



# Sustainable Water Integrated Management Support Mechanism (SWIM- SM) Project funded by the European Union

TRAINING ON EVALUATING AND STRUCTURING PPPS IN THE WATER SECTOR

*Day 1*

## PPP CONTEXT, PRIVATE SECTOR MODELS AND WAY FORWARD

*Koussai Quteishat*

Jordan Dead Sea

8 June 2015

# PPP Context, Private Sector Models and way forward

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### **Day 1- first session**

1. PPP objectives
2. When and why PPP options are considered
3. Different PPP options for different objectives

### **Day 1-second session**

1. Finding the right partner
2. Responsibilities of each party

### **Day 2 – morning session**

Enabling Conditions



# Sustainable Water Integrated Management Support Mechanism (SWIM- SM)

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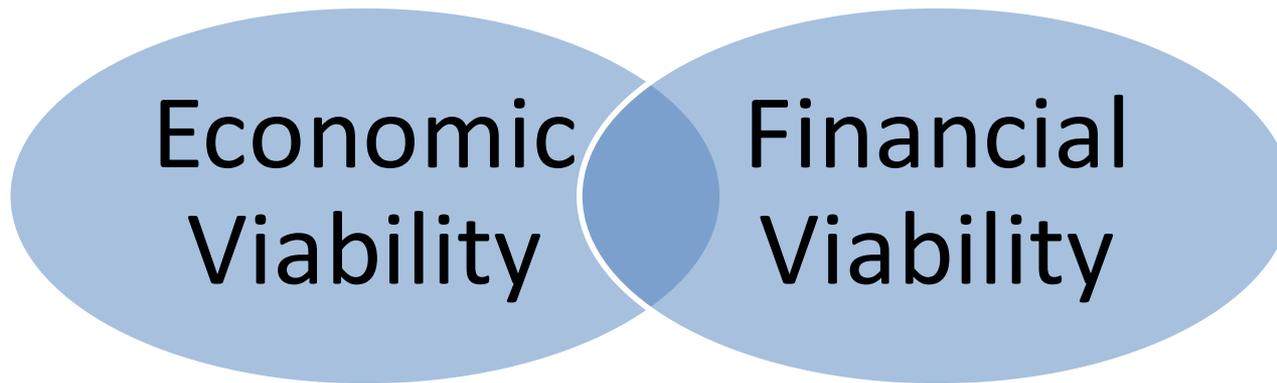
TRAINING ON EVALUATING AND STRUCTURING PPPS IN THE WATER SECTOR  
*Day 1-first session*

## PPP OBJECTIVES

*Koussai Quteishat*  
Jordan Dead Sea  
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# PPP objectives

