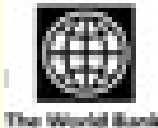


IBNET diagnostics in Punjab, Pakistan

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The World Bank, WSP
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IBNET: International Benchmarking Network for Water and Sanitation Utilities

The International
Benchmarking Network
for Water and Sanitation
Utilities

 **IBNET**



DFID



What is IBNET?

IBNET Toolkit is a suite of software and guidance documents to help utilities compile, analyze and share performance information the municipal water utilities. It started as an initiative to collect data on performance of utilities to improve project design and policy dialogue in the early-1990s

- ❑ IBNET is a standardized instrument to assess performance of water and wastewater utilities around the world
- ❑ Tool to assess basic financial and operational performance
- ❑ Dataset – with data search mechanism
- ❑ Network with links and resources
- ❑ The current IBNET indicators database contains information from more than 2100 utilities from more than 80 countries



IBNET Website: www.ib-net.org

The screenshot shows the IBNET website in a browser window. The browser's address bar displays the URL www.ib-net.org. The website's header includes the title "The International Benchmarking Network for Water and Sanitation Utilities" and the IBNET logo. A navigation menu on the left lists sections: "About IBNET", "IBNET Toolkit", "Search DataBase", "Resources", and "Information sharing". The main content area features a large image of water pipes and workers, followed by a search bar and a "Direct access to Country Dataset" section with a world map and a "Pick a Country..." dropdown menu. A "Message from the IBNET team" section welcomes visitors and provides contact information at ibnet@worldbank.org. A "Quote of the day" section features a quote by Lord Kelvin: "When you can measure what you are speaking about, and express it in numbers, you know something about it...". The footer contains a disclaimer, privacy policy, terms & conditions, and copyright information for 2005. Logos for DFID, The World Bank, and WSP are also present.

The International Benchmarking Network for Water and Sanitation Utilities
IBNET

About IBNET
Basic concepts of performance benchmarking

IBNET Toolkit
A set of tools and indicators to start up benchmarking activities

Search DataBase
Direct access to utility, country and regional databases

Resources
Tools, publications, useful links, glossary and contacts

Information sharing
Please contact us if you want to share performance data with IBNET

The International Benchmarking Network for Water and Sanitation Utilities (IBNET) is your direct access to the world largest database for water and sanitation utilities performance data.

IBNET supports and promotes good benchmarking practice among water and sanitation services by:

- Providing guidance on indicators, definitions and methods of data collection;
- Facilitating the establishment of national or regional benchmarking schemes;
- Undertaking peer group performance comparisons;
- Establishing links between utilities, utilities associations and regulators

Direct access to Country Dataset

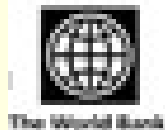
Pick a Country...

Message from the IBNET team
Welcome to the new IBNET website!
If you would like to share any information with the IBNET please contact us at ibnet@worldbank.org

Quote of the day
When you can measure what you are speaking about, and express it in numbers, you know something about it... (Lord Kelvin)

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IBNET as a diagnostic tool

- Common language between technical and financial staff of water utility
- Performance assessment:
 - Set up baseline: where are we now?
 - Set up performance objectives: where we want to go?
 - Performance monitoring: are we getting there?
- Comparisons between utilities, best practices, tool for analysis

IBNET as a diagnostic tool

- Focus on outcomes essential for utilities and stakeholders;
- Helps to set priorities;
- Helps enterprise managers to detect and correct weaknesses;
- Low cost versus other methods of enterprise performance evaluation through performance audits and engineering assessments
- Good indicators exclude ambiguous interpretation of performance outcomes

IBNET as a diagnostic tool: Indicators

Measurable - can be measured at any moment

Outcomes-oriented – show outcomes rather than the process of their achievement

Well justified – focus directly on the subject of assessment. It is a true indicator of expected results.

Reliable – will show one and the same result over the time no matter when this measurement is done and who does it.

Neutral – is unbiased in nature.

Feasible – it is feasible because it is affordable, i. e. benchmarking use does not cost much.

