ceiling of a build-transfer-lease project submitted by the Government, or to add a new object facility, it shall obtain prior approval of the Government.

[This Article Newly Inserted by Act No. 9282, Dec. 31, 2008]

# Article 8 (Specifics for Master Plans for Public-Private Partnerships in Infrastructure)

- (1) The basic plans for public private partnerships in infrastructure as prescribed in Article 7 (1) shall include the following:
  - 1. Matters concerning private investment policy orientation for each category of infrastructure facilities;
  - 2. Matters concerning the scope of investment, method, and requirements of each public- private partnership project or each potential public-private partnership project under Article 8-2;
  - 3. Matters concerning the management and operation of private investment projects;
  - 4. Matters concerning support for public-private partnership projects;
  - 6. Other matters concerning policies regarding private investment projects.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 8-2 (Designation of Potential Public-Private Partnership Project)

- (1) Where the competent authority intends to implement an infrastructure facilities project by means of private investment, it shall designate the project as a potential public-private partnership project (hereinafter referred to as the "solicited project") on condition that the project meets the following requirements:
  - 1. The project shall be in accord with midto long-term plans for infrastructure facilities and national investment priorities;
  - 2. The project shall have such profitability as to stimulate private participation. (2) With respect to infrastructure projects of the specified scale as determined by Presidential Decree or larger, the competent authority shall designate them as solicited projects after the analysis of their feasibility and the deliberation of the Committee thereon.
- (2) With respect to infrastructure projects of the specified scale as determined by Presidential Decree or larger, the competent authority shall designate them as solicited projects after the analysis of their feasibility and the

- deliberation of the Committee thereon, and submit the summary of the analysis to the relevant standing committee of the National Assembly and the Special Committee on Budget and Accounts of the National Assembly.
- (3) In the case of designation of a solicited project, the competent authority shall, without delay, publish (including the case where publication is made through the Internet) the fact of such designation in the Official Gazette. [This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 9 (Unsolicited Project Proposal by Private Sector)

- (1) The private sector may propose a public-private partnership project, not included in the solicited project list, to be implemented as an unsolicited project (excluding the project mode under subparagraph 2 of Article 4).
- (2) Any person who intends to propose a project under paragraph (1) shall draw up a written proposal and submit it to the competent authority as prescribed by Presidential Decree.
- (3) When the competent authority has decided to promote the project proposed under paragraph (1) as a public-private partnership project, it shall notify the proponent of such project of its decision, and publicly notify the outlines of such proposal to enable a third person, other than the proponent, to make a proposal.
- (4) The competent authority shall designate a potential concessionaire from among persons who have submitted proposals, after reviewing and evaluating the written proposal submitted by the initial proponent under paragraph (2) and a written proposal by a third person under paragraph (3), as prescribed by Presidential Decree. In such cases, the initial proponent may be treated favorably as prescribed by Presidential Decree.
- (5) The provisions of Article 13 (3) through (5) shall govern conclusion, etc. of a concession agreement with a potential concessionaire designated under paragraph (4).
- (6) Matters concerning the procedural details of projects proposed under paragraph (1) shall be determined by Presidential Decree.

  [This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### **SECTION 2**

### Implementation of Infrastructure Facilities Projects

# Article 10 (Formulation and Public Announcement, etc. of Master Plans for Public-Private Partnership Facilities Project)

- (1) The competent authority shall, when it is deemed necessary to secure the investment from the private sector in order to proceed infrastructure facilities projects, formulate a master plan for public-private partnership facilities project (hereinafter referred to as the "master plan for facilities project") in accordance with the master plan for public-private partnerships in infrastructure, within one year from the date of its designation as a solicited project: Provided, That if deemed inevitable, the period may be extended within one year.
- (2) When a master plan for facilities project is formulated under paragraph (1) which meets the requirements specified in Presidential Decree, it shall undergo prior deliberation by the Committee. The same shall apply where a modification is required: Provided, That the same shall not apply to cases of insignificant modifications determined by Presidential Decree.
- (3) Where the competent authority formulates or modifies the instruction for proposal under paragraphs (1) and (2), it shall make a public announcement thereof under conditions prescribed by Presidential Decree.
- (4) Where the project proposal under Article 13 (1) is not submitted after the basic plan for facilities project has been publicly announced as prescribed in paragraph (3), the competent authority may reannounce the master plan only once more. In such cases, the master plan for facilities project shall be re-announced within six months starting from the last permissible date for submission of project proposal pursuant to the instruction for proposal as outlined in the initial announcement.
- (5) Where the competent authority announces or re-announces the master plan for facilities project for solicited projects prescribed by Presidential Decree in accordance with paragraph (3) or (4), it shall make their basic design drawings and the data on the analysis of their feasibility accessible

to the private sector.

#### Article 11 (Details of Instruction for Proposal)

- (1) The master plan for facilities project shall include the followings:
  - 1. Matters concerning the estimated investment amount of solicited projects, and matters concerning construction, such as the duration, location, and scale thereof;
  - 2. Matters concerning the result of preliminary feasibility study and of feasibility study of the solicited project;
  - 3. Matters concerning the proceeds of the concessionaire, such as the user fee, and supplementary projects;
  - 4. Matters concerning the implementation method involved in a publicprivate partnership project, including the designation or nondesignation of a facility as a revertible facility;
  - 5. Matters concerning the State or local government subsidies, such as the amount and the method thereof;
  - 6. Matters concerning the management and operation of the infrastructure facilities which were constructed through a public-private partnership project;
  - 7. Matters concerning the eligibility of the concessionaire;
  - 8. Other matters which the competent authority deems necessary.
- (2) In formulating the master plan for facilities project, the competent authority shall give consideration to small and medium enterprises so that they may actively participate in public- private partnership projects. [This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

# Article 12 (Proposal for Modification of Master Plan for Facilities Project by Private Sector)

The private sector may propose a modification of the master plan for facilities project formulated under Article 10 under conditions prescribed by Presidential Decree.

#### Article 13 (Designation of Concessionaire)

- (1) A person who intends to conduct a public-private partnership project shall prepare a project proposal as specified by Presidential Decree, pursuant to the master plan for facilities project publicly announced under Article 10 (3), and submit it to the competent authority.
- (2) The competent authority shall designate one of the proposers as a potential concessionaire after reviewing and evaluating the project proposal under conditions prescribed by Presidential Decree which was submitted under paragraph (1). In such cases, the persons having submitted the project proposals satisfying a smooth project implementation of the competent authority, such as offering the long-term investment fund of higher public interests, may be treated favorably when making evaluation of project proposals.
- (3) The competent authority shall designate the concessionaire by making a concession agreement with the potential concessionaire designated under paragraph (2), including the conditions for project implementation, such as the total project cost (referring to the amount adding up the cost prescribed by Presidential Decree, which is the cost necessary for the infrastructure facilities) and the concession period. Matters regarding the designation of a concessionaire who meets the requirements determined by the Presidential Decree, shall undergo a prior deliberation by the Committee.
- (4) A person designated as a concessionaire as prescribed in paragraph (3) shall be deemed a concessionaire under the related Acts.
- (5) A person designated as a concessionaire shall apply for approval of a detailed implementation plan prescribed in Article 15 (1) within the period specified by Presidential Decree from the date of its designation, and if the concessionaire fails to apply for a detailed implementation plan within the given period, the designation of concessionaire shall become ineffective: Provided, That when deemed inevitable, the competent authority may grant an extension of the period within the scope of one year.

