



The Punj Lloyd Magazine

update

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Punj Lloyd creates North East India Infrastructure Executes 6 Road projects in Assam for the East West Corridor



Urban Sustainable Development

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The Commonwealth Games in October, 2010 in New Delhi were perhaps the most exciting sports event for the people of India.

India rose to the occasion.

The opening ceremony of the Games had the world watching the splendour and beauty of India

through extraordinary performances, making way for the Games.

The prelude to the Games saw a spate of infrastructure development which transformed the city with new stadia, roads, flyovers and games villages for athletes.

The Opportunity

Municipal Corporation of Delhi (MCD) entrusted with the responsibility of developing a parking facility for 800 buses in the vicinity of Jawahar Lal Nehru Stadium, which was the venue of the main sports event, awarded the construction contract to Punj



Lloyd after a competitive tender process.

It was also mandated at the outset that as the facility was being constructed primarily for the Commonwealth Games 2010, it had to be unarguably world-class and be completed well in time. For Punj Lloyd which has a history of projects successfully completed ahead of time, the task was not intimidating but exciting.

Under Constant Scrutiny

The project comprised constructing parking lots over two large drains –

Kushak and Sunehari, 1,032 and 945 m respectively.

The parking facility can accommodate over 800 buses and cars and has crash barriers, rest rooms, and remote controlled lighting facilities of international standards.

For the people of Delhi, it was the pride of hosting the biggest sporting event in India and for Punj Lloyd, it was its involvement in building sports infrastructure of international standards. Moreover,

An achievement made possible with the consistent hard work and continuous improvement of safety measures at project sites



being in the hub of the city, sprawling across Jawahar Lal Nehru (JLN) stadium, Bhisma Pitamah flyover and Dayal Singh College campus along Lodhi road to Lala Lajpat Rai Marg, the site was under constant public scrutiny through the construction phase.

The proposed parking was to be connected with the elevated corridor from the Commonwealth Games village to JLN stadium and used for parking buses carrying athletes from the Games village as well as officials and delegates of the Commonwealth Games 2010.

Punj Lloyd created impressive barricades at the site, reminding motorists and pedestrians of India's rich heritage.

The hi-tech project site was monitored regularly by the Chief Minister of Delhi, Mrs Sheila Dikshit, and her efficient management, and consistent progress was met with her complete satisfaction.

Significance of the project

The parking facility project provides an excellent example of sustainable urban development as it used waste area, huge fetid drains, in this case,

without encroaching on city space to create infrastructure. While a world class parking facility was being built, the city got a face lift with ugly and polluting drains converted constructively ensuring optimum utilisation of space.

Projects like the parking facility bring to life concepts like liveability. They symbolise creation of infrastructure that truly enhances the quality of living by creating space in the choked city of Delhi.

The scope of work

The basic structural part of this

project was made up of a 5 cell box concrete structure, 65 m wide in carriageway with 46 m waterway. At some parts in front of Dayal Singh College, Punj Lloyd had designed the structure for a 3 cell box having 30 m waterway, due to space constraints. Drains and utility ducts were constructed on both sides of the parking. There is a provision of inspection chambers at every 100 m longitudinal distance and a chimney at every 50 m distance for exhaust of gases. Specific road marking patterns were devised for the parking of buses during the games. Service

For the people of Delhi, it was the pride of hosting the biggest sporting event by India and for Punj Lloyd, it was its involvement in building sports infrastructure of international standards.



CONSTRUCTION OF PARKING FACILITY FOR COMMONWEALTH GAMES 2010



Another remarkable achievement was that Punj Lloyd executed the project economically, lower than its original price, contributing back to government exchequer for public means.

and loop roads to reach the main parking from V Avenue Road were also constructed.

Due to the tight time schedule, Punj Lloyd needed a very fast shuttering system, for which the company used the state-of-the-art mobile shuttering technique for wall and slab. This was made of shuttering panels hanging from a frame which was mounted on wheels. These frames could easily move on rails as one only had to loosen the turn buckles and the entire system would move forward as a whole, resulting in time saving. Punj Lloyd constructed approximately

12 km of walls and 1,00,000 sq m of slab for the entire project due to the mobile shuttering system, planned construction schedule and equipment. This put the project on a fast track and the Punj Lloyd team made headway in structural concreting.