## Delivery of Public Good with Social Value



**Public Sector**

**Private Sector**

# PPP objectives

## Delivery of Public Good with Social Value

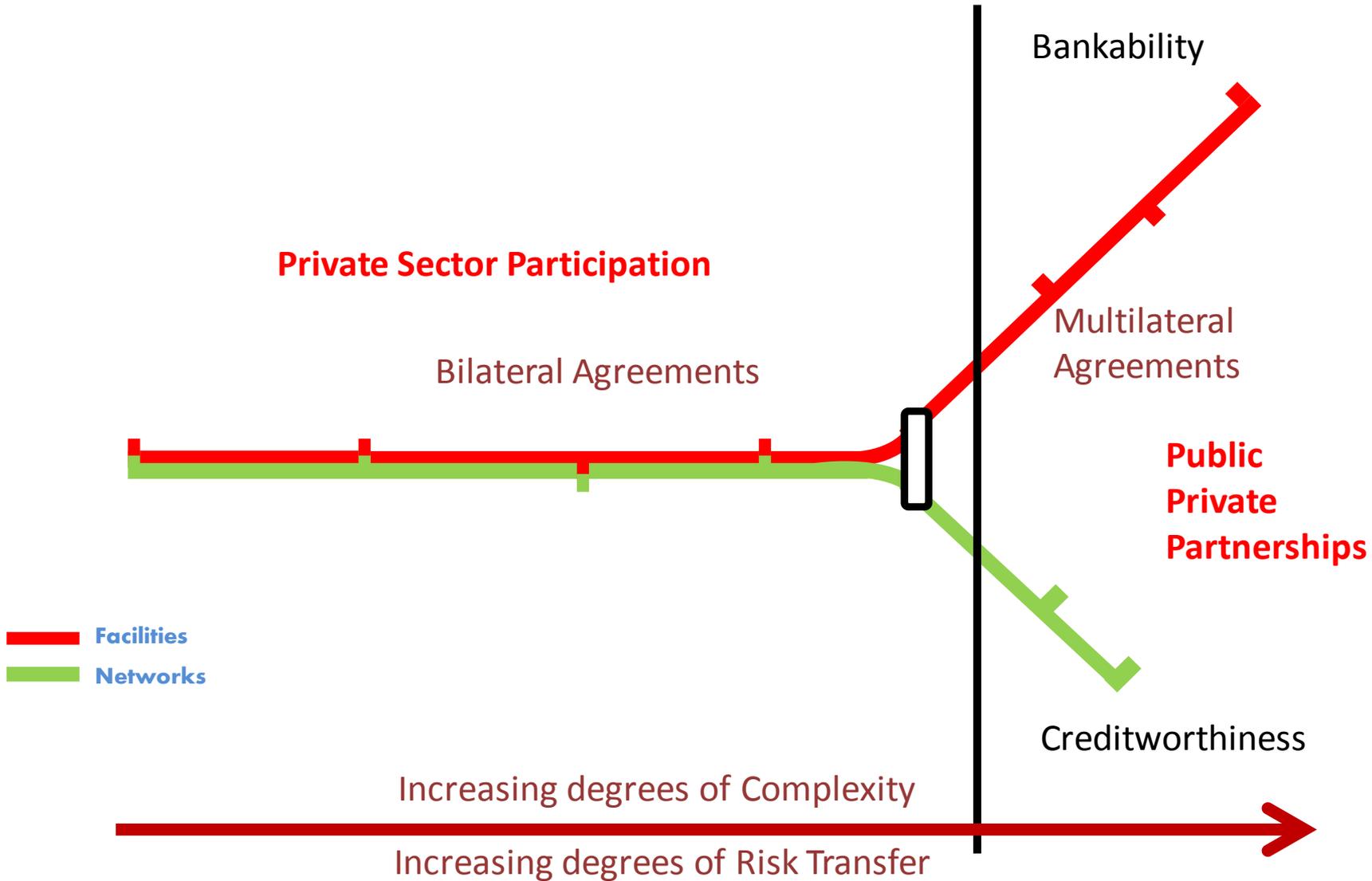
### Private Sector Investment

- Public Private Partnership
  - Private Sector Participation
- =
- Private Finance of Infrastructure
  - Outsourced Management