Pakistan performance at glance

Pakistan

| Indicator | 2002 | 2003 | 2004 | 2005 | 2006 |
|--|------|------|------|------|------|
| 1.1 Water Coverage (%) | 57 | 59 | 59 | 46 | 58 |
| 2.1 Sewerage Coverage (%) | 56 | 56 | 56 | 55 | 67 |
| 4.1 Total Water Consumption (l/person/day) | 136 | 130 | 127 | 115 | 97 |
| 4.7 Residential Consumption (l/person/day) | N/A | N/A | N/A | N/A | N/A |
| 6.1 Non Revenue Water (%) | 35 | 37 | 40 | 31 | 40 |
| 6.2 Non Revenue Water (m3/km/day) | 73.8 | 74.7 | 81.8 | 63.3 | 67.9 |
| 8.1 % Sold that is Metered (%) | 3 | 3 | 3 | 3 | 3 |
| 11.1 Operational Cost W&WW (US\$/m3 water sold) | 0.07 | 0.07 | 0.08 | 0.08 | 0.27 |
| 12.3 Staff W/1000 W pop served (W/1000 W pop served) | N/A | N/A | N/A | N/A | N/A |
| 18.1 Average Revenue W&WW (US\$/m3 water sold) | 0.05 | 0.06 | 0.08 | 0.07 | 0.17 |
| 23.1 Collection Period (Days) | 829 | 825 | 721 | 842 | 366 |
| 23.2 Collection Ratio (%) | N/A | N/A | N/A | N/A | N/A |
| 24.1 Operating Cost Coverage (ratio) | 0.80 | 0.79 | 0.92 | 0.85 | 0.62 |

