Catalogue of Research Reports on Infrastructure Sectors

August 2020
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Our clients include most organisations involved in the infrastructure sectors – multinationals, top Indian corporates, commercial and investment banks, consulting companies, public sector companies, government agencies, multilateral agencies and legal firms.
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## NEWSLETTERS

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# Operational and Financial Performance of Discoms (April 2020)

**Price:** Rs. 75,000 (USD 1,770)

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The report will be available in a PDF format.
Solar Power Market in India (2020-2030) (May 2020) (Draft ToC)

Price: Rs. 75,000 (USD 1,770)

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     (This will include key state profiles covering factors such as capacity
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The report will be available in a PDF format
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Each terminal's profile will cover project scope, capacity, investment, pipeline connectivity, developer, current status, expected completion timelines, etc.

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The report is available in a PDF format.
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   - Solar Power Potential
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The report is available in a PDF format.
Power Distribution in India 2020
Sector Growth Discom performance, Emerging Trends and Future Outlook

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- Cement
- Petrochemicals and Refineries
- Chemicals
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*The report is available in a PDF format.*
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    - Cleantech Solar
    - SunSource Energy
    - ReNew Power
    - Tata Power Solar

The report is available in a PDF format.
1. MARKET OVERVIEW, KEY TRENDS AND RECENT DEVELOPMENTS

There is a rising popularity among developers, especially renewable energy players, to go for third-party direct sale agreements. States of Karnataka, Tamil Nadu, Andhra Pradesh and Telangana in the southern region of India and Rajasthan, Punjab and Haryana in the northern region of the country are fast catching up with open access transactions. But there are significant challenges in the growth of this segment, especially those pertaining to developers’ resistance to let go of their high-end consumers.

- Size and Growth of Open Access-based Power Projects
- Renewable Energy-based Open Access Projects: Year-wise Trends, Source-wise Share
- Participation of Open Access Consumers in the REC Market: Volume Trends, Price Trends
- Leading States
- Key Growth Drivers
- Tariff Trends in Open Access through Solar and Wind
- Key Issues and Challenges

2. IMPACT OF AMENDMENTS IN ELECTRICITY ACT, 2003

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3. EXISTING OPEN ACCESS POLICY AND REGULATORY SCENARIO

The policy and regulatory framework in this space is currently highly dispersed and varied across states, and is not even stable over the years. There is always a risk of open access charges changing year on year, making it a risky proposition to invest in.

- Overview of Open Access Charges and Losses: For Solar Projects, For Wind Projects
- Model Regulations for intra-state Open Access and Grid captive
- State-wise Orders of Open Access/Group Captive
- State-wise Implementation Status Overview
- State-wise Power Demand and Supply Overview
- RPO Trajectory for Open Access Consumers
- Key Issues and Challenges

4. INDUSTRY STRUCTURE AND BUSINESS MODELS

The industry structure in the renewable open access segment has been emerging gradually with more number of players entering into this space. Project developers and investors are currently cautious of investing significantly in this segment, but the trend is now changing.

- Power sale options: Bilateral, Collective, REC
- Industry Structure
- Key Players and Capacities: Solar Segment, Wind Segment
- Risks and Concerns

5. TERMS OF THIRD-PARTY POWER SALE CONTRACTS

It is important for both the buyers and sellers to clarify and list out their expectations and accordingly draw up the commercial power sale contract as per the applicable regulatory framework in the respective state.

- Time Period
- Extension Provision
- Tariff and Escalations

6. ROLE OF ENERGY BANKING, F&S AND DEVIATION SETTLEMENT MECHANISM

Energy banking will play a key role in the success of solar and wind power-based open access projects. Banking is presently allowed by SERCs upon the levy of a banking charge, which differs in magnitude across states. Rules around energy banking are specified in different types of documents in various states. Additionally, various attributes of the energy banking framework also differ across states.

- State-wise Energy Banking Mechanism for Open Access Projects:
  - Banking Charging, Banking Period, Buy-back Rate, Restrictions on Time of Injection, Withdrawal of the Banked Energy, Other Attributes (seasonality constraints, buy-back rates, accounting for RPO, etc.)
  - State-wise Emerging Energy Banking Framework
  - State-wise Forecasting and Scheduling
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7. STATE PROFILES

This chapter will include profiles of Andhra Pradesh, Karnataka, Tamil Nadu, Maharashtra, Gujarat, Rajasthan, Madhya Pradesh, Telangana, Uttar Pradesh, Chhattisgarh, Haryana, Delhi, Punjab, etc.

- Open Access Charges and Exemptions for Solar and Wind Power:
  - Key Players and Capacities: Overall Solar, Solar Open Access, Overall Wind, Wind Open Access
  - Landed Cost and Return Analysis
  - Process and Approvals for Open Access Projects
  - Key Industrial and Corporate Clusters: Existing, Upcoming

8. PROJECTED OPEN ACCESS MARKET

Over 2 GW of green power is being sold to big corporates through direct agreements and the trend is northbound as more and more corporates and industries are joining in the race. The business case for renewable energy based open access is getting stronger with the decreasing cost of green power and increasing cost of thermal power.