Team Punj Lloyd excavated around 287,906 m³ of earth; used approximately 1,70,000 cum concrete and 17,500 MT of steel to convert this site to a world class parking facility.

Achievements

Executing a project in the hub of

the city and on a flowing drain was a challenging job. Heavy and continuous rain impacted the progress of work. Material management was a challenge as there was need for a constant supply of raw material. Coordination with civic agencies was crucial for shut down and shifting of utilities during the project.

A workforce of 1500 skilled and semi-skilled workers during peak construction and 200 staff achieved 3.39 million man-hours without LWC (Lost Work Cases) for Punj Lloyd workers. 1.21 million man-hours

without LWC were achieved for subcontractor workers.

Another remarkable achievement was that Punj Lloyd executed the project economically, lower than its original price, contributing to the government exchequer.

Being a project of national importance, the project was closely monitored by Chief Minister of Delhi and Chief Secretary of Delhi

and other Government agencies.

Unlike other Commonwealth Games projects, Punj Lloyd delivered all the work it had been entrusted with, including the additional scope, and special work of construction of T2 Parking for VIP cars for the Commonwealth Games. Punj Lloyd's project was also highlighted in the media for scheduled progress, despite the incessant rain and other constraints.

Looking back, Punj Lloyd is proud to have constructed this facility for the Commonwealth Games. ♦

Punj Lloyd delivered all the work it had been entrusted including the additional scope, and special work of construction of T2 Parking for VIP cars for the Commonwealth Games.

Punj Lloyd creates North East India Infrastructure

Executes 6 road projects in Assam for the East West Corridor

S S Raju
CEO - Punj Lloyd Infrastructure

Nitin Gupta
Manager - Punj Lloyd Infrastructure

12 major bridges 50 minor bridges and 157 km of roads

As you cross wide rivers on long sprawling bridges or travel on smooth roads in the hills of Assam, you can think of Punj Lloyd, the harbinger of infrastructure construction in North East India. The first contractor in the region to be awarded the largest contract of six road packages in East-West Corridor, Punj Lloyd has given infrastructure

in North East India a completely new dimension.

These projects form part of the National Highways Development Project to upgrade, rehabilitate and widen major highways in India, managed by the National Highways Authority of India, under the Ministry of Road Transport and Highways.

Assam, where the projects are located, is situated in the eastern corner of the country. With a large land area and the highest population among the sister states comprising Arunachal, Meghalaya, Manipur, Mizoram, Nagaland & Tripura, Assam is famous for its Kaziranga National Park and its world famous one

horned Rhinoceros, the Bihu dance, and its rich biodiversity.

The Linking Roads

Punj Lloyd was awarded the contract for four laning of six packages in Assam, totaling to a length of 157 km with both rigid and flexible pavements.

Out of six projects bagged by Punj Lloyd, four - AS-4, 5, 8 and 9 - lie on NH-31 in the stretch between Siliguri-Guwahati. NH-31 is the only road linking the seven states of North-East (N-E) to the rest of the country and thus becomes the most

vital communication link for the entire N-E region. The other two packages, AS-1 & 16, are located in the last stretch of the East-West corridor between Guwahati and Silchar.

