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Utility Performance Indicators and Benchmarking in the ECCAA
Joint Waterbench/OECD Workshop: Chisinau, 9/10 December 2004

Benchmarking Practices in the WSS Sector of Selected Countries

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*Waterbench is supported by the 6th EU Framework Programme for Research and
Technological Development (FP6)*





Outline

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

Objective

Overview:

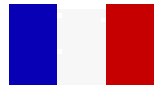
Benchmarking practice in the EU & international

- 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 (FNCCR)



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



England and Wales (V)

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



Brazil (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

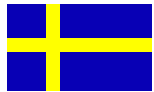
- Governments (federal, state and municipal) & regulatory agencies
- WSS utilities & water industry (suppliers, services provide, consulting firms, contractors)
- Universities and research institutions
- Financial & international development institutions (IRDB, IDB, kfw ...)



Brazil (V)

SNIS applications

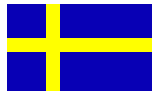
- Tool to monitor and supervise utility performance
 - Performance assessment by utilities on their development and comparison with others
 - Government control: state and municipalities government demand performance improvements from their utilities
 - Transparency: society demands information on service 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

	France	England & Wales	The Netherlands	Brazil	Sweden
User	Local Authorities Management Consumers	Regulator Consumers	Management Consumers	Management Civil Society Investors	Management Civil Society
Application	Information Contract Monitoring	Regulation Information	Information	Information Fund allocation	Information
Voluntary/ mandatory	Voluntary	Mandatory	Voluntary (WW), mandatory (WS)	Voluntary	Voluntary

Next steps

Applicability of approaches to the EECCA

Defining characteristics of a benchmarking scheme

- Main purpose/function: strong investment focus
- Main users/recipients: 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 Pls
- 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