- Short-term (2019-23) and Long-term (2024-28) Projections
- Renewable-based Open Access Capacity Projections
- Open Access Projected Tariff and Pricing Trends
- IRR Projections
- Future Growth Drivers
- Expected Market Restraints

EXPERT OPINION

The report will feature 5-8 interviews of senior representatives at regulatory commissions, large open access consumers and key open access project developers, and experienced industry consultants.

The report is available in a PDF format.
EXECUTIVE SUMMARY

With the growing demand for power in urban areas and industries, underground cable systems are becoming an increasingly indispensable part of power transmission and distribution systems. With improved technologies and increased reliability, the cost differential between underground cables and overhead power lines is narrowing and utilities are acknowledging the benefits associated with underground cabling. This report will attempt to take a look at the key trends in the deployment of underground cables so far; analyse the plans and proposal of T&D utilities; examine new and evolving technology improvements and solutions being offered by the industry; as well as assess the key issues and challenges.

1. T&D INDUSTRY OVERVIEW

The T&D industry has been growing steadily with investments being made in system strengthening and capacity additions. This chapter gives an overview of the T&D industry and will focus on:

- Growth and Size of Existing T&D Networks
- Recent T&D Network Additions
- Projected T&D Network Additions
- Projected Capex (till 2022-23)
- Future Outlook
- Issues and Challenges

2. MARKET SIZE AND GROWTH FOR UNDERGROUND CABLES

Most of India’s T&D network continues to be strung overhead across the country; however, concerns about reliability and quality of supply are making utilities gradually replace their networks with underground lines. This chapter gives an overview on the new and emerging utility requirements in the underground cabling segment and will cover the following:

- Experience so far in T&D Networks
- Emerging Utility Requirements
  - Transmission
  - Distribution
- Major Projects Commissioned
  - Transmission
  - Distribution
- Major Projects Awarded/Under Construction
  - Transmission
  - Distribution
- Key Recent Tenders
- Issues and Challenges

3. RECENT TRENDS AND ADVANCES

Well-designed and well-installed underground cable systems are expected to have a service life of 30-40 years. Utility providers, transmission companies and cable manufacturers are hence, looking for new technologies and solutions to respond to new grid challenges. This chapter looks at the new and promising technologies, designs and solutions for underground cable networks.

- Design, Laying and Construction Processes
- Product and Technology Trends
- Market Trends and Developments (JVs/Acquisitions/Partnership Deals)
- Pricing and Cost Trends

4. OPPORTUNITIES UNDER KEY CENTRAL/STATE GOVERNMENT PROGRAMMES

Underground cables are an important part of several central government initiatives for improving T&D networks under IPDS. This chapter provides the details of plans and targets of works proposed to be taken up under various schemes.

- Snapshot of Key Government Programmes (IPDS, Green Energy Corridors, State Government Initiatives, etc.)
- Physical Targets for UG Cabling Works
- Funding Availability for UG Cabling Projects
- Issues and Concerns

5. OPPORTUNITIES UNDER SMART CITIES MISSION

The Smart Cities Mission offers significant opportunities for underground cabling in key cities. Some cities such as Indore, Belagavi, Dharamshala, Lucknow, Kanpur and Tirupati are implementing projects for setting up underground cabling network for utilities such as electric wires, water pipelines, stormwater drains, sewers and telecommunication cables. This chapter provides the details of plans and targets of works proposed to be taken up under various schemes.

- Snapshot of the Mission
- Physical Targets for UG Cabling Works
- Projects Completed so far in Key Cities
- Projects Under Construction/ Awarded
- Proposed Projects
- Issues and concerns

6. OUTLOOK AND PROJECTIONS (TILL 2022)

This chapter will give a snapshot of the investments and physical targets proposed for underground cabling networks by transcos and discoms. The information presented in this chapter is based on both primary and secondary information collected from transcos and discoms.

- Growth Drivers for UG Cabling
- Expected Demand for UG Cables
- Plans and Targets of Utilities by Segment
  - Transmission
  - Distribution
- Budgeted Capital Expenditures on UG Cabling
- Future Outlook

7. LEADING PLAYERS

This chapter primarily focuses on the profiles of key vendors and technology providers for underground cabling. Each profile covers the following information:

- Brief Company Overview
- Key Product Offerings
- Existing Manufacturing Capacity
- Financial Performance
- Future Plans

The report is available in a PDF format.
Future of Solar O&M in India (September 2018)

Changing Landscape, Growing Role of Digitisation and New Opportunities

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1. EXECUTIVE SUMMARY
   Solar plants are built to last 20-25 years. After the engineering procurement and construction period is completed, developers need to ensure that the operations and maintenance (O&M) activities are seamless for sustained energy generation over the project lifetime. The report will highlight the emerging opportunities in this space and the growing role of new technologies like automation and artificial intelligence.