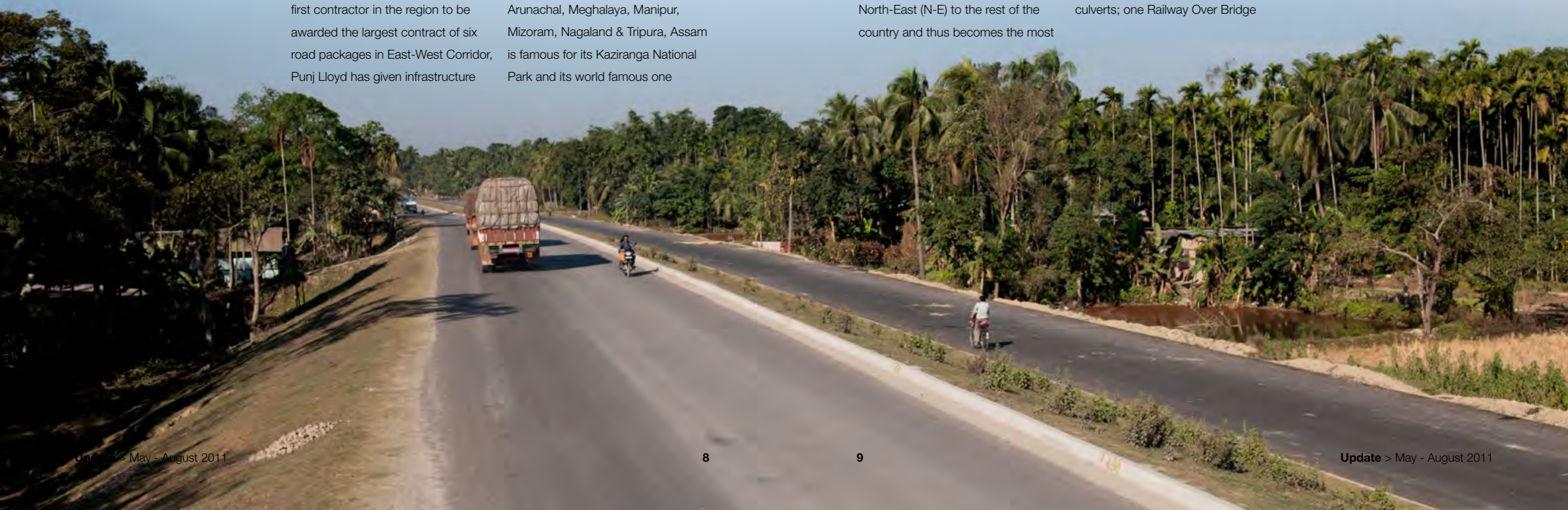
Overview

Silchar to Balachera (NH-54)

Termed AS -1, the package comprises 25.8 km of flexible pavement, two major bridges with well foundations, PSC and box girders; 36 box culverts; 72 pipe culverts; one Railway Over Bridge



Punj Lloyd made its entry into infrastructure development in North East India with six projects for the East-West Corridor





(ROB) with 152 piles and 48 girders.

Among the two major bridges, the RHS carriageway has been completed both on the Dollu Bridge and the Madhura Bridge and in the latter case, opened to public. The launching of 12 girders on either side, 24 M long and weighing 45 T and was done using two cranes - TFC280 and Sany 50T on the Dollu Bridge. The launching was achieved

in three days on each side.

Construction of ROB is at 72% completion. 128 piles out of 152 have been erected, which is four piles a day, 11 pile caps were over in a short span of time. 15 girders have been launched simultaneously parallel to the casting yard.

Nalbari to Guwahati (NH-31)

Packages AS-4 and AS-5, falling on this stretch, are separated by River Puthimari.

AS 4 - 28 km flexible pavement, 10 minor bridges with well foundations, PSC and RCC girders; 21 slab culverts; 30 box culverts; one underpass; one ROB with 306 piles and 144 girders. Work on the slab and box culverts is under progress and so is the piling work for the ROB. 6 km have been completed and handed over.

As you cross wide rivers on long sprawling bridges or travel on smooth roads in the hills of Assam, you can think of Punj Lloyd, the harbinger of infrastructure construction in the North East India.

AS 5- 28 km of flexible pavement, four major bridges with well foundations, PSC and RCC girders; 16 minor bridges; 16 slab culverts; 17 box culverts; three pipe culverts; two ROB with 260 piles and 128 girders. The two ROB are at Rangia and Ghograpar where piling work is completed. The four major bridges are Pagladia, Nona, Baralia, Puthimari, out of which Pagladia and Nona are complete.

Nalbari to Bijni (NH 31)

This section comprised two packages – AS 8 and AS 9.

AS 8 - 30 km of rigid and flexible pavement, two major bridges with well foundation and 64 girders; eight minor bridges and 36 slab culverts.

