

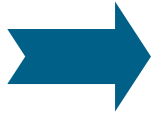
First Middle East
Water Leakage Summit

PSP to reduce water losses

Ivaylo Kolev, IFC



November 23, 2011, Dubai, UAE



IFC

Water PPPs

PSP to reduce water losses

Challenges and Lessons Learned

Who We Are

- IFC is the private sector arm of the **World Bank Group**.
- Our mission is to reduce poverty by promoting **private sector investment** in developing countries.
 - We lend and invest in private sector projects
 - We help businesses raise capital
 - We sell advice and provide technical assistance
- Priority sectors are **infrastructure, healthcare, education, agriculture** and **banking**.
- Staff of 3,400 located worldwide, including finance professionals, industry experts, and support staff.

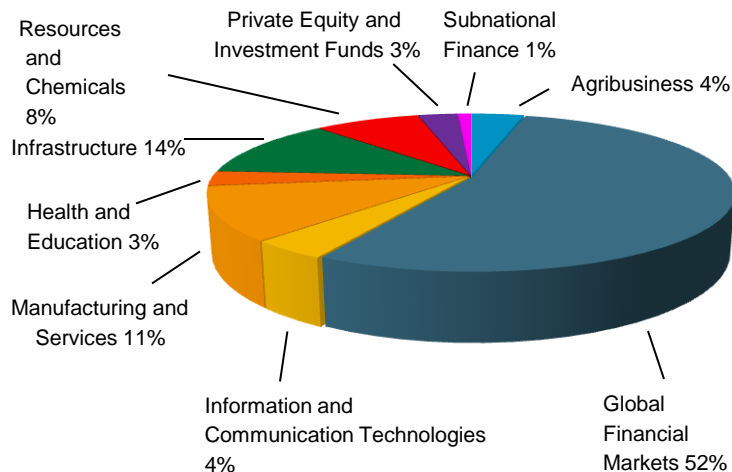
What We Do

IFC is an investor for its own account and a service provider to third parties.

• Investment (“Buy-side”)

- We lend to and invest equity in private-sector businesses.
- In water companies - \$105.5m loan and equity Manila Water, Philippines; € 25m Veolia Water; \$ 15m Water Health, India; \$10m Beijing Water, China