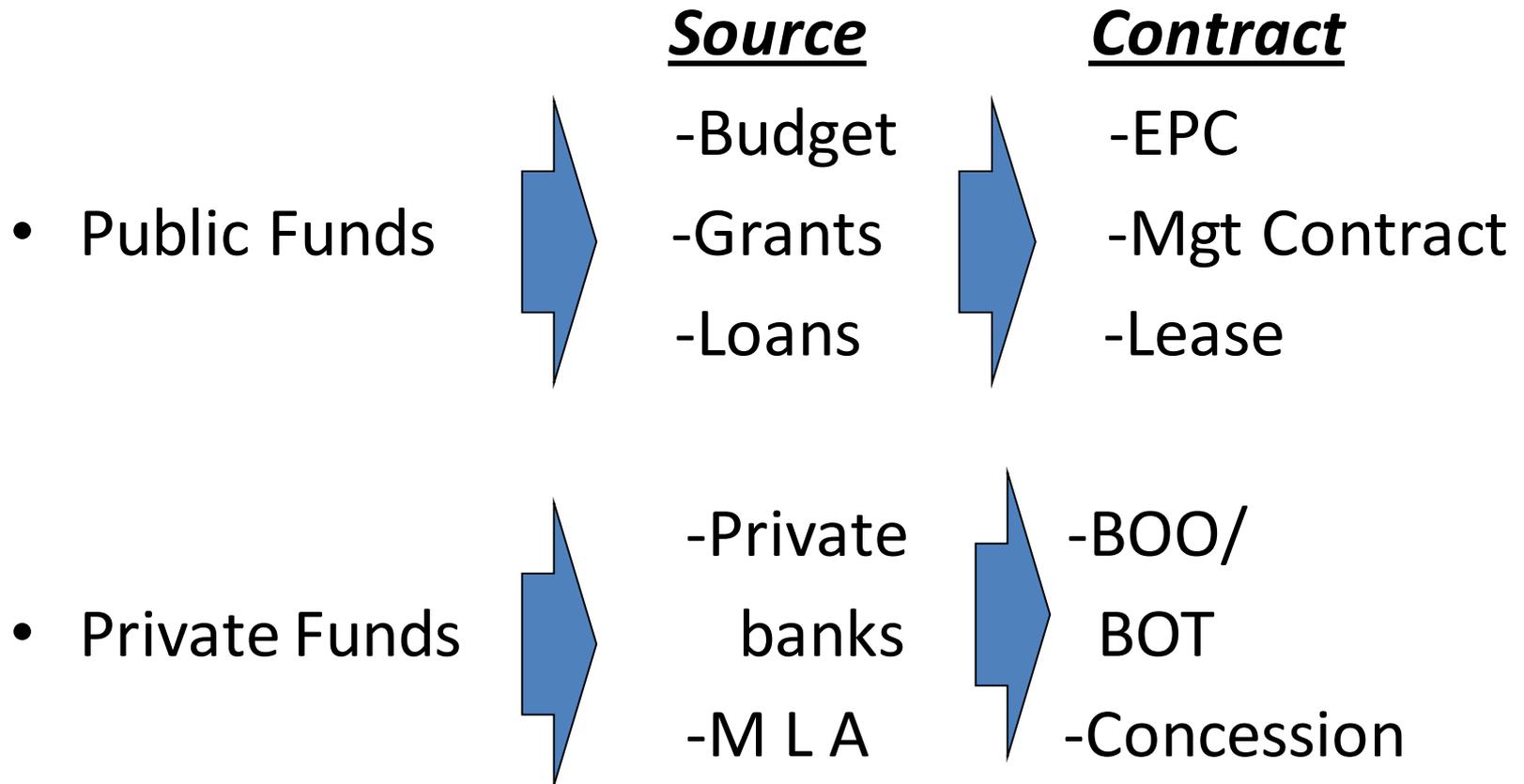
### When Target Group Cannot Meet Cost of Service

- Output-Based Aid
- Social Franchise

# The PSP to PPP Transition



# Alternate Methods of Finance



# Basic Criteria for PPP

1/7

## Enabling framework

- legislative,
- regulatory,
- political...

(throughout life of project)

# Basic Criteria for PPP

2/7

## **Well dimensioned, economically relevant project**

- social economic need,
- correct investment size,
- proven technology

# Basic Criteria for PPP

3/7

## **Responsible reliable public party**

- decision maker,
- undertakings, e.g. off-taker,
- involvement of stakeholders
- country/utility ratings

# Basic Criteria for PPP

4/7

## **Motivated, experienced private party**

- ability to sustain project-related undertakings,
- track-record & finances,
- interest – risk/reward and
- short term vs long term

# Basic Criteria for PPP

5/7

## **Clear and flexible contract**

- clear rules,
- adjustments in the course,
- benchmark e.g. termination, arbitration, etc.

# Basic Criteria for PPP

6/7

## Smart financing structure

- efficient management and allocation of risks,
- FOREX,
- Packaging security,
- O&M and
- EPC

# Basic Criteria for PPP

- 1/7 Enabling framework
- 2/7 Well dimensioned, economically relevant project
- 3/7 Responsible reliable public party
- 4/7 Motivated, experienced private party
- 5/7 Clear and flexible contract
- 6/7 Smart financing structure

**The Project is Bankable once these are met**

# Discussion

# When and why PPP options are considered

## **Drivers for Private Sector Participation**

### **FINANCIAL CAPABILITIES**

- Under-investment in Infrastructure, most countries are not investing enough to meet infrastructure needs and support economic growth,
  - economically beneficial projects are not being implemented
- Sub-Saharan Africa needs to spend US\$93 billion a year on infrastructure,
  - only half is available
- 2003 IDB investment needed in infrastructure in Latin America
  - amounts to US\$58 billion per year

