



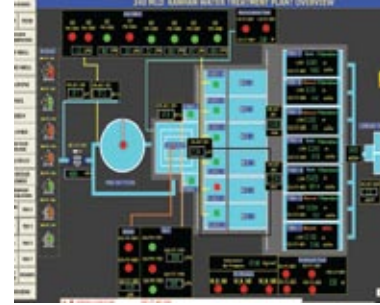
Corporate Office



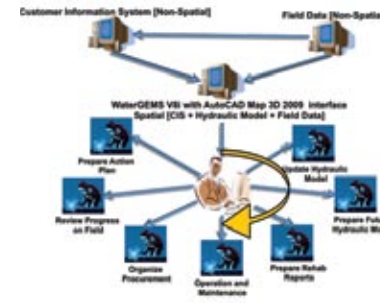
Design & Supervision Consultancy



Industrial Utilities



Modernisation & Automation



PMC for 24x7 Water Supply Projects



Public Private Partnerships



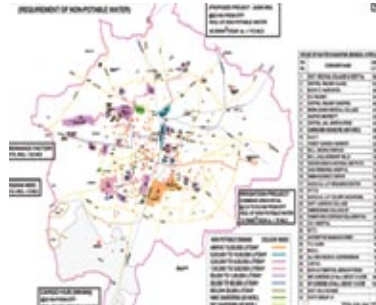
Pumping System



River Protection



Urban Infrastructure -Air Port Surveys



Waste Water Management & Reuse



Water & Energy Efficiency Projects



Water Sector Management Consultancy



Urban | Water | Efficiency

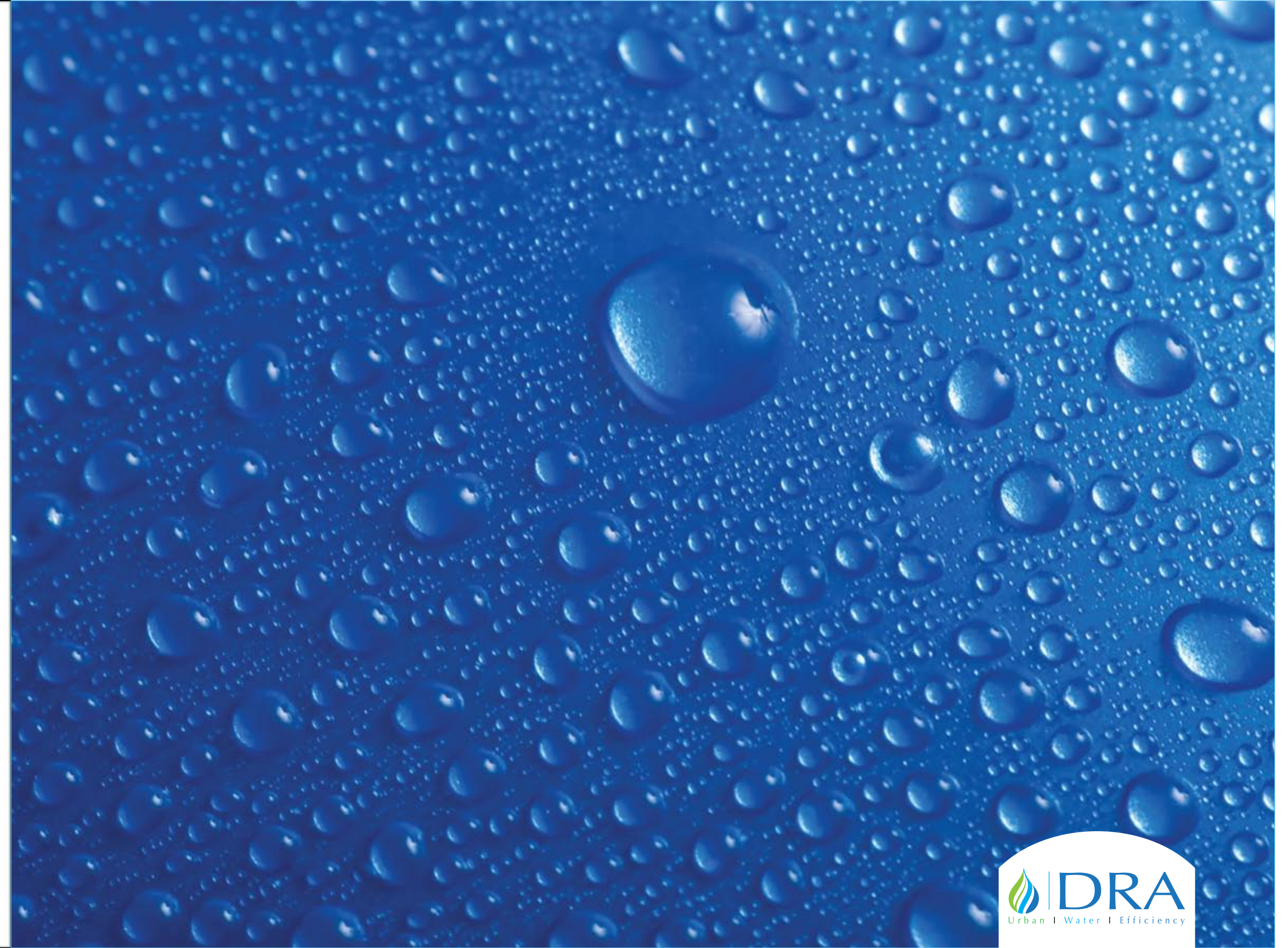
DRA CONSULTANTS PVT. LTD.

