Benchmarking of irrigation Projects – Maharashtra Case Study

Dr. Sanjay Belsare, Deputy Secretary

Map of India showing Maharashtra
Maharashtra: General Information

- Geographical Area: 30.7 Mha.
- River Basins: Godavari, Krishna, Tapi, Narmada & West Flowing Rivers Kokan
- No of Irrigation Projects completed: 3023 (82 Major, 186 Medium)
- Total Water storage created: 33070 Mm3
- Sectoral Allocation: 75% Irrigation, 15% Drinking, 10% Industrial
- Irrigation potential created: 4.98 Mha.
- Irrigation potential utilised: 3.98 Mha.

Objectives

- To evaluate performance of the project in terms of adequacy of irrigation, water use efficiency, O & M costs and cost recovery.
- To evaluate spatial equality achieved in water distribution.
- To assess irrigation potential creation and its utilization.
Benchmarking Methodology

- Benchmarking of irrigation projects initiated in 2001-02 with few projects, over the years, Benchmarking process has been internalised.

- Presently Benchmarking is carried out for 1237 projects in the State with 12 indicators.

- Separate organization within WRD is set up for carrying Benchmarking and Water Auditing.

Benchmarking Methodology...cntd

- Benchmarking is coupled with Water Auditing for data validation.

- Benchmarking of WUAs started on pilot basis with 9 indicators.

- For every indicator comparison is done for last 5 year average, last year and present year.

- For financial indicator, prices of base year considered to obviate effect of price rise.
## Indicators Selected

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Indicator</th>
<th>Objective</th>
</tr>
</thead>
</table>
| 1     | System Performance (3)  
Annual Irrigation Water Supply per unit Irrigated Area | To improve Water Use Efficiency               |
| 2     | Agricultural production (2)  
Output per unit Irrigation water supply | To improve productivity of water.            |
| 3     | Financial (6)  
Cost Recovery Ratio | To make the system self sustainable.          |
| 4     | Social (1)  
Equity Performance | To ensure equity in distribution of water     |

**Total 12**

**Indicator–I: Annual Irrigation Water Supply per unit Irrigated Area (cum/ha)**

![Graph showing annual irrigation water supply per unit irrigated area (cum/ha) for various projects.](attachment:image.png)
How Are the Results Shared

• Annual Benchmarking Reports are published.
• Reports are available on websites (www.wrd.maharashtra.gov.in).
• Results are discussed in state, Regional meeting/ workshops.

Difficulties faced

• In grouping large no. of scheme on similar footing
• Getting quality data.
• Motivating and keeping interest of project authorities.

Lessons Learned So Far

• Useful management tool.
• Improvement in Water Use Efficiency.
• Improvement in overall performance through adoption best practices.

Way Forward

• Use of IT and Remote Sensing.
• Capturing data at the source to get quality data and avoid delays.
• Transferring ownership of process to irrigation development corporations.
• New incentives to maintain healthy competition among project authorities.
THANK YOU

https://wrd.maharashtra.gov.in