

Challenges and the Future of Water Supply

- Focusing on Institutional /Governance /
Regulation System.**
- Role of Federal/States/Municipal Authority**

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30/10/2014

Indian Scenario

- India is the largest democratic country in world with population of 1.252 billions with 3,287,590 sq.km. area
- Have 29 States with 675 Districts, one National Capital Territory and 6 Union Territories.
- As per 2011 census Urban population is 31.16 % and 68.84% is Rural population having vast geographical, cultural variations with different levels of water demands.



Indian Scenario --- Continued

- Level of urbanization has increased from 27.81% in 2001 census to 31.16% in 2011 census.
 - Day by day Demand is increased due to increase in population.
 - Improved living standard and industrialization.
 - However, day by day the fresh water sources are depleting and demand is increasing and studies reveal that the water availability will drop from 1,900 cu. m. currently to 1,000 cu. m. by 2025.
 - Feared that by 2025 India will be in category of water scarce country.
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Indian Scenario --- Continued

- Government of India has given top priority for access to safe drinking water for all
- Policy guidelines to address the issue of drinking water are framed by Central Government.
- Supply of Drinking Water is State subject.
- In many states water supply is handled by Water Supply Boards, Municipal Corporations, Zilla Parishads / Panchayats etc.



Recommended per Capita Water Supply Levels

Sl. No.	Classifications of towns / cities	Recommended maximum Water Supply Levels (lpcd)
1.	Towns provided with piped water supply but without sewerage system	70
2.	Cities provided with piped water supply where sewerage system is existing / contemplated	135
3.	Metropolitan and Mega cities provided with piped water supply where sewerage system is existing / contemplated	150
4.	Rural areas	40

Service Level Benchmarks

- Recently GOI (MOUD – CPHEEO) has indicated service level benchmarks for different aspects of Water supply

Sr. No.	Description	Benchmark Level
1.	Coverage of water supply connections	100%
2.	Per capita water supply	135 lpcd
3.	Extent of metering of water connection	100%
4.	Extent of Non-Revenue water (NRW)	20%
5.	Continuity of Water	24 Hrs
6.	Cost recovery in Water supply services	100%
7.	Quality of Water supplied	100%

Present Status


- 85.5% of Population in India is having access to Safe drinking water and 14.5% of the population still remains to be covered (supply levels inadequate).
- The Details of Coverage are:
 1. Drinking water source within the premises --- 46.58%
 2. Drinking water source near the premises --- 35.84%
 3. Drinking water source away from premises --- 17.58%
 4. Very less consumers are charged on metering. Major consumers are charged on flat rates such as 'Pani Patti' or part of House Tax.

Present Status ---- (Continued)

5. Intermittent Water supply.
6. No proper Water auditing system.
7. No proper NRW Control.
8. No proper Tariff Policy & Structure.
9. No proper Water quality check system.
10. Uneven supply levels and supply levels depending upon location of the consumers.




Present Status ---- (Continued)

11. Automation system used sparingly.
 12. Absence of latest technologies and innovative methods as majority of the utilities are managed by government organization .
 13. Lack of Awareness amongst the stake holders.
 14. Operation/Maintenance aspect not given due importance resulting in poor operation and maintenance and poor performance.
 15. Lack of sufficient capacity of infrastructure and trained manpower.
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Future of Water Supply

– Role of Union / State Authorities

Union

- Framing of Policies and Programs to cater present needs
 - Approval / Authentication System for new technologies
 - Monitoring and Evaluation mechanism
 - Periodical review system
 - Interstate issues resolution mechanism.
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Future of Water Supply – Role of Union / State Authorities

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State Authorities

- Plan, Design and execute Water supply schemes
- Capacity Development of infrastructure and human resources
- Awareness amongst all the stake holders
- Tariff Policy – Self Sustainability
- Quality



Future of Water Supply – Role of Union / State Authorities --- (Continued)

State Authorities

- Automation
- NRW Control/Water auditing
- Private Sector Participation
- External Co-operation
- 24X7 sustainable Water Supply



Conclusion

- The Central and State Government is geared up to deal with the above challenges in water sector and the goal of 24X7 Water Supply can be accomplished by the year 2025.



THANK YOU