2. MARKET OVERVIEW
   In the initial years of solar power development in India, O&M was often coupled with EPC and performed by the same vendors, but of late, solar O&M has emerged as a separate market with its own landscape, trends and dynamics. This chapter will cover the following areas:
   - Current size of the solar O&M market
   - Market size by segment
     - Utility-scale, Rooftop, Canal-top & floating solar
   - Key growth trends and drivers
   - O&M Evolution - Reactive to Predictive Analysis
   - Applications in solar O&M, Cost and time savings
   - Emerging Role of Energy Storage
   - Key issues and concerns

3. COST TRENDS
   The cost of O&M services has been declining over the past few years and the downward trend is expected to continue. The cost composition itself is changing due to greater automation and use of advanced tools. This chapter will cover the following areas:
   - Solar O&M cost trajectory (2012-18)
   - Cost breakup analysis
     - Vehicles and logistics, Equipment and tools, Overheads, Personnel/Manpower, Digital, Others
   - Cost projections (2019-24)
     - Business model evolution, Key cost considerations, Impact of scale, Impact of energy storage, Future cost estimates

4. EMERGING O&M BUSINESS MODELS
   Globally, there has been a rise of third party solar O&M service providers. As more sophisticated and structured approach emerges in the solar O&M market, third party providers are able to deliver more value to solar investors and owners. This chapter will cover the following areas:
   - Capex-based
   - Profit-sharing
   - Fixed cost
   - O&M extensions
   - Others

5. TERMS OF O&M CONTRACTS
   It is important for both developers and O&M service providers to clarify and list out their expectations and accordingly draw up a long-term contract. An effective contract will result in higher plant efficiencies. This chapter will cover the following areas:
   - Time periods
   - Product warranties
   - Performance guarantees/SLAs
   - Penalties
   - Ownership
   - Legal terms

6. GRID MANAGEMENT BY O&M PLAYERS
   As the government becomes stricter in its implementation of forecasting, scheduling and deviation settlement mechanism regulations, grid management will become a key component of O&M players. Integration of energy storage on to existing plants will lead to a greater O&M play. This chapter will cover the following areas:
   - Forecasting and scheduling
   - Deviation settlement management
   - Integration of energy storage into existing plants
   - Cost implications
   - Experience so far

7. O&M COMPANY PROFILES
   A large number of O&M focused players are coming up, some as hive-offs from existing EPC companies and others as independent specialists. This chapter will have 5-8 profiles of key O&M players in India covering the following:
   - Project portfolio
   - Service offerings
   - Technology tie-ups
   - On-ground experience
   - In-pipeline capacity
   - Etc.

8. DIGITALISATION AND AUTOMATION AT PLANT LEVEL
   Digitalisation and automation will play a key role in providing efficient O&M services, thereby changing the current O&M cost composition, which is currently dominated by manpower expenses. New technologies are being adopted for improving asset lifecycle management, predictive maintenance, remote sensing and control, cloud computing, and use of drones for visual imaging. A number of companies have also already started using robotics for cleaning modules. This chapter will cover the following areas:
   - Emerging role, applications and use case for the following
     - Manpower and material management, Automated monitoring and big data analytics, Robotics, drones and wearables
   - Growing role of artificial intelligence
     - Machine learning applications, AI field assistants and predictive analytics, Existing use cases
   - Key technology providers
   - Industry Perspective
     (Views of key personnel from the solar O&M industry and technology providers on the growing role of AI, robotics and data analytics)

9. KEY CHALLENGES, BEST PRACTICES AND CASE STUDIES
   The lack of attention given to O&M practices is one of the primary challenges that the segment is facing. If the plant is not maintained properly, developers can lose up to 15 per cent of the returns. This chapter will cover the following areas:
   - O&M challenges matrix
   - Best practices (Globally and in India)
   - Case studies (This will cover successes and failures of various technologies, business models and strategies adopted by O&M players)

10. PROJECTED O&M MARKET SIZE (FROM 2019-20 TO 2024-25)
   The total addressable market for solar PV O&M is expected to reach 30 GW in 2018-19. It is likely to more than triple by 2022 to exceed 100 GW. In fact, going forward, as the installed base gets larger, O&M revenue may even exceed the development and construction revenue. This chapter will cover the following areas:
   - Impact factors
   - Emerging O&M industry structure
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The report is available in a PDF format.
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    - Private Sector: JSW Energy; Tata Power Company Limited; JP Power Ventures; AHPC
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The report is available in a PDF format.
Renewable Energy Development in Africa (April 2018)

Trends, Outlook, Opportunities and Projections  No. of slides: 504

Price: Rs 200,000 (USD 3,200)

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This section has 30 chapters pertaining to the renewable energy scenario and outlook for 30 African countries. These includes Algeria, Angola, Botswana, Cameroon, Democratic Republic of the Congo, Egypt, Ethiopia, Ghana, Guinea, Kenya, Libya, Madagascar, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

Each country profile provides information on:
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The report is available in a PDF format.
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Solar Plant Performance in India 2017-18

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The report is available in a PDF format.
# Storage Infrastructure in India 2020

## Market Insights, Trends, Opportunities and Outlook

**Price:** Rs 75,000 (USD 1,770)

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*The report will be available in a PDF format.*
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The report will be available in a PDF format.
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Each profile covers the project scope (network length, alignment details, number of stations, rolling stock, fare system, signaling and telecommunications, traction, etc.), ownership details, implementing agency, cost estimates, key consultants, key contractors, key milestones, funding pattern, actual/expected ridership, recent contracts, upcoming tenders, and the detailed current status.