#### Article 14 (Establishment of Public-Private Partnership Project Corporation)

- (1) A person who intends to conduct a public-private partnership project by establishing a corporation shall include a corporate incorporation plan when submitting the corporate incorporation plan as prescribed in Article 13 (1).
- (2) When the competent authority intends to designate a person who submitted the project proposal as prescribed in paragraph (1) as a concessionaire, the designation shall be made under the condition that the corporation shall be incorporated.
- (3) The person who has been granted the conditional designation pursuant to paragraph (2) shall incorporate the corporation which will conduct the public-private partnership project before applying for approval of the detailed implementation plan prescribed in Article 13 (5).
- (4) No corporation incorporated pursuant to paragraph (3) shall engage in businesses other than those acknowledged by the competent authority at the time of designation of the concessionaire: Provided, That the same shall not apply to businesses deemed insignificant by the competent authority after the concessionaire has been designated.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

## Article 15 (Approval of Detailed Implementation Plan)

- (1) The concessionaire shall prepare a detailed implementation plan and obtain the approval thereof from the competent authority as prescribed by the Presidential Decree before implementing the project concerned. The same shall apply when the concessionaire intends to modify the contents of the approved plan: Provided, That the same shall not apply to insignificant changes as determined by the Presidential Decree.
- (2) The competent authority shall make a public announcement of its approval upon authorizing the implementation or modification of the detailed implementation plan pursuant to paragraph (1).

# Article 16 (Divisional Implementation, etc. of Public-Private Partnership Projects)

- (1) The competent authority may have the private sector conduct infrastructure facilities projects in parts.
- (2) The competent authority may allow public-private partnership projects to be conducted in parts according to the different functions, facilities, or sections.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 17 (Authorization and Permission, etc. under Other Acts)

- (1) If the competent authority has made public announcement of a detailed implementation plan as provided in Article 15 (2), it shall be considered that the authorization and permission, etc. prescribed in the related Acts concerning the relevant private investment, and the authorization and permission, etc. under other Acts which are deemed to have been obtained pursuant to related Acts, are regarded to have been obtained, and there exists the public notice or public announcement pursuant to the related Acts and other Acts.
- (2) The competent authority shall consult the head of the related administrative agency, in advance, on the compatibility with other Acts as prescribed in paragraph (1) when it intends to grant approval for implementation or modification of the detailed implementation plan pursuant to Article 15 (1).
- (3) The head of the related administrative agency to whom the request for consultation pursuant to paragraph (2) is made, shall present his opinion in writing, stating the reason and grounds therefor within thirty days from the date when the request for consultation is received. If the opinion is not presented within the given period, it shall be deemed that the consultation has been conducted.

#### Article 18 (Access to Land, etc.)

Where a concessionaire intends to enter or temporarily utilize another person's land, or alter or remove any obstacle therein in order to implement a public-private partnership project, the provisions of Articles 130 and 131 of the National Land Planning and Utilization Act shall apply mutatis mutandis.

#### Article 19 (Restriction, etc. on Disposal of National or Public Property)

- (1) A concessionaire shall make a prior consultation with the head of the related administrative agency about the use of land belonging to the State or a local government located in an area designated for a public-private partnership project and is needed for the implementation of public-private partnership project, and such land shall not be sold for any other purpose than the project concerned after the date of the public announcement (in the case of the project proposed pursuant to Article 9 (1), it refers to the date of public notice of the detail of proposal) of the instruction for proposal.
- (2) Notwithstanding the State Properties Act and the Public Property and Commodity Management Act, any national or public property located in an area designated for a public- private partnership project for which the consultation as referred to in paragraph (1) has been made may be sold to the concessionaire through conclusion of a private contract.
- (3) Notwithstanding the provisions of the State Properties Act and Commodity Management Act, the concessionaire may use free of charge and benefit from any national or public property located in the area designated for a private investment project, if it is necessary for the implementation of such project, from the date of public announcement of the detailed implementation plan pursuant to Article 15 (2) until the date of confirmation of construction completion pursuant to Article 22: Provided, That in the case of construction projects of revertible facilities, the concessionaire may use free of charge and benefit from such national or public property until the date of expiration of a certain period fixed under Article 25 (1) or (2).

- (4) Notwithstanding the State Properties Act and the Public Property and Commodity Management Act, where the competent authority deems it necessary for the execution of the public-private partnership project, the competent authority may purchase land located in the designated area and let the concessionaire use the land free of charge and benefit from it from the date of the public announcement of the detailed implementation plan pursuant to Article 15 until the date of confirmation of the completion thereof pursuant to Article 22: Provided, That in the case of construction projects of revertible facilities, the authority may let the concessionaire use such land free of charge and benefit from it until the date of expiration of a certain period fixed under Article 25 (1) or (2).
- (5) Notwithstanding the State Properties Act and the Public Property and Commodity Management Act, if it is necessary for the execution of a private investment project, a concessionaire may be permitted to use or benefit from national or public property to construct buildings or other permanent facilities, without the precondition that the concessionaire shall contribute such facilities to the State or local governments.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

### Article 20 (Expropriation or Use of Land)

- (1) If deemed necessary for the execution of a private investment project, the concessionaire may expropriate or use the land, things, or rights as prescribed in Article 3 of the Act on the Acquisition of Land, etc. for Public Works (hereinafter referred to as the "land, etc.").
- (2) In applying paragraph (1), if the detailed implementation plan is publicly announced as prescribed in Article 15 (2), the authorization of the project and the public announcement of such authorization pursuant to Articles 20 (1) and 22 of the Act on the Acquisition of and Compensation for Land, etc. for Public Works shall be deemed granted, and the request for the rulings may be made within the implementation period of the project as determined by the detailed implementation plan, notwithstanding the provisions of Articles 23 (1) and 28 (1) of the said Act.

- (3) The concessionaire may entrust the competent authority or the head of the relevant local government with the tasks of land purchase, compensation for loss, resettlement of local residents, etc. concerning the expropriation and use of land, etc. as prescribed by the Presidential Decree. In this case, the amount of fee for the entrustment shall be determined by Presidential Decree.
- (4) Except as otherwise provided by this Act or related Acts, the Act on Acquisition of and Compensation for Land, etc. for Public Works shall apply mutatis mutandis to the expropriation or use of land, etc. and other matters as referred to in paragraph (1).

#### Article 21 (Implementation of Supplementary Project)

- (1) If deemed necessary for concessionaire which implement private investment projects to secure the investment cost, administer a smooth operation of the infrastructure facilities concerned, improve user convenience, such as reducing user fees, or ease the financial burden of the competent authority, the competent authority may allow the concessionaire to implement any of the following supplementary projects jointly with the public-private partnership project concerned: <Amended by Act No. 10599, Apr. 14, 2011>
  - 1. Housing construction projects as prescribed by the Housing Act;
  - 2. Housing site development projects as prescribed by the Housing Site Development Promotion Act;
  - 3. City/Do planning facility projects as prescribed by the National Land Planning and Utilization Act;
  - 4. Urban development projects as prescribed by the Urban Development Act;
  - 5. Urban environment improvement projects as prescribed by the Act on the Maintenance and Improvement of Urban Areas and Dwelling Conditions for Residents;
  - 6. Industrial complex development projects as prescribed by the Industrial Sites and Development Act;