**Widening gap between infrastructure investment and the capacity of the public sector to meet requirements from traditional sources (OECD)**

# When and why PPP options are considered

## **Drivers for Private Sector Participation**

### **EFFICIENCY IMPROVEMENTS**

- Inadequate infrastructure is a constraint on growth worldwide, and particularly in developing countries.
- Infrastructure services are often inadequate to meet demand, resulting in congestion or service rationing.
- Infrastructure services are also often of low quality or reliability, while many areas are simply un-served.

**PPPs can mobilize additional sources of funding and financing for infrastructure. PPPs can help improve project selection, subjecting assumptions to the market test of attracting private finance.**

# When and why PPP options are considered

## **Drivers for Private Sector Participation**

### **IMPACTS OF PPP PROJECTS**

Countries with PPP histories have found that:

- PPPs manage construction better than traditional procurement, with projects coming in on time and on budget more often
- PPPs can also help ensure adequate maintenance keeping assets in a serviceable condition

# When and why PPP options are considered

## Drivers for Private Sector Participation

### CASE OF JORDAN WITH IMF

- Started with energy, moved to water limiting the ability of the Government to borrow
  - Energy sector debt at US\$ 2 billion at 800% of Jordan's "Quota", or lending ceiling, with the IMF
  - Water sector borrowing was at the level at US \$ 1.85bn or 740% of the IMF Quota
- "Fiscal Adjustment has to go beyond central government", and "the water company is incurring high losses and the authorities plan to reduce its deficit, requiring increases in water tariffs."
- Though there may be political resistance to policy decisions on increased customer charges and subsidy reduction, the amount of debt the water sector is carrying at sovereign level needs to be adjusted along with a restructuring of the subsidy. But this also means that the

**Capacity of government to fund infrastructure through debt – even with assistance from international donor and finance communities – becomes more limited**

# When and why PPP options are considered

## Drivers for Private Sector Participation

### BEYOND AID POLICY

Adopting a policy of relying on grant aid has negative consequences, as follows:

- Firstly, grants rarely come without conditions or an agenda being promoted by the donor.
- Secondly, grants do not always offer firm and consistent offers of funding.
- Thirdly, the amount of funding that is required is likely to exhaust the allocated resources of those countries currently providing grants to the country
- Fourthly, any grants which are provided of themselves are highly unlikely to be of the magnitude necessary to address the interrelated challenges the sector is facing (non-revenue water, aged and leaking sewer) thus leading to an incremental approach in solving the problems

**reliance on grant aid assistance alone makes countries more susceptible to greater regional and macro-political risk, and would be against a policy of “beyond aid”**

# When and why PPP options are considered

## **Drivers for Private Sector Participation**

### **ECONOMIC DEVELOPMENT**

- Employment
- Local expertise

# Discussion

# When and why PPP options are considered

## **Drivers for Private Sector Participation**

### **FINANCIAL LIMITATIONS**

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- Employment
- Local expertise