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19. TRACKS: CURRENT NETWORK AND EXPANSION PLANS - Size and Growth; Network Expansion Targets versus Achievements; Track Electrification; Track Renewal and Repair; Recently Completed Projects; Recently Awarded Contracts; Key Ongoing Projects; Upcoming Tenders and Contracts; Network Expansion Plans

20. BRIDGES - Growth in Number of Rail Bridges; ROBs/RUs Sanctioned; RRBs/RUs under Setu Bharatam; Technology and Design Trends; Key Bridge Projects; Key Ongoing Projects; Key Upcoming Projects; Segment Outlook

21. RAIL TUNNELS - Size and Growth; Techniques for Tunnel Construction; Key Completed Projects; Key Ongoing Projects; Key Upcoming Projects; Upcoming Contracts and Tenders; Key Issues and Challenges

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22. SAFETY - Current Safety Scenario; Expenditure Trends; Rail Sanraksha Kosh; Key Budget Announcements; Government Initiatives; Issues and Challenges; Future Plans and Investments

23. ENERGY REQUIREMENTS AND RENEWABLE ENERGY POTENTIAL - Electricity Consumption and Expenditure; IRS Targets Under Mission 41K; Electrification Initiatives; Initiatives to Reduce Traction and Non-Traction Consumption; Transmission Network; New Captive Power Plants; Current Renewable Capacity (Solar & Wind); Key Ongoing Projects; Upcoming Tenders and Contractors; Other Key Initiatives and Developments; Issues and Challenges; Upcoming Opportunities

24. SIGNALLING AND TELECOMMUNICATION SYSTEMS - Current Infrastructure and Practices; Recent Initiatives and Developments; Technology Trends and Advancements; Initiatives under Make in India; Market Opportunities; Expenditure Trends; Investment Plans and Requirements

SECTION VII: PROFILE OF RAILWAY PSUS

25. KEY RAILWAY PSUS - Brahmaputra & Company Limited; Container Corporation of India Limited; Dedicated Freight Corridor Corporation of India Limited; High Speed Rail Corporation of India Limited; Indian Port Rail Corporation Limited; Indian Railway Catering and Tourism Corporation Limited; Indian Railway Finance Corporation Limited; Ircon International Limited; Konkan Railway Corporation Limited; etc.

The dataset covers the following:
- MasterSheet of Key Upcoming Projects; Zone-wise Expenditure in 2019-20; Track Electrification and Telegraph; Traction Distribution Works; Electrification; Dedicated Freight Corridors (DFCs); High Speed Rail (HSR) Projects; Rapid Regional Transit Systems; Station Redevelopment Projects; Rail Tunnel Projects; Key PPP Projects

The report will be available in a PDF format.
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1. SECTOR OVERVIEW AND KEY TRENDS
   - Network Size and Growth; Traffic Trends; Policy and Institutional Framework; Policy Enablers; Overall Performance; Targets and Achievements; Funding Scenario; Key Sector Trends and Developments; Investment Requirements; Issues and Challenges; Sector Outlook and Opportunities

2. IMPACT OF COVID-19 ON PROJECTS, CONSTRUCTION & FINANCING
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   - Impact on: Under Construction Projects; Bid Delays; Financial Closures; Asset Monetisation; Supply Chain; Raw Material Availability and Input Costs
   - Stakeholders’ Perspective
   - Future Outlook and Strategies

3. GOVERNMENT INITIATIVES AND IMPACT OF POLICY CHANGES
   - Key Policy Announcements and Their Impact
   - Steps to Fast-track Land Acquisition
   - Initiatives for Revival of Stalled Projects
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   - Proposed Policy Changes
   - Industry Concerns and Expectations

4. ASSET MONETISATION UNDER TOT
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5. MARKET OPPORTUNITIES UNDER BHARATMALA PARIYOJANA
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6. PROJECT PIPELINE: REALISTIC ASSESSMENT IN LIGHT OF COVID-19
   - Overall Analysis: By Mode; State; Type; Stage of Implementation
   - Profiles of 50 Key Upcoming Projects: National Highways; Greenfield Expressways; State Roads and Highways; Bridges/Flyovers/Elevated Roads; Road Tunnels; Others

7. FUTURE OUTLOOK AND MARKET PROJECTIONS
   - Growth Drivers; Project Award and Completion Targets; Investment Projections; Investment Outlook; Policy Outlook; Opportunity by Staker; Developers; EPC Contractors; Financiers; Equipment and Material Suppliers; O&M Players; Other Emerging Opportunities

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8. HYBRID ANNUITY MODEL: PROGRESS AND EXPERIENCE
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9. BOT MODEL: REVIVAL STRATEGIES AND POTENTIAL
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10. EPC: EXPERIENCE AND OUTLOOK
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11. OPERATIONS, MAINTENANCE AND TOLLING
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12. FINANCING TRENDS
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13. ASSET SALES AND ACQUISITIONS
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14. EQUIPMENT MARKET TRENDS AND PROJECTIONS
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15. MATERIALS: MARKET TRENDS AND PROJECTIONS
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17. SNAPSHOT OF KEY STATES
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18. PROFILES OF KEY STATES
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19. PROFILE OF KEY DEVELOPERS AND CONTRACTORS
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EXECUTIVE SUMMARY