- 7. Tourist accommodation business, tourist entertainment facility business, and business for the development of tourist destinations and resort complexes as prescribed by the Act on the Development and Management of Logistics Facilities;
- 8. Logistics terminal businesses as prescribed by the Act on the Development and Management of Logistics Facilities;
- 9. Port transport businesses as prescribed by the Harbor Transport Business Act;
- 10. Superstore (excluding market places), wholesale delivery business, or joint collection and delivery complex business as prescribed by the Distribution Industry Development Act;
- 11. Business for the establishment and operation of an off-road parking lot as prescribed by the Parking Lot Act;
- 12. Sports facilities business as prescribed by the Installation and Utilization of Sports Facilities Act;
- 13. Cultural facilities establishment and operation projects as prescribed by the Culture and Arts Promotion Act;
- 14. Natural recreation forest development projects as prescribed by the Forestry Culture and Recreation Act;
- 15. Installment and operation business of outdoor advertisements and bulletin facilities as prescribed by the Outdoor Advertisements, etc. Control Act;
- 16. New and renewable energy facilities installment and operation projects as prescribed by the Act on the Promotion of the Development, Use and Diffusion of New and Renewable Energy;
- 17. Building establishment and operation business of Article 2 (1) 2 of the Building Act;
- 18. Other necessary business for reducing user fees or easing financial burden as prescribed by the Presidential Decree.
- (2) When a concessionaire intends to implement a supplementary project, he/ she shall include in his/her specific implementation plan as prescribed in Article 15 (1) matters concerning the supplementary project concerned.

- (3) When a concessionaire intends to implement a supplementary project after obtaining the approval for the specific implementation plan as prescribed in Article 15 (1), he/she shall apply for the approval for the modification of the specific implementation plan from the competent authority.
- (4) When a concessionaire conducting a public-private partnership project intends to implement a supplementary project, he/she shall prepare a supplementary project proposal and apply for the approval therefor from the competent authority.
- (5) The competent authority, which received modification approval application or approval applications under paragraphs (3) and (4), shall determine whether it approves it or not, after reviewing the appropriateness of the purpose and conditions of implementing a supplementary project; where the total scale of the public-private partnership project and the supplementary project is more than the amount as determined by Presidential Decree under Article 8-2 (2), it shall undergo the deliberation by the Committee.
- (6) A supplementary project included in the specific implementation plan that has been approved for modification or a supplementary project that has been approved as prescribed in paragraph (5), notwithstanding Article 14 (4), shall be deemed as a project approved by the competent authority.
- (7) The competent authority shall make a public announcement of its approval upon authorizing the implementation of the specific implementation plan pursuant to paragraph (5).
- (8) If the competent authority has made public announcement of a specific implementation plan as provided in Article 15 (2) or the implementation of a supplementary project as provided in paragraph (7), it shall be deemed that the authorization and permission, etc. prescribed in the following concerning the relevant supplementary project have been granted.
  - 1. Registration prescribed in Article 9 of the Housing Act; approval prescribed in Article 16 (1) of the same Act, and authorization and permission, etc. considered to have been granted as prescribed in

- Article 17 (1) of the said Act;
- 2. Designation of a concessionaire of the housing site development project prescribed in Article 7 of the Housing Site Development Promotion Act, approval as prescribed in Article 9 of the same Act, and authorization and permission, etc. deemed granted as prescribed in Article 11 (1) of the said Act;
- 3. Designation of a concessionaire prescribed in Article 86 of the National Land Planning and Utilization Act, authorization of a specific implementation plan prescribed in Article 88 (2) of the same Act, and authorization and permission, etc. deemed granted as prescribed in Article 92 (1) of the said Act:
- 4. Designation of a concessionaire prescribed in Article 11 of the Urban Development Act, authorization of a detailed implementation plan prescribed in Article 17 of the same Act, and authorization and permission, etc. deemed granted as prescribed in Article 19 (1) of the said Act;
- 5. Designation of a designated developer prescribed in Article 9 (1) of the Act on the Maintenance and Improvement of Urban Areas and Dwelling Conditions for Residents and authorization of the implementation of project as prescribed in Article 28 of the said Act;
- 6. Designation of a concessionaire prescribed in Article 16 of the Industrial Sites and Development Act, approval as prescribed in Articles 17, 17-2, 18, 18-2, and 19 of the same Act, and authorization and permission, etc. considered to have been granted as prescribed in Article 21 (1) of the said Act;
- 7. Approval for a project proposal for tourist accommodation business and tourist-use facility business prescribed in Article 15 of the Tourism Promotion Act, designation of the tourist resort and resort complex as prescribed in Article 52 of the same Act, approval of the formation plan as prescribed in Article 54 of the same Act, and authorization and permission, etc. considered to have been granted as prescribed in Article 58 (1) of the said Act;

- 8. Registration as prescribed in Article 7 of the Act on the Development and Management of Logistics Facilities, authorization for construction as prescribed in Article 9 of the said Act, and authorization and permission, etc. deemed granted as prescribed in Article 21 (1) of the same Act;
- 9. Registration prescribed in Article 4 of the Harbor Transport Business Act;
- 10. Registration prescribed in Article 8 of the Distribution Industry Development Act, designation as prescribed in Article 29 of the same Act, and authorization and permission, etc. deemed granted as prescribed in Article 30 (1) of the same Act;
- 11. Approval prescribed in Article 12 of the Installation and Utilization of Sports Facilities Act; and authorization and permission, etc. deemed granted as prescribed in Article 28 of the same Act;
- 12. Designation as prescribed in Article 13 of the Forestry Culture and Recreation Act and approval as prescribed in Article 14 of the same Act;
- 13. Permission as prescribed in Article 3 of the Outdoor Advertisements, etc. Control Act and registration as prescribed in Article 11 of the same Act;
- 14. Permission as prescribed in Article 11 (1) of the Building Act and authorization and permission, etc. deemed granted as prescribed in Article 11 (5) of the said Act;
- 15. Designation, registration, approval, etc. and authorization and permission, etc. where Acts related to a supplementary project that is implemented as prescribed in paragraph (1) 18 include provisions that stipulate that a concessionaire is deemed granted designation, registration, approval, etc. and authorization and permission, etc.
- (9) When a competent authority intends to give approval or modification approval of a detailed implementation plan under Article 15 (1), which includes the matters referred to in the subparagraphs of paragraph (8), or authorize the implementation of the supplementary project under

- paragraph (5), it shall consult the head of the relevant administrative agency (where, under each of the subparagraphs of paragraph (8), authorization and permission, etc. are deemed granted, if the provisions stipulate that authorization and permission, etc. require consultation with the heads of other related administrative agencies, the heads of the relevant administrative agencies shall be included) or receive approval from him/her in advance.
- (10) The head of the relevant administrative agency who has been requested to carry out the consultation or give the approval prescribed in paragraph (9) shall present his opinion in writing, within 30 days after the request is made, stating in detail the reason and the grounds for his opinion. If the opinion is not presented within the said period, it shall be deemed that the consultation has been conducted or that the approval has been granted.
- (11) Matters concerning the implementation of a supplementary project by a concessionaire which are not provided in this Act shall be subject to the provisions of the Acts related to such supplementary project.
- (12) A concessionaire conducting a housing site development project as a supplementary project as prescribed in paragraph (1) 2 shall be deemed as the State or a local government as prescribed in Article 7 (1) 1 of the Housing Site Development Promotion Act.
- (13) The requirements for implementing supplementary projects as prescribed in paragraph (1) shall be as follows:
  - 1. The cost required for the supplementary project shall be within the scope of the total private project cost (it refers to the amount obtained by excluding the subsidy granted by the State or local governments to the concessionaire pursuant to Article 53 from the total project cost);
  - 2. The supplementary project shall be implemented in the vicinity of the relevant public-private partnership project site;
  - 3. Other conditions determined by Presidential Decree.
- (14) The competent authority shall use the profits from the supplementary project in reducing user fees, etc. as prescribed by Presidential Decree.