58, Ingole Nagar, Opp. Airport, Behind Hotel Pride, Wardha Road, Nagpur-440 005 (M.S.) India.

P : +91-712-3027575 | F : +91-712-3027527 | M : +91-9922954932 | e : dra.nagpur@gmail.com | www.dineshrathi.com



Urban | Water | Efficiency





अमृत
the elixir of life
das Elixir des Lebens
l'elisir di lunga vita
l'élisir de vie 長生不老藥
ЭЛИКСИР ЖИЗНИ

Ancient scriptures talk about a mystical potion, a liquid that holds the secret of life. Battles were fought and lives lost in its want, such was the power of this mystical compound. Not just Sanskrit texts but ancient literatures from across the globe speak of such liquid. The similarity in the description of the fluid is striking. Specially considering the fact that literature of ancient civilisations was not contaminated by foreign ideology as seen in contemporary times. The understanding about this, liquid closely associated with life, had been developed indigenously by most civilisations before 5,000 BC.

Philosophers and litterateurs over the years concluded, what the ancient texts spoke about was something that lies at the end of our arm and beneath our feet. This liquid is water and it indeed holds the secret of all life on earth. Sanskrit texts call it Amrit while some know it as the Elixir of life.

A vital component of every beings life, the significance and value of which stands unmatched. The importance of safe drinking water was understood by ancient civilisations thousands of years ago. It was then that water treatment methods started to evolve. Techniques for transporting and segregating water for different purposes were also engineered. From Greeks, Romans and Egyptians to Indian civilisations all have played a pivotal role in development of water treatment and supply facilities. Contribution of cities in the journey of water has been indispensable as it is here that the process of channelisation came to being.

Usage of brass vessels to store water is helpful in checking growth of microbes.