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1. INDIAN CONTAINER MARKET OVERVIEW
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3. CONTAINER TRAFFIC AND CAPACITY ANALYSIS
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4. EXPECTED IMPACT OF DEDICATED FREIGHT CORRIDOR
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5. MARKET OPPORTUNITIES, OUTLOOK AND PROJECTIONS (2019-20 to 2023-24)
   - Demand Drivers; Policy and Regulatory Outline; Cost of Container Movement; Projections; Traffic Projections by Mode of Transportation (road, rail, coastal shipping and inland waterways); Capacity/Network Expansion Projections; Projected Freight Rates; Key Upcoming Projects; Big-ticket Opportunities: 2019-20 and Beyond

6. COSTS AND TARIFF TRENDS
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7. INVESTMENT SCENARIO
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8. KEY GOVERNMENT INITIATIVES AND POLICY CHANGES: IMPACT ANALYSIS
   - GST Regime; E-way Bill; National Logistics Policy & MMLP Policy; Cabotage Law Relaxation; Revised Tariff Guidelines for Private Terminal Operator; Freight Any Kind (FAK) Tariff Regime for Rail Containers; Relaxation of Coastal Movement of Exim Transshipment and Empty Containers; Direct Port Delivery Scheme; DMIJCDC Logistics Data Services; Others

This chapter will analyse the impact of these initiatives and policy changes on container terminal operators, container train operators, road transporters, trucking industry, shipping companies, CSFs, ICUs, etc.

9. INFRASTRUCTURE DEVELOPMENT UNDER OTHER KEY PROGRAMMES
   - Sagarmala Programme; Bharatmala Programme; Jai Marg Vikas Project; Delhi Mumbai Industrial Corridor; Others

This chapter will cover the overview, key features, container infrastructure capacity, current status, and upcoming opportunities under each of these programmes/projects.

SECTION II: CONTAINER MOVEMENT: SEGMENT ANALYSIS, TRENDS & OPPORTUNITIES

10. PORTS
   - Traffic Trends: Major and Non-major Ports, Port-wise Analysis, Terminal-wise Analysis, East Coast versus West Coast, Loaded versus Unloaded, Transshipment Traffic, Domestic vs Exim Traffic; Container Handling Capacity; Trends in Global Container Shipping; Transshipment Scenario; Vessel Traffic; Average Vessel Size at Ports; Efficiency Trends; Upcoming Projects & Planned Capacity Addition; Key Initiatives to Improve hinterland Connectivity; Key Issues and Challenges; Outlook and Projections

11. ROADS
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13. COASTAL SHIPPING AND INLAND WATERWAYS
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Each of the following chapters will include:
   - Segment Size and Growth
   - Existing Capacity
   - Policy Framework
   - Government Schemes and Initiatives
   - Major Players
   - Upcoming Projects and Opportunities
   - Future Outlook

14. COLD STORAGE & REEFER CONTAINERS

15. CONTAINER FREIGHT STATIONS/INLAND CONTAINER DEPOTS

16. LOGISTICS PARKS & MMLPS

17. FREE TRADE WAREHOUSING ZONES

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18. KEY PORT CONTAINER TERMINALS
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Each profile will cover information on throughput, current capacity & capacity utilisation, key facilities, draught levels, dwell time, equipment available and planned expansion.

19. KEY CONTAINER TRAIN OPERATORS
   - Adani Logistics Limited; Arshiya Rail Infrastructure Limited; Container Corporation of India Limited; Central Warehousing Corporation; Distribution Logistics Infrastructure Private Limited; Gateway Rail Freight Limited; Hind Terminals Private Limited; IndiiaLinx; Illogicists; International Cargo Terminals and Rail Infrastructure Private Limited; Kribhco Infrastructure Limited; etc.

Each profile will cover information on company operations, existing infrastructure, network covered, financial performance, future plans, etc.

20. KEY ROAD TRANSPORT OPERATORS
   - Transport Corporation of India Limited; Allcargo Logistics; Associated Road Carriers Limited; Coastal Roadways; Darcl Logistics; DRC Logistics; East West Freight Carriers Private Limited; Gati KWE; Patel Roadways; Prakash Roadlines Private Limited; TVS Southern Roadways Limited; VRL Logistics Limited; Others

Each profile will cover information on company operations, existing fleet, geographical coverage, financial performance, future plans, etc.

The report is available in a PDF format.
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   - Factors Impacting Project Viability
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   - Funding Sources
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6. KEY GOVERNMENT PROGRAMMES
   This chapter will highlight the current status and upcoming opportunities under Sagarmala, Jal Marg Vikas and National Mission for Clean Ganga. Each programme covers the following information:
   - Project Scope
   - Investment Requirement
   - Progress So Far
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12. PROFILES OF MAJOR PLAYERS
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    - Fleet Size
    - Project Portfolio (Completed and Ongoing Projects)
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    - Financial Performance
    - Future Plans

DATABASE OF DREDGING PROJECTS
A comprehensive database of key dredging projects with information on quantity dredged, contractor, location, contract value, type of dredge deployed, etc. The database would include projects being undertaken at the major ports, non-major ports, national waterways, oil and gas fields, rivers, beaches, etc. It would also cover the ongoing and upcoming projects under the central government programmes.