# Discussion



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TRAINING ON EVALUATING AND STRUCTURING PPPS IN THE WATER SECTOR

**DIFFERENT PPP OPTIONS FOR DIFFERENT OBJECTIVES**

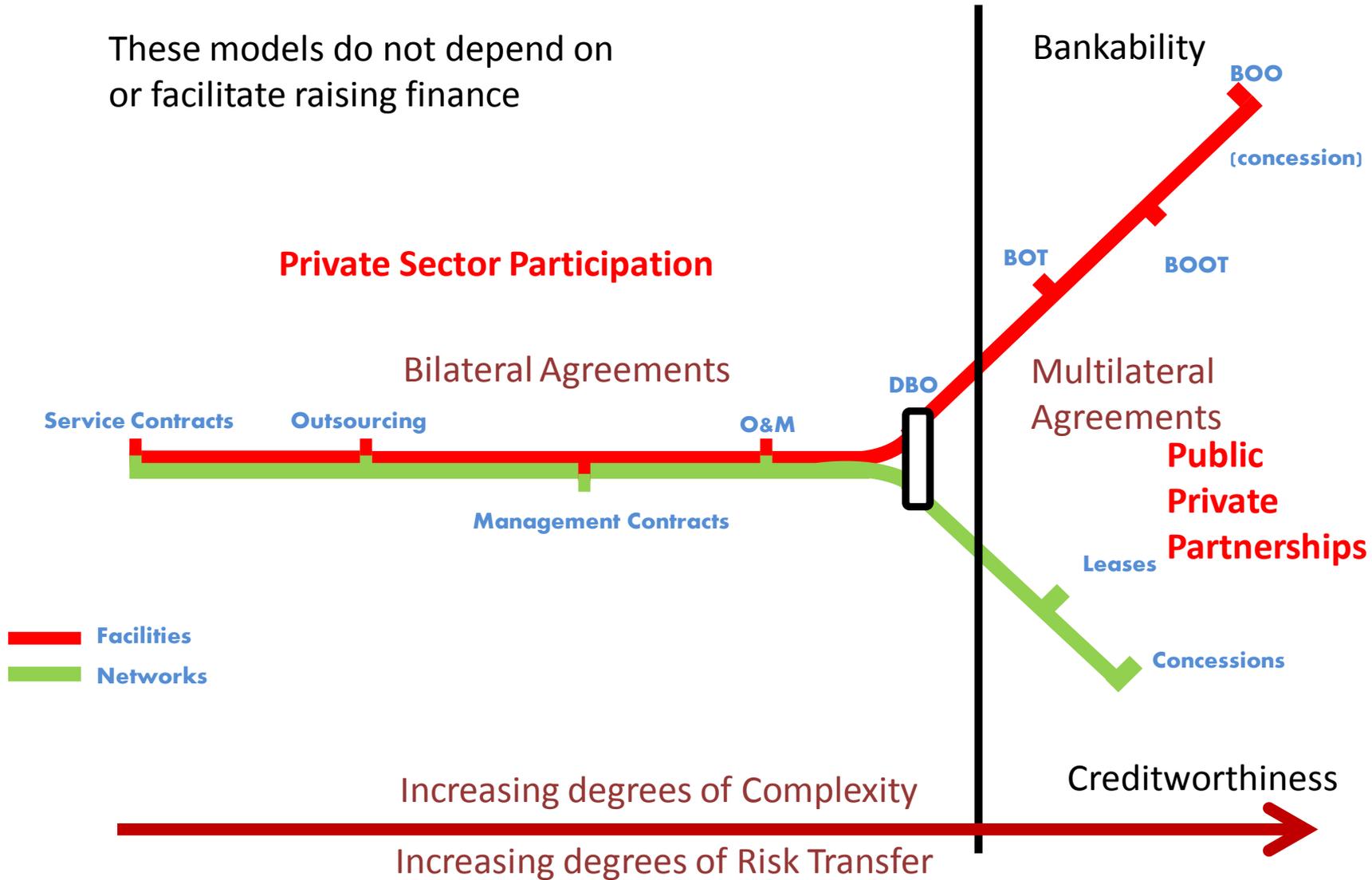
*Koussai Quteishat*

Jordan Dead Sea

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# Taxonomy for Decisions

These models do not depend on or facilitate raising finance



## Different PPP options for different objectives

### 1. **Service Contracts 1/2**

- ***Scope***

These contracts offer low level forms of private sector participation and relate, as their name suggests, to services. Their applicability is limited to anything from, for example, the provision of mobile phones and telecommunications to retention of professional advisors such as lawyers and accountants

# Different PPP options for different objectives

## 1. Service Contracts 2/2

- ***Payment***

Payment is generally linked to the delivery of services only and is not based on any form of performance standard beyond delivery of the basic service. There is, therefore, limited transfer of risk to the private sector beyond calling for the services they are asked to deliver

Service contracts are very common to any water sector anywhere under conventional procurement mechanisms

# Different PPP options for different objectives

## 2. Outsourcing Agreements 1/2

- ***Scope***

The classic example of outsourcing as a form of private sector participation related to billing and collection which, by virtue of the heavy dependency on information technology, does not usually utilize skills which are core to the activities of water and wastewater services. In addition, outsourcing arrangements can be utilized for aspects such as non-revenue water where either:

- construction skills are not available within a utility to manage non revenue water remediation; or
- the private sector has skills and expertise above that which can viably be developed within a utility; or
- the water utility does not have the people to carry out the necessary actions to alleviate the non-revenue water situation.

