Water and Wastewater Privatization in Saudi Arabia

Presentation to SAWEA
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Head of Privatization
Ministry of Water & Electricity (MOWE)
Kingdom of Saudi Arabia
Contents

• Global Issue of water demand
• Water Sector Key Challenges in KSA
• Global Trend in privatization Transactions
• Introduction to PPP
• MOWE’s Vision and Approach to Privatization
• MOWE’s Major Assessment initiatives
• National Water Company (NWC) setup
• Conclusion
Population Growth and water demand

✓ World’s population : 6.519 billions  
  (Projected on 28.May-2006)

✓ Annual Population Growth : 80 millions
  
  *India*  1.9 %
  *China*  1 %
  *Africa & Middle east*  2.2 %

✓ Annual Freshwater demand : 64 billion m3

✓ 2.7 billion people will experience severe water scarcity by 2025.

Source:
- [www.infoforhealth.org](http://www.infoforhealth.org)
- [www.futureharvest.org](http://www.futureharvest.org)
- [www.census.gov](http://www.census.gov)
Categories of water Scarcity

Water scarcity is a more relative concept describing the relationship between demand for water and its availability. These scarcities are divided into four categories as below:

**Category 1:** Countries with “absolute water scarcity”, will NOT be able to meet needs in 2025.

**Category 2:** Countries with “economic water scarcity”, MUST double efforts in extracting water to meet 2025 water needs.

**Category 3:** Countries which have to increase water development between 25~100% to meet 2025 needs (more financial resources required)

**Category 4:** Countries which have to increase water development by 5% to keep up with 2025 demands.

Source: www.futureharvest.org
Water scarcity countries…
examples

Countries

Category 1
Afghanistan,
Egypt, Iran,
Iraq, Jordan,
Kuwait, Libya,
Oman,
Pakistan, Saudi,
Singapore,
Syria, Emirates,
Yemen, China,
India …

Category 2
Angola,
Benin,
Botswana,
Burkina Faso,
Burundi,
Cameroon,
Chadm
Congo, Sudan
...

Category 3
Albania,
Algeria,
Australia,
Brazil,
Cambodia,
Indonesia,
Lebanon,
Malaysia,
Morocco…

Category 4
Bangladesh,
Canada,
Denmark,
Finland, France,
Italy, Jamaica,
Japan, Spain,
UK, USA,
Norway,
Vietnam,
Thailand …

Source: www.futureharvest.org
Share of Wastewater Reuse in MENA Region

Source: World Bank Report
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MOWE’s key challenges

- KSA is listed under “absolute water scarcity” category (i.e. will NOT be able to meet needs in 2025)

- Due to growing population, and rapid economic growth water demand in the kingdom is increasing rapidly by 6% annually.

- Presently water supply tariff in the kingdom is one of the lowest in the world

- Water production cost & transportation is the world’s highest
MOWE’s key challenges

- The expected UFW percentage in the range of 25-40 %
- Human resource capabilities that require upgrading, mainly in commercial and customer services skills
- Lack of proper information about the sector (such as leakage rates, metering performance, water networks, infrastructure, etc.)
Wastewater Statistics in KSA

- Potable Water Supply: 5.72 Million M3 per Day
- Present Wastewater Treatment Capacity: 2.13
- Wastewater Collected & Treated: 1.84
- Treated Water Reuse: 0.337
Comparison of Water Usage (Domestic) liters / capita / day

<table>
<thead>
<tr>
<th>Country</th>
<th>Litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>99</td>
</tr>
<tr>
<td>Austria</td>
<td>100</td>
</tr>
<tr>
<td>Belgium</td>
<td>118</td>
</tr>
<tr>
<td>Germany</td>
<td>130</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>136</td>
</tr>
<tr>
<td>Denmark</td>
<td>136</td>
</tr>
<tr>
<td>France</td>
<td>136</td>
</tr>
<tr>
<td>Finland</td>
<td>151</td>
</tr>
<tr>
<td>Holland</td>
<td>155</td>
</tr>
<tr>
<td>Italy</td>
<td>166</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>228</td>
</tr>
<tr>
<td>Canada</td>
<td>286</td>
</tr>
<tr>
<td>USA</td>
<td>431</td>
</tr>
<tr>
<td>Japan</td>
<td>666</td>
</tr>
</tbody>
</table>
Tariff level comparison