The report is available in a PDF format.
Logistics in India 2020 (August 2020) (Draft ToC)

Future Needs, Emerging Trends and New Opportunities

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4. FREIGHT TRAFFIC ANALYSIS & PROJECTIONS IN LIGHT OF COVID-19
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6. PRIVATE PLAYERS’ PLANS, PERFORMANCE AND STRATEGIES
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10. ROADS
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These chapters will cover Size and Growth; Government Schemes and Initiatives; Key Trends and Developments; Market Structure and Key Players; Impact of Covid-19 on Demand and Rentals; Growth Drivers; Key Issues and Challenges; Key Initiatives; and Outlook and Opportunities

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These sections will cover Size and Growth; Key Trends and Developments; Macroeconomic Scenario and Growth Projections; Covid-19 and Its Implication; Short, Medium and Long-term Freight Traffic Projections (Current and post Covid-19 scenario)

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   - Recent Contract and Tenders
   - Initiatives So Far
   - Potential for LNG and Biogas Buses
   - Issues and Challenges
   - Demand Projections and Market Opportunities

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The report is available in a PDF format.
EXECUTIVE SUMMARY

SECTION I: SECTOR TRENDS, POLICY INITIATIVES, OUTLOOK AND PROJECTIONS

1. Sector Overview and Key Trends
   - Mineral Reserves; Trends in Production and Consumption; Trends in Imports and Exports; Mineral Trade Deficit; FDI in Mining; National Mineral Policy, 2019: Impact on the Sector; Union Budget 2020-21; Disinvestment Targets; Investment Requirements; Key Risks and Challenges; Sector Outlook

   - Need and Objective; Key Changes Related to; Impact on Coal Mining Impact on Other Minerals; Expected Impact on the Industry (production, exploration, investments, FDI, etc.); Industry Viewpoint and Recommendations

3. Exploration Status: Progress and Future Requirements
   - Current Exploration Spend; Stripping Ratios; Capital Expenditure on Exploration; Experience with Private Players; Foreign Participation: Experience, Opportunity Areas and Limiting Factors; Potential Foreign Country Collaborations; Key Issues and Challenges

4. Outlook and Key Projections (2024-25)
   - Growth Drivers; Demand and Supply Projections of Key Minerals; Policy Outlook and Proposed Policy Initiatives; Mining Lease Expiry in March 2020: Expected Impact; Exploration Targets (Next 3-4 years); Expected Constraints

5. Project Pipeline and Market Opportunities
   - Overall Pipeline; Top Upcoming Projects; Analysts; Market Opportunities for Stakeholders

6. Update on Auctions
   - Overall Analysis; Key Bidders; Blocks under Auction; Key Issues and Challenges

7. MDO Experience and Outlook
   - Experience So Far; Key MDOs; Issues and Concerns; Solutions and Recommendations; Upcoming Opportunities; Future Outlook

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10. Coal Mining Auctions Update
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11. Commercial Coal Mining: Expectations and Future Roadmap
    - Recent Policy Developments: Proposed Impact; Impact on Coal India Limited; Commercial Coal Auction Plans for 2020-21; Monetary Allocations for Block Exploration; Key Issues and Challenges

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14. Limestone
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15. Bauxite
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16. Copper
    - Reserves; Production; Exports and Imports; Price Trends; Key Players; Investment Plans; Upcoming Projects and their Status; Mineral Outlook and Projections (till 2024-25)

17. Battery Minerals (Cobalt and Nickel)
    - Reserves; Production; Exports and Imports; Price Trends; Update on KABIL; Key Players; Investment Plans; Upcoming Projects and their Status; Outlook and Projections (till 2024-25)

18. Rare Earth Minerals
    - Reserves; Production; Exports and Imports; Price Trends; Key Players; Investment Plans; Upcoming Projects and their Status; Outlook and Projections (till 2024-25)

19. Other Key Minerals (Dolomite, Quartz, Kaolin, Magnesite, Silica, etc.)
    - Reserves; Production; Exports and Imports; Price Trends; Update on KABIL; Key Mining Companies; Investment Plans; Upcoming Projects; Outlook and Projections (till 2024-25)

SECTION IV: LEADING PLAYERS

20. Profiles of Key Mining Companies
    - Coal India Limited; Singareni Collieries Company Limited; Gujarat Mineral Development Corporation Limited; NLC India Limited; National Aluminium Company Limited; Hindalco Industries Limited; Vedanta Resources; Steel Authority of India Limited; Tata Steel Limited; Hindustan Copper Limited; Hindustan Zinc Limited; Other Key Players

Each company profile will cover business portfolio, production, sales, financial performance, investment plans and upcoming projects.
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   - Enhancing Output from Underground Mines
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6. KEY CONSUMING SEGMENTS .....................................................
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12. AUXILIARY AND SUPPORT EQUIPMENT .....................................
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      B E M L, Case New Holland Construction Equipment India Private
      Limited, Caterpillar Inc., Daimler India Commercial Vehicles, Eimco
      Elecon (India) Limited, Escorts Limited, Hyundai Construction
      Equipment India Private Limited, JCB India, Komatsu, L&T
      Construction Equipment Limited, Liebherr India Private Limited,
      Mahindra Construction Equipment, Metso, Sandvik Asia Private
      Limited, Scania, Tata Hitachi Construction Machinery Company
      Private Limited, Volvo India Private Limited, Other Key Players
      (Doosan Infracore, Voltas M&CE etc.)
    (Each profile covers existing and planned manufacturing capacity, product
     portfolio, recent initiatives, financial performance, etc.)

