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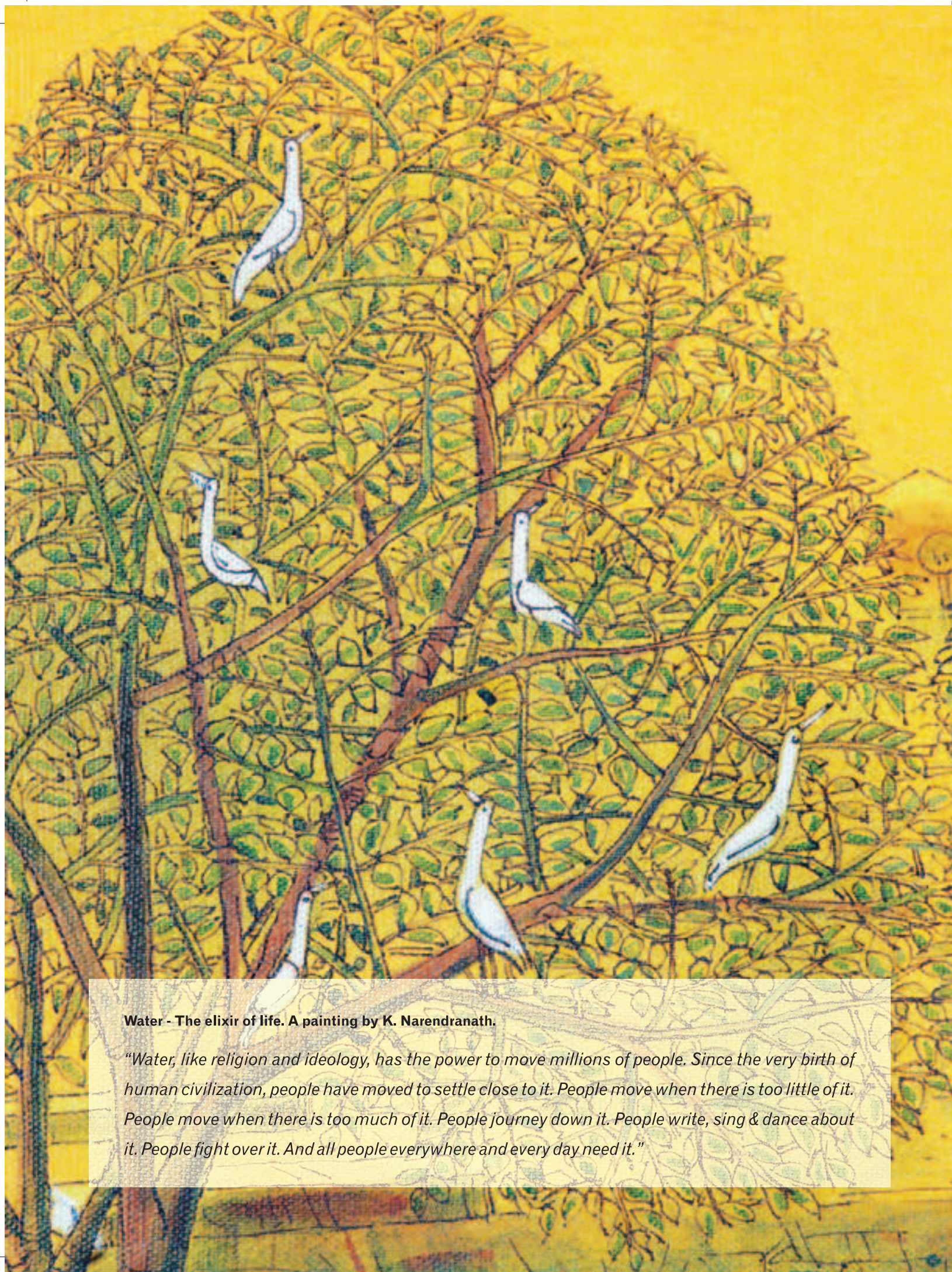
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**Water - The elixir of life. A painting by K. Narendranath.**

*"Water, like religion and ideology, has the power to move millions of people. Since the very birth of human civilization, people have moved to settle close to it. People move when there is too little of it. People move when there is too much of it. People journey down it. People write, sing & dance about it. People fight over it. And all people everywhere and every day need it."*



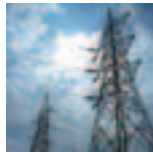




Irrigation ... 1



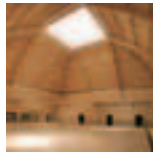
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# We make it happen...

...four simple words that not only form the bedrock of our corporate philosophy but have also moulded our attitude to business challenges. It is this determination that has seen us emerge as a leading player in the infrastructure and construction domain, with a nationwide footprint.

For any country, infrastructure is the backbone of economic development. It forms the base for GDP, rate of progress...and even impacts the quality of life of citizens. India, too, has recognized the importance of infrastructure to sustain its vibrant growth.

During the Eleventh Plan period (2007-2012), substantial investments are planned in the infrastructure sector. To drive growth, spending in Construction, Power, Aviation, Telecom and Roads is expected to be on the upward curve. Major private sector participation in infrastructure is anticipated, with some estimates assigning nearly 30% to Public Private Partnership (PPP). IVRCL is fully geared to seize the opportunities this sector throws up.

Our impressive track record over the past 18 years has helped build tremendous credibility and confidence in our capabilities. We are listed, profitable and dividend-paying, and have grown to become the largest construction company in Andhra Pradesh, quite sure of continuing to maintain our blistering CAGR of 35-40%. Performance that makes us supremely optimistic of achieving our targeted turnover of US\$2.5 billion by 2010-11.

The central as well as various state governments have been our major customers, entrusting mega projects to IVRCL which contribute to infrastructuring India. Apart from participating in national development, what fills us with immense pride and satisfaction is that we have the opportunity to make a positive difference to the lives of fellow citizens. For instance, water, as a life sustaining resource, is under tremendous pressure as the rate of growth in urban centers continues to skyrocket. Studies estimate that 55% of India's population would be urban-based by the year 2050. Needless to say, measures to take on this enormous challenge need to be taken up with expediency. This is the reason IVRCL views "water" as a sector that not only throws up great opportunities but is also vital from a humanitarian point of view.

IVRCL is today acknowledged as the one to have raised the bar in different infrastructure verticals - water, transportation, power, buildings and industrial structures. The projects we have undertaken have provided us with a platform to showcase our abilities and expertise, while at the same time helping us live up to being a socially responsible corporate entity. The near future will see IVRCL make forays into new key focus areas that would serve to reinforce our impeccable reputation in building infrastructure for India to rise further and higher.



## E. Sudhir Reddy

Chairman & Managing Director



IVRCL's ample management skills were on full display in the successful acquisition, assimilation and turnaround of Hindustan Dorr-Oliver, a leading Engineering, Procurement and Construction (EPC) company.

Another feather in IVRCL's cap is the setting up of IVR Prime Urban Developers Limited, which leverages our proven expertise in construction and project execution to redefine the skyline of strategic locations in major cities.

Both these companies are an integral part of the Group's overall strategy and we are sure that they will see us emerge as a dominant force even in the specialized engineering and real estate space in the country.

The recent thrust into the KPO business augments and enhances our design capabilities, which would add value to the projects we undertake nationally and internationally.

Our strength, as always, remains the top caliber of our people. Dedicated, committed professionals who share our vision and penchant for taking on challenges. At last count, our workforce numbered 6000. To appreciate their contribution and to ensure that they share in the success, IVRCL is the first infrastructure company to offer ESOPs-over 3 million shares have been distributed among employees.