The two major bridges are:

- Bhaloka Duba Bridge – comprising five spans of PSC girders, supported on six well foundations.
- Beki Bridge - Beki river is the third largest river in Assam state with a large catchment area of about 6700 sq m.

AS 9 - 21.5 km of rigid and flexible pavement, two major bridges with well foundation, 10 minor bridges, 10 slab culverts and one toll plaza. The two major bridges are the AIE Bridge and the Manas Bridge.

Lanka to Daboka (NH - 54) & Daboka Bypass

AS 16 comprises 24 km rigid pavement, one major bridge with well foundation, eight minor bridges, 42





slab culverts, four box culverts and two underpasses.

Taking the Lead

Punj Lloyd was the first among all contractors in the region to complete AS-16, the 24.03 km spread from Lanka to Daboka of NH-54 and Daboka Bypass in Assam.

The section comprises construction of the rigid pavement comprising one major bridge with well foundation, eight minor bridges, 42 slab culverts, five box culverts and two underpasses.

This is the first project in the North East where the rigid pavement for 48.06 km (two lane) has been completed. In addition 3.7 km of two-lane within Daboka town was also completed in record time.

AS-9 steals the show

Racing close on the heels of AS-16 is the AS 9 package in the Nalbari to Bijni Section of NH-31. The AIE bridge, 400 m long is perhaps the one on the mighty Brahmaputra river. This is the first time in this region that launching of precast girders was

achieved over a fast flowing river, the AIE river.

Remarkable Feat - AS-8

Among the six projects bagged by Punj Lloyd, AS-8, also located in the Nalbari to Bijni section on NH-31, was one of the most prominent packages comprising four-laning of 30 km including 24 culverts, eight minor and two major bridges and two vehicular under-passes (VUP).

The total volume of earthwork involved was 1.3 million cum. Hauling earth through country roads was slow and tedious with dumpers frequently getting caught in the marshy land. Silt deposits from the Bhalukadoba River came handy during the monsoon but lead was an issue. 500,000 MT aggregate for paved quality concrete was needed for the project. Poor rock quality, long quarry lead and restricted crusher running time limited production capacity subsequently affected work. Procurement of sand and GSB suffered from long leads (50-70km) and non-availability during monsoon when rivers were in full spate.

Overall short and erratic supply of construction material hindered progress greatly.

Creating engineering marvels

AS-8 had the project team brainstorm at every stage of the project. Construction of the bridge over River Beki was one of the greatest feats of the team from an engineering point of view. 400 m long, the bridge comprises nine spans of over 40 m each, over a perennial river stream 350 m wide. The sheer volume of water flowing through the river and a widely fluctuating water level presented difficult working conditions.

Punj Lloyd constructed isolated islands around each well for pitching of cutting edge instead of a single bund like construction. Dredging and other activities were carried out from a floating barge moored near the island which was shifted from one well to another in deep water.

Another major bridge, 200 m long comprising five spans of over 40 m length is being built over the



Bhalukadoba River. While this bridge was built over a dry river bed, it had a few challenges. At one of the piers, an obstruction of a 2-3 m³ concrete block was met at a depth of 4 m below bed level, which took considerable time to be removed. Other than the two major bridges, 15 minor bridges have been completed.

Challenges

Even for a company like Punj Lloyd which thrives on challenges, Assam projects were an altogether new experience with multifarious issues arising on various fronts. While geographic isolation, adverse climatic conditions and insurgency were the primary bottlenecks in the execution

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Even for a company like Punj Lloyd which thrives on challenges, Assam projects were an altogether new experience with multifarious issues arising on various fronts. While geographic isolation, adverse climatic conditions and insurgency were the primary bottlenecks in the execution of the project, lack of industrial growth, unemployment and poor infrastructure in the region were also major drawbacks.



The greatest challenge for Punj Lloyd was to deliver the project within a limited construction window. Incessant rains for prolonged periods make the entire North East region unsuitable for construction activity.

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Gaining Ground

On award of the project, land acquisition was the first challenge before the project team. Even after the work began, the process of acquiring land was slow. Forest clearances, delay in shifting of utilities like electric poles, posed continuous obstacles.

