

UNECE International PPP Centre of Excellence

**“PPP Master class” for senior officials from Belarus
7-11 July Palais des Nations , Geneva**

Mini-workshop on Risks in PPPs

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Agenda – Part I : Main characteristics and principles (60 min)

- PPP versus Conventional approach - Reminder
- Risks Management - A key issue in a PPP approach
- Risks Management - Identification / Evaluation / Allocation / Mitigation
- Example of a Risks Allocation in a PPP Project
- Recent developments in PPP's in relation with project risks
- Questions & Answers

Agenda – Part II : Case Studies (75 min)

- Case Study - PPP in Social Infrastructure (Hospital)
- Case Study - PPP in Economic Infrastructure Building (Highway)
- Questions & Answers

PPP versus Conventional approach – Reminder (1 of 4)

- Life cycle approach: from initial Project idea up to the Hand back of the Project to the Public Partner
- Includes the financing, the design , the construction, the operation and the maintenance of the Project over a contract period of 20 – 50 years
- A PPP Project finances itself over the long term rather than in a short period

=> Long term multi task contract

PPP versus Conventional approach – Reminder (2 of 4)

- Usually PPP Tender is based on functional specification in order to benefit from the Private Partner's experience and knowledge and to obtain a optimized project over the life cycle
- Output oriented Tender versus Input oriented Tender approach
- PPP's includes a optimum risk sharing between the Public and Private Partners over the life cycle of the project
- Bundling these works and services over the life cycle of the Project are a source of efficiency gains

=> Optimized project over the life cycle

PPP versus Conventional approach – Reminder (3 of 4)

- PPP includes an incentive / penalty regime to guarantee a proper level of service and adequately maintain the Project in the long term
- Delayed revenues (or reduced revenues) for the Private Partner in case of delays and poor performance .
- Lower revenues over the life cycle for the Private Partner if there are cost overruns during the construction and the operation & maintenance phases

=> Strong Incentive for Private Partner to finish

“on time” and “at cost”

PPP versus Conventional approach - Reminder (4 of 4)

=> Long term multi task contract

=> Optimized project over the life cycle

=> Strong Incentive to finish “on time” and “at cost”

Common misunderstandings in PPP's

- PPP is a privatization
- PPP is a way to privatize the benefits and to share the losses
- PPP is a way to get a project for “free”
- PPP's are cheaper
- PPP's development costs are comparable to a classical project
- PPP Private Partner should take over the risks at no cost

Risks Management - A key issue in a PPP approach

- A PPP is the transfer of certain risks from the public to the private sector
- A risk should be borne by the party most suited to manage it : identify , evaluate and mitigate it (to reduce negative impact on cost , delay and quality)
- Identification and management of risks plays a key role in structuring and financing of a PPP
- The risks are to be managed by a combination of financial and contractual commitments

Risks Management – Risk Identification (1 of 2)

- Identification – By main categories of risks
 - Political risks
 - Contractual risks
 - Developments risk
 - Technical risks
 - Cost risks / Delay risks
 - Commercial – Revenue risks

Risks Management – Risk Identification (2 of 2)

- Identification – By main phases of the project
 - Development Phase
 - Construction Phase
 - Operation and maintenance Phase

Risks Management - Risks Evaluation

- Risk evaluation => Assessment of the probability of the risk occurrence
=> Assessment of the impact in case of risk occurrence

$$\Rightarrow \text{Risk evaluation (\$)} = \text{Probability (\%)} \times \text{Impact (\$)}$$

- Examples

Risks Management - Risks Evaluation

- Other more complex approach : The Monte Carlo analysis (a combined probabilistic approach)
- The pragmatic approach : Development of pessimistic and worst case scenarios in terms of cost , delays and loss of revenues over the life cycle of the Project

Risks Assessment – Risks Allocation

- Main principles
 - The Project risks must be allocated rationally among the Partners
 - The Project risks is be borne and managed by the Partner (Public or Private) in the best position to manage and mitigate that risk
- Examples of risks
 - Change in law
 - Land expropriation / land availability
 - Geotechnical risk
 - Cost overruns
 - Delay overruns

Risks Assessment - Risks Mitigation

- Change in Law – Change before or after signature of Contract
- Land Expropriation – Fully expropriated before Contract Signature but risk could be with Private Partner in case of Change in project Completion / in case Private Partner needs additional land for the Construction Phase
delay : suitable organization structure, liquidated damages
- Geotechnical Risk : Additional survey , share risks if unforeseeable risk is too important
- Cost overruns : lump sum fixed price contracts, standby equity and debt, use of proven technology
- Delay Overruns : Experienced Private Partner , Contingencies, Anticipate acceleration measures

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Risks Assessment - Risks Allocation (1 of 3)

Typical risk allocation : some risks allocated to the Public Partner, some to the Private Partner and sometimes the risk is shared.

General risks	Public Partner	Private Partner
Change in law	X	X
Political and social risk	X	
Development phase risks	Public Partner	Private Partner
Expropriation	X	
Planning and Design services / cost and delay		X
Permits and authorizations	X	X
Financing		X

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Risks Assessment - Risks Allocation (2 of 3)

Construction phase risks	Public Partner	Private Partner
Existing infrastructure conditions	X	X
Existing utility protection and diversion	X	X
Ground conditions / Geology		X
Ground conditions / Contamination	X	X
Constr. Price overrun (Lump sum price)		X
Constr. Price escalation (Indexation)		X
Construction delay overrun		X
Unforeseen events / Force Majeur	X	X
Operation and maintenance during construction		X

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Risks Assessment - Risks Allocation (3 of 3)

Operation phase risks	Public Partner	Private Partner
Permits and authorisation		X
User Demand / Revenues risks		X
Supply of services / level performances		X
Revenues penalties and deductions	X	X
Operation and Maintenance costs overrun		X
Operation and maintenance Fee escalation	X	X
Unforeseen events / Force Majeur	X	X
Heavy Repair and Maintenance		X
Hand back requirements		X

Recent developments in PPP's

- Availability PPP 's versus Concession PPP's (Demand / Revenue risk)
- Listed Risk with predefine compensation as part of the Tender documents
(Set risk impact for specific risks)
- Multi Stage competitive dialogue (Risk assessment / Project optimization)
- Brown field PPP projects (Upgrading capacity and standards)
- Construction and Operation & Maintenance scope under one entity
(interface risks)

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Questions & Answers

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Case Studies

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