We now have our sights set firmly on the future. Confident of our competitive advantage, strong project management skills, excellent pre-qualification credentials, integrated execution capabilities and high quality human resources, we will continue to lead the way. But more than business success and growth, what we truly welcome is the opportunity to improve the human condition. Because we measure success not by the figures we reach but by the lives we touch.

As India boldly moves forward to chart out its economic destiny, IVRCL is committed to being a partner in progress. As always, arousing hope and confidence by blazing new trails and living up to our promise – "We make it happen".





"IVRCL's inherent strength lies in the quality of our talent pool. Each employee is empowered through training, exposure and knowledge acquisition to take on any challenge in any terrain. The focus is on personal development and growth, synergised to propel organisational success."

K. ASHOK REDDY  
Executive Director



"A public limited company enjoying tremendous shareholder confidence, IVRCL's prudent approach to financial management and cost efficiencies has resulted in a burgeoning bottomline. Firmly believing in sharing success with all stakeholders, IVRCL is a consistent dividend paying company promising exciting returns on investment."

R. BALARAMI REDDY  
Executive Director – Finance & Group CFO



"While a substantial part of our growth momentum remains organic in nature, we intend to be more selective in our approach to Public-Private Partnership (PPP) projects as we cannot wish it away."

S. RAMACHANDRAN  
Director – Business Development & Corporate Strategy





## IVRCL in Irrigation Projects

India remains basically an agrarian economy. Over 70% of her population dwells in villages, with farming as the main source of livelihood. Despite the great dependence on agriculture as a means of sustenance, it is rather unfortunate that farmers even today are completely at the mercy of the monsoons to provide the much needed water for drinking, livestock and irrigating their fields. In the past 2 decades, over 20% of the rural population has migrated to towns in search of a stable livelihood.

Seized with the urgency to alleviate this perennial problem, the Government is investing substantially in flow (canal) irrigation methods as surface water irrigation has been proven to be more dependable than ground water based systems such as wells or bore wells. The water flows to demand sites by gravity, lifting or through tunnels via ducts. Any excess seepage percolates down and serves to replenish ground water and promote aquifer recharge. This recycling process not only makes innumerable wells productive but also helps save energy by lowering pump depths. Thus, canals are viewed as generating benefits more far reaching and wide ranging than just transportation of water.

Keen to play a hand in this vital sector, IVRCL actively pursues major irrigation projects across the country. Employing state-of-the-art technology as well as old-fashioned human ingenuity, it strives to transform rural landscapes and lives.



A farm irrigated by Dehani Lift Irrigation Scheme.





Dehani Lift Irrigation Scheme-First project providing end-to-end Drip Irrigation solution.

## Dehani Lift Irrigation Scheme

To bring water to the thirsty farmlands in the Yavatmal District of Maharashtra, this project is designed to cater to the irrigation needs of 17 villages. It includes two pump houses with 57 zonal sumps. Irrigation, in Stage I, will be provided for 4121.41 hectares and for 2846.77 hectares in Stage II.

The uniqueness of the project lies in the fact that it is the first to provide end-to-end Drip Irrigation solution to farmers. Towards this end, Water Users' Societies have been formed that imparts training to farmers on how to operate the pumps and how best to utilize technology to optimize the usage of water. Apart from this, knowledge is also imparted on soil sampling techniques, shelf life of produce, cropping patterns, water requirement of various crops etc.

Under this scheme, IVRCL hopes to bring about a qualitative difference in the lives of farmers of the region.

## Muktainagar Lift Irrigation Scheme

(Tapi Irrigation Development Corporation)

IVRCL took on the onerous responsibility of providing water to irrigate 3,360 hectares of land, that too in an amazingly short time of just 110 days!

As always, IVRCL emerged from this test with flying colours. The project entailed supply, erection, testing and commissioning of pumps, rising mains, pipe distribution system, electrical substation and transmission lines. A delivery chamber with a capacity of 14.40 lakh litres was also constructed.



Muktainagar Lift Irrigation Scheme - Rising Mains, Pipe Distribution System & Pumping Equipment.





Purandar Lift Irrigation Scheme - Pump Houses with 20 pumps of total capacity 36,700 HP

## Purandar Lift Irrigation Scheme

(Maharashtra Krishna Valley Development Corporation, Pune)

A true marvel of engineering, this project has helped quench the thirst of parched farmlands by carrying water over a distance of almost 200 kms through a pipe network. Widely acknowledged to be the **'Best Mechanised Project'**, the mammoth task started with the survey and mapping of 50,200 hectares before the construction of pump houses at 6 stages, adding up to a total head of 366.5 metres. 20 pumps with a total capacity of 36,700 HP were installed, along with a substation and 13.5 kms of 33 KV transmission lines.

The successful implementation of this turnkey project will see the greening of 50,200 hectares of land in over 1500 villages, directly benefiting almost one million farmer households.







Storage Weir, Closed Canal & Distribution System.

## Challenging the “impossible!”

How do you push a 2800 mm dia x 20 mm thick MS casing pipe under railway tracks over a total length of 32 metres while the trains continue to ply?

IVRCL was confronted with this tremendous challenge to its capabilities during the completion of the Purandar project. But, equal to the task, IVRCL put into action the latest Pushing and Jacking technology to accomplish the objective and in the process set the record for pushing the largest size of pipe under rail tracks in India. The work was accomplished in the year 2001-2002 in a record time of just 45 days without disrupting overhead train movement.







Lift Irrigation Scheme to lift water from foreshore of Gandikota Reservoir to Storage Reservoir.

## Major Lift Irrigation Schemes in Andhra Pradesh

A testimony to IVRCL's incomparable expertise and reputation is the fact that the Government of Andhra Pradesh awarded irrigation projects to the tune of Rs. 13083.82 million.

Undertaken on a turnkey basis, the projects situated in various districts of the state serve to bring relief and hope to thousands of farmers and their families.







### Polavaram Right Main Canal Package – 05

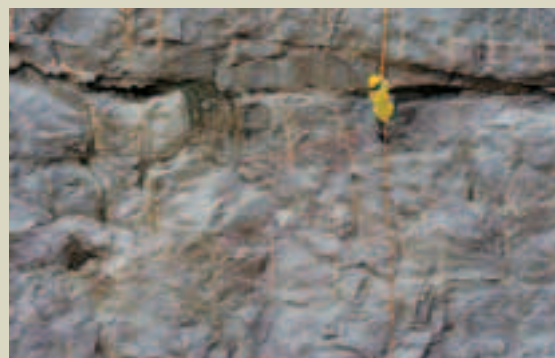
Polavaram Project across Godavari river, located 42 kms from Sir Arthur Cotton Barrage near Rajahmundry, envisages the diversion of 80 TMC of water from Godavari to Krishna river to augment Krishna Basin. This would result in irrigation benefits for areas of East Godavari & Visakhapatnam districts; water supply to industries in Visakhapatnam; domestic water supply to villages en route; and generation of hydro-electric power.

IVRCL has been entrusted with design and execution of Right Main Canal from Km 105.100 to Km 138.100. The project will help irrigate 1,29,250 hectares (3,19,400 acres) in areas of West Godavari and Krishna districts.

### Kalwakurthy Lift Irrigation Scheme

The Kalwakurthy Lift Irrigation Scheme envisages lifting of 25 TMC of water, in 3 stages, from foreshore of Srisailem reservoir to irrigate 3.40 lakh acres in drought prone Mahabubnagar district, and provide drinking water facilities to 275 villages en route.