Mobilisation of Manpower

It was a huge task to mobilise a large fleet of engineers, supervisors and skilled workers for all six packages, located in different parts of Assam. While the

'work was tough, the non availability of the work front' insurgency and the deteriorating law and order situation was a constant reason for good engineers to relocate.

Procurement

Road packages require huge quantities of cement, bitumen and steel which takes a long time to procure. Due to the remote location of the site, all processed material had to be procured from afar with their associated risks of availability and transportation delays. To manage these procurement related activities, a team was formed to manage the critical items. Cement was procured from as far as Chattisgarh, while steel was sourced from Durgapur.

Adverse Climate

The greatest challenge for Punj Lloyd was to deliver the project within a limited construction window. Incessant rains for prolonged periods make the entire North East region unsuitable for construction activity. From the onset of the project, the region witnessed an average annual rainfall of 3,000 mm, equivalent to 21 months of ceaseless rain.

A heavy shower could bring all earthwork to a grinding halt for days. Fog was another menace during

Besides the skilled workforce, it is also machines that allowed Punj Lloyd to carry out such expansive work in the region. Self-owned equipment proved to an asset for the company, as it reduced dependency on the local market and also optimized costs.

winter, reducing working hours. Punj Lloyd however was not new to the vagaries of nature. From working in the blazing heat of Oman deserts to the freezing snow of Kazakhstan, Punj Lloyd has developed the ability to adapt to its environment and hence built its capability of delivering projects even within a tight window of construction.

Local conditions

The region witnessed bouts of local unrest. Gun toting security forces at construction sites were common. So was the monthly advisory from district administration against night time work. Politically driven curfews resulted in the loss of substantial man hours. Punj Lloyd had to plan methodically to overcome these unforeseen delays, while at the same time maintain peace and harmony at sites.

Achievements

Despite all the above hindrances faced by the project team, Punj Lloyd has made remarkable progress. From among the 27 packages awarded, AS-16 has been completed and AS 8 and 9 are nearing completion.

For a region that was inaccessible, newly constructed bridges over large rivers have ensured connectivity. At some places, old bridges threatening to crumble under the pressure of increasing traffic have been replaced by Punj Lloyd's engineering marvels. Amidst the lush green of Assam, the sight of well constructed roads

promise a pleasant travel experience.

Safety Management

It was important to ensure safety at every step of construction. Punj Lloyd achieved this by creating appropriate construction zones and adopting uniform traffic control methods and devices to ensure safety of both road users as well as construction workers.

Punj Lloyd followed the traffic



The Assam Road packages are a true test of an engineer's acumen. From constructing roads to building bridges over major rivers or building Railway Over Bridges, the project team found itself grappling with a new task with every little area it advanced.



control categorisation of advance warning zone, approach transition zones and working zones. While the advance warning zones forewarned road users of the approaching hazard and prepared them for change in driving conditions, the approach transition zone was critical requiring reduction in speed of traffic. The working zone was the area of actual construction and maintenance where work areas had to be identified with lateral and longitudinal buffer zones, taking into account intrusion of moving construction equipment.

Safety was all the more pressing as almost all highway sections had numerous bridges across major rivers. Bigger and deeper well

foundations were now required for their piers and abutments. In cases of deep excavation, quality of surrounding soil had to be checked, as weak soil could result in sudden unprecedented slides. Care was needed during construction of sub and super structures to ensure safe working at heights. Launching of girders needed special precautions. Punj Lloyd safety team carefully monitored every move using experienced manpower and ensuring that the girders were installed with safety and without incident.

Project Management

The Assam Road packages are a true test of an engineer's acumen. From constructing roads to building bridges over major rivers or building Railway Over Bridges, the project team found itself grappling with a new challenge at every turn. With so many bridges in its scope of work, the Punj Lloyd team needed

engineers with advanced bridge construction expertise. Punj Lloyd project team provided the turnkey approach of designer-constructor at site as construction became the implementation of a design envisioned. Besides its skilled workforce, self-owned equipment proved to be an asset for the company, as it reduced dependency on the local market and also optimised costs.