#### **Article 21-2 (Support for Supplementary Project)**

The competent authority may support a concessionaire who conducts a supplementary project as following:

- 1. Permission for the use, use, permission for profit-making, or the conclusion of a loan contract of national or public property (referring to applying on someone's behalf such as permission for the person who has the right to grant permission, where there is a person who has a right to grant a permission regarding relevant national or public property).
- 2. Agents for purchasing land or facilities, etc. necessary for the relevant supplementary projects;
- 3. Other necessary matters for implementing supplementary projects as prescribed by Presidential Decree.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

### Article 22 (Confirmation of Construction Completion, etc.)

- (1) Where the concessionaire has completed the project pursuant to the detailed implementation planwhich has been publicly announced as prescribed in Article 15 (2) or the supplementary project which has been publicly announced as prescribed in Article 21 (7), he/she shall, without delay, file a report on construction completion with the competent authority, and obtain the confirmation of the completion under the conditions as prescribed by the Presidential Decree.
- (2) After receiving the application for the confirmation of construction completion as prescribed in paragraph (1), the competent authority shall inspect the construction completion and deliver the certificate of construction confirmation to the applicant.
- (3) When the certificate of construction confirmation under paragraph (2) is delivered, the inspection or authorization of the construction completion of the concerned project attendant on authorization and permission, etc.

- as prescribed in Articles 17 (1) and 21 (8) shall be deemed conducted or granted.
- (4) If the competent authority gives the confirmation of construction completion under paragraph (2), orit is considered that the inspection or authorization on completion is conducted or granted asprescribed in paragraph (8), the competent authority shall consult in advance with the head of the related administrative agency.
- (5) Land and infrastructure facilities created or installed by a public-private partnership project shall not be used before the delivery of the certificate of construction completion as prescribed in paragraph (2): Provided, That the same shall not apply to the case where the competent authority has granted the authorization for the use thereof before the completion of the construction.

# Article 23 (Establishment of Public Investment Management Center for Infrastructure Facilities)

- (1) In order to comprehensively conduct supporting affairs prescribed by Presidential Decree, such as the review of solicited projects, feasibility analysis, evaluation of project plans, etc., the public investment management center for infrastructure facilities shall be established as annexed to the Korea Development Institute under the Act on the Establishment, Operation and Fostering of Government-Funded Research Institutions (hereinafter referred to as the "public investment management center").
- (2) Where deemed necessary for performing the affairs referred to in paragraph (1), the head of the public investment management center may request the related administrative agency or relevant institutions to render cooperation.
- (3) Where deemed necessary for appropriating the expenses incurred in performing the affairs referred to in paragraph (1), the head of the public investment management center may receive fees from the related institutions or organizations that benefit from the said affairs.

(4) Matters necessary for the organization and operation of the public investment management center shall be prescribed by Presidential Decree. [This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### **SECTION 3**

# **Management and Operation of Infrastructure Facilities**

#### Article 24 (Management and Operation of Infrastructure Facilities)

Land or infrastructure facilities created or installed by a public-private partnership project shall be managed and operated in accordance with the provisions of the concession agreement.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

# Article 24-2 (Preparation for Estimation of Government Subsidies for Build-Transfer-Lease)

- (1) Under Article 15, the Minister of Strategy and Finance shall, every year, prepare for estimation of government subsidies for build-transferlease projects (hereafter referred to as "estimation of government subsidies") the scale of government subsidies falling under the period of more than five fiscal years starting from the relevant fiscal year, by years, by competent department, and by relevant facilities.
- (2) When the Minister of Strategy and Finance prepares of estimation for government subsidies, he/she shall analyze causes of expansion and contraction of the scale of government subsidies and include them in the estimation.
- (3) Matters necessary for estimation of government subsidies, etc. shall be prescribed by Presidential Decree.

[This Article Wholly Amended by Act No. 10287, May. 17, 2010]

### Article 25 (Use of Facilities)

(1) When the construction of infrastructure facilities is completed by the

mode referred to in subparagraph 1 or 2 of Article 4, a concessionaire may use the infrastructure facilities free of charge and benefit from them for a certain period after the completion of construction within the scope of the total private project cost determined through the open competition process stated in the concession agreement. <Amended by Act No. 7386, Jan. 27, 2005>

- (2) When the construction of infrastructure facilities is completed by the mode referred to in subparagraph 3 of Article 4, a concessionaire may own the infrastructure facilities and benefit from them for a certain period after the completion of construction within the scope of the total private project cost determined through the open competition process stated in the concession agreement. <Amended by Act No. 7386, Jan. 27, 2005>
- (3) Necessary matters for the computation of the free use period and the ownership and profit-making period or the alteration of total project cost referred to in paragraphs (1) and (2) shall be prescribed by Presidential Decree.
- (4) In order to enjoy the benefits under paragraphs (1) and (2), a concessionaire may permit other entities to use the relevant facilities and collect user fees, such as passage fees, rental, etc. In such cases, details of the user fees, the period of collecting the user fees and other charges shall be prescribed by Presidential Decree.
- (5) Notwithstanding paragraphs (1) and (2), if a concessionaire completes the construction before the due construction period or saves construction costs stated in the concession agreement, the period of use or the charges thereof need not be adjusted.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

### Article 26 (Rights to Manage and Operate Infrastructure Facilities)

(1) Where a concessionaire who has implemented an infrastructure facilities project by the mode referred to in subparagraph 1 or 2 of Article 4 has received the confirmation of the completion of the construction as prescribed in Article 22, the competent authority may grant the

- concessionaire the rights to manage and operate the infrastructure facilities and to collect the user fee (hereinafter referred to as "management and operation rights") for a certain period for gratuitous use and benefit as prescribed in Article 25 (1).
- (2) If a concessionaire has been granted the management and operation rights as prescribed in paragraph (1), he shall register the matter at the competent authority, under the conditions as prescribed by Presidential Decree.
- (3) A concessionaire who has made the registration of management and operation rights pursuant to paragraphs (1) and (2) shall be responsible for the proper maintenance and management of the facilities concerned.
- (4) Details necessary for the maintenance and management as referred to in paragraph (3) shall be determined by Presidential Decree.

  [This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

### Article 27 (Nature, etc. of Management and Operation Right)

- (1) Except as otherwise provided for by this Act, management and operation rights shall be considered as property rights, and the provisions of the Civil Act concerning real estate shall apply mutatis mutandis.
- (2) A concessionaire shall receive prior approval from the competent authority before sharing, consolidating, or making a disposition of its management and operation rights.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

# Article 28 (Change, etc. of Rights)

- (1) Any settlement, change, extinction, and restriction on disposal of the management and operation rights or a mortgage for the purpose of obtaining such rights, shall take effect only by registering it in the registry of management and operation rights which is kept by the competent authority.
- (2) Matters necessary for the registration of management and operation rights pursuant to paragraph (1) shall be determined by Presidential Decree.