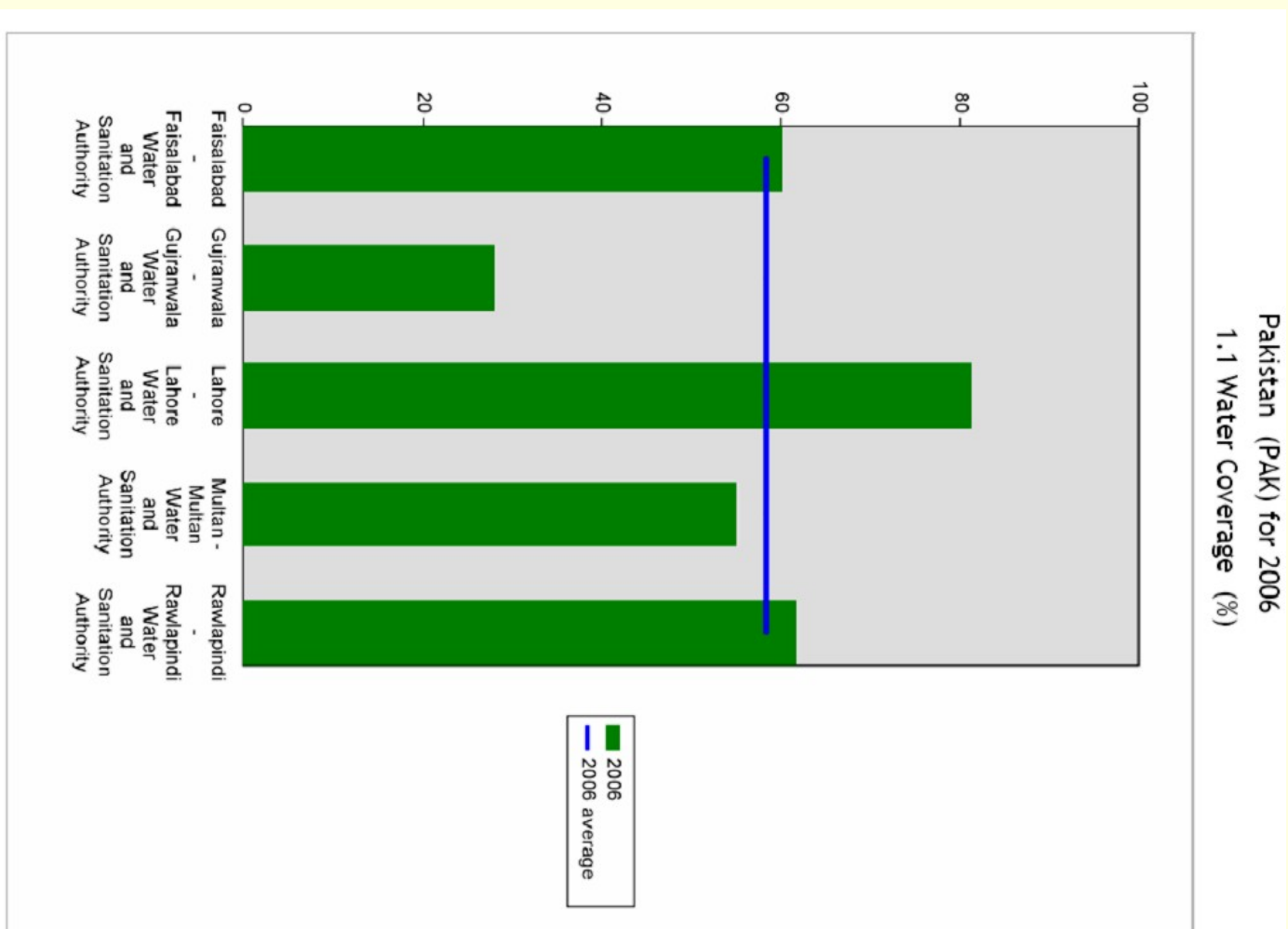
What the numbers say

1. Pakistan: Water sector is in very difficult situation:
 - Only 50-60% of population is served from centralized water supply
 - Almost no individual water metering
 - High production rate (up to 400 lpcd)
 - At the same time, relatively low consumption (<150 lpcd)
 - Thus, high level of unaccounted-for-water: 32-60%
 - Water losses exceed 80 m³/km/day

1. The average for the countries with income \$1,000-\$2,000 per capita a year
 - Coverage >75%
 - 70-100% water metering
 - Water production 250-300 lpcd
 - Water consumption 60-150 lpcd
 - Unaccounted for water 25-40%
 - Water losses 25-40 m³/km/day

Examples from China, Russia, Moldova, Armenia, Brazil

Punjab Water Coverage, 1.1



What the numbers say

2. High level of complaints

- Water is provided from 6-16 hours a day
- Water main breaks are relatively low 1.1-1.5 breaks per km a year
- Sewer clogs are 10-15 per km a year