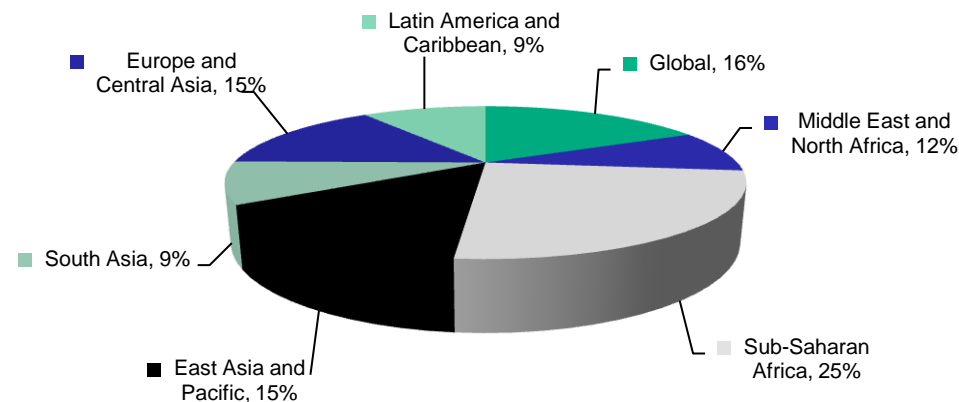
IFC Commitments by Sector, FY 2010

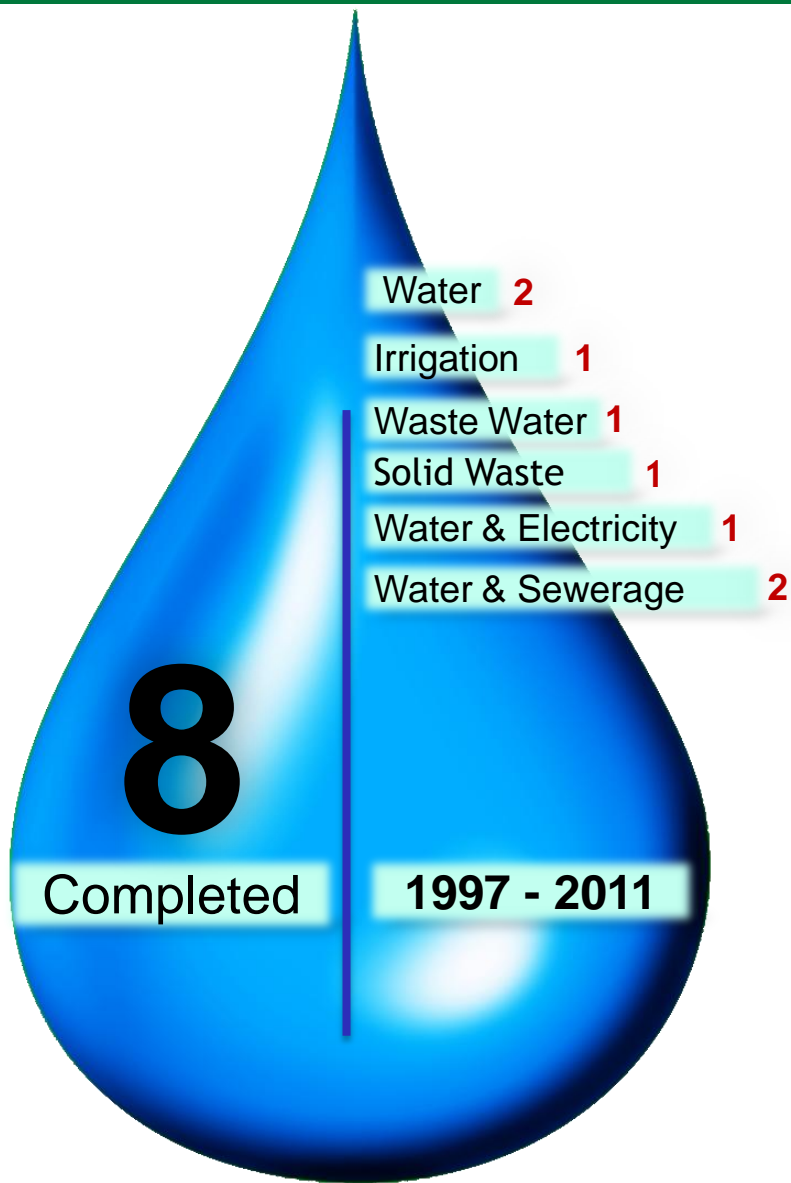


• Advisory (“Sell-side”)

- We advise governments on how to attract private sector investment in infrastructure.
- To date, we have advised on 170 projects in over 60 countries, mobilizing over \$9.5 billion of private sector investment.