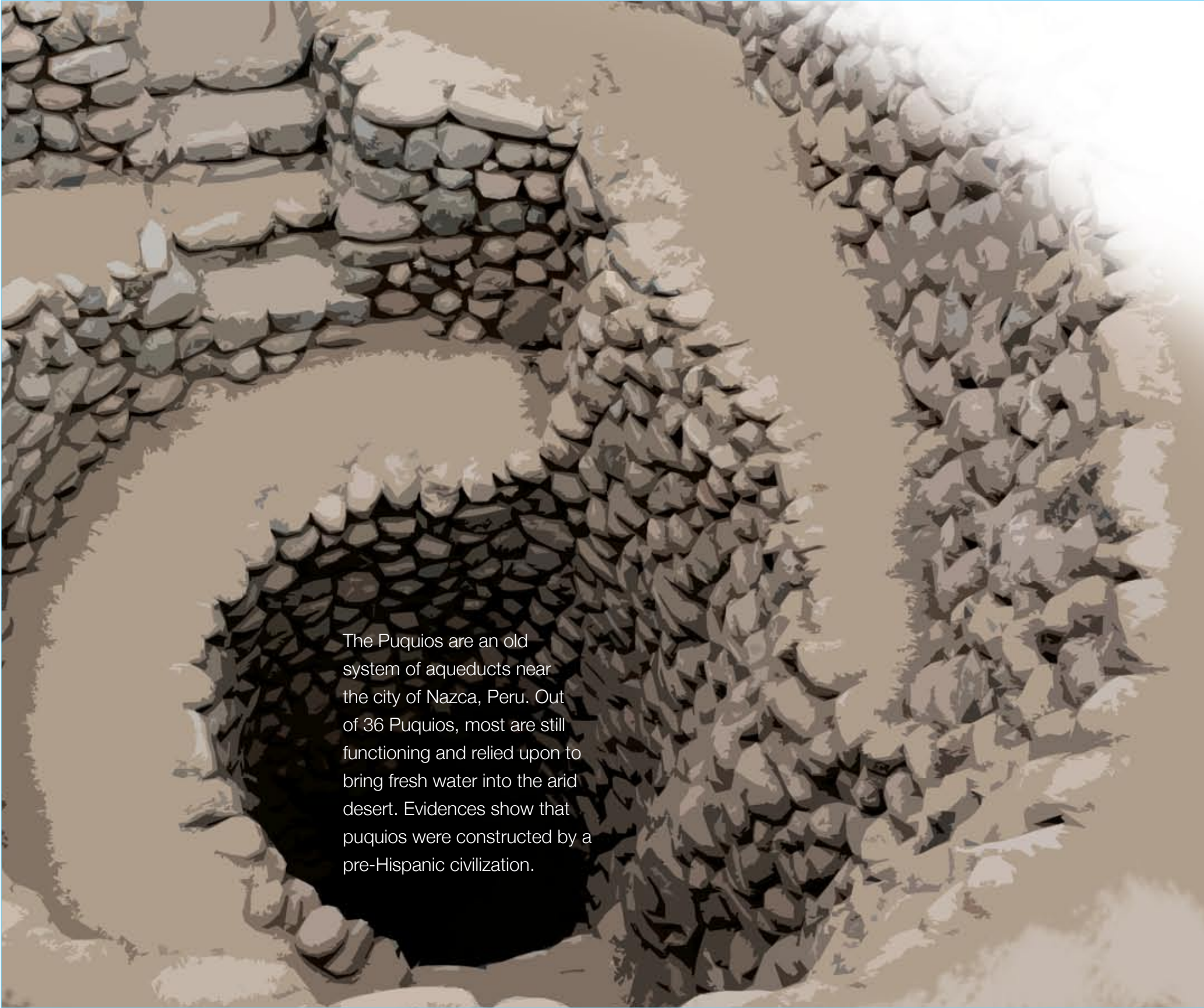
Most of the world's people must walk at least 3 hours to fetch water.

The journey of water has been subject to continuous evolution in treatment, supply and usage optimisation. However despite centuries of development, the society today is looking on to a gloomy future in terms of availability of potable water, with more than 50 per cent of it being wasted in developing economies. The situation in developed countries does not stand promising either. At this juncture, technological solutions to restrict wastage of water and establishment of facilities for its treatment as well as reuse have become imperative. DRA Pvt Ltd, a company with specialised expertise in water and energy conservation apart from other fortes, has actively been involved in projects to serve the purpose of water conservation and cost reduction. By devising technological solutions for improvement in the presen



supply chain and wastewater treatment facilities, DRA has brought about significant changes.

DRA's projects in water conservation, supply, cost reduction and energy conservation hold testimony to the impact that technology can have on the herculean challenge the world faces in the present scenario.



The Puquios are an old system of aqueducts near the city of Nazca, Peru. Out of 36 Puquios, most are still functioning and relied upon to bring fresh water into the arid desert. Evidences show that puquios were constructed by a pre-Hispanic civilization.

who we are

DRA Consultants Pvt Ltd, **provides wide range of advisory services in Urban and Industrial sector** with specialised expertise in 3-R (Reduce-Recycle-Reuse), 3-P (Public-Private-Partnership) & Performance audits apart from other fortes. By devising innovative solutions for improvement in the present utilities, DRA has brought about significant changes. DRA's projects in water supply, conservation, cost reduction and energy conservation hold testimony to the impact that solutions can have on the herculean challenge the cities of developing countries/Industry faces in the present scenario.

Established in the year 1990, DRA Consultants Pvt. Ltd. (formerly known as Dinesh Rath & Associates) is

distinctly identified as leader of this domain in India. We have emerged as a company, with work ethics that stand as a benchmark for our peers. We have kept our core values intact and are widely recognised for this. DRA Consultants Pvt. Ltd. is known for its superior technical expertise, reliability and more importantly for providing innovative solutions to the most complex challenges. From the time of its inception two decades back, DRA Consultants Pvt. Ltd. has proved its efficiency in completion of work within scheduled time frame and providing 'value for money' to its clients.