The project includes construction of CM & CD works and regulators for the main canal from Singotam balancing reservoir to Gudipallegattu balancing reservoir, distributory network, along with field channels, for irrigating an ayacut of 70,000 acres.







Telugu Ganga Project – Canal System.

### Telugu Ganga Project – Packages II & III

Telugu Ganga Project is to draw 29 TMC of water from Srisailem reservoir in Kurnool district to irrigate 1,61,000 lakh acres in Kurnool, Cuddapah and Nellore districts, apart from supplying drinking water to villages en route and Chennai city.

The project is to build a gravity flow canal system, comprising a main canal of a total length of 102.75 kms and distributary network of 321.25 kms. The challenging task entails excavation of 37.4 lakh cum of earthwork and 1.85 lakh cum of cement & concrete work.

### Koilsagar Project

To fill up Koilsagar Project, a Lift Irrigation Scheme is proposed to lift 3.9 TMC of water from the foreshore of Priyadarshini Jurala Project to a total height of 120 metres. The work involves 40 kms of canal excavation and tunnels of 4.0 metres dia stretching over 12.1 kms. Four heavy duty pumps with a capacity of 7.5 MW each have been installed to irrigate large tracts of ayacut.

### Sripada Sagar Project – Stage II Phase I

Coming up on the Godavari river, this challenging project involves setting up of a six stage pumping system of 505 metre head, laying of pipelines stretching over a length of more than 118 kms and construction of a 185 km canal distribution network. When completed, the project will help irrigate 2 lakh acres of ayacut in the upland area of Karimnagar district in Andhra Pradesh.

### Handri Neeva Sravanthi (HNSS) – Phase I & II

IVRCL has taken on this Rs. 1323 crore project that will draw 40 TMC of flood water from the Krishna river, employing 117 pumps with a cumulative capacity of 385 MW to irrigate 6.025 lakh acres. The project would also provide drinking water to over 20 lakh people en route in Kurnool, Cuddapah, Chittoor and Ananthapur districts of the Rayalaseema region.



## Major Irrigation Schemes in Gujarat

- Narmada Irrigation Pipeline Project - Packages 5 & 6
- Jalandhara Pipeline Project
- Khorsam Project
- Kuba Dharol Project

These projects involve laying of Bulk Water Transmission Mains comprising of on-site manufacturing, supplying, excavation, lowering, laying, jointing, testing and commissioning of M.S. Pipeline with internal epoxy painting and external protective coal tar coating.

- Length of pipelines laid - 9954 kms
- Pump houses - 696
- Overhead reservoirs - 511
- Ground level reservoirs - 1308

These projects have facilitated irrigation in 65,600 hectares, benefiting lakhs of farmers in the state of Gujarat.



## Major Irrigation Schemes in Madhya Pradesh



Indira Sagar Lift Irrigation - Right Main Canal.

### Indira Sagar Project / Borar River Aqua Duct System

The one-of-its-kind project involves the construction of an aqua duct of a total length of 650 metres along with 27 piers of a maximum height of 44 metres and external dia of 2.8 metres. The water flow discharge through this aqua duct is 4800 litres/sec. The fact that continuous traffic, including heavy trucks, pass over this aqua duct, made this project especially challenging.

### Polasa Lift Irrigation Project

The project on the Narmada river, envisaged to provide critical water for irrigation to over 35,000 hectares, comprises 3 pumping stations and a total pipeline length of 600 kms.





## IVRCL in Water

Even though two-thirds of the earth's surface is covered by water, it is unfortunate that drinking water scarcity plagues our planet. According to WHO, 1.1 billion people or 18% of the world's population lack access to safe drinking water while 2.6 billion people or 42% lack access to basic sanitation. The forecast is even more alarming, with studies revealing that by 2025, two-thirds of the world's population will lack clean and safe drinking water. India is among the thirty one countries currently facing water stress and scarcity - a situation that is aggravated by a constantly rising population.

Sensitive to the problem, IVRCL has picked up the gauntlet to supply this vital ingredient of life to a thirsty populace. A determination that has seen us emerge as a leader in water infrastructure. Capturing the potential by investing in building, owning and operating projects across the country. Bringing the promise of hope and deliverance to millions of families and households.



Clear Water Supply Transmission Main-M.S. Pipeline of 1875 mm & 1500 mm dia and total length of 114 kms of Veeranam Water Supply Scheme.

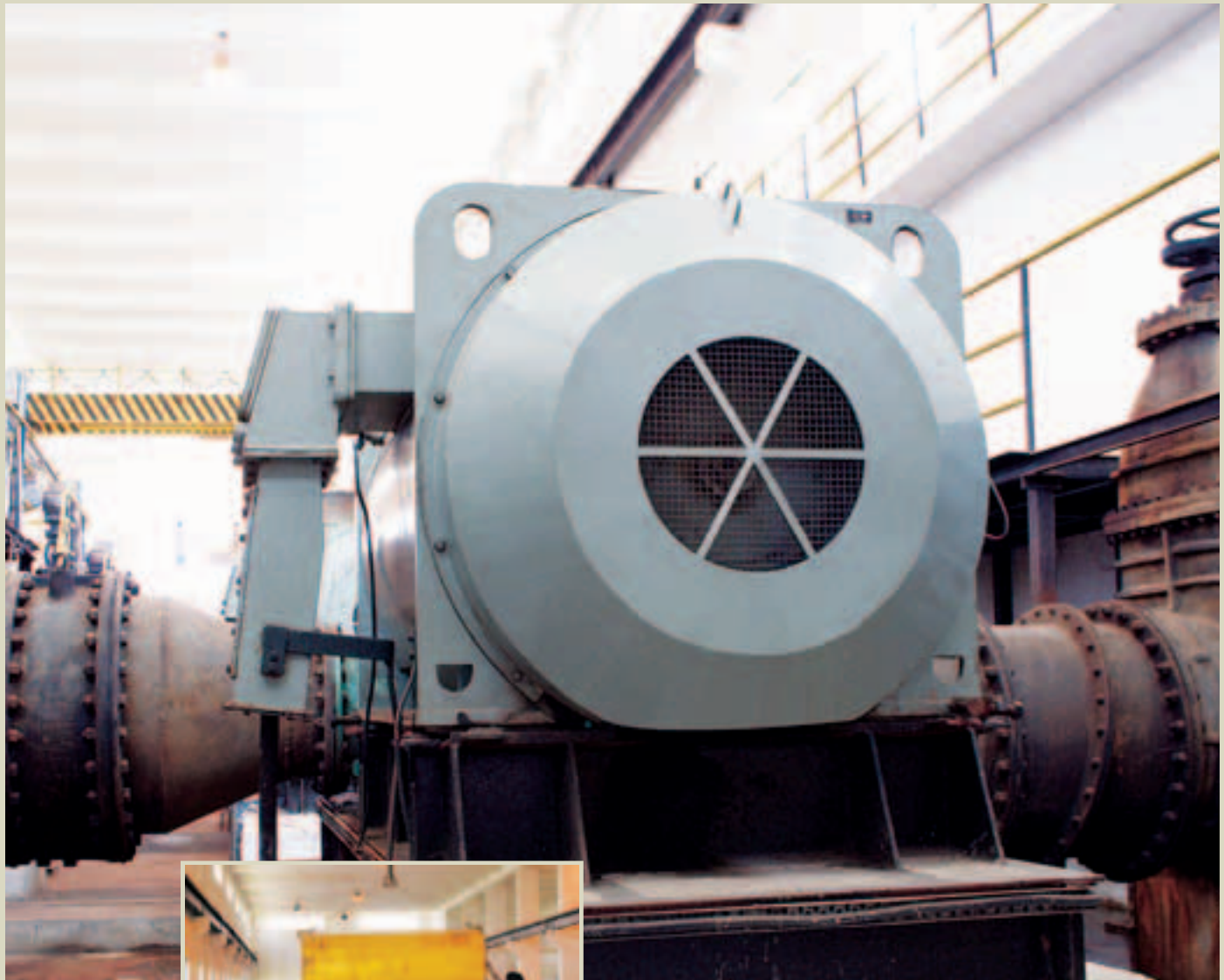
## Water Supply Schemes in Tamil Nadu

### Veeranam Water Supply Scheme

This project is to lay mains of MS pipelines of 1875 mm and 1500 mm dia over a distance of 114 kms to supply drinking water from the Ongur river to a large part of the population of Chennai city.