The report will be available in a PDF format.
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5. Construction Experience and Challenges
   - Experience So Far; Current Contracting Practices and Standards; Construction Techniques and Methods; Contractual Challenges; Procurement (Equipment and Materials) related Issues; Manpower Issues; Safety Issues; Survey and Investigation Issues; Average Time and Cost Overruns; Key Solutions and Recommendations

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18. Focus on Key Materials
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**SECTION IV: DATABASE OF KEY PROJECTS**

A comprehensive database of key tunneling projects across the metro, railway, roads and highways, water supply and sewage, irrigation and oil and gas sectors. Each project will provide information on tunnel length, no. of tunnels, location, implementing agency, project cost, contractor, current status, tunneling method, expected date of completion, etc. Each profile will cover information on company operations, existing fleet, geographical coverage, financial performance, future plans, etc.

The report will be available in a PDF format.
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Each project provides information on the scope of work, location, cost, capacity, mode of implementation, implementing agency, developer/contractor, current status, expected date of completion, etc.

The report will be available in a PDF format.
# Wastewater Treatment and Reuse Market in India

## Current State, City-Level Initiatives, Emerging Technologies and Upcoming Opportunities (Draft ToC)

### 1. Sewerage Sector Overview
- Sewage Generation
- Treatment Capacity
- Treatment Generation Gap
- Standards and Norms
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- Government Initiatives
- Issues and Challenges
- Future Projections (till 2024-25)
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- Emerging Trends
- Key Initiatives
- New Technologies/Innovations
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### 3. Industrial Effluent Management Practices
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- Discharge Standards and Norms
- Existing Treatment Facilities
- Key Ongoing and Upcoming Facilities
- Recycle and Reuse Practices
- Innovations and Advancements
- Segment Outlook

### 4. Select Case Studies
- Municipal
- Industrial

Each case study will cover information on recycle/reuse initiatives, infrastructure created, sources of wastewater supply, cost of wastewater and tariffs (wherever available), key benefits, lessons learnt and future plans.

### 5. Treatment Technologies and Innovations
- Key Treatment Technologies
- Cost and Performance Comparison
- Current Capacity and Key Plants
- New Innovations and Advancements

### 6. Future Requirements and Potential
- Treated Wastewater in Circular Economy Context
- Growth Drivers
- Availability of Treated Wastewater
  - Secondary Treated Wastewater
  - Tertiary Treated Wastewater
- Key Upcoming Projects/Initiatives
- Future Outlook and Potential

### 7. Database of Key Upcoming Projects
- Planned/Proposed STPs
- Planned/Proposed CETPs

Each project provides information on the scope of work, location, capacity, implementing agency, developer/contractor, current status, expected date of completion, etc.

The report will be available in a PDF format.
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<td>DATABASE OF KEY PROJECTS</td>
<td>A comprehensive excel-based database of ongoing and upcoming projects in the municipal and industrial water supply segments. Each project will provide information on: - Scope; Project Cost; Current Status; Segment (Municipal or Industrial); Mode of Implementation (PPP or EPC); Contractor/Developer; Equipment Supplier (wherever available); Funding Sources (wherever available); Expected Capacity Addition; Expected Completion Date</td>
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The report is available in a PDF format.
# Sewage Treatment Market in India 2019

(September 2019)

Key Trends, Government Initiatives, Emerging Technologies & Upcoming Opportunities

**Price:** Rs 75,000 (USD 1,770)

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## SECTION I: MARKET ANALYSIS, OUTLOOK AND OPPORTUNITIES

1. **SIZE AND GROWTH**  
   - Sewage Sector Snapshot: Current Size and Growth; Sewage Generation, Treatment Capacity, Treatment-Generation Gap; Institutional Framework; Standards and Norms; Key Trends; Government Initiatives; Risks and Challenges; Future Outlook and Projections (2019-20 to 2024-25)

2. **RECENT DEVELOPMENTS**  
   - Recent Regulatory Developments, Project Completions, Recent Contract Awards, Projects Approved/Launched/Proposed, City-level ICT Initiatives, Other Key Developments

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   - Project Pipeline Analysis: By Region, State, Stage of Development, Ownership, Completion Period  
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   - Investment Requirements  
   - Market Opportunities: EPC Contractors, Private Developers, Technology Providers, Equipment and Material Suppliers, Pipe Manufacturers, Consultants  
   - Outlook and Projections (till 2024-25)

5. **KEY GOVERNMENT PROGRAMMES: PROGRESS SO FAR, UPCOMING PROJECTS AND OPPORTUNITIES**  
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   - Namami Gange Programme  
   - Smart Cities Mission  
   - Atal Mission for Rejuvenation and Urban Transformation

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   - Key Cities Covered  
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   - Analysis of Sewage Network  
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   - New and Innovative Funding Sources (municipal bonds, etc.)  
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    - Market for Byproducts (Sludge, Treated Wastewater, Electricity, etc.)  
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    - Tariffs - Reforms and Trends  
    - Issues and Concerns

11. **KEY PRIVATE PLAYERS**  
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The report is available in a PDF format.
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    (Each state profile will give an overview of the housing scenario, role of key agencies and housing boards, state policy on affordable housing, new initiatives and incentives, and ongoing and upcoming housing schemes/projects.)