#### Article 29 (Change in Details of Facilities Use)

- (1) The competent authority shall not change the details of facilities use prescribed in Articles 25 (1) and (2): Provided, That where the State or local governments require it for any direct official or public use, and such use is prescribed by Presidential Decree, the competent authority may change the details of use of the relevant infrastructure facility after consulting with the relevant concessionaire.
- (2) If the concessionaire incurs any loss due to the change in the details of facilities use as referred to in the proviso to paragraph (1), the administrative agency which has used the relevant infrastructure shall compensate him under conditions prescribed by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### **SECTION 4**

#### Infrastructure Credit Guarantee Fund

# Article 30 (Establishment and Management of Infrastructure Credit Guarantee Fund)

- (1) The Infrastructure Credit Guarantee Fund (hereinafter referred to as the "Fund") may be established in order to facilitate securing public-private partnership project fund and guarantee the pecuniary obligations falling under the each subparagraph of Article 34 (1).
- (2) The Fund shall be managed and operated by the Credit Guarantee Fund (hereinafter referred to as the "management institution") pursuant to the Credit Guarantee Fund Act.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

### Article 31 (Establishment of Fund)

(1) The Fund shall be financed in the following ways:

- 1. Investment from the Government and local governments;
- 2. Investment from entities other than those in subparagraph 1;
- 3. Revenue from guarantee fees;
- 4. Revenue from the Fund;
- 5. Loans from financial institutions, or other funds.
- (2) The method, time, and any other matters concerning the investment under paragraph (1) shall be determined by Presidential Decree.
- (3) The method of loan, ceiling on loan, and any other matters concerning the loan from financial institutions or other funds shall be determined by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 32 (Management of Fund)

- (1) The Fund shall be used for the following purposes:
  - 1. Guarantee of loan obligations;
  - 2. Repayment of principal and interest on loans under Article 31 (1) 5;
  - 3. Expenses for the establishment, operation and management of the Fund:
  - 4. Research and development for the promotion of the Fund and the development of the private investment system;
  - 5. Other purposes as determined by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

### Article 33 (Accounting and Settlement, etc. of Fund)

- (1) The fiscal year of the Fund shall be the same as that of the Government.
- (2) The management institution shall administer the accounts of the Fund separately from other accounts.
- (3) The management institution shall prepare a plan for the management of the Fund for each fiscal year including its gross revenue and expenses, and submit it to the Minister of Strategy and Finance who shall approve it no later than the date of commencement of the current fiscal year. The same shall apply to the modification of the plan.

- (4) The management institution shall prepare a statement of account, submit it to the Minister of Strategy and Finance within two months after the lapse of the fiscal year, and publish matters on management under Article 11 of the Act on the Management of Public Institutions.
- (5) If any profit accrues from the settlement of the Fund, the total amount thereof shall be reserved.
- (6) If any loss is incurred as a result of the settlement of the Fund, it shall be covered by the amount of the reserve referred to in paragraph (5), and if such reserve is insufficient, the Government shall offset it in accordance with the conditions of the budget. Article 34 (Object, Limit, etc. of Guarantee).

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 34 (Object, Limit, etc. of Guarantee)

- (1) The management institution may guarantee, at the Fund's expense, the pecuniary obligations falling under the following subparagraphs. In such cases, the management institution shall fairly and faithfully investigate the management conditions, business prospects, credit conditions, etc. of the concessionaire, persons who conduct the construction in excess of the Government placed project expenditure, and persons who issue the infrastructure bonds (herein after referred to as "concessionaire, etc.") in accordance with Article 58:
  - 1. Pecuniary obligations under which a concessionaire, or a person who conducts the construction in excess of the Government placed project expenditure is to pay by getting loans and payment, etc. (hereinafter referred to as "loans, etc.") for public-private partnership project fund from financial institutions or persons who are determined by Presidential Decree (hereinafter referred to as "loan institution");
  - 2. Pecuniary obligations under which concessionaire, etc. are to pay by issuing the infrastructure bonds in accordance with Article 58;
  - 3. Pecuniary obligations under which concessionaire, etc. are to pay by getting loans from loan institutions in accordance with Article 58 in

- order to pay principal and interest on bonds concerned.
- (2) In operating the Fund, the management institution shall give priority with regard to the provision of the credit guarantee to small and medium enterprises with weak security capacities.
- (3) The limit on the total amount of credit guarantees to be given from the Fund by the management institution shall be determined by Presidential Decree, within the scope of twenty times the total amount of the capital investment as prescribed in Article 31 (1) 1 and 2 and the reserve as prescribed in Article 33 (5).
- (4) The maximum permissible amount of credit guarantee to be given from the Fund by the management institution the public-private partnership project (referring to each project conducted in part in cases of the project that is conducted in part under Article 16 (2)) shall be determined by Presidential Decree.
- (5) The concessionaire, etc. shall not use the loan obtained by guarantee under paragraph (1) or the price paid by the Government in accordance with excess construction for any other purpose, and the management institution may cancel or put a limitation on the guarantee in cases of violations.

## Article 35 (Establishment of Guarantee Relation)

- (1) In giving guarantee under Article 34, the management institution shall conclude a contract with a loan institution, etc. to guarantee, at the Fund's expense, the credit of concessionaire, etc. who intend to get loan for a public-private partnership project.
- (2) The guarantee relation between the management institution and the loan institution, etc. shall be deemed to be established if the management institution examines the application of the conssionaire, etc. who intend to receive the loan for a public-private partnership project and notifies the loan institution with which the contract as prescribed in paragraph (1) was concluded: Provided, That the effect of such guarantee relation shall be considered as effective from the date when the loan institution

- concerned pays the public-private partnership project fund.
- (3) Notwithstanding the provisions of paragraph (2), no guarantee relation shall be deemed to be established, if the loan institution concerned fails to make the actual payment of the loan to the concessionaire, etc. who have applied for the loan for public-private partnership project, or fails to notify the applicant of th approval of the loan, etc. within 60 days after the notification as referred to in paragraph (2).

#### Article 36 (Guarantee Fee)

- (1) The management institution shall collect a fee for guarantee from the concessionaire, etc. who receive guarantee, taking into consideration of the scale, financial condition, credit standing, etc. of the concessionaire, etc. as prescribed by Presidential Decree.
- (2) If the concessionaire, etc. fail to pay the guarantee fee within the payment period given, the management institution shall collect the guarantee fee in arrears equivalent to the rate of 10/100 per annum on the guarantee fee unpaid.

### Article 37 (Duty to Notify)

The domestic or foreign financial institution shall, upon receiving notification as prescribed in Article 35 (2), notify the management institution thereof without delay in the following cases:

- 1. Where a relation of principal obligation has been established;
- 2. Where all or part of the principal obligation has expired;
- 3. Where the obligor has failed to perform the obligation;
- 4. Where the obligor has lost the benefit of deadline;
- 5. Where the guarantee relation has not yet been established for the reason under Article 35 (3);
- 6. Where any other cause which may have an effect on the guarantee obligation has taken place.