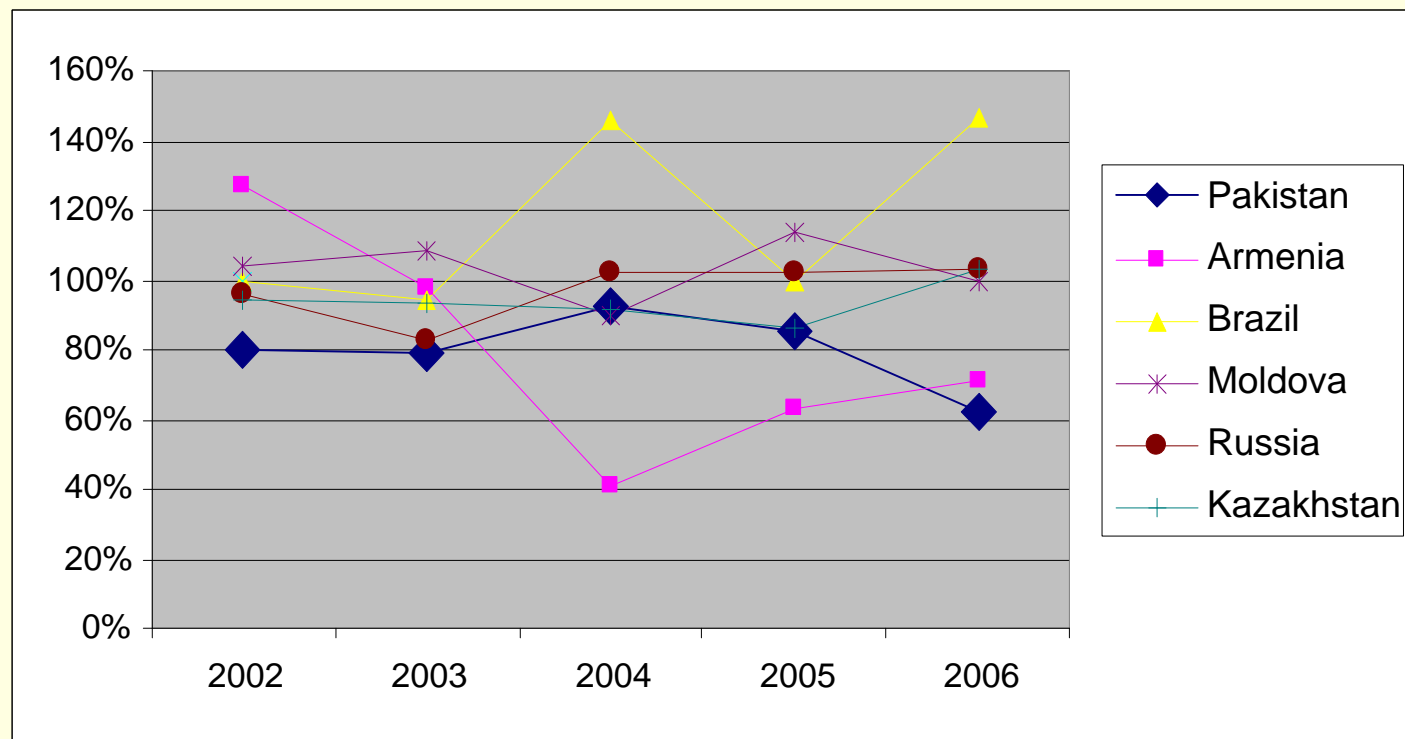
2. The average for the countries with income \$1,000-\$2,000 per capita a year

- Water provided 20-24 hours a day
- Pipe breaks 2-5 breaks/km/year
- Sewer clogs 2-3 per km a year

