Sustainable Water Integrated Management (SWIM)

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Day 2 – Session 2

Managing and Monitoring Risk

by

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The Basic Process for Allocating Responsibilities

- Identify the main areas of **Responsibility** involved in delivering the services and the **Risks** associated with each Responsibility
- Allocate each area of Responsibility and Risk to the party best able to undertake and manage it, taking into account of the parties' ability to:
  - ✓ Predict changes in the relevant factors
  - ✓ Influence or control the risk factor
  - ✓ Control the impact of the risk on the value of the business
  - ✓ Diversify or absorb the risk
- Design the Arrangement to achieve the best allocation of risks and responsibilities

Checklist - 1

1. Define the major areas of responsibility (management, operations & maintenance, new investment)
2. Define specific responsibilities for each area
3. Identify the risks that are associated with each responsibility
4. Note the direct and indirect relationships between risks and responsibilities
5. Establish how the risks are interrelated

Checklist - 2

6. For each risk, identify which party (the operator, contracting authority or customers) is best able to bear the risk , and in particular who can:
   - ✓ Predict the risk
   - ✓ Influence the risk
   - ✓ Control the impact of the risk
   - ✓ Diversify or absorb residual risk

7. Decide whether the risk should be fully allocated to one party or shared

Checklist - 3

8. Check for any constraints on the ability of the parties to bear risk (e.g. information problems; unwillingness of any of the participants to bear risk they appear best able to manage, etc.)

9. Based on the risk analysis, assign a party to :
   - Assume each responsibility
   - Bear each risk

Handy List to Monitor Risk

	Impact value in (USD)			Probability in %			Value at risk In USD	Allocation	Cost of Mitigation in USD	Residual VAR
	High	Medium	Low	High	Medium	Low				
Risk 1										
Risk 2										
Risk 3										

Allocation of Risk

- Operational
- Commercial
- Technical
- Financial
- Foreign exchange
- Regulatory

Operator willing to take Operational Risk if…

- Existing assets are in good shape or rehabilitated
- Supply conditions (power, chemical) are acceptable
- Contractual performance targets are compatible with assets and supply conditions

Operator willing to take Commercial Risk if…

- Coercive measures for non payment are enforceable
- Tariff level and structure are adequate
- Substitutes (e.g. ground water) are regulated
- Proper budgeting and payments of Government water bills exist

Operator willing to take Financial Risk if…

- No or limited equity to be brought in
- Commercial debt can be mobilized on the merits of the Project
- Strong reliance on cash generated by operations
  - ✓ adequate tariff level
  - ✓ low operating costs

Operator willing to take Foreign Exchange Risk if…

- Most expenses are in local currency
- Tariff is (partially) indexed on exchange rates variation

Operator willing to take Regulatory Risk if…

Confidence in Regulatory Framework

- Transparency
- Competence
- Independence
- Predictability
- Arbitration

Risk Acceptability

Concessions, Leases, Operating and Management Contracts

	Concession	Affermage / Lease	Operating Contract	Management Contract
Operational	◆◆◆	◆◆◆	◆◆	◆
Commercial	◆◆◆	◆◆	◆	◆
Technical	◆◆◆	◆		
Financial	◆◆◆	◆		
Forex	◆◆	◆		
Regulatory	◆◆◆	◆◆	◆	◆

Risks in the main three PPP Models

Operator Risks: / Contract Form:	Operational	Technical	Commercial	Regulation	Financial	Forex
Service Contract (by comparison)	☑					
Management Contract	☑☑	☑	☑			
Affermage - Lease	☑☑ ☑	☑☑ ☑	☑☑ ☑	☑☑		
Concession	☑☑ ☑	☑☑ ☑	☑☑ ☑	☑☑ ☑	☑☑ ☑	☑☑ ☑

Risk Level:
These are an indication of the level of Risk taken by the Operator for specific issues under the various PP models .