IFC Advisory services by region, FY 2010

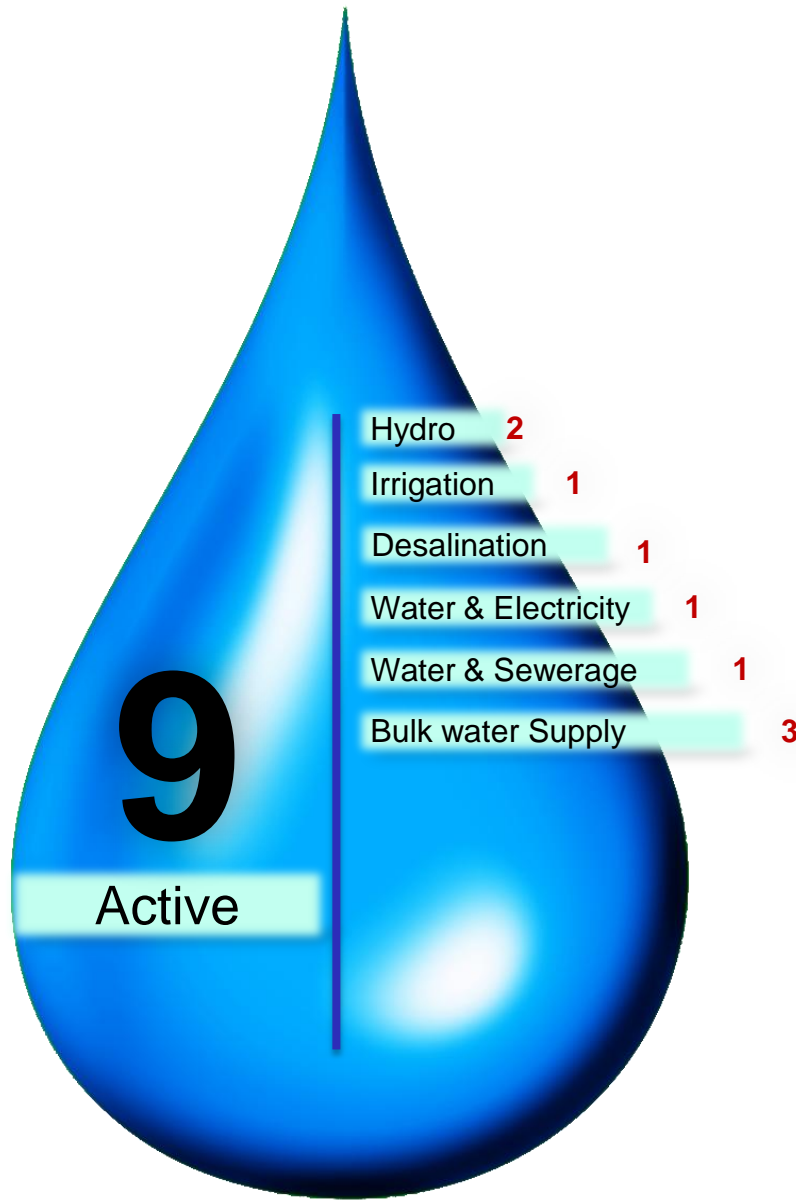




IFC-Advised PPPs

| Project Name | Country | Sector |
|--------------------|--------------|---------------------|
| SEEG | Gabon | Water & Electricity |
| MWSS | Philippines | Water & Sewerage |
| Guerdane | Morocco | Irrigation |
| Jeddah Desal | Saudi Arabia | Water |
| RGAB | Romania | Water & Sewerage |
| SSIP Water Program | Uganda | Water Access |
| NC Waste Water | Egypt | Waste Water |
| Maldives SW | Maldives | Solid Waste |

IFC-Advising PPPs



| Project Name | Country | Sector |
|-------------------------|---------------|---------------------|
| Bulgaria Water | Bulgaria | Water & Sewerage |
| Clark Water | Philippines | Bulk water supply |
| Chtouka | Morocco | Desalination |
| Kigali bulk water | Rwanda | Bulk water supply |
| Pontal Irrigation | Brazil | Irrigation |
| Moraca River Hydropower | Montenegro | Hydro |
| Cebren & Galiste Hydro | Macedonia | Hydro |
| Umbulan Water | Indonesia | Bulk water supply |
| EAGB | Guinea-Bissau | Water & Electricity |



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PPP in water

PSP to reduce water losses

Challenges and Lessons Learned

How can PPPs help

- Improving cost efficiency
- Improving quality of services
- Improving operation and maintenance of water assets
- Modernizing facilities, equipment and services
- Increasing access to underserved areas and populations