#### Article 38 (Discharge of Guarantee Obligation)

- (1) Loan institution, etc. or a holder of an infrastructure bond issued under Article 58 may request the payment of the obligation guaranteed to the management institution, if the cause prescribed by Presidential Decree takes place, such as the concessionaire's default of obligation.
- (2) The management institution shall, upon the request to discharge the guarantee obligation under paragraph (1), reimburse at the Fund's expense the principal obligation and such other subordinate obligations prescribed by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 39 (Losses)

If the management institution has discharged the guarantee obligation at the Fund's expense, it shall collect losses from the concessionaire, etc. within the limit of 25/100 per annum on the actual amount discharged from the Fund, under conditions prescribed by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

### Article 39-2 (Liability to Compensate of Executive and Employee)

- (1) Executives of the management institution shall be jointly liable for any loss that the fund sustains due to his/her violation of any Act and subordinate statute or articles of association or negligence while carrying his/her duty.
- (2) Where an employee in charge of credit guarantee duty for the Fund at the management institution has caused losses to the Fund during the performance of his/her duty on purpose or by gross negligence, he/she shall be held responsible for compensation for such losses. In such cases, his/her responsibility can be mitigated except in cases where he/she has intentionally caused the losses.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 40 (Rights of Indemnity)

- (1) If the management institution has discharged the guarantee obligation at the Fund's expense, it shall take any necessary measures for the exercise of the rights of indemnity.
- (2) If the concessionaire, etc. for whom the guarantee obligation is discharged at the Fund's expense fall under any of the following subparagraphs, the management institution may reserve the exercise of the rights of indemnity against the relevant concessionaire, etc.:
  - 1. When it is deemed that nothing will remain of the property of the concessionaire, etc., if he/she makes up for the expenses for the exercise of the rights of indemnity;
  - 2. When it is deemed that reserving the exercise of the rights of indemnity can increase the ability of the concessionaire, etc. to repay the financial obligation in the future.
- (3) When the management institution reserves the exercise of the rights of indemnity under paragraph (2) 2, it may send an executive officer or an employee to the concessionaire, etc. and have him or her participate in the management concerned.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### SECTION 5

#### Infrastructure Facilities Fund

# Article 41 (Purposes, etc. of Establishment of Investment and Financing Collective Investment Scheme)

(1) A company which specializes in investments and financing for infrastructure facilities (hereinafter referred to as a "investment and financing company") may be established for the purpose of investing its assets in an infrastructure facilities project to distribute benefits accruing therefrom to shareholders or an investment and financing trust for infrastructure facilities (hereinafter referred to as a "investment and

- financing trust") may be established for the purpose of distributing its benefits accruing therefrom to beneficiaries.
- (2) An investment and financing company and an investment and financing trust (hereinafter referred to as "investment and financing collective investment scheme") shall be deemed to be an investment company and an investment trust respectively pursuant to the Financial Investment Services and Capital Markets Act.
- (3) An infrastructure fund shall be a repurchase prohibition collective investment institution pursuant to Article 230 (1) of the Financial Investment Services and Capital Markets Act.
- (4) Except as otherwise provided by this Act, the Financial Investment Services and Capital Markets Act shall be applicable to an investment and financing collective investment scheme.
- (5) The person who is not an investment and financing collective investment scheme fund under this Act shall not use the title of investment and financing collective investment scheme, investment and financing company, or investment and financing trust or similar titles thereto.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

# Article 41-2 (Equity Capital, etc. of Investment and Financing Company)

- (1) The equity capital of an investment and loan company shall be more than the amount as prescribed by Presidential Decree within the scope not exceeding ten billion won on the basis of the time of application for registration.
- (2) The minimum net assets of an investment and loan company shall be more than the amount as prescribed by Presidential Decree within the scope not exceeding five billion won.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

# Article 41-3 (Acceptance and Payment for Stocks by Promoters in Case of Promoted Establishment)

When promoters of an investment and financing company have accepted

the total number of stocks to be issued at the time of incorporation of an investment and financing company, they shall immediately pay in cash the total amount of the said acceptance value on each stock.

# Article 41-4 (Subscription, etc. for Acceptance of Stocks in Case of Recruited Establishment)

- (1) Where promoters of an investment and financing company have failed to accept the total number of stocks to be issued at the time of incorporation of a company and to persuade a subscription for acceptance of stocks, they shall provide the counterpart with an explanation note on investment. Matters concerning items to be included in explanation notes and the method of provision, etc. shall be prescribed by Presidential Decree.
- (2) When promoters of an investment and financing company have prepared an explanation note on investment as referred to in paragraph (1), they shall submit it to the Financial Services Commission prior to providing it to the counterpart. The same shall also apply to the time of altering important details prescribed by Presidential Decree.
- (3) Promoters of an investment and financing company shall provide a subscription note for stocks to a person intending to subscribe for the acceptance of stocks as prescribed by Presidential Decree, and any person intending to subscribe for an acceptance of stocks shall state the types, number and address on two copies of the subscription note, and print his name and seal or sign thereon.
- (4) Even if promoters of an infrastructure fund have failed to accept the total number of stocks to be issued at the time of incorporation of a company and have persuaded a subscription for acceptance of stocks, they shall accept the stocks of more than the amount equivalent to the ratio as prescribed by Presidential Decree within the scope of not exceeding 10/100 of the equity capital to be fulfilled by an investment and financing company as referred to in Article 41-2 (1).

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 41-5 (Loans of Funds and Issuance of Bonds)

- (1) An investment and financing collective investment scheme may borrow or issue bonds for the purposes of raising operational funds and funds for temporary investment purpose within the scope not exceeding the ratio of the following subparagraphs within the limits of a ration prescribed by Presidential Decree: Provided, That when an investment and financing collective investment scheme borrows or issues the bonds for the purposes of raising operational funds, it shall obtain the approval of the general stockholders' meeting or the general beneficiaries' meeting.
  - 1. In cases of an investment and financing company, 30/100 of the equity capital;
  - 2. In cases of an investment and financing trust, 30/100 of the total amount of profit-making securities.
- (2) The limit of borrowing or issuing the bonds as referred to in paragraph (1) shall not apply to an investment and financing collective investment scheme corresponding to a privately placed fund as referred to in Article 9 (19) of the Financial Investment Services and Capital Markets Act. [This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

# Article 41-6 (Consultation, etc. on Registration of Investment and Financing Collective Investment Scheme)

- (1) The Financial Services Commission shall hold a prior consultation with the Minister of Strategy and Finance on the registration of an investment and financing collective investment scheme.
- (2) An investment and financing collective investment scheme shall, as prescribed by Presidential Decree, submit a quarterly business report on its assets to the Minister of Strategy and Finance and the Financial Services Commission.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

# Article 41-7 (Conditions on Issuing New Stocks)

Where an investment and financing company issues new stocks after its

incorporation or an investment and financing trust additionally issues profitmaking securities after its establishment the value of new stocks or profitmaking securities issued shall be computed pursuant to methods as prescribed by Presidential Decree on the basis of net assets of the property owned by the relevant investment and financing collective investment scheme.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 41-8 (Listing Stocks or Profit-making Securities)

- When a collective investment business entity of an investment and financing company and an investment and financing trust meet listing requirements pursuant to securities listing regulations under Article 390
   of the Financial Investment Services and Capital Markets Act, it shall immediately take procedures for listing their stocks or profit-making securities on the securities exchange.
- (2) When a collective investment business entity of an investment and financing company and an investment and financing trust has failed to progress procedures for listing to the securities exchange as referred to in paragraph (1), without any justifiable grounds, the Minister of Strategy and Finance may order it to make the said implementation within a fixed term.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

