Sector Paper

Water Collection, Treatment & Supply sector

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Voorburg Group 2013
Contents

- Sources
- Overview of the sector
- Data availability
- Classifications
- Turnover
- Prices
- Summary of main issues
Sources

- Mini-presentations from VG Warsaw 2012
  - Sweden
  - France
  - Hungary
  - Poland

- Discussant remarks and contributions

- Country Progress Reports
Overview of sector

Water
- Precious, scarce resource essential to sustain life, economic development and ecosystems
- Natural environments very different across countries

Water Collection, Treatment and Supply sector
- Collection and distribution of water for household and industrial needs
- Sewerage treatment often secondary activity

Organisation of the industry
- Natural monopoly
- Usually public service provided by local government
- Other organisation – national government, private sector, co-operative
- Co-production
ISIC Rev.4 Section E:
Water supply, sewerage, waste management and remediation activities

36 – Water collection, treatment and supply

- Collection – rivers, lakes, rain water, etc.
- Treatment - purification, desalinisation
- Distribution – mains, trucks, irrigation canals for domestic and industrial use

Exclusions:
Operation of irrigation equipment for agriculture
Treatment of waste water to prevent pollution
Long distance transport via pipelines
## Regional implementation – industry

<table>
<thead>
<tr>
<th>ISIC 4</th>
<th>NACE Rev.2</th>
<th>NAICS 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>E: Water supply, sewerage, waste management and remediation activities</td>
<td>E: Water supply, sewerage, waste management and remediation activities</td>
<td>22 Utilities</td>
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<tr>
<td>36 Water collection, treatment and supply</td>
<td>36 Water collection, treatment and supply</td>
<td>2213 Water, Sewage and Other Systems</td>
</tr>
<tr>
<td>360 Water collection, treatment and supply</td>
<td>360 Water collection, treatment and supply</td>
<td>22131 Water Supply and Irrigation Systems</td>
</tr>
<tr>
<td>3600 Water collection, treatment and supply</td>
<td>3600 Water collection, treatment and supply</td>
<td>221310 Water Supply and Irrigation Systems</td>
</tr>
</tbody>
</table>
Industry classification

National dimension

- **Nace Rev.2**
  - France : NAF 2008

- **Extended Nace Rev.2**
  - Poland : PKD 2007 : Additional level but equivalent to Nace Rev.2
  - Sweden SNI 2007
    - 36.001 – Ground water supply
    - 36.002 – Surface water supply

International comparability

- Broadly comparable but different levels of detail exist
<table>
<thead>
<tr>
<th>Division</th>
<th>Sub-class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Natural water</td>
<td>18000</td>
<td>Natural water</td>
</tr>
<tr>
<td>69. Electricity, gas and water distribution (on own account)</td>
<td>69210</td>
<td>Water distribution through mains (excl steam &amp; hot water) on own account</td>
</tr>
<tr>
<td></td>
<td>69230</td>
<td>Distribution of steam, hot water and air conditioning supply through mains (on own account)</td>
</tr>
<tr>
<td></td>
<td>69230</td>
<td>Water distribution, except through mains (on own account)</td>
</tr>
<tr>
<td>86. Support services to agriculture, hunting, forestry, fishing, mining and utilities</td>
<td>86330</td>
<td>Water distribution services through mains (on a fee or contract basis)</td>
</tr>
<tr>
<td></td>
<td>86340</td>
<td>Distribution services of steam, hot water and air-conditioning supply through mains (on a fee or contract basis)</td>
</tr>
<tr>
<td></td>
<td>86350</td>
<td>Water distribution services, except through mains (on a fee or contract basis)</td>
</tr>
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</table>
## Product classification

### CPA 2008

<table>
<thead>
<tr>
<th>Division</th>
<th>Category</th>
<th>Sub-category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. Natural water, water treatment and supply services</td>
<td>36.00.1</td>
<td></td>
<td>Natural water</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36.00.11</td>
<td>Drinking water</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36.00.12</td>
<td>Non-drinking water</td>
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<tr>
<td></td>
<td>36.00.2</td>
<td>36.00.20</td>
<td>Treatment and distribution service of water through mains</td>
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<td>36.00.3</td>
<td>36.00.30</td>
<td>Trade services of water through mains</td>
</tr>
</tbody>
</table>
Product classification