Water issues create ‘business risk’ for governments

Water is a business risk, resulting in a need to focus on “water productivity”

- Regulatory risk
- Financial risk
- Political/social risk
- Supply/availability risk
- Environmental risk

Climate change imposes serious challenges on water systems

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PPP in water

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Challenges and Lessons Learned

PSP to reduce water losses

It is quite common in many developing countries for public water utilities to have low coverage, high volumes of water losses, minimal metering, and tariffs which do not reflect costs or use. Other common problems:

- A lack of sufficient financing;
- Limited access to or knowledge of the latest technology;
- Limited in-house expertise in best practice water management; and
- Higher than necessary cost structures.

PSP to reduce water losses (cont.)

Possible solution: Private Sector Participation. It comes in many forms:

- Service contracts.
- Management contracts.
- Leasing — affermage.
- BOT type contracts.
- Concessions

PSP to reduce water losses (cont.)

For PSP to reduce water losses you need at minimum:

- To set appropriate Level of Service Targets
- To determine Water Losses Baseline
- To develop a strategy for Water Losses reduction
- To have adequate Water Tariffs
- To be able to constantly monitor, manage and control the water losses

PSP to reduce water losses (cont.)

Level of Service Targets

(Bucharest water concession: Water billed as percentage of water produced)

- Baseline defined when concession started + 7% Year 5
- Baseline defined when concession started + 16% Year 10
- Baseline defined when concession started + 21% Year 15

PSP to reduce water losses (cont.)

Water Losses Baseline

- Baseline period
- Proper Measurement of the Baseline data
- Mutual understanding of the starting point
- Independent technical support during the process

PSP to reduce water losses (cont.)

Strategy for Water Losses reduction

(Bucharest: The strategy is based on three pillars)

- Detecting and reducing leakages
- Fighting illegal connections
- Reducing the size of meters to match reduced consumption

PSP to reduce water losses (cont.)

Strategy for Water losses reduction (cont.)

(Bucharest: Detecting and reducing leakages)