Tariff for Average Consumption As % of GDP Per Capita

Source: OECD, OFWAT, World Bank, ADB, Global Water Intelligence, individual water utilities
Saudi water tariffs are low when compared with GCC countries

Block Tariffs for Water – GCC Countries
(USD/ Marginal m³ of Consumption)

Source: Dubai Electricity and Water Authority, Bahrain Ministry of Electricity and Water, Kuwait Ministry of Electricity and Water, Qatar General Electricity & water Corporation, Oman Ministry of Electricity and Water
Operational Performance (Gap Vs Best practices)

Operational Efficiency

Connections without Metering (% connections within network coverage)

Unaccounted for Water

Source: Global Water Intelligence, World Bank, OECD, OFWAT, WHO, ADB, OECD, Global Water Partnership; Master Plan cities in KSA
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Global Trends in Water Privatization

- Few known cases Total privatization in recent days like Macau, Chile & UK
- Globally two main types of water privatization are seen

**British Model:**
Privatizing both the assets and the operation of assets (Total privatization) limited to England & Wales

**French Model:**
The assets remain publicly owned and operations are outsourced (PPP) to bring efficiency and performance improvement.
Global Trends in Water Privatization

• The best fit solution and the trend is to have cooperation between private sector and the state in managing water as per French model

• This model is normally termed as PPP and there are three major types of PPP in order of risk transfer to private operator
  > O&M / Management contract
  > Lease contract
  > Concession contract

• An additional structure BOT exists for bringing in private investment, usually in construction of specific new water or wastewater treatment plants.

The biggest multinationals active in the sector are

>SUEZ: serves 200 Million people around the world in more than 130 countries with annual turn over of 41.5 Billion Euro (2005)
>Veolia: 110 million in more than 100 countries with annual turn over of 11.3 Billion Euro (2003)
>Augus de Barcelona: 35.2 Million
>SAUR: 33.5 Million
>SABSEP: 25.1 million
>United Utilities: 22.1 million
Privatization is on the rise again

Total privatization proceeds, 1990-2003 ($410 billion)

Source: Privatization Trends by Sunita Kikeri
Ten countries accounted for 70% of proceeds

Top ten revenue generating countries (percent of total privatization proceeds)

Source: Privatization Trends by Sunita Kikeri

* - Saudi Arabia: Telecom Sector
LAC and ECA account for largest shares

Regional distribution of privatization proceeds, 1990-2003

- Latin America & Caribbean: 46%
- Europe and Central Asia: 26%
- East Asia & Pacific: 16%
- South Asia: 4%
- Middle East & North Africa: 5%
- Sub-Saharan Africa: 3%

Source: Privatization Trends by Sunita Kikeri
Infrastructure dominates

Sectoral distribution of privatization proceeds, 1990-2003

- 50% telecommunication
- 36% Electricity & Natural Gas

Source: Privatization Trends by Sunita Kikeri
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Public private partnership (PPP)

• An agreement between public and private sector parties on the provision of public infrastructure and services

• PPP is a variation of privatization in which elements of services previously run by public sector are provided by partnership between government and Private sector companies.

• Private partners will provide outcome guarantee and obliged to utilize the existing manpower under government authority

• Payment for the services according to identified and improved performance based on share the gain & pain policy
Alternative PPP Models

- O & M Contract
- Management Contract
- Lease
- BOT / BOO
- Concession

Risk Level: 0, 1, 2, 3, 4, 5, 10, 25
Duration: 0, 1, 2, 3, 5, 10, 25 Years
## Comparison of Types of PPP

<table>
<thead>
<tr>
<th>SL. No.</th>
<th>Type of contract</th>
<th>Asset Ownership</th>
<th>Duration (year)</th>
<th>Examples of responsibilities to private sector</th>
</tr>
</thead>
</table>
| 1      | Management Support | Public authority | 5               | Offers consultancy services for local management in various areas like:  
• O&M  
• Non Revenue Water & Leakage Reduction  
• Improve Revenue Collection. |
| 2      | O&M              | Public authority | 3 – 5           | **Assumes full responsibility for Operation & Maintenance of existing assets & water services** |
| 3      | Lease            | Public authority | 10 - 20         | • Brings investment to Rehabilitate & improve existing assets  
• Operates existing assets & water services |
| 4      | B.O.T            | Public / Private | 20 – 25         | • Develops and finances new assets  
• Operates assets & water services |
| 5      | Concession       | Public authority | 20 - 30         | • Brings investment for adding new assets to the existing  
• Brings investment to rehabilitate & improve existing assets  
• Operates existing assets |
PPP Successful cases
## Successful PPP/Privatization cases