Sanskrit text and remains from ancient cities of Mohenjo daro and Harappa indicate towards a well-established water treatment system almost 5000 AD.

urban what we do

DRA has actively been involved in a number of urban Infrastructure projects all over the country including **Water, Sewerage, Drainage, Roads, Street Lighting, Urban amenities** etc. DRA has successfully completed 15 projects under JnNURM phase-1.

DRA also has unparalleled experience in project management and holds expertise in accomplishing every task from conceptualisation of a project to its commissioning. We are involved in preparation of master plans, feasibility report, investment planning, procurements, bid preparation, bid process management, execution planning, quality assurance plan, cost control, project schedules, commissioning, conduction of trial runs, performance monitoring etc. DRA has vast experience in the industrial utility sector as well as urban infrastructure projects.



More than 20,000 million INR worth projects have been undertaken by DRA as Project Management Consultants.

The Cornalvo Dam is a Roman gravity dam in Badajoz province, Extremadura, Spain, dating to the 1st or 2nd century AD. The earth dam with stone cladding on the water face is still in use. It is part of the Archaeological Ensemble of Mérida, an UNESCO World Heritage Site since 1993.

DRA is the foremost name in **complete water management consultancy** in the country and provides services to different industries and a number of governments as well as municipal corporations. DRA has come to be known world over for its prowess in water supply management, wastewater treatment, water supply monitoring, etc. **DRA is presently one of the very few companies that provide technical, commercial, legal & financial advisory services for setting sustainable water, wastewater tariff & preparation of bylaws for Urban Local Bodies/ Boards.**

Municipal corporations have turned towards DRA to solve their water woes from years. With several projects working successfully all over the country DRA has proved its worthiness in return for the confidence show by government agencies and private sector companies. DRA is amongst the first technical service provider in India that conducted Municipal / Industrial /Building **Water Audits**. DRA has also conducted many successful investment grade Water audits. The Water Audit project of DRA was first in urban sector that was implemented successfully under National Urban Renewal Mission of Govt of India. **NRW project** of DRA has been given "National Urban Water Award" by president of India.

One of our signature projects is the **24x7 water supply** scheme undertaken by Nagpur Municipal Corporation under the Jawaharlal Nehru National Urban Renewal Mission. This ambitious project has gathered attention not just from across the country but from across the world. Reason being, the 24x7 water supply scheme



for uninterrupted supply of potable water has never been taken up at such a large scale before. Research teams from a number of states / countries including France, etc. have toured the city to know more about the project. The sheer magnitude of the project is staggering and has come forth as a model for other cities. DRA has been appointed as consultants for the project from conceptual stage.

DRA has unmatched record in **Water PPP** contracts in India. From small monitoring projects to full city (population - 2.5 million) water concession, water recycling PPP projects are considered as pioneer in India and recognised world over. One of the projects has won "Deal of The year" by Global water Intelligence in 2012-13. Recognised by IFC amongst first ten emerging partnership.

water
what we do



efficiency what we do

Roman aqueducts constructed in 400 AD carried water for hundreds of kilometres from remote areas to cities through gravitational pull in the absence of pumping mechanism.

DRA is an Energy Service Company (ESCO), which conducts energy audits and prepares Investment grade energy efficiency projects from concept to commissioning. DRA is one of the pioneers in investment grade audits, several of which have successfully been implemented by clients. DRA has vast experience in energy audits from cement plants etc. The Energy Audit project of DRA was first in urban sector and implemented successfully under National Urban Renewal Mission of Govt. of India. DRA has been awarded the first prize for energy audit programme by the State twice. Projects by DRA have a number of national awards as well.

As a professional engineering service provider we have exhibited exemplary competence in water and energy projects. DRA conducted the first Air and Water Audit for Larsen & Toubro Ltd. in 1993. Results of the audit were so effective, that DRA went on to become the preferred consultant for Larsen & Toubro Ltd. Gujarat



Ambuja, Grasim Industries and has completed over 150 assignments for these companies across India. Since then DRA has assumed a place among the Forerunners in water-energy efficiency projects in the country and have been chosen for a number of major projects above several noted market players.

One of the many casualties of heavy industrialisation is the Fleet river, which was considered as a major river of London in the Roman times. The river has in the past few centuries been converted into an underground sewer.