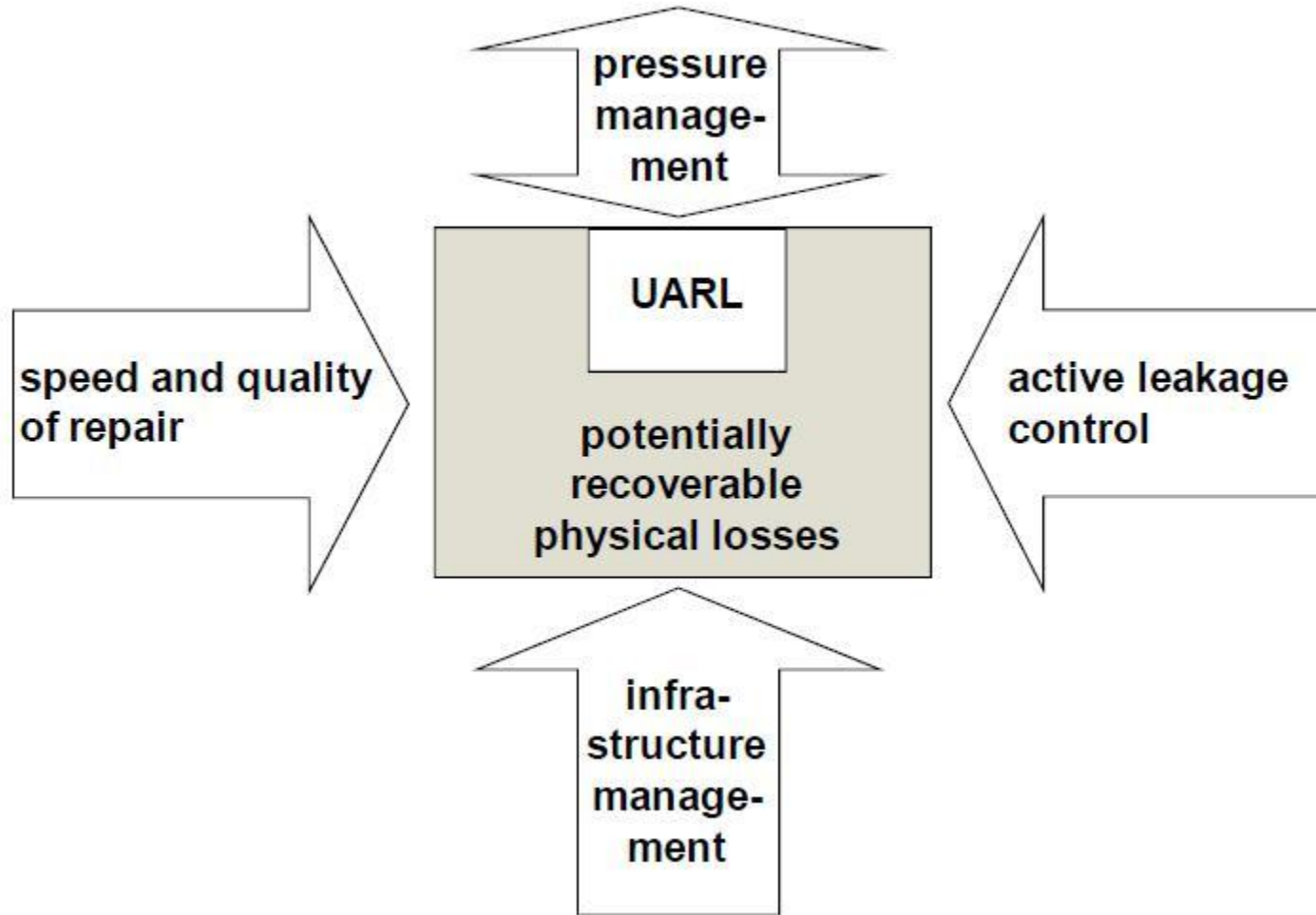
- Monitoring the water distribution network electronically
- Measuring water flows in network segments
- Using leak noise correlators; that is, electronic devices that detect leakages

PSP to reduce water losses (cont.)

Strategy for Water losses reduction (cont.)

- Usually the main driver of the water losses is the aging water supply and distribution networks leading to higher failure rates. The challenge for the upcoming decades will be smart maintenance and preservation of the assets and the optimization of operational and capital costs.
- In Europe the water loss management is based on International Water Association strategy as described in several publications e.g. Farley & Trow (2003) or Pilcher et al. (2007)

PSP to reduce water losses (cont.)



PSP to reduce water losses (cont.)

Water tariffs

- Reflecting the costs (production & distribution) and enabling return on invested capital;
- Guaranteeing proper maintenance and capital investments in the network; and with
- Fair and simple tariff calculation methodology with predictable indexation mechanisms

Which can lead to:

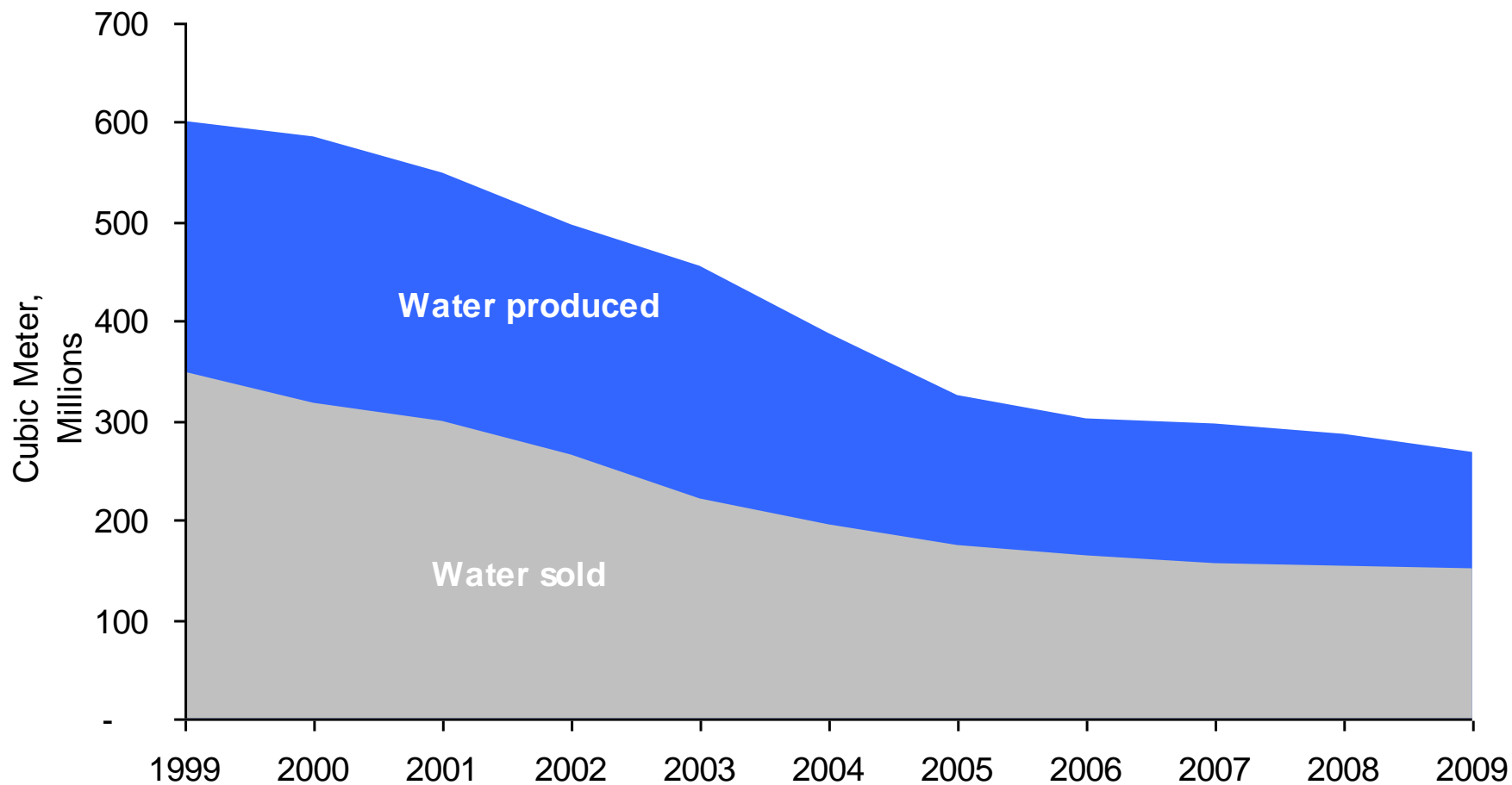
- Efficient water consumption,
- Efficient water production and demand-side management.

PSP to reduce water losses (cont.)

Monitoring, management and control

- Monitoring of the water losses from the Operator, Grantor, Independent Regulator
- Management – priority on water losses reduction; Demand-side management
- Control by experts panel and trough penalties and bonuses for meeting the targets

Bucharest: Water Losses and Consumption Significantly Reduced



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Challenges and Lessons Learned

Challenges and Lessons Learned

- Mostly the challenges are client related: political hesitation and strong status quo lobbies; low administrative capacity, PPP knowledge and commercial skills; unclear priorities - water losses reduction, low price, significant concession payment and etc.;
- For a successful water PPP you need: strong PPP promoter (political support), excellent coordination between all the key players in the water sector; transparent and fair price setting mechanism allowing cost recovering and return on the invested capital; internal/external pressure to initiate the water sector reform and allow for PSP.

Thank you for the attention