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Contract Type</th>
<th>Performance Indicators</th>
</tr>
</thead>
</table>
| Casablanca (Morocco) | Concession contract for 30 years | - Reduction in water leakage from 28% in 1997 to 38% in 2005  
- Time taken to attend complaints reduced from 24 Hours to 2 Hours  
- Water cuts reduced from 913 to 295 numbers per year  
- 91% customer satisfaction rate |
| Adelaide (Australia) | Management / O&M for 15 years | - 20% reduction in operation cost  
- 28% reduction in bursts  
- 18% reduction in sewer blocks  
- 95% customer satisfaction rate |
| Macau (China)       | Total Privatization – Private holding is 85% | - European Water Quality standards  
- In 15 years, Connections increased from 55,500 to 170,000  
- NRW reduced from 48% to 11%  
- Production increased from 85,000 m3 to 265,000 m3 |
PPP Unsuccessful cases
**Examples of unsuccessful PPP projects**

<table>
<thead>
<tr>
<th>Buenos Aires - Argentina</th>
<th>Atlanta - USA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concession</strong></td>
<td><strong>Management Contract</strong></td>
</tr>
<tr>
<td><strong>Main Developments</strong></td>
<td><strong>Main Developments</strong></td>
</tr>
<tr>
<td>- Unexpected losses due to inaccurate customer records</td>
<td>- Tariff increase was 10% -as opposed to 50% proposed prior to the PPP</td>
</tr>
<tr>
<td>- Poor conditions of the water network not properly identified</td>
<td>- Lack of data on water system performance, resulting in unrealistic targets/KPIs</td>
</tr>
<tr>
<td>- Tariffs were increased by 13% -creating public resentment</td>
<td>- Management contractor not given the authority needed to carry out his mandate</td>
</tr>
<tr>
<td>- Economy crashed following the floatation of the Peso, which was previously pegged to the US Dollar</td>
<td>- Political support waned, robbing the contractor of the support needed to achieve his objectives</td>
</tr>
<tr>
<td>- Extraordinary adjustment mechanism was applied eight months into the concession – suggesting that the contract was poorly designed at the outset</td>
<td>- Only 90% of bills collected –instead of 95% planned</td>
</tr>
</tbody>
</table>
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MOWE’s Vision

Vision: To build World-Class Water Utility

- Demand Management
- Commercial Orientation
- Culture Change
- HR Development
- Restructuring Plan
- IT Strategy

Targeted areas for Restructuring
Strategic Transformation Plan (STP)

**Identify Opportunities for Improvement**
- Operational Audit
- Organisational Diagnostics
- Benchmarking
- Develop action plan

**Management /O&M contracts (5 years transition)**
- Establish NWC
- Sign 5 years management / O&M contracts
- Boost sector performance

**Concession/ total privatization**
- Culture change
- Tariff restructuring
- Transfer asset & employees

- Early PPP successful paving the way for complex contract
- Move to Concession/ total privatization
MOWE approach to privatization

A- Short Term
Next 5 years

- In Short term sign simple PPP contracts which would boost the sector performance and make it more attractive for private sector participation.
- Establish NWC (National Water Company)
- Build waste water treatment plants based on BOO in Jeddah & Riyadh

B- Short Term
Next 5 years

- Prepare the sector for complex PPP (concession)
- OR total privatization
- Transfer asset & employees
- Implement new Tariff to bring sector revenues closer to costs

Beyond 5 years

Early forms of PPPs are successful and paving the way for total privatization or concession

- Private sector assumes more responsibility
- Move to more complex PPP contracts (concessions) or total privatization
Overview of water sector restructuring progress in KSA

• MOWE has started implementing more than 25 projects during the last 18 months for reforming / restructuring water sector like, conducting Full operational audit, assessing customer services, organisation structure redesign, UFW study etc.

• MOWE Developed a 5 year Strategic transformation plan (STP) to act as Roadmap which will ensure smooth transition and a successful privatization process.

• MOWE has been successful in attracting reputed international operators to conduct full operational audit. These private operators are among the potential investors for PPP projects.

• MOWE submitted it’s privatization plan to the Supreme Economic Council (SEC) and the process of tendering Riyadh PPP management contract will start within 2 months.