Pumping Stations with 670 HP (6 nos.) & 300 HP (12 nos.) capacity pumps of Water Distribution System for Choolaimedu, Kulathur, Pallipattu, Vysarpadi & Velachery Zones in Tamil Nadu State.

### Vedharanyam Water Supply Scheme

This project is to provide drinking water (the only source) for 12,600 habitations covering 6 municipalities over a cumulative length of 1,171 kms.

### Tsunami Rehabilitation in Kanyakumari District

After nature's fury, it is time to rebuild lives and salvage the widespread destruction. In this endeavour, IVRCL is in the forefront. It has undertaken laying 65 kms of pipelines comprising 600mm pipes, including Bar Wrapped Steel Cylinder (BWSC) pipes, to withstand the weight of heavy traffic since they are laid under the shoulder of the road.

### Kilpauk Water Distribution Station in Chennai City

IVRCL has built underground tanks of 44 million litres capacity and overhead tank of 9 million litres to cater to the needs of nearly the entire population of Kilpauk.





Chennai Sea Water Desalination Plant Project-100 MLD Capacity.

## Chennai Sea Water Desalination Plant

"Water, water everywhere but not a drop to drink." IVRCL makes sure that this description of the sea will not hold good for long. The prestigious Desalination Plant, near Chennai, in joint venture with BEFESA CTA of Spain on DBOOT basis, has a capacity of 100 million litres per day. It will treat sea water, disposing brine and other waste, and render it suitable for human consumption.

The Desalination Plant is the first and largest of its kind in the country and will serve as the model on which all such projects in future would be based.

The project has been nominated as one among the highly commendable Desalination Deals of the Year at the Global Water Intelligence Conference-2007, in Barcelona, Spain.

## Water Supply Schemes in Karnataka

### Greater Bangalore Water Supply Project (GBWASP) – Phase II

IVRCL has the distinction of undertaking one of largest Metro Water Supply Distribution Packages; laying about 944 kms of DI Pipes ranging from 100mm dia to 600mm dia, benefiting a population of 1.5 million in Bangalore city.

### Rural Water Supply Project

Bringing succour to villagers in Ugargol and 13 other villages in Soundatti Taluka, Belgaum District, Karnataka, this project boasts of being the first of its kind in the country with a maximum pumping machinery head of 190m.

### Emergency Improvement Water Supply Scheme

This prestigious project is the first of its kind in Karnataka with 1900 HP pumping machinery, employing total SCADA, supplying water to the towns of Hubli and Dharwad.

## Water Supply Schemes in Kerala

IVRCL has taken up 13 water supply projects, funded by Japanese Bank for International Co-operation, covering 2,542 villages in 5 districts, benefiting 95 lakh people. The work includes transmission, distribution, pipelines and 59 service reservoirs of a combined capacity of 205 MLD with telemetry and SCADA systems.

## Water Supply Schemes in Andhra Pradesh

### Hyderabad SCADA Project

(Hyderabad Metro Water Supply and Sewerage Board)

The EPC project provides Flow, Level, Chlorine measurement as well as SCADA (Supervisory Control and Data Acquisition) System for all reservoirs and bulk supply pipe lines in the entire system of HMWSSB, spread over a radius of 45 kms.



Ultrasonic Meters

The project utilises the latest micro technologies in PLC and SCADA, developed by IVRCL's Designs Division, with ultrasonic multi-part method being used for flow measurement to ensure greater accuracy and minimize water loss in the transmission line. The dosing system will be controlled by employing the latest microprocessor based analysers and the data would be transmitted to a centralized server from different RTU Stations. Real time parameters are monitored on the PC-based SCADA system and can be viewed on a large video screen display in the central control room.





Pumping Stations for Water Pipeline Projects in Gujarat.

## Water Supply Schemes in Gujarat

In a state confronted by scarcity of drinking water, IVRCL is a shining beacon of hope. Its aim to emerge as an end-to-end water management solutions company is in full evidence in Gujarat, where it has executed 24 ambitious projects to usher in a new thirst-free era in the region.

The projects involved laying of 4,060 kms of M.S, DI, HDPE, PVC, AC and GI Pipelines of varying diameters with onsite manufacture of M.S. Pipes, insitu lining and guniting; construction of Water Treatment Plants of 254 MLD capacity with 12 nos. Rapid Sand Filtration, Chemical House, Re-circulation Sump and Underground Sumps of 50,000 litres to 2,75,000 litres capacity, Pump Houses, Transformers etc.

These schemes have facilitated water supply to over 10 towns and 1,417 villages, benefiting over 5 million people of Gujarat state.

## Water Treatment Plants

### Sujalam Suphalam – 6 Packages 175 MLD capacity

IVRCL was involved in the design, construction and commissioning of Conventional Water Treatment Plants for:

- SSW A1 Project 33 MLD ● SSW A3 Project 25.3 MLD ● SSW A4 Project 36.3 MLD ● SSW G1 Project 21 MLD
- SSW SK1 Project 44 MLD & 15 MLD

### Water Treatment Plants – 90 MLD capacity

IVRCL took up the design, construction and commissioning of Conventional Water Treatment Plants for Botad Head Works 31.2 MLD, Gadhada Head Works 31.55 MLD and Vallabhipur Head Works 24.35 MLD.

## Meeting every challenge

When laying MS pipelines of diameters ranging from 168 to 2350 mm over 1,832 kms to cater to 65,600 hectares; it was discovered that the huge size of the pipes was not conducive for transportation. But, as always, rising to the challenge, IVRCL undertook on-site fabrication of MS pipes including rolling, welding, testing, inner & outer epoxy painting and coal tar.



Manufacture of MS Pipes of 300 mm to 2350 mm dia at site for Narmada Irrigation Pipeline Projects in Gujarat.



Vindhyachal Super Thermal Power Projects, NTPC, Stage III (2x500 MW) Pre-Water Treatment Package of 160 MLD capacity-EPC basis.

## Industrial Water

Vindhyachal Super Thermal Power Project  
(NTPC - 2 X 500 MW - Pre Water Treatment Plant)

IVRCL has executed a 160 MLD water treatment plant involving central monitoring basin, clarification plant, chemical house and filters.



NTPC Vindhyachal - Water Treatment Plant of 160 MLD capacity.





Cable Stay Pipe Bridge for Stand Alone Water Supply Scheme for Kochi Refineries-an EPC Project.

### Stand Alone Water Supply Scheme (Kochi Refineries Ltd.)

This project tested IVRCL's engineering capabilities to the limit, as it comprised a 1000 mm dia rising main MS pipeline, river intake system, river and rail crossings and other civil works. It boasts of the country's first Cable Stay Pipe Bridge which has a length of 135 metres.