# Article 41-9 (Supervision and Inspection of Infrastructure Fund, etc.)

- (1) The Minister of Strategy and Finance and the Financial Services Commission may demand an investment and financing collective investment scheme or a collective investment business entity, a trust business entity, or a general administration company of the relevant investment and financing collective investment scheme to submit data or file a report on the business and property of the company concerned which are related to the business of the investment and financing collective investment scheme
- (2) When the Financial Services Commission deems it necessary concerning

financial supervision, it may have its subordinate staff members or the Governor of the Financial Supervisory Service as referred to in Article 24 of the Act on the Establishment, etc. of Financial Services Commission inspect the businesses of an investment and financing collective investment scheme or a collective investment business entity, a trust business entity, or a general administration company of the relevant investment and financing collective investment scheme.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 42 (Prohibition of Side Trade)

(1) An investment and financing collective investment scheme shall not run businesses other than investments under Article 43.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 43 (Scope of Asset Management)

- (1) An investment and financing collective investment scheme may perform the following businesses:
  - 1. Aquisition of stocks, shares, and bonds issued by corporations with the purpose of implementing infrastructure facilities projects;
  - 2. Loans (In cases of an investment and financing trust for infrastructure facilities under Article 41 (1), it shall not exceed 30/100 of the total amount of profit-making securities) to and aquisition of loans against corporations with the purpose of implementing infrastructure facilities projects;
  - 3. Investments in a corporation (excluding the investment and financing collective investment scheme) with the purposes of investing by the mode of subparagraph 1 or 2 in the corporation with the purposes of implementing infrastructure facilities projects;
  - 4. Other investments approved as necessary for achieving the purposes under subparagraphs 1 through 3 by the Financial Services Commission.
- (2) When deemed necessary for running business under each subparagraph of

- paragraph (1), a and financing collective investment scheme may offer its assets as security or make guarantees.
- (3) An investment and financing collective investment scheme may manage its surplus funds as follows:
  - 1. Deposit into a financial institution, etc;
  - 2. Purchase of national or public bonds;
  - 3. Purchase of bonds of the same credit rating as national or public bonds or orporate bills within the limit as prescribed by Presidential Decree.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 44 (Relation with Other Acts)

- (1) Articles 81, 83, 86, 87, 183, 186 (2) (Limited to cases where Article 87 of the same Act applies mutatis muntandis) and 194 (5), the latter part of Article 196 (5), Articles 230 (2) through (4) and 238 (7) of the Financial Investment Services and Capital Markets Act shall not apply to an investment and financing collective investment scheme.
- (2) When an investment and financing company falls under a holding company as referred to in subparagraph 1-2 of Article 2 of the Monopoly Regulation and Fair Trade Act, the provisions of Article 8-2 (2) 2 of the same Act shall not apply.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### **SECTION 6**

### **Public-private Partnership Project Dispute Mediation Committee**

# Article 44-2 (Establishment of Public-private Partnership Project Dispute Mediation Committee)

(1) A committee for mediation of disputes on public-private partnership projects (hereinafter referred to as the "Dispute Mediation Committee") may be established under the direct jurisdiction of the Minister of Strategy and Finance to mediate disputes over public-private partnership projects.

(2) The Dispute Mediation Committee shall examine and mediate disputes concerning the implementation of public-private partnership projects upon a request of the party of both parties.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

### Article 44-3 (Composition of the Dispute Mediation Committee)

- (1) The Dispute Mediation Committee shall be comprised of not more than nine members, including one chairperson, the members who represent the Government, those who represent the concessionaire, and those who represent the public interest.
- (2) Members who represent the concessionaire and members who represent the public interest shall be among one of the following persons:
  - 1. Assistant professors or higher in their ranks who have taught law, business administration, economics, accounting or engineering for not less than five years under the Higher Education Act;
  - 2. Persons who have a total of five years or more of practical experience related to a judge, prosecutor, or an attorney, following acquisition of an attorney license;
  - 3. Persons of profound learning and experience in planning, constructing, and raising funds for, or operating public-private partnership projects who satisfy the requirements prescribed by Presidential Decree.
- (3) The chairperson of the Dispute Mediation Committee shall be appointed by the Minister of Strategy and Finance.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

# Article 44-4 (Notification, etc. of Application for Mediation of Disputes)

- (1) Upon receiving an application for mediation of a dispute from a party to a case, the Dispute Mediation Committee shall notify the other party of the details of such application.
- (2) The other party who receives the notification under paragraph (1) shall notify the Dispute Mediation Committee of whether to respond to the mediation.

(3) Notwithstanding paragraph (2), if the notified party is the State or a local government, it shall respond to the mediation.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 44-5 (Rejection and Suspension of Mediation)

- (1) If the Dispute Mediation Committee deems that it is inappropriate to settle a dispute by mediation of the Dispute Mediation Committee in light of the nature of the dispute or an application for mediation has been filed for any unjust purpose, it may reject the application for mediation. In such cases, it shall notify the application of the grounds for rejection of the application for mediation and other related matters.
- (2) If a party to a dispute rejects the mediation, the Dispute Mediation Committee shall notify the other party of the details of the mediation, the grounds for rejection of the mediation and other related matters in writing.
- (3) If a party to a dispute files a lawsuit, the Dispute Mediation Committee shall suspend the mediation proceedings and notify the parties thereof. [This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

### **Article 44-6 (Handling Period)**

- (1) The Dispute Mediation Committee shall examine a case and prepare a proposed mediation within 90 days from the date it has received an application for mediation of a dispute: Provided, That the handling period may be extended by the resolution of the Dispute Mediation Committee within the limit of 60 days if any unavoidable cause exists.
- (2) When the Dispute Mediation Committee extends the handling period pursuant to the proviso to paragraph (1), it shall notify the party of the reasons for the extension of the period and other matters concerning the extension of the period.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 44-7 (Inspection and Hearing of Opinions)

- (1) The Dispute Mediation Committee may, if necessary, have the members of the Dispute Mediation Committee or public officials under the jurisdiction of the Ministry of Strategy and Finance peruse the related documents and have an inspection by entering the related places of business.
- (2) The Dispute Mediation Committee may, if necessary, require parties to a dispute or the relevant experts to make an appearance at the Dispute Mediation Committee to hear their opinions.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 44-8 (Agreement Prior to Mediation)

When the both parties to a dispute agree on the mediation of the dispute, the Dispute Mediation Committee shall suspend the mediation process of the case, immediately prepare an written agreement in accordance with the details that the parties agreed on, and the chairperson and the respective parties shall place their signatures and seals on such agreement.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 44-9 (Effect of Mediation)

- (1) Once the Dispute Mediation Committee completes a proposal for mediation, it shall promptly present the proposal to parties.
- (2) Each party shall, upon receiving a proposal for mediation under paragraph (1), notify the Dispute Mediation Committee of whether to accept the proposal within 15 days from the date on which the proposal was delivered.
- (3) The Dispute Mediation Committee shall, if the party accepts the proposal for mediation, immediately prepare a protocol of mediation, and the chairperson of the Dispute Mediation Committee and the parties shall place their signatures and seals thereon.
- (4) Once parties accept a proposal for mediation in accordance with paragraph (3), it shall be deemed that agreement with the terms and conditions identical with those of the protocol of mediation has been duly

made.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 44-10 (Liability for Expenses)

- (1) An applicant for a case shall be liable to pay the expenses incurred in appraisal, examination, testing, etc. for the mediation of disputes: Provided, That if the parties have agreed on such matters, they shall be governed in accordance with the agreement.
- (2) The Dispute Mediation Committee may, if deemed necessary, require parties to a case to pay the expenses under paragraph (1) in advance. [This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 44-11 (Service of Documents)

Articles 174 through 197 of the Civil Procedure Act shall apply mutatis matandis to the service of documents related to dispute mediation.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### Article 44-12 (Operation, etc. of the Dispute Mediation Committee)

Except as provided for in Articles 44-2 through 44-11, matters necessary for the composition, operation of the Dispute Mediation Committee and the mediation procedures, etc. shall be determined by Presidential Decree.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### CHAPTER III

# **Upervision**

#### Article 45 (Supervision and Order)

- (1) The competent authority may supervise matters related to the publicprivate partnership project of concessionaire and issue orders necessary for such supervision, only in cases prescribed by Presidential Decree, to the extent such supervision does not interfere with the free management of the concessionaire.
- (2) The Minister of Strategy and Finance may supervise the management institution in the management of the Fund and issue necessary orders for such supervision.