• MOWE is in the process of Incorporating the National Water Company (NWC)
The four big cities that been chosen are (Riyadh, Jeddah, Madinah and Dammam / Alkhobar) due to there attractivness to implement PPP contracts.

- Collected wastewater percentage in the targeted cities of the total collected wastewater in the Kingdom:
  - Other Kingdom cities: 24%
  - The four targeted cities: 76%

- Number of houses in the targeted cities of the total number of houses in the Kingdom:
  - Other Kingdom cities: 56%
  - The four targeted cities: 44%

- Water supply percentage to the chosen cities of the total water supply to the Kingdom:
  - Other Kingdom cities: 48%
  - The four targeted cities: 52%
Reforms projects progress since 2004  
(activities completed)

<table>
<thead>
<tr>
<th>Main Streams</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
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<tr>
<td>Policies &amp; Institutional Setup</td>
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<td></td>
<td></td>
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<tr>
<td>Capability Building</td>
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<tr>
<td>Business Process Study</td>
<td></td>
<td></td>
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<tr>
<td>Organization redesign</td>
<td></td>
<td></td>
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<tr>
<td>Change management &amp; cultural assessment</td>
<td></td>
<td></td>
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<tr>
<td>Building World-class Customer center</td>
<td></td>
<td></td>
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<tr>
<td>PPP Implementation</td>
<td></td>
<td></td>
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<tr>
<td>Early negotiation with international water companies</td>
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<td></td>
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<tr>
<td>Full Audit &amp; UFW</td>
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</tbody>
</table>
Privatization Roadmap

<table>
<thead>
<tr>
<th>Main Streams</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
</tr>
<tr>
<td>Policies &amp; Institutional Setup</td>
<td>[completed STP first draft]</td>
<td></td>
<td></td>
<td>National Water Company (NWC) incorporation</td>
</tr>
<tr>
<td>PPP Implementation</td>
<td></td>
<td>Riyadh PPP Contract tendering</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Jeddah Full Audit &amp; UFW</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PPP Consultancy consortium</td>
<td></td>
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<td></td>
<td>Dammam/Khobar Full Audit &amp; UFW</td>
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<tr>
<td></td>
<td>Madinah Full Audit &amp; UFW</td>
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<tr>
<td></td>
<td>Madinah PPP Contract Preparation Process</td>
<td></td>
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<td></td>
<td>Riyadh wastewater treatment plants on BOO basis</td>
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<td></td>
<td>Riyadh wastewater treatment plants on BOO basis</td>
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<tr>
<td></td>
<td>Contract Signed</td>
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<td></td>
<td>National Water Company (NWC) incorporation</td>
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<td></td>
<td>Riyadh PPP Contract preparation process</td>
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<tr>
<td></td>
<td>Dammam/Khobar PPP Contracts preparation process</td>
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<td></td>
<td>Madinah PPP Contract preparation process</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Riyadh wastewater treatment plants on BOO basis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Riyadh City PPP (Option – A)

Management Contract

- Wells
- Water Treatment Plants
- Existing Wastewater Treatment Plants
- Future Wastewater Treatment Plants on BOO basis
- O & M of Networks and Pumping stations, Distribution, UFW, Metering & Billing, Revenue Collection, Sewage Collection and GIS, etc
- Households
- Reuse Locations

Under NWC Administration

- Industrial, Commercial, And Other Consumers
- Future WWTP

Pumping, Treatment, Transmission, Storage, Distribution and Sewage Collection

Sewage Treatment & Reuse
Riyadh City PPP (Option – B)

Management Contract

- Wells
- Water Treatment Plants
- Pumping, Treatment, and O & M
- Wells Water Treatment Plants
- Existing Wastewater Treatment Plants
- Future Wastewater Treatment Plants on BOO basis
- O & M of Plants, Sewage Treatment, Delivery to reuse locations, etc
- Reuse Locations
- Industrial Commercial And Other Consumers
- Under NWC Administration
- Pumping, Treatment, Transmission, Storage, Distribution and Sewage Collection
- Reservoirs
- Households
- O & M of Networks and Pumping stations, Distribution, UFW
- Metering & Billing, Revenue Collection, Sewage Collection and GIS, etc

Lease / Concession/ROO

Sewage Treatment & Reuse

Future WWTP
Riyadh WWTP based on BOO/Concession
BOO model for wastewater treatment plant (Riyadh)
### New Wastewater Treatment Plants (WWTP) planned on BOO basis