# Different PPP options for different objectives

## 2. Outsourcing Agreements 2/2

- ***Payment***

Payment is usually tailored primarily to the delivery of the services which are being outsourced although it is not uncommon to have an element of performance based payment (e.g. completion of delivery of services on time, and bonus payments for achieving certain targets; all without shifting much of the risk

Several countries have had notable success in outsourcing activities such as billing and customer services... though sustainability beyond contract duration is questionable

# Different PPP options for different objectives

## **3. Management Contracts 1/2**

- ***Scope***

Fundamentally, management contracts are no more than outsourcing arrangements although it is the overall management function which is being outsourced.

# Different PPP options for different objectives

## 3. Management Contracts 2/2

- ***Payment***

The contractor manages the operations against a fee which is based on the provision of personnel to manage the utility or company. It is common to have a significant element of bonus in recognition of driving service delivery improvements as an incentive for better performance. Since the incentive is a major contributor to the remuneration, a greater degree of risk is transferred to the private sector.

**Therefore, in a properly incentivized management contract the better the management contractor performs against set targets, the more they are paid. Success in applying this modality in many countries has varied.**

## Different PPP options for different objectives

### **4. Operations and Maintenance Agreements 1/2**

- ***Scope***

Operations and maintenance agreements (“O&M Agreements”) offer a similar vehicle for improvement of service delivery as outsourcing arrangements. Whereas it is not usual to have O&M agreements with regards to networks (other than major carriers), such agreements are more common for plants and facilities where specific expertise is provided to run these operations.

# Different PPP options for different objectives

## 4. Operations and Maintenance Agreements 2/2

- ***Payment***

The distinction between O&M Agreements and outsourcing arrangements relates to how the contractor is paid for services. Under an O&M Agreement the objective of transferring risk to the private sector is achieved by making the majority of the contractor's fee payable on achieving results. Driving operational costs down without impairing the service is the incentive to generate greater profit. Though this may sound advantageous, two major risks arise; one is that the contractor will be relying on the reasonableness of their counterpart in agreeing on the payment, and the second is the creditworthiness of the contracting authority itself.

**O&M contractors have encountered both the above risks in Jordan. O&M Agreements remain as an option for any country, and a high risk at that**

# Different PPP options for different objectives

## 5. Design, Build and Operate Arrangements 1/2

- ***Scope***

Design, Build and Operate (“DBO”) contracts lie at the junction of the Route-map in as much as they can be when developed on a new-build basis.

Fundamentally DBO contracts offer a procurement route for facilities with a design and build element but then require the contractor to continue operating the facility for a period of years after the construction of the facility. This is particularly useful in a situation where the chosen technology is new to the utility developing the asset as it gives a period of time during which staff can be trained. In addition, DBO contracts have the advantage of “optimizing the solution for cost” between:

- systems where life-cycle costs are ignored when the procurement calls for competition in construction bids only resulting in the cheapest facility being built but with high operating costs; and
- operations where an operations based designer would be overly conservative in the design resulting in lower life-cycle costs but with a high capital value.

Although applicable mostly to facilities and plants, DBO arrangements can also be useful for networks or pipe based infrastructure, but only on a new-build basis, and if within a defined zone.

# Different PPP options for different objectives

## 5. Design, Build and Operate Arrangements 2/2

- ***Payment***

Typically within a DBO contract payment for the construction phase is made on a traditional certified payment basis, either monthly and/or on milestones (e.g. ground-works completion, desalination cartridges installed, testing and commissioning completed, etc). Thereafter, during the operations phase, it is common to pay a monthly operations fee which may or may not have some element of incentive or output based component.