### Sipat Thermal Power Project (NTPC – Stage III – 3 x 660 MW on EPC basis)

IVRCL undertook a Make-Up Water System Package encompassing supply and erection of 8500 m<sup>3</sup>/hr vertical turbine pumps, water pump house with a depth of 30 metres, stop log gates and traveling screens. The 1400 mm twin line 26 km pipes have been internally painted with bitumen, hydro-tested, back-filled and provided with cathodic protection.



NTPC Sipat Thermal Power Project - Vertical Turbine Pumps of 8500 m<sup>3</sup>/hr. capacity of Make-Up Water System.



Water Supply Facilities to Screening Plant of Bailadilla Iron Ore Project.

## Bailadilla Iron Ore

(National Mineral Development Corporation Ltd.)

External Water Supply Facilities for screening of iron ore deposits at Bailadilla, Chattisgarh.

Designed to supply recycled water to the screening plant for cleaning mineral iron ore, the system consists of Raw Water Reservoirs, Recycled Water Pumping Station, Break Pressure Tanks to break 400 metres water column, Lamilla Clarifier, pumping and gravity mains to collect water from different locations. Structural steel pipes carrying bridges are provided with Surge Protection Systems, HT & LT Electrical Systems and Control and Automation. These equipments are erected on a higher elevation and the structures are constructed with retaining wall supports.



## Raw Water Supply Pipeline

(APGENCO – Rayalseema Thermal Power Project – Stage III)

IVRCL undertook the project to transport 40 cusecs of water, including construction of pipe bridges across rivers and canals from Sri Pothuluri Veerabrahmendra Swamy Reservoir to Rayalseema Thermal Power Project (2X500MW units). The task also called for the construction of a storage reservoir in the plant premises at V.V. Reddy Nagar, Cuddapah District, Andhra Pradesh.

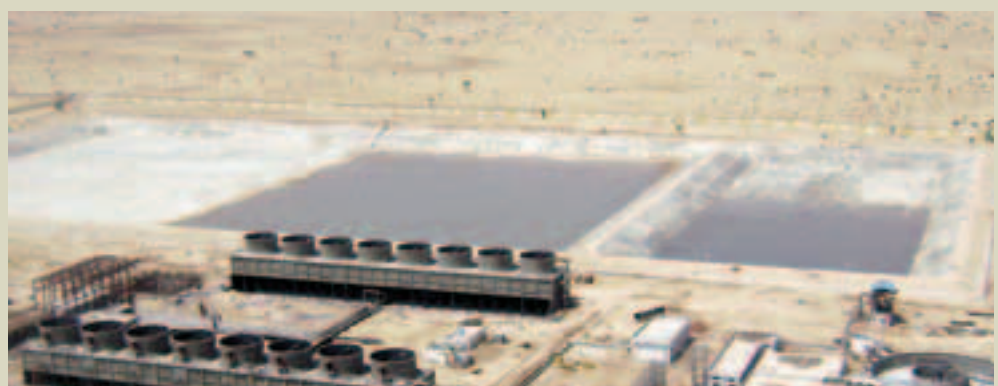




### Water Carrier System (Neyveli Lignite Corporation)

For the Water Carrier System Package from Indira Gandhi Nahar Pariyojana Canal of Neyveli Lignite Corporation Limited, Thermal Power Project at Barsingsar, Rajasthan (2x125MW units), IVRCL has designed civil structures like intake channels, setting tanks, forebay, raw water intake sump, raw water pump house with forebay, one way surge tanks and raw water reservoirs of 1,50,000 and 5,40,000 cum capacity.

IVRCL has also designed suitable heads as per hydraulics for vertical turbine pumps of 1850 cum/hr capacity; laying, jointing, hydro testing and commissioning of GRP pipeline over 60 kms; designing of PLC/SCADA based controlled systems across approximately 40 kms; design, erection, testing and commissioning of 33 KV transmission lines stretching approximately 60 kms.





Sewage Treatment Plant & Underground Sewage Disposal System executed for Alandur Municipality in Tamil Nadu State.

## Sewage Treatment Plants

### Underground Sewage Disposal System & STP

(Alandur Municipality, Tamil Nadu)

This is among the first public private participation projects in India, benefiting 25,162 homes in an area of 19.5 sq. kms. The project entailed laying and jointing of stoneware pipes for a length of 193 kms and of RCC NP3 pipes and PSC pipes over 12.67 kms.

### Sewage Pumping Station

(Chennai Metropolitan Water Supply & Sewerage Board)

IVRCL undertook providing collection system, force main and construction of sewage pumping stations in Valasaravakkam Town Panchayat. The project involved supply, laying and jointing of cement mortar stoneware pipes for a length of 47.87 kms and of RCC NP3 Class S/S pipes over 7.93 kms besides the construction of 2,047 manholes.



Sewage Pumping Station of Valasaravakkam Town in Tamil Nadu.

## Sewage Treatment Plants in Rajasthan

(Rajasthan Urban Infrastructure Development Project)

The State Government of Rajasthan reposed sufficient confidence in IVRCL's capabilities to award it the execution of sewage schemes in cities like Kota, Jaipur, Jodhpur, Ajmer and Udaipur. The work comprised supply, installation, testing and commissioning of sanitary sewers, trunk sewers, manholes etc.





## IVRCL in POWER

In today's modern world, Power is Life. It has become absolutely vital for day-to-day activities as well as for industrial development. Unfortunately in India, the benefits of electrification have yet to reach all the rural areas. There are still villages that are groping in the dark, searching for that elusive first step towards progress; where life comes to a standstill at sunset.

Recognising this urgent need, the Government of India has aggressively taken up the task of rural electrification. Seizing the opportunities that the Power Sector presents, IVRCL is steadily emerging as a leading player in the sphere, undertaking ambitious projects that promise to brighten the lives of communities and empower the nation.

Transmission Lines

## Transmission Lines

IVRCL has attained considerable expertise and experience in executing transmission line projects across the country. Its capabilities encompass tower fabrication, erection and stringing of moose conductors.



## Transmission Lines

### Visakhapatnam to Kathipudi

400 KVA Double Circuit transmission line, covering a distance of 100 kms.

### Palandur to Chandrapur

400 KVA Double Circuit transmission line, covering a distance of 80 kms.

### Vishnuprayag to Muzaffarnagar

400 KVA Double Circuit transmission line, covering a distance of 80 kms.



400 KV Double Circuit Transmission Line from Visakhapatnam to Kathipudi – 100 kms in length on EPC basis.

## Substations

### 220 KV & 132 KV Substations

Construction of substations at Jind, Uchana and Julana with 18, 6 and 3 bays of 132 KV respectively, including erection, testing and commissioning of 100 MVA transformers.

### 33/11 KV Substation

Supply, erection, testing and commissioning of 33/11 KV substation with 5 bays at Ruse, Raipur, including civil works.

### High Voltage Distribution System

IVRCL executed all civil works for a 765 KV substation project at Sipat for ALSTHOM Transmission & Distribution Systems.

### 132 KV Substation

Construction of the substation at Purandhar with 17 bays, including supply, erection, testing and commissioning of 31.5 MVA transformer.

220/132 KV EHV Substation at Jind.



132/33 KV Substation for Purandar Lift Irrigation Scheme.

## Substations



## Distribution System

### 400 KV AC Switchyard and Civil Works

BHEL entrusted IVRCL with the construction of foundations for gantry towers, equipment support structures, shunt reactors, auxiliary transformers, electrical works etc., at Gajuwaka, Visakhapatnam, A.P.