DRA is a professional Engineering Services Provider with specialisation in the field of **Industrial Utilities Design, Piping, Flow audits, Field Investigations, GIS, and Surveys** etc. More than 150 engineering assignments in Industrial utility (compressed air, process water, effluent recycle and reuse, process piping etc.), Engineering Survey for 14000 km Cross country pipeline, Topographical surveys for Air-Port, MRTS and mega power plants aptly showcase DRA's capabilities in engineering services.

engineering
what we are



Outside the southeastern Turkish city of Mardin lie the 6th-century ruins of the Roman settlement of Dara. Series of rock channels found here served as an early water-treatment plant, allowing dirt and other impurities to settle to the bottom of each reservoir and the relatively clean top layer of water would be drawn out for use.

landmark

Nagpur full city 24x7 water supply project through PPP is first in India of this size and complexity. The project has been completed and has been operational from the past one year with successful financial closure. DRA has been involved in the project from concept to commissioning and has provided DPR, rehabilitation plan, approvals and transaction advisory services to Nagpur Municipal Corporation.

At present **DRA is working with Delhi Jal Board (DJB) on “Reduction in NRW/UFW”** for improvement in level of service to the water consumers and improvement of un-interrupted Water Supply under the command area of GR&BPS, Malviya Nagar, Mehroli and Vasant Vihar area of south Delhi for approximately 75000 connections and a population of more than 5 lakh. DRA is Also working with New Delhi Municipal Council (NDMC) for improving and revamping the existing water Supply System. DRA



is conducting water audit, consumer survey, GIS Mapping. DRA has been taking measures to reduce NRW/ UFW, to achieve the Service Level Benchmark and to Upgrade the System under command area of New Delhi Municipal Corporation through PPP model.

Preparation of Master Plan/Perspective Plan for Sewerage System, Drainage System and Rejuvenation of Lakes and Rivers of Nagpur City for the year 2031 (Population of Nagpur city is 23.50 lakhs) under **JNNURM for Nagpur City**. These project are worth Rs 13,500 million.

DRA had a major share in engineering survey & Investigation assignment **(approx—14000 k.m.**

What are believed to be the first pipes, estimated to be around 400-years-old, were excavated recently. It is believed that these pipes were used to supply water to the Golconda Fort during the Qutub Shahi.

landmark

of drinking water pipe line) for Sardar Sarovar Drinking water supply Project including ADB projects for Saurashtra and Kutch for Government of Gujarat, covering more than 2000 villages and 75 towns.

Successfully implemented rationalisation of **compressed air/cooling water system for various cement plants** resulted in savings of Rs 80 million/year and removed 100s of compressors/ pumps from system through optimisation and saving huge cost for clients.

DRA has completed the Water & Energy Audit Report including System Study, Preparing/Updating Water Distribution Network Maps, Hydraulic Analysis of Water Distribution System of approximately 3,000 Km in length of Nagpur City, Aurangabad and Thane as for 1,000 Mld Water Supply to 5.0 million people.



DRA has successfully completed the **Energy Audit for 3,200 Mld Water Supply for Mumbai city with 40 MW pumping load.** The potential annual saving through this audit was 197 million Kwh and Rs 102 crores at Rs. 5.10/Kwh.

DRA was the project management consultant for the water reuse projects of NMC through which the civic body has come to an agreement with **Maharashtra State Electricity Generation Company Limited (MahaGenco) to utilise municipal wastewater.** The NMC would pocket Rs 15 crore every year from this agreement.

In water scarce Rajasthan a tradition evolved ages ago as part of which bathing water was used for cloth washing and finally for watering plants. Such practices have been observed all across the desert state. From cuisine to lifestyle, every aspect of the life of natives has been influenced by water scarcity. In certain drought-hit areas of Maharashtra, people follow a lifestyle, which implies reutilisation of water for different purposes.

Awarded the **first prize in Energy Auditor category** in the “State Level Award for Excellence in Energy Conservation and Management” for the year 2005 from State Government of Maharashtra through its nodal agency for energy conservation, Maharashtra Energy Development Agency (MEDA). This award was given for the work done on energy efficiency and its conservation in Industrial and Municipal sector..

Experts from DRA have presented research papers at various National level seminars and have worked on International assignments for Energy Conservation.