**In the future, DBO contracts are likely to be quite attractive options to develop infrastructure. Attention needs to be paid to the terms of the contract. As a general rule, an operations period of around 7 years proves optimal. Any shorter period may impact the optimization described above. DBO projects have indeed been successful but have shown one drawback. A formula had to be devised to be able to retain the staff after project handover due to disparities in salaries and benefits of the staff before handover (private scale) and after handover (public scale). The solution was found by handing over the operations of the facility to a corporatized utility being relatively free from civil service restrictions.**

Different PPP options for different objectives

## **Micro-Level Options for PSP**

In some cases, PSP options discussed so far are not acceptable because of the length of the implementation period as this may need to be shortened due to pressing customers needs.

The option has then become Micro PSP's. This option has been proven successful in developing fast track strategy and action plans

# Different PPP options for different objectives

## **Micro-Level PSP as a Fast Track Option**

- Short term improvement, fast payback period (as little as one year), deficit reduced in very short time and immediate increase in revenues which can easily support the poor
- Higher flexibility as it uses funds from the routine budget
- Uses local expertise who are familiar with local conditions
- Capacity will be built in these types of activities

# Different PPP options for different objectives

## **Micro PSP as a Policy and Strategy Option**

Where PSP cost is relatively low, Where donors funds are not needed, and Where the project preparation time is short, the micro PSP option can be adopted as a policy and strategy for the water and wastewater sector

In order to enable local companies to bid, a workshop is usually held for those interested to assess their ability and capabilities

# Different PPP options for different objectives

## **Micro PSP Examples**

- Service contracts for W & WW treatment plants
- Outsourcing of billing and collection
- O&M and Management of selected activities
- Billing, collection and outstanding amount
- Sewerage connection
- Leak repair services
- Subscribers survey and GIS services

# PSP

5 years

Macro Level

1 year

3 years

5 years

Secure Funding

Tendering & Contract Preparation

Start up Project

Micro Level

1 year

0.5 years

0.5 Years

2 years

Saving = 3 years

# Case Example/ Macro level

## BOT Contract case from Jordan

- A WWTP was built in 1985
- Overloaded by 1987
- Ministry Completed study in 1997
- Study of other alternatives 1999
- Announced internationally, 8 consortia offered for pre-qualification, a short list of five bidders approved. Two bidders were ultimately interested and offered their technical and financial proposals in July 2001
- Contract was awarded to the winning group in July 2002, followed by financing negotiations with local banks
- The Minister of Water and Irrigation signed the contract on Dec-10, 2003.

# Case Example / Micro level

Madaba Governorate , Billing and Revenue Collection

## 1- Background

- \* Data about Water Authority Jordan (WAJ) in Madaba :
  - 2000 km <sup>2</sup>
  - 150,000 inhabitants
  - Subscriber number : 19.500
- \* Water Authority Jordan (WAJ) faced severe challenges in Madaba Governorate :
  - Incorrect billing due to faulty application process
  - Bills not distributed due to lack of information system

## **2- Objectives**

- \* Improve water and waste water revenue
- \* Reduce customer outstanding amounts
- \* Improve customer management efficiency
- \* Installation of IT-based customer management system
- \* Technical and administrative development of Madaba customer management organization

### **3- Contract Details**

- \* After tendering process the Micro PSP was awarded to Engicon , a local engineering company , in November 2005
- \* Contract period : 3-year contract starting 2006
  - Preparatory period : 9 months
  - Performance management period : 27 months
- \* WAJ staff seconded to the private contractor (42 people)
- \* WAJ receives all revenues collected
- \* Engicon works under Supervision of PMU
- \* Payment for contractor included fixed and performance based incentive fee