400 KV AC Switchyard for Bharat Heavy Electricals Limited.

### HVDC Converter Station

IVRCL constructed GEC Alsthom's 2X500 MW HVDC converter station at Bhadravathi, delivering ahead of schedule and earned a second order for 1X500 MW HVDC at Visakhapatnam.

## Rural Electrification Works

IVRCL has been entrusted by various public sector undertakings pan-India to provide rural electrification works. Its tireless efforts have seen remote villages and hamlets light up with the promise of a better quality of life.

The mandate for IVRCL is to bring electricity to 12,443 villages covering 7,12,716 Below-Poverty-Line households.



## Bhilanga Hydro Power Project

IVRCL's debut venture is located at Tehri Garhwal District of Uttarakhand at an elevation of 1000 metres from MSL. At the 21.5 MW capacity Bhilanga Hydro Power Project, IVRCL is undertaking construction of civil and hydro-mechanical works.

Among the many challenges we have successfully surmounted, is the construction of the underground tunnel that passed through almost 70% of poor Himalayan rock strata and had to be supported by steel ribs. The entire tunnel is concrete lined to a thickness of 225 mm. Another task was to complete a 187 metre long desilting chamber having 40 metre upstream and 40 metre downstream transition in 1:2 gradient. The entire desilting chamber has passed through very poor rock strata and had to be supported with 250 mm ISMB steel ribs from crown to invert.



# Transmission Line Tower Factory – Nagpur.



Area: 23 acres (93281 sq.m) Installed capacity: 24000 MT / per annum.

## Salient features:

- State-of-the-art infrastructure
- Mix & match type having CNC & manual machines
- Galvanising Bath (75m x 1m x 2m)
- Combines highly skilled manpower deployment with modern manufacturing infrastructure to ensure products of highest quality
- An environment friendly / pollution free plant
- Production planned for current fiscal: 10000 MT (commencing August 2007)

## Product Range:

- Transmission line towers (66KV to 765 KV)
- Substation structures (Lattice & Pipe)
- Structural steel for rural electrification
- Microwave towers
- Structural steel for AC Traction (OHE)







## IVRCL in Transportation

A nation's economy moves forward on wheels. A strong transportation network is imperative to not only link producers and consumers across the country, but also allow its citizens to travel from one corner to another. What is perhaps equally important is that a good road and rail network enables far flung villages and mofussil towns to join the mainstream and be participants in national development.

IVRCL has established itself as a key player in the transportation sector and is well on the way to assume leadership in the domain through ultra-modern equipment and cutting edge technologies. With a massive scale-up in the number and quality of transportation infrastructure services imperative for India to maintain its scorching pace of growth, IVRCL is fully geared to ride away with a lion's share of the opportunities.



## Highways

IVRCL is establishing a formidable track record in constructing, operating and maintaining highways across the country by rapidly adapting to the Build-Operate-Transfer (BOT) model. Helping it reach a pre-eminent position is the implementation of India's first 'Hot-in-Place Road Recycling Technology' that allows re-laying of existing road surfaces to enhance the life of the wearing course while achieving substantial cost and time savings.



Srikakulam – Palasa Section (74 kms) on National Highway 5.

### Srikakulam-Palasa, National Highway Project (National Highways Authority of India)

IVRCL undertook the widening of existing 2 lane road and upgrading it into a 4 & 6 lane road over a length of 74 kms on NH5 in Andhra Pradesh. The project included construction of minor bridges, service roads and auxiliary works.

### Rajahmundry-Dharmavaram, National Highway Project (National Highways Authority of India)

IVRCL took up the conversion and strengthening of 53 kms of NH-5 in Andhra Pradesh into a 4-lane highway.



Rajahmundry - Dharmavaram Section (53 kms) on National Highway 5.





Major Bridge across Cauvery river on Kumarpalyam to Chengapalli National Highway  
- BOT Project in Tamil Nadu.



Underpass on Nasiyanur Bypass on Kumarpalyam to Chengapalli National Highway  
- BOT Project in Tamil Nadu.

## National Highways Projects (BOT)

(National Highways Authority of India)

Across various states of India, IVRCL has been awarded Build-Operate-Transfer (BOT) projects to improve, operate and maintain stretches of the National Highway.

- Salem-Kumarpalyam (53 kms) in Tamil Nadu
- Kumarpalyam-Chengapalli (47 kms) in Tamil Nadu

These 2 tollways are located on NH-47 and will have 4 lane divided carriageway with flexible pavement.

- Jalandhar-Amritsar section (49 kms) in Punjab
- Guna bypass section (12.40 kms) in Madhya Pradesh



BOT PROJECT – Toll-way bridge on the Jalandhar-Amritsar highway,  
has 16 piers spanning 0.7 kms, and a total height of 49.34 metres.



RIDCOR - Rajasthan Mega Highway Project.

## Road Infrastructure Development Company of Rajasthan Ltd. (RIDCOR)

Taking on the challenges of arduous desert conditions and tricky sandy terrain, IVRCL has executed road projects on key state highways of Rajasthan. The 2 projects – Alwal to Sikindara of 81 kms and Panchpadra to Ramji-ki-Gol of 138 kms – involved improvement and maintenance of highways, including construction of ROBs, minor bridges, culverts and toll plazas. IVRCL's capabilities were tested to the maximum as the construction involved massive earth excavation of 1.5 cubic metres embankment and sub grade of 2.1 cubic metres, besides use of huge quantities of concrete and steel.

## Internal Infrastructure

### Amby Valley – Sahara Lake City-Internal Road Project

(Sahara India Pariwar)

For this prestigious project, IVRCL was entrusted with the task of constructing world class internal roads along with services like electrical, communication, water supply, sewage, landscaping, culverts, crossings, etc. The total length of the road is 26 kms.



Internal Roads, Amby Valley, Sahara Lake City.



# Railways



Doubling of 36 km B.G. Line between Solapur & Mohol for Central Railways.

## Solapur – Mohol BG Railway Line

(Rail Vikas Nigam Ltd.)

IVRCL displayed its versatility by undertaking the project involving bed formation, blanketing, bridges, ballast supply, sleeper laying, P-way, track laying, signaling, telecommunications set-up, OHE works etc. The turnkey project was taken up on a route that is part of the Golden Quadrilateral of Indian Railways, and covers a total length of 36 kms.

## Construction of MGR Link Line for NTPC – SIPAT STTP – Package III

To ease transportation of material, IVRCL undertook the construction of a 15 kms MGR Railway Line from NTPC SIPAT Project, which formed the main connectivity for the project.



# Tunnels



Mules: The only mode of transporting material initially in difficult Himalayan terrain.

## Udhampur-Srinagar-Baramulla Rail Link Project in Jammu & Kashmir (Konkan Railway Corporation Ltd.)

IVRCL took up the challenging assignment of construction of seven B.G single line tunnels, covering 6640 metres which involved tunneling in all kinds of terrain and strata, including benching, shot-creting and lining as well as a 42 kms approach road to the tunnels. This is IVRCL's first foray into tunnel construction and also its first project in the state of Jammu & Kashmir.



Diameter of the tunnel: 6.5 (width) x 9.5 metres  
Cross section: 55 square metres



Construction of B.G. Single Line Tunnels (T6 to T12) on Katra – Laole Section in Jammu & Kashmir.



## IVRCL in Buildings and Industrial Structures

As a nation develops, so does its need for urban infrastructure. The story in India is no different. The rapid pace of industrialisation has literally thrown open the floodgates for the construction industry. From government initiatives in housing to the requirement of manufacturing units to the demand for civic utilities and facilities...building activity is witnessing an unprecedented boom. And riding the crest of this wave is IVRCL!