Managing uncontrollable risks (1)

Risk	Strategy	Party
Force Majeure	Monetizing	Third party
Forced buyouts	Monetizing	Third party
Regulatory changes	Transfer to local parties	Grantor/Client
Interest rate changes	Mitigation	Project Company

Managing uncontrollable risks (2)

Risk	Strategy	Party
Price movements	Mitigation	Project Company
Inflation	Mitigation	Grantor/Client
Currency risks	Monetizing	Third party
Raw water supply	Transfer lo local parties	Grantor

Managing controllable risks (1)

Risk	Strategy	Party
Market demand	Mitigation	Client/User
Willingness to pay	Mitigation	Client/User
Delay in approvals	Mitigation	Grantor
Construction delays	Mitigation	Contractor

Managing controllable risks (2)

Risk	Strategy	Party
Cost overrun	Mitigation	Contractors
Technical failure of facility	Mitigation	Project company

Risk Categorisation

Commercial Risk

- Carried by Entrepreneurs, Banks, Financial Institutions, Insurance Underwriters
- Can be researched and mostly controlled

Bad management
Unrealistic business plans
Strategic errors

Indirect and Derived Risk

- Uncontrollable, Carried by the entrepreneur
- Often gradual

Collapse of Support Infrastructure like telecommunication, roads
Events like Ebola

Political risk

- Unpredictable, Uncontrollable
- Long term risk carried by Public entities

Expropriation
Breach of Contract
War and civil disturbance
Currency convertibility

Country Risk

Country risk is the total risk that an investor will consider when making investment decisions and consists of the total of

- Political risks
- Business environment risks
- Commercial risks
- Economic risks
- Convertibility and profit expatriation
- Currency risk

Mitigation of Country Risk (1)

Ensure that, in negotiations, there is agreement on issues including:

- Taxes ,withholding tax import duties etc
- Labour issues and visas for managemnt and professionals
- Concessions if any
- International arbitration
- Insure all risks that it is viable to insure

Mitigation of Country Risk (2)

- Conclude agreements with local partners
- Limit dependency on a single partner
- Ensure that partners are not just political connected but do have skills and resources to contribute
- Limit the scope of technology transfer

Commercial Risk

Public entity

- To provide a quality service at the lowest cost
- Will normally not accept commercial risk

Lenders

- Require timely repayments without defaults

Project Company may include Operator and Construction Contractor Operator

- Profitability at lowest risk
- Should be allocated most of the commercial risk

Commercial Risk Issues

- Premium cost versus comprehensiveness of cover
- Excess versus insurance costs
- Un-insurability
- Co-insurance and conflict of interests
- Local requirements

The Public Entity

The public entity will mainly be concerned about the quality of the service and thus:

✓The Project company's ability to come to financial close

✓The contractors ability to complete the construction work

✓The operators solvency during the operating phase

✓Adequacy of cover in case of events occurring

Public Entities Risk Mitigation

- Obtain bank undertakings guarantees' during financial close
- Ensure that the operator obtains a performance bond from the contractor
- Ensure that the operator carries the appropriate insurance

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Financier’s Risk Mitigation

- ✓ Main concern timely payments throughout the life of the credit exposure
- ✓ Ensure operator and his contractor carries the appropriate insurance
- ✓ Do currency hedging if in an volatile currency environment
- ✓ Ensure named as additional insured

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Uninsurable Indirect Risks in Water PPP's

- Deterioration of the general business climate leading to logistical problems
- Political influences causing unwillingness to regularly adjust the tariffs to cost reflective levels
- Increase in corruption and bribery
- Currency exchange risks

Mitigation of the “Uninsurable”Risks (1)

Deterioration of the general business climate

This is a risk that is unquantifiable and uninsurable.

It is also impossible to include directly in the adjustment formula.