Equipment management with 6 packages running simultaneously was a big challenge. For packages like AS-8 & 9 and AS-4 & 5, which were close to each other, Punj Lloyd could optimise its equipment resources and benefit from economies of scale. Hence crusher plants were shared between packages adjacent to each other. Also the fact that while some packages comprised laying of rigid and some flexible pavement and some both, Punj Lloyd had hot mix plants and concrete batching plants

aside from PQC pavers at sites. As many as 200 tippers, 30 excavators, 20 vibratory soil compactors, 30 transit mixers, 18 motor graders, 7 crawler cranes of various capacities, 6 mobile cranes, 30 water tankers, 6 dozers, 6 kerb casting machines, among other equipment were deployed at the sites.

The public is already enjoying a better ride in the finished sections of the road and can look forward to enjoying the full benefits of a four lane road within short time.

To the local populace, the company has acted as a major provider of livelihood and skills. Due to the lack of infrastructure in the region, the local community had little experience of construction. Punj Lloyd employed locals, training

them with construction skills. These unskilled workers are now semi-skilled and can further explore job opportunities with their newly acquired knowledge.

The Assam Road Project will be a remarkable project for Punj Lloyd as it will be hailed as the leading contractor ushering in infrastructure development in the sparsely developed North East India. The project, racing to completion against all odds, truly lives to the magical words of Punj Lloyd's advertisement campaign 'Done. The Punj Lloyd Way'!

Safety at Assam packages required to be even more pressing as almost all packages had large number of bridges across major rivers.



Teaching the art of excellence

HR Training Team

Punj Lloyd

Productivity and processes within an organisation are both driven by people. It becomes imperative then for an organisation to ensure that its workforce is motivated sufficiently to resonate

its goals and objectives.

A robust group with employee strength of over 27,000 employees globally, Punj Lloyd operates across different geographies, demanding terrain and in diverse verticals. In view of the challenging environment it operates in and owing to the complexities of projects it undertakes, Punj Lloyd understands that it is critical to empower its employees to take on enhanced responsibilities and become decision makers in their own rights.

Punj Lloyd ensures that its people have sufficient opportunities to augment their skills and drive the company's performance. The company makes a conscious attempt to develop the personal and organisational skills of employees, increase their knowledge, and abilities. Various opportunities for employee training, career development, performance management and development, mentoring, succession planning and key employee identification are provided, creating a stimulating environment and helping the

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organisation and employees accomplish their work goals.

Talent Management at Punj Lloyd

At Punj Lloyd, talent management is two pronged - identification of talent followed by its assessment and development.

Talent Identification

Talent identification is the recognition of high potential employees who can be groomed for the successive level through training and development. With a diverse range of businesses in both energy and infrastructure sectors, compounded by the regionalised organisation structure that Punj Lloyd operates in, the company understands the importance of identifying potential employees within each of its business verticals. These managers understand the clients' needs and can see projects through successfully, ensuring delivery, stamped with client approval.

Talent Assessment & Development

Identified high potential employees are evaluated against the Leadership

Competency Framework

defined at each employee level by using rigorous tools and exercises. Thereby, the gaps in the competency levels are identified and development plans are chartered out. Over 100 employees have been assessed through Mercer Consulting, world leaders in helping organisations to leverage the power of their people and achieve peak company performance.

With a commitment to develop our workforce to international standards of excellence, we provide a plethora of learning avenues to our employees.

We have an extensive annual training calendar consisting of behavioural, general management, leadership, technical and functional programmes to meet the training needs and holistic development of our employees at various levels and building a learning enterprise.

'Key Behavioural Skills'

Programmes: 'Presenting with Presence', 'Business Communication Skills', 'Team Building', 'Train the Trainer'.



"The only thing worse than training your employees and losing them is not training your employees and keeping them".
- Zig Ziglar

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Key General Management / Leadership Programmes cut across hierarchical levels to reach the entire gamut of employees. These include Nexgen Managers Programmes for first line managers, Supervisory Development Programmes and Advanced Leadership Programmes for the senior management.