<table>
<thead>
<tr>
<th>Riyadh City plants</th>
<th>Capacity (M3/Day)</th>
<th>Expected tendering date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant # 1</td>
<td>400,000 M3</td>
<td>1st Quarter 2007</td>
</tr>
<tr>
<td>Al Hayer, Phase-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant # 2</td>
<td>400,000 M3</td>
<td>Under Preliminary Study</td>
</tr>
<tr>
<td>Al Hayer, Phase-4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Potential WWTP planned on Concession / Lease / ROO

#### Data on Wastewater treatment plants Riyadh

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Plant Location</th>
<th>Design Capacity (M3/Day)</th>
<th>Treated Volume (M3/Day)</th>
<th>Year of Commissioning</th>
<th>Treatment Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manouha – C2</td>
<td>80,000</td>
<td>50,000</td>
<td>1975</td>
<td>Tertiary treatment</td>
</tr>
<tr>
<td>2</td>
<td>Manouha – C3</td>
<td>120,000</td>
<td>*170,000</td>
<td>1981</td>
<td>Tertiary treatment</td>
</tr>
<tr>
<td>3</td>
<td>Manouha North</td>
<td>200,000</td>
<td>150,000</td>
<td>1998</td>
<td>Tertiary treatment</td>
</tr>
<tr>
<td>4</td>
<td>Manouha East</td>
<td>212,730</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Al-jazira</td>
<td>4,000</td>
<td>*6,000</td>
<td>1994</td>
<td>Tertiary treatment</td>
</tr>
</tbody>
</table>
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Riyadh’s Full Operational Audit Study Findings
(study conducted by MOWE in cooperation with Veolia)
**Full Operational Audit & UFW**

**Full Operational Study for water and wastewater sector in Riyadh, Jeddah, Dammam and Khobar conducted by Suez, Veolia and SAUR**

**Objectives:**
- Identify the shortcomings of the sector’s performance and recommend the best methods of improvement
- Identify KPIs and comparing them to the best practices
- Identify PPPs opportunities and project priorities
- Prepare action plan to improve the sector’s performance

**UFW Study for Riyadh and Jeddah conducted by IBG**

**Objectives:**
- Measure UFW percentage
- Develop a comprehensive action plan to reduce UFW
Examples of Riyadh’s Current Performance Indicators in comparison with the best practices

### Water Supply (hours / day)

<table>
<thead>
<tr>
<th>Current Status</th>
<th>Best Practices</th>
<th>Aimed performance Indicator for Riyadh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007/2011</td>
<td>24 hours for all the Riyadh city</td>
<td>24 hours in 40% of the Riyadh City</td>
</tr>
<tr>
<td>2012/2026</td>
<td>24 hours for all the Riyadh City</td>
<td>24 hours for all the Riyadh City</td>
</tr>
<tr>
<td>Current Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### UFW (%)

<table>
<thead>
<tr>
<th>Current Status</th>
<th>Best Practices</th>
<th>Aimed performance Indicator for Riyadh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007/2011</td>
<td>7%</td>
<td>31%</td>
</tr>
<tr>
<td>2012/2026</td>
<td>15%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Reach International Best Practices: Performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Concession / Lease</th>
<th>Low</th>
<th>Acceptable</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2026</td>
<td></td>
<td></td>
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<tr>
<td>2021</td>
<td></td>
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<tr>
<td>2016</td>
<td></td>
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<tr>
<td>2011</td>
<td></td>
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<td>2006</td>
<td>O&amp;M</td>
<td>Red</td>
<td>Green</td>
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</table>

- Coverage, Continuity of Service, Quality of Water and Treatment, Losses Reduction, Demand Management
Performance / Costs balance

Quality of Service & Performance Improvements / Costs Reduction
Satisfy the Customer: Quality of Service

<table>
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<tr>
<th>Year</th>
<th>Low</th>
<th>Acceptable</th>
<th>Good</th>
<th>Excellent</th>
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<td>2021</td>
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<td>2011</td>
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<tr>
<td>2006</td>
<td>Red</td>
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<td>Green</td>
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</tbody>
</table>

- Listening, Responding to and Communicating with the Customer
- Monitoring Quality of Service and Customer Satisfaction
Cost of water (OPEX + depreciation)
(OPEX + Depreciation) / m³ billed

