



Report On
BENCHMARKING OF IRRIGATION SYSTEMS
IN MAHARASHTRA STATE
2009-10



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Benchmarking of irrigation Projects – Maharashtra Case Study
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WATER RESOURCES DEPARTMENT
Government of Maharashtra, India
March 2011



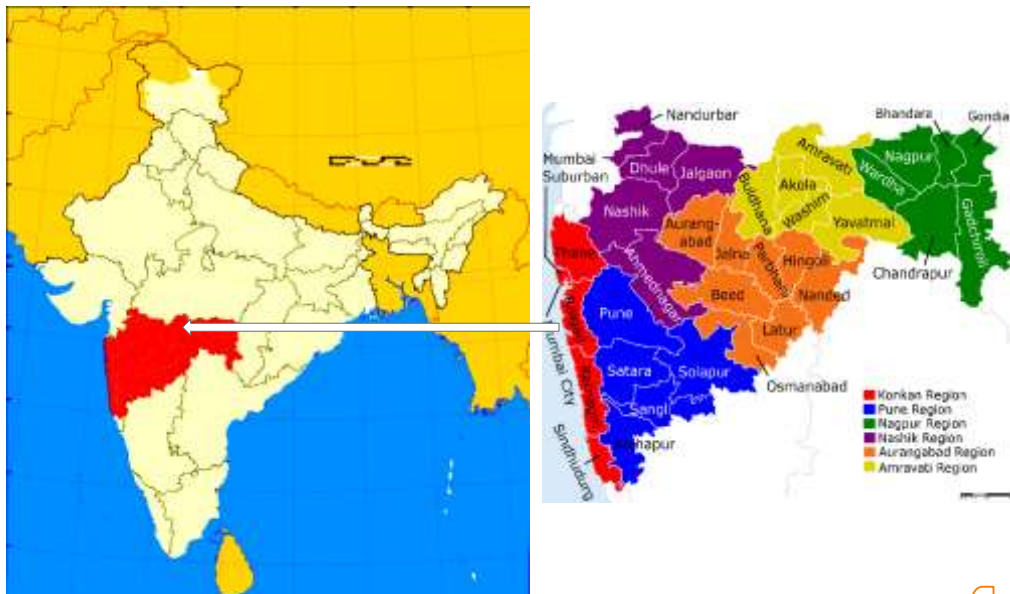
WATER RESOURCES DEPARTMENT
Government of Maharashtra, India
September 2012



WATER RESOURCES DEPARTMENT
Government of Maharashtra, India
December 2015

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Map of India showing Maharashtra



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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.

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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.

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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.

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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.

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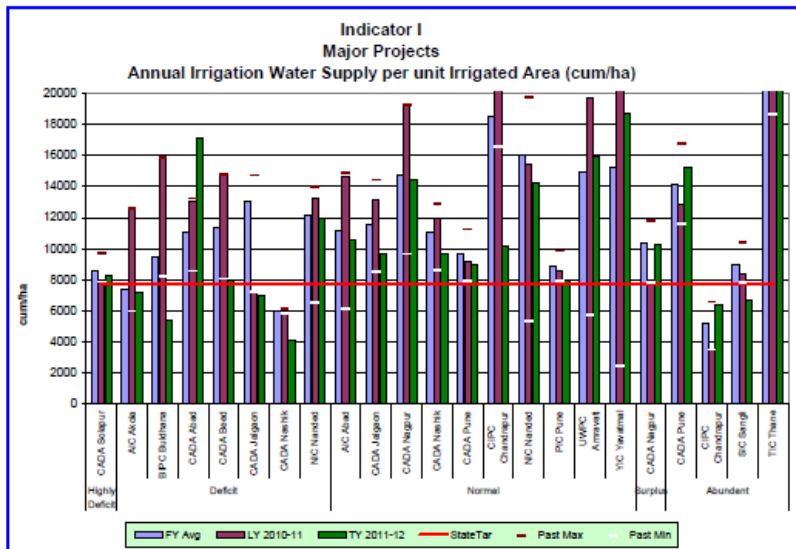
Indicators Selected



Sr. No	Indicator	Objective
1	System Performance (3) <i>Annual Irrigation Water Supply per unit Irrigated Area</i>	<i>To improve Water Use Efficiency</i>
2	Agricultural production (2) <i>Output per unit Irrigation water supply</i>	<i>To improve productivity of water.</i>
3	Financial (6) <i>Cost Recovery Ratio</i>	<i>To make the system self sustainable.</i>
4	Social (1) <i>Equity Performance</i>	<i>To ensure equity in distribution of water</i>
Total 12		

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



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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.

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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.

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THANK YOU

<https://wrd.maharashtra.gov.in>