National

- CPA 2008
  - France: CPF

- Extended CPA 2008
  - Poland: PKWiU 2008: Additional level but equivalent to CPA 2008
  - More detailed than CPA

International comparability

- CPC (and NAPCS)
  - Based on characteristics and use of the product

- CPA
  - Based on the industry-of-origin
Turnover

- **Annual Structural Statistics**
  - Very good availability of industry data
  - Census / survey
  - Administrative data

- **Short-term statistics**
  - Low availability of detailed data
  - Survey
  - Administrative data

- **Product statistics**
  - Low availability
  - Survey. Some EU countries PRODCOM surveys cover this sector

- **Other output measures**
  - Environmental accounts
Turnover - issues

Organisation of the industry

- Different levels of public/private ownership
- Activity may be recorded in ‘Local Government’ sector

Water management

<table>
<thead>
<tr>
<th>Country</th>
<th>Germany</th>
<th>UK</th>
<th>Spain</th>
<th>France</th>
<th>Netherlands</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>33</td>
<td>0</td>
<td>44</td>
<td>29</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Public</td>
<td>67</td>
<td>100</td>
<td>56</td>
<td>71</td>
<td>100</td>
<td>97</td>
</tr>
</tbody>
</table>

Source: BIPE

Secondary activity

- High share of sewerage activity recorded in this sector
  - Importance of product level information
<table>
<thead>
<tr>
<th>Category</th>
<th>Data Source</th>
<th>Level of Detail Collected</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best</td>
<td>Survey/Census</td>
<td>Industry turnover and product turnover detail</td>
<td>Annual &amp; sub-annual industry data</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Annual product data</td>
</tr>
<tr>
<td>Good</td>
<td>Survey/Census and Administrative (tax data,</td>
<td>Industry detail only</td>
<td>Annual</td>
</tr>
<tr>
<td></td>
<td>regulator, industry association data etc.,)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>Administrative (tax data, regulator, industry</td>
<td>Industry detail only</td>
<td>Annual</td>
</tr>
<tr>
<td></td>
<td>association data etc.,)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental accounts</td>
<td>Product level</td>
<td>Varies across countries</td>
</tr>
</tbody>
</table>
Price Statistics

Price = Fixed charge (service) + usage fees (good)

- Includes charges for sewerage & wastewater treatment

Data availability

- Industry – 60% of respondent countries
- Product (CPC) - 18%

Collection of data

- Local authorities / municipalities / trade associations
- Traditional PPI surveys (Private sector ownership)
- CPI: price developments in water charges to households

Pricing methods used

- Direct use of repeat services
- Unit value pricing
Price Statistics - Issues

Good or service?
- Consumer consider water a ‘good’. Producer – ‘service’ if water treated
- Quality adjustment?
- Possible scale effect – price higher if you consume less

Target coverage
- B2B, B2ALL – market conditions

Bundled service
- Sewerage is often bundled with water services

Organisation of the industry
- Public sector involvement
  - market price may not be representative if large non-market activity

Use of CPI
- Adjust to basic prices
- May not be good proxy for B2B

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<table>
<thead>
<tr>
<th>Category</th>
<th>Data Source</th>
<th>Quality &amp; accuracy</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best</td>
<td>PPI Inquiry - average price p/cubic metre by type of service and consumer - direct price of repeat services</td>
<td>Very good - if water plant has level of detail required</td>
<td>High</td>
</tr>
<tr>
<td>Good</td>
<td>CPI Price incurred for water services</td>
<td>Adequate - if adjusted to basic prices - if similar pricing exists for household and business users</td>
<td>Low</td>
</tr>
<tr>
<td>Minimum</td>
<td>Average price of water distributed - Revenues / volume of water distributed</td>
<td>Poor quality : - if product bundling - if different pricing for business &amp; households - if subsidies</td>
<td>Low</td>
</tr>
</tbody>
</table>
Main conclusions

Varying national practices
- Natural environment
- Market organisation

International Classifications
- Industry well harmonised
- Differences at product level

Output / Price measurement
- Good availability at industry level
- Poor at product level

Main issues
- Non-market activity
- Secondary activity in sewerage