## Townships

Kaiga Project Township, Karnataka  
(Nuclear Power Corporation of India Ltd.)

IVRCL undertook the entire architectural and structural designing and construction of multistoried residential buildings, including internal and external services. The project comprised a total built-up area of 5.4 lakh sft.





Seawoods Estate - Phase II at Nerul, Navi Mumbai for CIDCO Maharashtra.

## Seawoods Estate

(City & Industrial Development Corporation Ltd. – CIDCO)

CIDCO entrusted IVRCL with its prestigious residential project for NRIs, in Navi Mumbai, comprising 3 towers each with stilt + 18 floors and a total built-up area of 67,000 sft. IVRCL took up the challenge of providing top class facilities and infrastructure such as internal and external sanitary and water supply systems; electrical works; cabling for internet, intercom, telecom, TV and mechanical works; underground water tank; pumps and pump house; roads; storm water drains; fire fighting system; transformers; sub-stations; DG sets; area lighting; lifts; hardscaping; landscaping etc.

## SEZs/IT Parks

To provide impetus to India's industrial development, SEZs and IT Parks have a key role to play by providing ready-made infrastructure for units to get a running start in their operations.

IVRCL is engaged in laying out the groundwork for SEZs and IT Parks throughout the country. Our immense experience in construction ensures the facilities match the very best standards and are delivered adhering to time lines.



Rajiv Gandhi Infotech Park, Pune, comprises 3 towers with 13 floors each and a total built up area of 3 million sft.





Schematic of Brandix India Apparel Park.

### Brandix India Apparel City Pvt. Ltd.

An integrated apparel park spread over 1000 acres near Visakhapatnam, Andhra Pradesh, Brandix India will house garment units, which can utilize the natural advantages of the region.

For some of the units within the park, IVRCL will construct all the infrastructure facilities including water treatment and distribution, sewerage treatment and disposal, storm water drains, effluent treatment, transmission and offshore disposal systems, road networks, electrical power distribution systems as well as the buildings and structures.

## Education Infrastructure

IVRCL has created a niche for itself in Education Infrastructure having successfully completed:

- BITS – Pilani Campus, Hyderabad ● ICFAI University, Hyderabad
- Government Medical College & Hostel, Bidar, Karnataka

### Birla Institute of Technology and Science (BITS)-Pilani, Hyderabad Campus

BITS-Pilani is a leading educational institution that is renowned the world over for its excellent teaching standards. To take the tradition of excellence further, BITS settled on Hyderabad as the location of its second campus. Given its impressive track record, IVRCL was the natural choice for this prestigious assignment.

On the 200 acre campus at Shameerpet, IVRCL has constructed the administration & academic block, lecture theatres, hostel buildings, staff quarters, auditorium, student activity centre, shopping complex, guest houses, health centre as well as roads, storm water drains etc. The total built up area of the project is a massive 16 lakh sft.



Bidar Medical College & Hostel, Bidar.

## Institutional Buildings



New Prasadalya Building for Shri Shirdi Sai Baba Sansthan Trust - Built up area - 0.2 million sq ft. - 14 domes each 18.5 metres x 18.5 metres - Size of the hall - 50,000 sq ft - Accommodates 5,500 people.

## On going projects

### Tata Cummins Limited

IVRCL has undertaken the construction of a Heavy Industrial Plant for TCL at village Suravadi, Taluka Phaltan, District Satara, in Maharashtra. The project is spread over a total area of 49,750 sq m.

### Cochin Naval Academy

A picturesque site demands a construction that matches up to it aesthetically. IVRCL is fully confident that this project at Ezhimala will do just that!

Coming up on a breathtakingly beautiful 2,500 acre coastal site, the Academy is the best of its kind in Asia. The focus is on the spur, jutting out from the line of the main ridge, because of its directional thrust and moderate elevation. The total built up area is 65,000 sq m, comprising interconnected blocks. The information complex houses a 1,709 seat Auditorium with skylights to let in maximum possible natural light. The project threw up the challenges of difficult terrain and weather conditions, but IVRCL was more than equal to the task and came through the test with flying colours.



### ONGC Petrochemical Complex – Dahej

IVRCL will develop infrastructure for this SEZ over an area of 532 hectares which includes barrowed earth filling, construction of boundary wall, internal & peripheral roads, client & consultant offices and a guest house.



"At IVR Prime, we are committed to redefining urban life across the country. As a company making rapid advances in the realty space, we have allied with top international names to transform cityscapes with world-class structures. From commercial buildings to residential enclaves to even a senior citizens home, IVR Prime has laid a strong foundation for further glory and looks forward to sharing the success with all stakeholders."



**E. Sunil Reddy**  
Managing Director

## IVR Prime Urban Developers Ltd.

The rapid pace of urbanisation and the steady influx of migrants to cities have seen the realty industry touching new highs over the past decade. Naturally, this has resulted in substantial investments in infrastructure and housing, keeping the growing demand in view.

To seize this plethora of opportunities, IVRCL floated IVR Prime Urban Developers Limited by leveraging its expertise in construction and execution of projects. Today, IVR Prime is a publicly listed subsidiary of IVRCL, focussing primarily on integrated townships and floor space for residential, retail, IT parks, commercial offices, hospitality ventures, healthcare facilities etc.

Harnessing up-to-the-minute technologies, environmental soundness and exemplary aesthetics, IVR Prime is redefining urban life across the country. Strategically identifying fast growing cities that are witnessing feverish activity in the IT/ITES, manufacturing and telecommunications sectors, IVR Prime has acquired vast land reserves at 20 locations in Chennai, Hyderabad, Bangalore, Pune, Noida and Visakhapatnam, to create luxury-intensive urban infrastructure.





Hill Ridge Springs, Hyderabad.

## Hill Ridge Springs

The flagship project of IVR Prime, Hill Ridge Springs presents the epitome of good living. Located in the heart of Hyderabad's knowledge corridor, Cyberabad, it is an eco-friendly, self-sufficient community boasting of world class styling and a host of 'A' list amenities. The storm and earthquake resistant buildings along with facilities like swimming pool, tennis court, landscaped gardens, huge gymnasium, uninterrupted power supply, sewage treatment and pre-treated water supply, make Hill Ridge Springs one-of-its-kind in India.



Misty Woods, Visakhapatnam.



Prime Fressia, Nagpur.



Prime Aqua Villa, Pune.



Rock Ridge Mall, Hyderabad.



Thyme Park, Bangalore.



"A leader in the EPC domain in India, we now target to expand our footprint in neighbouring countries as well as across Asia and the Middle East, where we see great potential and opportunities. Besides, the thrust into the KPO business is poised to bear fruit and take Hindustan Dorr-Oliver to the next level of success."