Key Functional / Technical Programmes: Finance for Business Managers, Indirect Taxes, Management of Commercial Contracts are some of the courses facilitated by the IIM, Bangalore faculty. Advanced Skills of Project Management Practices, Advanced

Excel Training, Planning Engineers Training and Power Plant Training are undertaken both by in-house experts as well as external ones.

Quality training programmes including NDT Level 2, ASME, internal auditors, CSWIP, BGAS and Document Control.

HSE Programs including Scaffolder Certification, Scaffolding Inspector, Awareness program on OHSAS & EMS, Internal & Lead Auditors for OHSAS & EMS, Fall protection, Construction Trenching & Shoring, Material Handling, Construction Electrical Safety, Equipment Inspection.



Punj Lloyd Advanced Leadership Programme

Punj Lloyd has been organising an 'Advanced Leadership Programme' for Senior Management in partnership with the Indian Institute of Management (IIM), Bangalore with the objective of developing leadership skills, formulating strategies and execution skills in the senior executives and creating a high performance organisation.

The 8-day programme covered critical issues like risk management, business finance, effective negotiation, project management, people and knowledge management, performance metrics, and macro economic impact on the infrastructure sector. Besides the course, all participants also benefit from the yoga classes arranged for them for a healthier body and mind.

Chairman, Atul Punj and Director, Luv Chhabra, addressed two sessions, discussing at length the key areas for the improvement of the Company. Punj Lloyd has worked hard to create its reputation of timely delivery and high standards of execution for its expansive list of national and international clients.

The programme was divided into several interdependent modules, each of which focused on different

aspects of management from a senior management perspective. Most of the modules emphasised managerial decision making. A mix of pedagogical tools – cases, lectures, discussions, and presentations were used. The faculty was a rich mix of internal faculty of IIM Bangalore and external guest faculty.

GET / MT Orientation programme

In order to infuse fresh blood in the organisation, every year Punj Lloyd visits some of the best engineering, polytechnic and management colleges institutes in the country to recruit Graduate Engineer Trainees (GETs) & Management Trainees (MTs).

Five batches of GETs & MTs have joined us after undergoing an intensive 5 week long comprehensive orientation programme at our Management Development Centre at Banmore, a state of the art facility specially built for training and development.

Besides taking the new recruits through the rich history of Punj Lloyd's project delivery, its businesses, and its organisation structure, the programme aids the new joinees in understanding the company policies, processes



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Craftsmen Training Institute, Banmore

Identifying the need for well established training infrastructure to address the skill gap that the nation faces, Punj Lloyd had set up a Craftsmen Training Institute (CTI) in 2008 for welders, fitters, grinders, cutters, operators and mechanics.

The facility at Banmore is well maintained with a hostel that can accommodate 200 trainees at a time. There is provision for recreation and a dining hall which serves meals to the trainees.

Courses include:

- Automatic/Semi-Automatic Welding (SMAW, GTAW, FCAW, GMAW- STT etc.)
- Pipe Welding (Piping Welder and Pipeline Welder)

All programs are thoroughly monitored and technically guided by Corporate QA/QC team of Punj Lloyd.

and systems. More importantly, it provides them a perceptible of the Group's robust operations in various geographies, its strategic tie-ups and helps them align themselves to the organisational goals.

GET & MTs also underwent a certification in Project Management (CIPM) from IPMA before being deployed to the various business units.



- Structure Welding
- Fitters (Pipe Fitter, Pipeline Fitter and Industrial Fitters)
- Grinders
- Gas Cutting (Gas Cutting and Plasma Cutting)
- Electrician
- Welding Supervisor
- Up gradation Courses for Working Technicians.

Individual tool kit and safety equipment are issued for training. Besides having qualified and experienced trainers on board, the institute enjoys collaborations with renowned bodies like the Indian Institute of Welding (IIW), the only authorised national body of the International Institute of Welding. CTI is an 'Approved Training Institute' by IIW-India which examines and certifies our welding trainees. The training curriculum of the trade fitter is also under the process of approval from Det Norske Veritas (DNV).