DRA is the Project Management Consultant for all

recognition

Water and Energy Projects of Nagpur Municipal Corporation covered under JnNURM. DRA has played a vital role in completing water and energy audit projects. It is a matter of great pride for DRA that the Union Government of India has chosen Nagpur Municipal Corporation (NMC) for **Best Performance City Award in environmental initiative category under its ambitious project of Jawaharlal Nehru National Urban Renewal Mission (JNNURM).**

Awarded the first prize in Energy Audit sector in the **‘State Level Award for Excellence in Energy Conservation & Management’** for the year 2007- 08 from State Government through its nodal agency for energy conservation, Maharashtra Energy Development Agency (MEDA).

DRA was the project management consultant for all Technical Innovation Projects for NMC. NMC was adjudged runners up in **‘Technical Innovation’ category in “National Urban Water Awards-2009 (NUWA)”** under the ministry of Urban Development Government of India.



BEE has recognized the energy conservation project for annual award (municipal sector), DRA was project consultant.

Many DRA projects are presented as case study to municipal and government officials in training programs conducted by **Administrative Staff College of India (ASCI) Hyderabad.**

Nagpur 24x7 water supply project has won **“Deal of The year” by Global water Intelligence in 2012-13 at Spain** and **Recognized by IFC amongst first ten emerging partnership in Washington DC in 2013.**

DRA is authorized **TSP for Water audit / Energy Audit of GoM, Grade-2 ESCO of BEE**, Empanelled consultant for urban infrastructure by MUINFRA govt of Maharashtra, Empanelled Energy auditor with MEDA, KEDA.

DRA is an **ISO 9001-2008** certified company

A johad is a rainwater storage tank principally used in the state of Rajasthan, India, that collects and stores water throughout the year, to be used for drinking and for cattle. These are simple mud and rubble barriers built across the contour of a slope to arrest rainwater. These earthen check dams are meant to catch and conserve rainwater, leading to improved percolation and increase in groundwater level.

DRA has worked across the country and abroad with a number of governments, municipal corporations and Industrial clients. It has reformed water and energy systems in several industries. Results of DRA's work, has in the past decade, changed the course of water engineering in India.

International Clients

Pricewaterhouse Coopers

PA Government Services Inc. (PA Consulting Group), Washington, U.S.A.

Kuwait Cement, Kuwait

RAK Cement , UAE

Central Government

Ministry of Urban Development

Reserve Bank of India

Bureau of Energy Efficiency

Indian Railways

Manganese Ore (India) Ltd.

Coal India

National Thermal Power Corporation

Government of NCT, Delhi

Delhi Jal Board (DJB), New Delhi

New Delhi Municipal Council (NDMC), New Delhi

Government of Gujarat

Sardar Sarovar Canal Based Drinking Water Supply Cell (SSCBDWSC)

Gujarat Water Infrastructure Limited. (GWIL)

Gujarat Water Supply & Sewerage Board (GWSSB)

Government of Chhattisgarh

Panchayat & Rural Development, Chhattisgarh

South Eastern Coal Fields Limited, Bilaspur

Government of Maharashtra

Maharashtra State Road Development Corporation Ltd.(MSRDC)

Maharashtra Airport Development Company Ltd (MADC)

Maharashtra Housing and Area Development Authority (MHADA)

Maharashtra Jeevan Pradhikaran (MJP)

Maharashtra Energy Development Agency(MEDA)

Maharashtra State Road Transport Corporation (MSRTC)

Maharashtra State Power Generation Co. Ltd (MahaGenco)

Nagpur Improvement Trust (NIT)

Nagpur Municipal Corporation (NMC)

Thane Municipal Corporation (TMC)

Mira-Bhayander Municipal Corporation (MBMC)

Aurangabad Municipal Corporation (AMC)

Wardha Nagar Parishad , Wardha (WNP)

Shahad-Temghar (STEM) Water Authority , Thane

Municipal Corporation Of Greater Mumbai (BMC)

Jalna Nagar Parishad, Jalna

Pusad Municipal Council, Pusad

Saoner Narkhed Municipal Corporation

Sangali-Meeraj-Kupwad Municipal Council

Reach in Private Sector

Larsen & Toubro – proud association of 20 years

Ultatech – Since inception of company

Ambuja – More than 10 years

Grasim

Kirloskar

ACC

Holcim

Dalmiyas

Tata Chemicals

IndiaBulls

Cement Plants

Steel Foundries

Food Industries

Chemical Industry

Aluminum

Automobiles

Textile industry

Engineering industry

esteemed
clients