**S. C. Sekaran**  
Executive Director

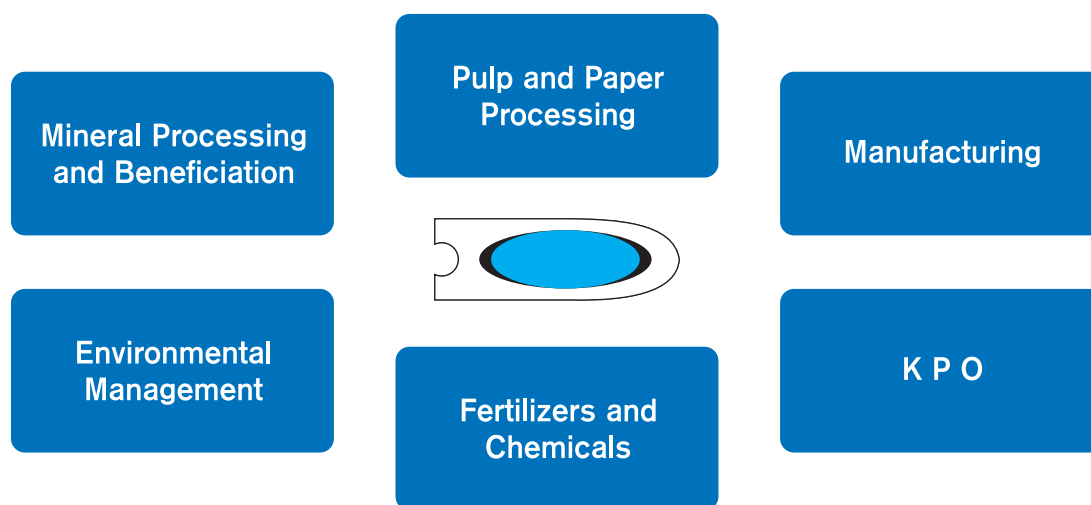


## Hindustan Dorr-Oliver Limited

IVRCL's endeavour to capture the growth on the engineering and manufacturing front received a shot in the arm with the acquisition of Hindustan Dorr-Oliver Limited (HOD), a leading Indian Engineering, Procurement and Construction (EPC) company, in 2005. This has enabled us to not only upgrade skill sets but also broaden our service offerings.

HDO's state-of-the-art manufacturing facility is located at GIDC, Vatva, near Ahmedabad, along with a DSIR-recognised R&D Center backed by competent, experienced technical and managerial professionals. In terms of resources and experience, the company is the leader in the consultancy industry, acquiring a reputation for successfully engineering projects across various industrial segments. Its bouquet of services includes Manufacturing, Engineering, Project Management, Procurement, Construction Management and Commissioning Services.

# Industry-wise Business Segmentation



These business segments are catered to by a systematic organization structure, having broad divisions, such as Engineering, Procurement, Manufacturing and Construction.

HDO's certified R&D facility with experienced scientists makes it unique.



Vertical Kelly Filters at Magadi, Kenya.



Continuous Digester at Naini Papers, Uttaranchal.



Settlers and Washers at Vedanta, Lanjigarh.





Dish end under manufacture for export market.

HDO's core expertise lies in designing, manufacturing, supplying and installing equipment, systems and processes for liquid-solid separation and pollution control in industries such as Pulp & Paper, Mineral Beneficiation, Chemicals, Food & Pharmaceuticals, Breweries & Distilleries, Refineries & Petrochemicals, Oil & Gas, Phosphatic Fertilizers, Industrial & Municipal Waste Water.

### Various Equipment for Paper Industry



Finishing operations of Washer Drum.



Digester Screw.



Digester Tube.



DSM Screen.



State-of-the-art Machine Shop for component manufacture.

HDO is fully equipped to undertake design, supply, installation and commissioning of various plants not only in India but also in countries of the Middle and Far East, Central Asia, China, Nepal, Sri Lanka and Bangladesh.

HDO is now all set to leverage its capabilities into a Knowledge Process Outsourcing (KPO) business model to provide design services to infrastructure industries worldwide.



Sewage Treatment Plant based on Sequential Batch Reactor (SBR) Technology for CIDCO Mumbai.



## IVRCL in CORPORATE SOCIAL RESPONSIBILITY



India is too vast a country and with too large a population for the government alone to undertake the welfare and fulfillment of the aspirations of all citizens. Progressive corporates have realized this and woken up to share some of the responsibility for community development.

At IVRCL, we are fortunate to be in a business where our work has direct bearing upon improving the quality of life and standard of living of people. Almost all our activities are linked to meeting the basic needs of the populace and for the sustenance of the environment.

This apart, we have also undertaken many other initiatives in our constant endeavour to make a difference to lives. Primary education, generating employment opportunities and social upliftment programmes in areas around our project sites, have added to IVRCL's reputation as a responsible corporate citizen with the people's best interests at heart.

### Akshay Patra Programme

As part of its CSR activities, IVRCL extends wholehearted support to the Akshay Patra Foundation, which is committed to addressing two of the most immediate challenges that confront India-hunger and education. This it seeks to achieve by providing nourishing meals, education incentives and medical assistance, to ensure complete holistic development of children in government schools.

The Foundation today serves the largest number of hot, freshly cooked meals in the country to over 9.5 lakh children in more than 4,600 schools spanning 15 locations across 6 states. The success of this initiative has been a case study at the Harvard Business School.



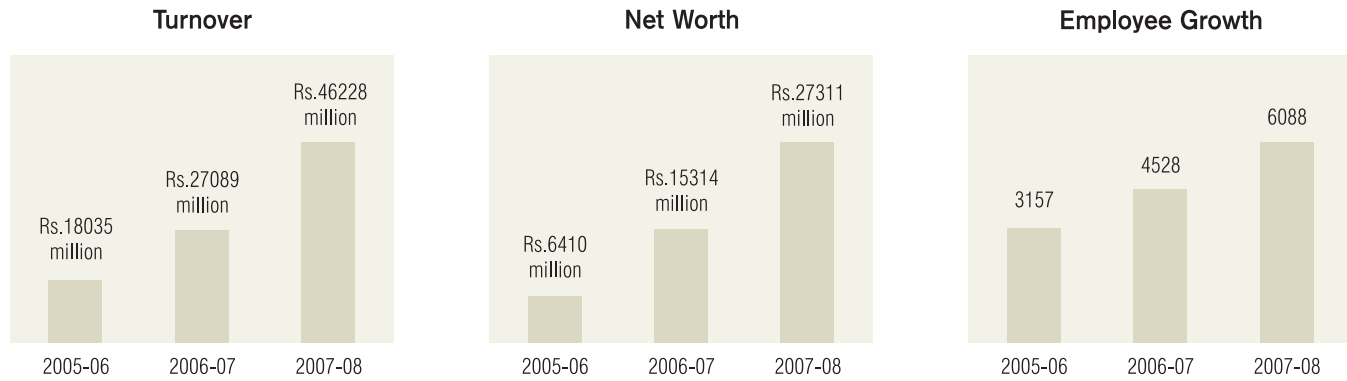
### Saivite School Project

Seldom has a news article prompted such a generous response from an organization! Learning of the plight of the Saivite Middle School, Kondithope, in its effort to mobilize funds for the construction of a new building to accommodate additional students, IVRCL extended substantial monetary help. For the benefit of students, IVRCL is also undertaking the digging of a bore-well on the premises.

### Arshad Ayub Cricket Academy

Promoted by former Indian test cricketer, Arshad Ayub, this Academy is sponsored by IVRCL and aims at nurturing talent of budding cricketers.

## IVRCL at a glance



### Some Recent Awards & Distinctions:

- IVRCL – the only Company which has consistently maintained 5A1 Rating for the past 4 years (D & B)
- Fitch Rating F1 + (Ind)
- Standard & Poor has ranked IVRCL 16th amongst India's top 100 Corporates in Key Financial Trends
- IVRCL was nominated for the award of "Desal Deal of the Year" at the Global Water Awards - 2007
- Construction World: Ranked among Most Admired Construction Companies in India 2007
- Golden Peacock Award for Occupational Health and Safety 2008
- NDTV Business Leadership Awards: IVRCL nominated among Top 6 Construction Companies
- Ernst & Young Entrepreneur of the Year Award 2007: Mr. Sudhir Reddy, Chairman & Managing Director was among Top 20 Finalists