- Status Quo: 8.1 SR/m³
- Scenario 1: 8.1 SR/m³
- Scenario 2: 5.7 SR/m³
Riyadh’s Unaccounted For Water (UFW) Study Findings
(study conducted by MOWE in cooperation with IBG & Veolia)
Water Lost due to Leakages in the Kingdom

- Water Lost Due to Leakages: 1.10 Million m³
- Desalination Plants Capacity: 1.06 Million m³

9 Plants

- Yanbu1
- Jeddah Ro1
- Jeddah3
- Jeddah2
- Jubail RO
- Jubail1
- Assair
- Shoiba1
- Khobar2
- Jubail RO
- Jeddah Ro1
- Jeddah3
- Jeddah2
The total expected savings due to UFW reduction in Riyadh from 31% to 5% during the next twenty years is 8 Billion SR. The repair cost is 1.4 Billion SR, which is 15% of the total savings.
Financial Performance for Riyadh City
Total Capex requirement for 100% coverage in KSA for next 20 years (SR 137 Billion)

Booz Allen Hamilton Study
Projected Opex. for next 20 years (SR 65 Billion)

Booz Allen Hamilton Study
Preliminary scenarios of Financial performance due to efficiency improvements for next 20 years KSA

AS IS
- CAPEX: 137 Billion SR
- OPEX: 65 Billion SR
- REVENUE: 30 Billion SR
- Estimated Net Deficit Up to 1446H

Efficiency improvements due to PPP Contract SCENARIO-1
- CAPEX: 10% decrease
- OPEX: 20% decrease
- UFW: reduced to 10%
- Reuse of treated water – 15%
- Projected Deficit reduction 22%

Efficiency improvements due to PPP Contract SCENARIO-2
- CAPEX: 30% decrease
- OPEX: 40% decrease
- UFW: reduced to 5%
- Reuse of treated water – 30%
- Projected Deficit reduction 81%

Water Transfer price not included

Booz Allen Hamilton Study
Contents

• Global Issue of water demand
• Water Sector Key Challenges in KSA
• Global Trend in privatization Transactions
• Introduction to PPP
• MOWE’s Vision and Approach to Privatization
• MOWE’s Major Assessment initiatives
• National Water Company (NWC) setup
• Conclusion
Short Term NWC structure

**NWC**
- **Riyadh City**
  - Private Operator 1
  - Management/O&M contract signed between NWC and Private Operator 1
  - BOO contracts for Jeddah & Riyadh City wastewater treatment plants
- **Jeddah City**
  - Private Operator 2
  - Management/O&M contract signed between NWC and Private Operator 2
- **Dammam/Khobar City**
  - Private Operator 3
  - Management/O&M contract signed between NWC and Private Operator 3
- **Madinah City**
  - Private Operator 4
  - Management/O&M contract signed between NWC and Private Operator 4
- **13 Directorates**
  - **MOWE**
**Long term NWC structure**
(Beyond 5 years)

- **Riyadh City/Region**
  - Concession contract or total privatization
  - Private Operator 1

- **Jeddah City/Region**
  - Concession contract or total privatization
  - BOO contract for Jeddah & Riyadh City wastewater treatment plant
  - Private Sector (Investment Required)
  - Private Operator 2

- **Dam./Kho. City/Region**
  - Concession contract or total privatization
  - Private Operator 3

- **Madina City/Region**
  - Concession contract or total privatization
  - Private Operator 4

- **Remaining Directorates**

- **Arbitration Panel**

**Following options will be Assessed:**
1. Vertically expanded scope of work
2. Horizontal expansion of scope of work (Additional cities/regions)
3. Sign Long term Concession contracts or Spin off selected cities/regions
Conclusion
Summary of lessons from PPPs internationally

- **Main Reasons for Failure of PPPs**
  - Lack of commitment from public sector
  - Non-transparency
  - Not clear Terms of Contract
  - Erroneous KPI’s Baseline, Targets / KPIs need to be realistic / achievable
  - Unattractive Conditions for Private Operators
  - Public resistance to change in tariffs

- Mismatch between problem and solution--- contract design should be targeted at key problems that the sector is facing

- Absence of complementary measures– like institutional developments, policy coordination, infrastructure provision etc.

- Choosing the right PPP option– contract should clearly address objectives, level of risks and responsibilities

- Contract design and transparent bidding process
Thank You for Your Attention