Benchmarking Practices in the WSS Sector of Selected Countries

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Outline

• Objective
• Country Case Studies
  • France
  • England & Wales
  • The Netherlands
  • Brazil
  • Sweden
• Classification
• Observations/Conclusion
Objective

Overview:
Benchmarking practice in the EU & international
- Background (WSS Sector)
- Evolution of the system
- Structure
- Use of benchmarking approaches

⇒ Relevance and applicability of benchmarking approaches for EECCA
**Aspects for analysis**

- Purpose/function of benchmarking scheme
  - information
  - regulation
  - allocation of funds (link to investment activities)
- Type: metric vs. process benchmarking
- Scale: national vs. regional
- Initiation: owner of the system
- Participation: voluntary vs. mandatory; incentives
- Scope: selection and structure of the PI
France (I)

Water Sector

- Central government: common rules, compliance-monitoring, assistance with technical, financial and legal matters
- Decentralised (responsibility lies with local authorities); fragmented (> 36,000 municipalities but possibility of inter-communal co-operative organisations)
- Various options for management and contractual arrangements
  - Public ("régies")
  - Public-private partnerships (management contracts, lease, concessions)
- Delegation to private operators
  - In 2000: responsible for water distribution in 75%, for sewage treatment in 50% of cities with more than 10,000 inhabitants
  - Market dominated by Veolia, Suez-Ondeo and SAUR
France (II)

Performance Indicators

- Mitigation of information asymmetry between parties of the (contractual) regulation of the water sector
- Public demand for information (advisory committees of local utilities)

Benchmarking

- Two approaches
  - ENGREF/GEA: based on IWA indicator set: used, i.a., for monitoring of service contracts with operators
  - Fédération nationale des collectivités concédantes et régies (FNCCCR)
France (III)

Benchmarking: FNCCR

- Participants: 20 medium-size municipalities
- Internet-based data collection and benchmarking feedback
- Public access to 7 synthetic indicators
  - accessible through: www.servicedeau.fr
- Professional access to 21 indicators
  - Website for municipalities to register PIs
  - Time series of their own performance
  - Comparison with other participating municipalities
England and Wales (I)

Water Sector

• Privatisation
  • 10 regional WSS companies
  • 13 water only

• OFWAT - Office of Water Services

  Regulatory functions
  • Setting tariff limitations
  • Licensing water companies (i.e. ensuring that responsibilities are carried out according to the Water Industry Act 1991)
  • Protecting the standard of service to consumers
  • Complemented by WaterVoice committees: focus on consumer interests
England and Wales (II)

Performance data

Collection

- Five year intervals: for the determination of price-caps
- Annual basis “June return”: monitor implementation of 5 year plans
- Specific data collected for ad-hoc research studies: economic level of leakage, sewage flooding, efficiency gains

Usage

- Set performance targets for operators
- Determination of econometric model to estimate costs of O&M, investment & financing
- Inform public in order to increase the pressure on companies from
  (a) Consumers: improved service for same tariffs
  (b) Shareholders: efficiency gains
- Guaranteed standards scheme
England and Wales (III)

Price- cap regulation

• PIs are used to assess the performance of utility
• Company-specific price limits set every five years (specific formula)
• Between periodic reviews companies can increase profits through achieving greater than forecast efficiency
• Efficiencies are passed on to customers in later years through the price limits set for the subsequent period
• Clear understanding about desired outputs
England and Wales (IV)

Calculation

1. Revenue requirement of a well-managed company to finance its services at the appropriate standards
   - Operating expenditure needed annually to deliver service
   - Capital charges (expressed in the accounts as depreciation and infrastructure renewals charges) needed to finance the renewal of assets
   - ROI in the business (that is a 'regulatory capital value' based on the opening value at privatisation, rolled forward for net additions to the assets since then)
   - Tax expenditure

2. Forecast revenue base
Guaranteed Standards Scheme

• Customers are entitled to ‘guaranteed standards of service’; in case of failure to meet standards: compensation (payment)
• Monitored by OFWAT
• Standards to be met:
  • Making and keeping appointments
  • Responding to account queries
  • Responding to complaints
  • Interruptions to the water supply
  • Flooding from sewers
  • Low pressure
The Netherlands (I)

Wastewater treatment sector

- Water boards and municipalities
  - 37 regional water boards (*Waterschappen*),
  - Treat > 90% of waste water,
  - Self-financing (water board charge & pollution levy),
  - Non-profit: new investments or lower charges,
  - Municipalities collect WW

Benchmarking targets

External: increase accountability to main stakeholders
Internal: find points for improvement
The Netherlands (II)

Benchmarking (wastewater)

• Pilot project to test data

• External report (stakeholders):
  • 4 subgroups, 11 indicators: Focus on perspectives of operating performance, finance, environment, innovation
  • Customer satisfaction: no data available, but survey has been started

• Internal report (management)
  • 77 indicators (including sensitive data), not publicly available
The Netherlands (III)

Water Supply Sector
• Water companies (mostly operated under private law)

Benchmarking
• Compulsory, managed by VEWIN
• Structure
  • Water quality
  • Customer satisfaction
  • Environmental impact
  • Finances and efficiency (process level)
• Index values, aggregated values
• Publication strategy
Brazil (I)

WSS Sector

• Provision of WSS services responsibility of municipalities
• Public regional company in each state, serving
  • Municipalities: 70.5% water, 15% sewerage
  • Urban population: water 76%, sewerage 55%
  • Remaining municipalities (1,640) are served by local utilities; 47 with private concessionaires
• weak regulatory framework
• no significant, consistent historic data until the mid 90s
Brazil (II)