Examples from China, Russia, Moldova, Armenia, Brazil

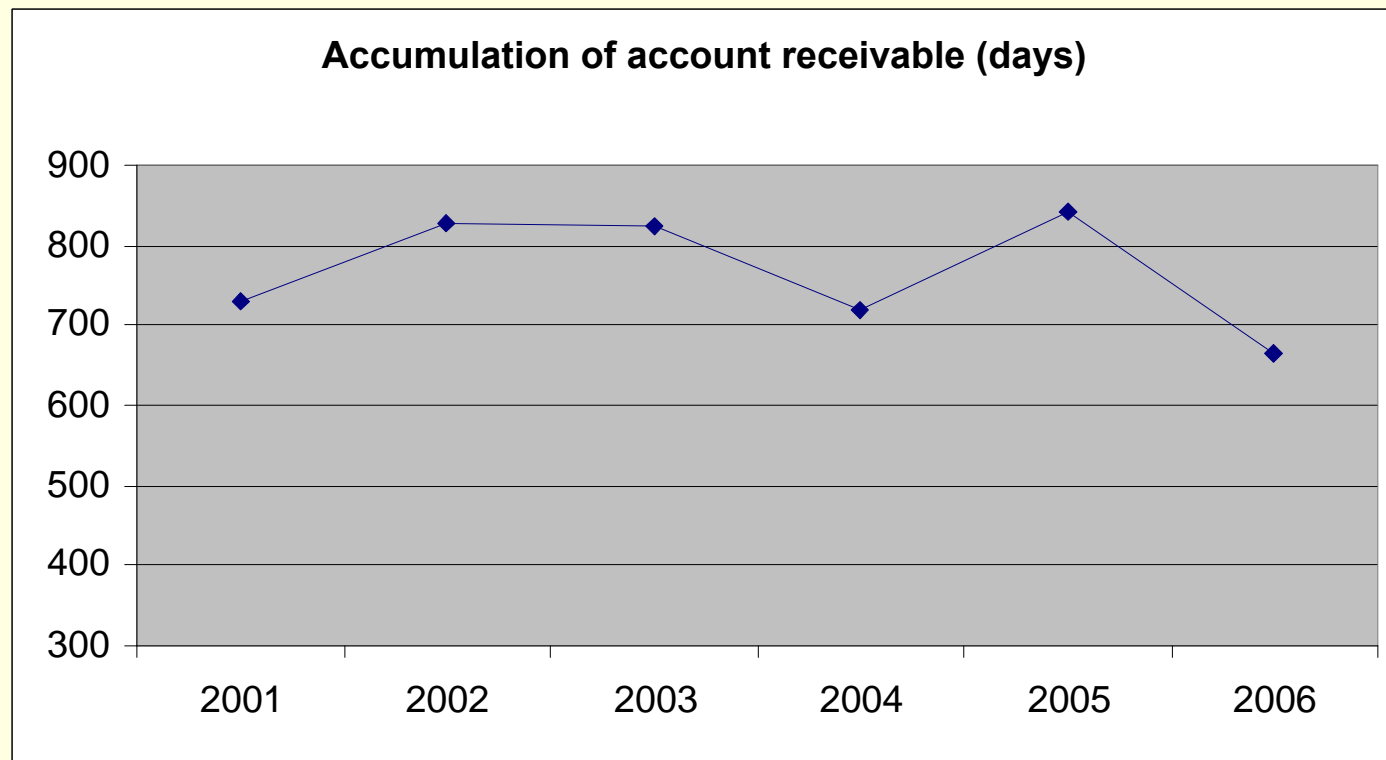
What the numbers say

3. Tariffs are low and do not cover costs:



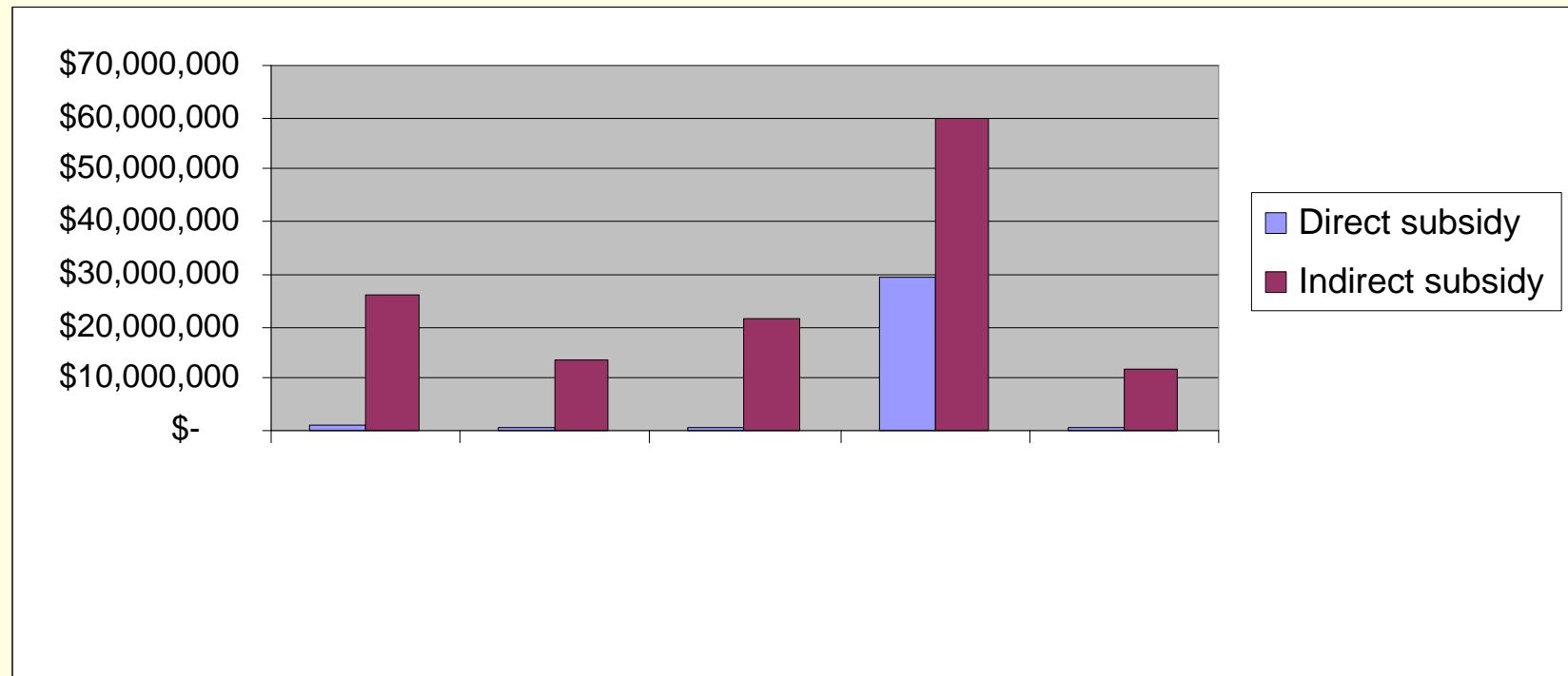
What the numbers say

4. Accumulation of account receivable:



Subsidies to water services in 2005

- Direct subsidies: Tariffs below operational costs
- Indirect subsidies
 - Uncollected revenue
 - Water losses
 - Tariffs below economic costs



Where do we want to go?

- Efficient and sustainable water services
- Financially sustainable water utility
- Customer satisfaction improved
 - 24-hours supply
 - Low rate of accidents
- Attractive business for investment and financial return

Efficient and sustainable water services

- Improve payment collection
- Reduce losses
- Justify need for tariff increase or financial subsidy to local authorities
- Initiate consumption metering starting from largest consumers

Efficient and sustainable water services (2)

- Forecast the effect of changes:
 - Increased period of supply and associated cost: How much hours a day you can afford with current tariffs and collection level?
 - Costs and benefits of the leak reduction program – how far do you want to go?
 - Water metering and financial revenue: drop in consumption may result in worsening of the financial status

Financially sustainable water company

- Sources of finances:
 - Tariffs
 - Subsidies from all levels of the government
 - Investment subsidy for services expansion
 - Subsidies for serving the poor and low-income groups