#### Article 46 (Disposition of Violation, etc. of Acts and Subordinate Statutes)

In cases falling under any of the following subparagraphs, the competent authority may revoke or change an order or disposition made under this Act, suspend or alter infrastructure facilities works, remodel, alter, transfer, remove or restore the original state of any facilities or things thereof, or take any other necessary dispositions to the violator:

- 1. Where the designation, approval, or confirmation pursuant to this Act is granted in any false or other unlawful means;
- 2. Where this Act, or an order or a disposition under this Act is violated;
- 3. Where the concessionaire fails to commence construction work within the period determined by the detailed implementation plan without justifiable grounds, or where it is deemed that the execution of the project is impossible because of the concessionaire's delay or avoidance of project implementation after the commencement of construction;
- 4. Where the corporation established as prescribed in Article 14 (3) violates the provisions of Article 14 (4).

# Article 46-2 (Limitation of Qualification for Participation in Public-Private Partnership Project on Unjust Concessionaire)

The competent authority shall put limitation of qualification for participation in the public-private partnership project within the extent of two years on a person who is apprehended to harm the impartial competition or appropriate execution of concession agreement, or any other person recognized as inappropriate to allow participation in the public-private partnership project, under conditions prescribed by Presidential Decree, and shall immediately notify other competent authorities thereof. In such cases, the competent authorities that have been notified shall put limitation of qualification for participation in the public-private partnership project on the relevant person under conditions prescribed by Presidential Decree.

[This Article Newly Inserted by Act No. 10983, Aug. 4, 2011]

#### **Article 47 (Disposition for Public Interest)**

- (1) In the following cases, the competent authority may implement the disposition prescribed in Article 46 against a party who has obtained designation, approval, or confirmation under the conditions as prescribed by this Act. In this case, the project designated by going through a deliberation by the Committee shall go through a deliberation by the Committee:
  - 1. Where it is necessary for public interest such as efficient operation of the infrastructure facilities or a change of circumstances;
  - 2. Where it is required for the efficient implementation of the infrastructure facilities works;
  - 3. Where force majeure such as war or natural disaster takes place.
- (2) If there is any concessionaire who suffers loss due to the disposition as referred to in paragraph (1), the competent authority shall make compensation for such loss. In this case, the competent authority shall consult with the concessionaire about the compensation for loss, and if the two fail or are unable to reach an agreement with each other, they may request a ruling to the concerned land expropriation committee

under the conditions as prescribed by Presidential Decree. [This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 48 (Hearing)

The competent authority shall hold a hearing, if it intends to take the following dispositions:

- 1. Disposition pursuant to the provisions of Article 46;
- 2. Disposition pursuant to the provisions of Article 47 (1).

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 49 (Measures concerning Cancellation of Concessionaire Designation)

If the competent authority cancels the designation of the concessionaire as prescribed in Articles 46 and 47, it may directly implement the public-private partnership project concerned or may designate a new concessionaire under Article 13 to continue the implementation of the project.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

#### Article 50 (Cancellation of Designation of Such Solicited Project)

- (1) The competent authority may cancel the designation of the solicited project pursuant to Article 8-2 (2) through the deliberation of the Committee in the following cases:
  - 1. When the master plan for facilities project is not publicly announced within the period specified in Article 10 (1);
  - 2. When the master plan for facilities project is reannounced as prescribed in Article 10 (4) but the project proposal pursuant to Article 13 has not been submitted.
- (2) The competent authority may cancel the designation of solicited projects other than those under Article 8-2 (2), if they fall under the subparagraphs of paragraph (1).
- (3) The competent authority shall immediately make a public announcement in the Official Gazette on the cancellation of the designation of the solicited project as prescribed in paragraphs (1) and (2).

#### **Article 51 (Reporting and Inspection)**

- (1) If deemed necessary for supervision, the competent authority may take necessary measures, such as requesting the concessionaire to make a report necessary for the management and operation of the infrastructure facilities, or dispatching any public official under its control to visit the site or inspect documents.
- (2) A public official who visits the site or inspects documents as prescribed in paragraph (1) shall carry a certificate indicating his power and present it to the relevant party.

[This Article Wholly Amended by Act No. 10983, Aug. 4, 2011]

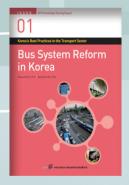
# Article 51-2 (Submission and Evaluation of Actual Results, etc. of Promotion of Public-Private Partnership Projects)

- (1) The competent authority shall submit a report on the conditions of operation, actual results of promotion, etc. for each implementation method of public-private partnership projects under Article 4 to the Minister of Strategy and Finance on a yearly basis.
- (2) The Minister of Strategy and Finance shall open to the public the report that has been submitted under paragraph (1) and submit it the Special Committee on Budget and Accounts under the jurisdiction of the National Assembly by May 31 every year.
- (3) After the Minister of Strategy and Finance conducts comprehensive evaluation of public- private partnership projects and comes to a conclusion through deliberation and resolution of the Committee, he shall reflect the result of evaluation in the establishment, etc. of major policies on public-private partnership project.
- (4) Matters necessary for the submission and opening to the public of the report, and for the comprehensive evaluation under paragraphs (1) through (3) shall be prescribed by Presidential Decree.

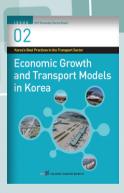
# **KOTI Knowledge Sharing Reports**

Recently, developing countries have shown interest in Korea's transport policy establishment and infrastructure construction experience on the premise that those changes have enabled the nation to promote economic growth. Against this backdrop, Korea Transport Institute (KOTI) publishes a series of Knowledge Sharing Reports series regarding Korea's transport system and policy accomplishments in the fields of roadway, railway, aviation, logistics, and public transport.

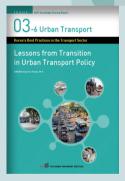
The reports are available to download for free in PDF format on the following our website at http://english.koti.re.kr.

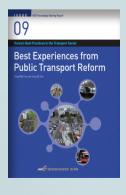


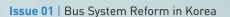




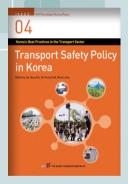


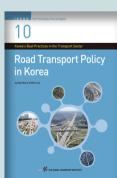






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# Korea's Railway PPP(Public Private Partnership) Projects

The Korea Transport Institute (KOTI) is a comprehensive research institute specializing in national transport policies. As such, it has carried out numerous studies on transport policies and technologies for the Korean government.

Based on this experience and related expertise, KOTI has launched a research and publication series entitled "Knowledge Sharing Report: Korea's Best Practices in the Transport Sector." The project is designed to share with developing countries lessons learned and implications experienced by Korea in implementing its transport policies. The 11<sup>th</sup> output of this project deals with the theme of "Korea's Railway PPP(Public Private Partnership) Projects."