National Information System for WSS (SNIS)

- Created in 90s under the auspices of the Water Sector Modernisation Program, a project of the Government of Brazil financed by the World Bank
- Aims to promote
  - Planning and implementation of public policies
  - Guidance in the allocation of resources
  - Assessment of utility performance
  - Management improvement through increased efficiency and effectiveness
  - Guidance in regulatory activities
  - Benchmarking and yardstick comparison
**Benchmarking (III)**

**Benchmarking**

- Utilities provide data through tailored software package, including an automatic consistency analysis
- Participation and provision of data on a voluntary basis
- Data encompasses WSS services, including operational, managerial, financial and services quality information
- Representative sample: data for 26 regional and 260 municipal providers (serve 4.134 municipalities, 74.3% of all Brazilian municipalities and 91.8% of Brazilian urban population)
- Utilities present information in two ways:
  (i) aggregated information on 279 utilities (regional and municipal),
  (ii) discrete data at the municipal level
Brazil (IV)

Current SNIS output

- Data base, Internet site (average access 4,000 visits/month)
- Software for data collection
- ‘Diagnoses’ of services provision coverage & performance
- Annual overview of service provision coverage and performance

SNIS Users

- Governments (federal, state and municipal) & regulatory agencies
- WSS utilities & water industry (suppliers, services provide, consulting firms, contractors)
- Universities and research institutions
- Financial & international development institutions (IRDB, IDB, kfw ...)

Benchmarking in the EECCA, Chisinau, 9/10 December 2004
Brazil (V)

SNIS applications

• Tool to monitor and supervise utility performance
  • Performance assessment by utilities on their development and comparison with others
  • Government control: state and municipalities government demand performance improvements from their utilities
  • Transparency: society demands information on service provision (general public, media, politicians, NGOs, etc.)
  • Federal government has started to use SNIS in order to help prioritising financing
Sweden (I)

Water Sector

- High connection rates
- High water consumption
- Water losses (20%)
- Municipalities responsible for providing WSS services, owners and operators
- Cost recovery (almost) fully implemented
- Several local benchmarking initiatives
  - 6 cities (Scandinavia)
  - WUMP 2050
  - DRIVA
**Sweden (II)**

**Benchmarking**

**Water Utility Management Plan 2050**

- Strategic planning tool for the municipal level
- Objective: improving efficiency (long-term & short-term) and sustainability
- Process cycle (annual review):
  - analysis (status quo) → cross-comparison → strategy → measures → follow-up
- Managed by multi-stakeholder project group
- Structures internal data for quick reference
Sweden (III)

Structure – WUMP 2050

- Drinking water production (30 PI)
- Distribution (26 PI)
- Wastewater collection (19 PI)
- Wastewater treatment (49 PI)
- Financial factors (25 PI)
- Environmental impact:
  - List of all activities with negative impact on the environment according to ISO 14001
  - Criteria for resource consumption
Observations

• Focus on collective systems (vs. single-utility approach)
  • Improvements through comparison
• Function determines ‘rules for participation’
  • Voluntary vs. mandatory
• Output of schemes is tailored to different user groups and applications
• Owner of the scheme is usually a public entity
  • Ensures accountability and transparency
• Use of the Internet is gaining in relevance
• Environmental and social criteria are only included in few systems
## Classification

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Next steps

Applicability of approaches to the EECCA

Defining characteristics of a benchmarking scheme

• Main purpose/function: strong investment focus
• Main users/recipient: Governments, investors...and consumers
• PIs: quality of service, efficiency criteria
• Confidentiality of data (internal vs. external use)
• Quality of data (reliability and accuracy)
• Willingness to participate (voluntary programmes, incentive-setting)
• Financing of initiatives: support needed
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WSS Sector Background

• Regulation at the regional level
  • Collection, analysis and dissemination of performance data
  • Different approaches to benchmarking
• Corporatisation of water utilities
• Resources management is a major issue (droughts)
Australia (II)

Western Australia (Perth)

Regulator: Economic Regulation Authority (ERA)

- Licensing water service providers
- Monitoring the performance of service providers

Benchmarking Activities

- Annual surveys to define customer satisfaction PIs
- Conducts benchmarking of water providers
- Publishes assessment of the main water services of WA
- Data collected: customer base, water supply & quality, water treatment, assets, financial
Australia (III)

New South Wales (Sydney)

Department for Energy, Utilities and Sustainability (DEUS)

- Collects benchmarking data on 129 local WSS utilities (LWUs)
- 59 values and indicators for drinking water and 54 for sewerage
- Reflect the ‘Triple Bottom Line’:
  - Social indicators: billing (water charges), health & quality of service
  - Environmental indicators: water consumption, losses, energy use & environmental incidents
  - Economic indicators: business finance and economic efficiency
- PIs published annually at LWU level (aggregated)
- Aggregation to statewide performance indicators
Australia (IV)

“Guidelines for Best-Practice Management of Water Supply and Sewerage”

- Strategic Business Planning
- Pricing and Developer Charges
- Demand Management
- Drought Management
- Performance Reporting
- Integrated Water Cycle Management

For eligibility to make a dividend payment from a surplus, an LWU must:

- Demonstrate compliance against all criteria through an independent audit report
- Obtain an unqualified financial audit report for its water supply and/or sewerage business(es)
- Resolve in a council meeting open to the public that "substantial compliance" with each criterion was achieved