The report is available in a PDF format.
Municipal Solid Waste Market in India 2019

Price: Rs 75,000 (USD 1,770)

Emerging Trends, City-Level Initiatives, New Projects and Opportunities

(Draft ToC)

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The database will provide a detailed list of completed, ongoing and announced/planned/proposed projects in the sector including door-to-door collection and transportation projects, treatment and processing facilities. WtE plants, biomed-ical waste treatment facility, landfill development and disposal facilities with details on scope, location, cost, capacity, funding sources, implementing agency, contractor (wherever available), current status, expected date of completion, etc.

The report will be available in a PDF format.

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The report will provide information on key focus areas (mobility, water and waste, energy, governance, safety and security, buildings, communication, etc.); investment requirements; new innovations and technologies; best practices; upcoming projects & opportunities; issues and challenges; and key learnings.

13. GREENFIELD SMART CITIES

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Each case study provides information on key focus areas (mobility, water and waste, energy, governance, safety and security, buildings, communication, etc.); investment requirements; new innovations and technologies; best practices; upcoming projects & opportunities; issues and challenges; and key learnings.

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Each case study provides information on key focus areas (mobility, water and waste, energy, governance, safety and security, buildings, communication, etc.); investment requirements; new innovations and technologies; best practices; upcoming projects & opportunities; issues and challenges; and key learnings.

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Each of the above chapters will include:

- Key Thrust Areas, Technology Solutions, Current State of Infrastructure in Smart Cities, Noteworthy Initiatives/Projects, Select Case Studies & Technologies Deployed, Key Learnings, Issues & Challenges, Key Ongoing & Upcoming Projects, Technology & Smart Initiatives, Upcoming Contracts & Tenders, Segment Outlook (till 2025-26)

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The report will also provide a comprehensive Excel-based database of ongoing and upcoming projects across the water supply, sewage, waste, energy, mobility, buildings, roads, safety and security, e-governance, parking, and healthcare segments.

Each project will provide information on:

- Scope, Project Cost, Type of Project (Area-based or Pan-City), Mode of Implementation, Implementing Agency, Contractor/Developer, Current Status, Expected Date of Completion, etc.

The report will be available in a PDF format.
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   (Each player profile will give an overview of the company's operations, focus areas, current production capacity, manufacturing facilities, key projects and tenders, financial performance, capex and expansion plans)

The report will be available in a PDF format
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### OPINION AND INSIGHTS
- Niraj Didwania, Head, Corporate Development and Investor Relations, Healthcare Global Enterprises
- Nitin Nag, Regional Director (South), Cloudnine Group of Hospitals
- Dr. Nitiraj Gandhi, Senior Manager, Business Advisory Services, EY
- Dr. Kirti Chadha, Senior Vice President - GRL Operations and Medical Affairs, Metropolis Healthcare
- Dr. Manjiri Bakre, CEO and Founder, OncoStem Diagnostics
- Nitin Sisodia, Founder and CEO, Sohum Innovation Lab
- Arun Agarwal, Founder, Janitri Innovations

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Each of the sectors covers:
- Size and Growth, Emerging Trends and Recent Developments, Proposed Investments, Upcoming Projects, Market Opportunities, Issues and Challenges, Future Outlook

The report is available in a PDF format.

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# Irrigation in India (July 2020) (Draft ToC)

State Profiles, Upcoming Projects, Investments and Opportunities

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<td>- Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)&lt;br&gt;- Accelerated Irrigation Benefits Programme&lt;br&gt;- Bharat Nirman Programme&lt;br&gt;- Participatory Irrigation Management&lt;br&gt;- Interlinking of Rivers (ILR) Programme&lt;br&gt;- Command Area Development and Water Management&lt;br&gt;- Atal Bhujal Yojana (ABHY) - National Groundwater Management Improvement Program&lt;br&gt;- Dam Rehabilitation and Improvement Programme&lt;br&gt;- National Aquifer Mapping Program (NAQUM)&lt;br&gt;For each of the programmes we will cover project scope, investment requirements, financing sources, current status, key completed and upcoming projects, tendering, targets and completion timelines, etc.</td>
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<td><strong>8. IRRIGATION TECHNIQUES AND TECHNOLOGY</strong></td>
<td>- Current Deployment &amp; Practices&lt;br&gt;- Key Irrigation Techniques (Drip, Sprinkler, Center Pivot, Pot)&lt;br&gt;- Focus on Micro Irrigation&lt;br&gt;- Notable Innovations and Advancements&lt;br&gt;- Future Outlook</td>
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<td><strong>9. EQUIPMENT MARKET TRENDS AND REQUIREMENTS</strong></td>
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<td><strong>10. PROFILES OF KEY STATES</strong></td>
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<td><strong>SECTION III: DATABASE OF KEY PROJECTS</strong></td>
<td>The database is a compilation of upcoming projects (ongoing and planned) in the sector with details on scope, location, cost, capacity, funding sources, implementing agency, contractor (wherever available), current status, expected date of completion, etc. The report will be available in a PDF format</td>
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   - Key Issues and Challenges
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**Name** (Block Letters) 
**Designation** 
**Company** 
**Mailing Address** 
**Telephone** 
**Fax** 
**Mobile** 
**E-mail**

### Reports (PDF)

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- Aviation News
- Urban Water & Sanitation News

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