However as the adjustment formula will make provision for price increase it will be partially and indirectly covered

Mitigation of the "Uninsurable" Risks (2)

Political influences causing unwillingness to regularly adjust the tariffs to cost reflective levels

Political risk cover provides a clause relating to Government breach of contract and this can be incorporated as part of the PPP agreement which would provide cover if the adjustment formula is not applied regularly

Mitigation of the “Uninsurable” Risks (3)

Interest rate risk

There are a number of ways this can be mitigated :

- ✓ Issue Bonds which shift this risk from the issuer to the investor
- ✓ Conclude fixed interest loans rather than variable interest rate loans
- ✓ Make use of the Standby facility and loans offered by Multilateral Banks and specifically the risk sharing facility of the EIB/EC DB
- ✓ Use hedging instruments although this can become expensive

Currency exchange risk

This can be mitigated by

- ✓ Obtaining debt from the domestic market if possible
- ✓ Make use of MDB debt and risk sharing facilities
- ✓ Do currency hedging although this can be expensive

Political Risk

- Political risk remains as the substantial go or no component of an investment decision where projects returns are financially attractive
- Developing economies can be unstable politically with the potential of rapid and often violent change
- This has an adverse impact on business with substantial changes to the business environment

Political risk is therefore defined as:

The risk that political decisions or politically induced events will affect the profitability of an enterprise or the assets of the enterprise

Events Causing Political Risk

- War and civil unrest and strife
- Expropriation or nationalisation
- Unilateral breach of contract
- Destructive government actions
- Discriminatory tax policies
- Restrictions on repatriation of profits

Political Risk Insurance

Institutions like the World Bank Group through MIGA, EIB and others, recognised the need to encourage investments in developing economies and a number of instruments entities have been put in place to allow the mitigation of some of the uncontrollable risk originating from political events.

Fiscal Contingent Liabilities

Fiscal Contingent Liabilities - an important Risk Governments need to address:

- When Governments enter into PPP Arrangements, fiscal liabilities may arise
- Fiscal liabilities are generally classified in four categories:
  - Direct Liabilities - predictable obligations
  - Indirect or Contingent Liabilities - obligations triggered by a discrete but uncertain event
  - Explicit liabilities - defined by law or contract
  - Implicit Liabilities - de facto obligations for the Government

Fiscal Contingent Liabilities

- **Explicit contingent liabilities***:* promises or guarantees of payments by the government to the concessionaire explicitly mentioned in the contract and triggered by exogenous events (e.g. minimum revenue guarantee)

  - **Explicit direct liabilities with uncertain amounts:** payment commitments by the government to the concessionaire which will have to be made with certainty, but whose size is not known at the time of signing the concession contract (e.g. land expropriation compensation)

  - **Explicit contingent assets:** promises of payment by the concessionaire to the government explicitly mentioned in the concession contract and triggered by exogenous or endogenous events (e.g. revenue sharing agreements)

- **Implicit contingent liabilities:** risks inherent to a concession program, which are not specifically stipulated in the concession contracts, but have been shown to sometimes turn into liabilities of the government by international experience (e.g. early termination risk)

Survey of market participants shows risk instruments are useful but not an investment driver

Respondents reported:

- **Risk instruments cannot make up for poor project fundamentals**
- Instruments viewed as more of a comfort than assurance
- Regulatory and contractual risks seen as most important for increased instrument coverage
- Sub-sovereign risks often unaddressed — sovereign counter guarantees are sometimes needed

Source:ORT Workshop, Washington DC 23 Feb 2004

Specific recommendations for improving risk instrument coverage

- ✓ Improving deal structures will improve the ability to effectively cover risks
- ✓ Improving contract design should enable more effective contractual/regulatory coverage
- ✓ Where sub-sovereign party cannot control national level regulatory/performance risk—sovereign counter-guarantee should be considered
- ✓ Increased local currency financing and guarantee structures needed in the absence of FOREX cover
- ✓ Sub-sovereign enforcement of tariff structures needed
- ✓ Adequate funding to ensure cash flow requirements are met
  - Use of standby and reserve facilities
  - Dedication of public sector cash flows
  - Enforceable tariff adjustment mechanisms

Source:ORT Workshop, Washington DC 23 Feb 2004

Thank you

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