- Costs: operation and maintenance, electricity, salaries, chemicals, other

Financially sustainable water company

(2)

- Tariffs: where and how far can you go?
 - Currently W&WW tariffs make about 1% of the average income per year
 - Collection rate is low
 - What to do first (improve collection or increase tariffs)?
 - Tariff structure?
- Subsidies: justification of each of the element
 - What to subsidize?
 - What needs to be paid?
- Cost reduction actions: do not harm!

Customer satisfaction improved

- What really customer want first?
 - High water quality
 - Case of Russia – unachievable standards
 - 24 hours supply
 - Case of Sri Lanka
 - Improved coverage
 - How it will work with informal provides
- How it will affect tariffs?
- Can customer afford it without financial intervention from municipality?

Attractive business for investment and financial return

- What you can offer?
 - Outsourcing of payment collection
 - Installation of water metering
 - Capital reconstruction projects
 - BOTs, BOOTs

- Other financial instruments

Conclusions

- Water services in Punjab have large room for improvement
- Monitoring is a key for performance diagnostics and assessment of policy decisions
- IBNET provides easy and powerful tools for performance improvement programs

Examples of national data collection system

- <http://www.snis.gov.br/> - Brazil
- <http://www.ose.com.uy/> - Uruguay
- http://www.urbaneeconomics.ru/eng/news.php?folder_id=1&mat_id=19&from=fp&page_id=131 – Russia