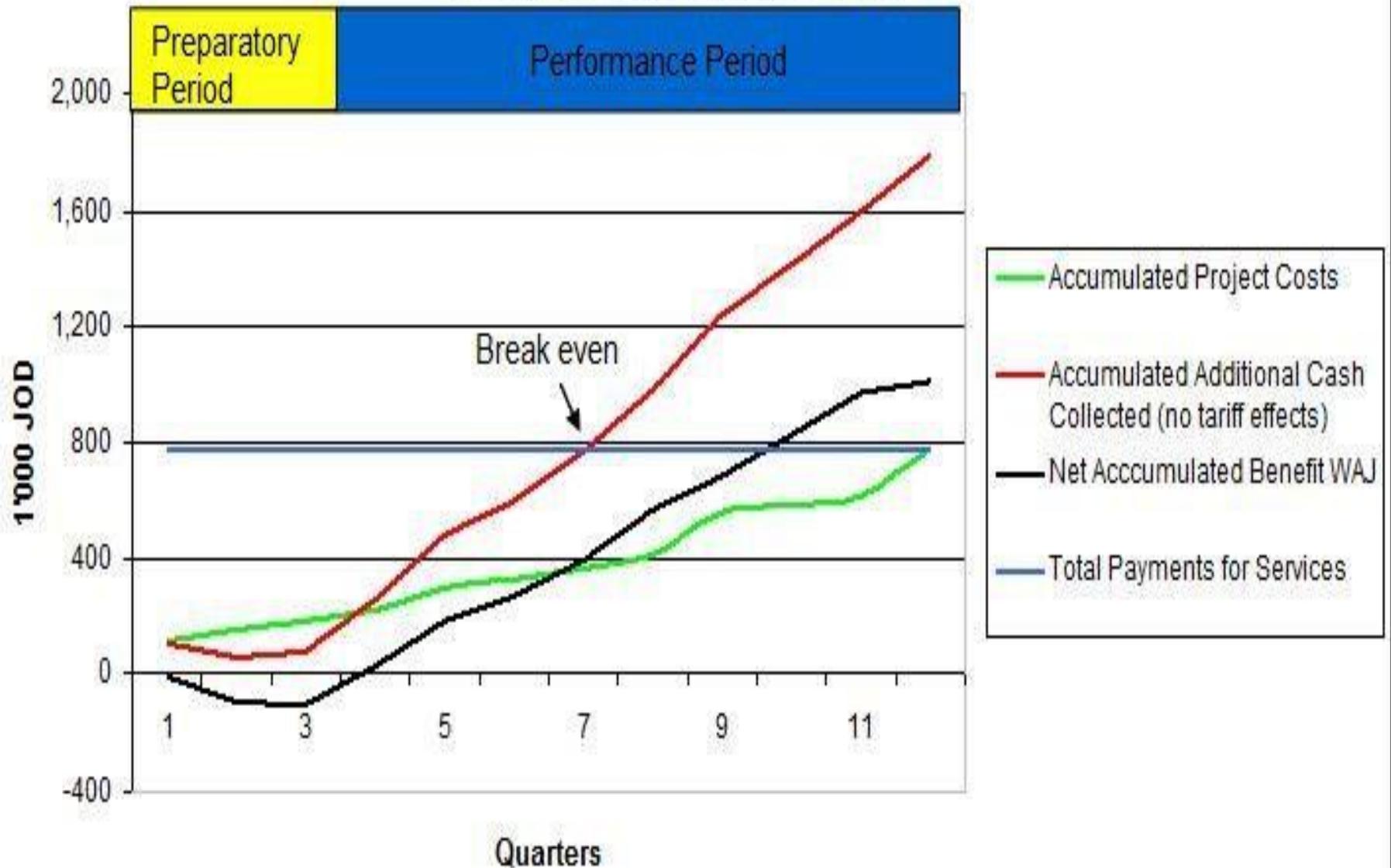
## **4- Activities**

- \* Surveying and mapping of subscribers and digitizing all surveyed routes in the governorate were completed
- \* Necessary technical and electro-mechanical equipment were supplied
- \* Bonus for seconded staff was developed and remuneration procedures made transparent
- \* Rehabilitation works of the subscriber department offices and file storage rooms completed

## **Activities (Continued)**

- \* IT-based customer management system introduced
- \* Training of staff (computer skills, customer care, data entries, appraisal course for management)
- \* Sewerage database system installed

# Costs and Benefits for WAJ



## **Summary of Micro PSP Results in Madaba**

- \* Increase in Revenue, decrease in Accounts Receivable
- \* Efficient, transparent and reliable billing system and collection procedure
- \* Professional process
- \* Increased responsibility and accountability of staff and improved motivation
- \* Better customer care and satisfaction
- \* Outstanding bills reduced by measures against water use
- \* Reputation of WAJ in Madaba has improved

**Discussion**  
**And**  
**THANK YOU**