Lloyd's Register is engaged with CTI for certifying Welder's Performance Qualification Test for our welder trainees. All programs are thoroughly monitored and technically guided by Corporate QA/QC team of Punj Lloyd.

CTI has collaborated with various experts from the industry in their respective fields, to keep its training curriculum up-to-date and meet the current industry requirement.

We have tied up with various international welding equipment and consumable manufacturers to formulate a standard methodology for welding procedures.

Industrial Training Institute, Narela

Punj Lloyd has also adopted ITI (Industrial Training Institute), Narela, in Public Private Partnership in collaboration with National Skill

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Development Corporation (NSDC) to develop professionals to cater to the requirements of civil infrastructure. ITI Narela is among the 14 ITIs being run by Department of Technical Education & Vocational Training, Government of Delhi.

This is a step further to Punj

Lloyd's existing programme for enhancement of skills through the Craftmen Training Institute at Banmore. Built in an area of 5 acres, ITI has over 10000 sq. m of workshop area. It currently offers industrial training in 14 different trades with a training capacity of 500 trainees. Punj Lloyd is now working towards the expansion and development of the institute by improving the infrastructure and adding new courses to the curriculum.

Reward & Recognition Programs

Punj Lloyd has instated various recognition programmes and awards to recognise the extraordinary performance of employees and motivate them to perform even better. To promote interdisciplinary camaraderie within people, 'Thank you' and 'Kudos' cards were printed, promoting a culture of thanking and acknowledging the goodwill and hard work of fellow colleagues. Awards like the Pride@PLL Award, 'CEO Award of the Year', the 'Leadership Excellence Award' and 'Team of the Year' award have been instrumental in acknowledging the commitment and execution of project teams and individuals alike.

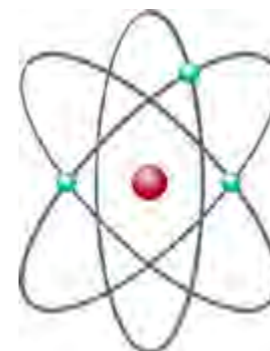


Punj Lloyd in the TOP ENR companies

Punj Lloyd has been listed the fourth time in the 'Top 225 International Contractors' and 'Top 225 Global Contractors' ranking by Engineering News Record (ENR).

While it emerged 82nd in the International Contractors category and 127th in the Global Contractors, what made the ENR ranking 2011 far more prestigious than ever was the first time listing of Punj Lloyd at 118th position in the 'Top 200 Design Firms'.

This was a remarkable moment for the Group whose subsidiary, PL Engineering is a full spectrum design and engineering company providing services in Energy, Product and Infrastructure sectors. The Company also provides consulting services in e-learning and embedded systems design. Its recent successes on the diversification front, especially in nuclear energy saw it win nuclear power design contracts for NPCIL and the Government of India's nuclear R&D organisation.



The Rwanda Connection

In May, 2011, Atul Punj - Chairman, Punj Lloyd Group met His Excellency, Paul Kagame, President of Rwanda at Urugwiro village in Rwanda.

Punj Lloyd intends to invest money and take up projects in infrastructure and energy sectors of the country. Rwanda provides ample opportunities for growth as the progressive government is efficiently administering various initiatives for the development of infrastructure, education and health.

The country is also making considerable investments in the energy sector. Punj Lloyd is confident that it can be a part of the development of this strategically located country in East Africa. Punj Lloyd has operations spread across the Middle East, Africa, the Caspian, Asia Pacific and South Asia, where the company is undertaking energy and infrastructure projects.

Clarence Fernandes, Chairman, Rwanda Renaissance and Co-Chairman Travel & Tourism Committee, Indian Merchants' Chamber, congratulated Mr Punj for showing interest in the various sectors of Rwanda as it would further investments by Indian companies in the growing Rwandan economy.



Sembawang The 'Green and Gracious' Builder

Sembawang involves its workers or sub-contractors at the worksites. It is through such collective and inclusive efforts that Sembawang has attained 'Excellent' status.

Chiam Soon Kiam
Senior Manager, Sembawang E&C

Sembawang continues to maintain its outstanding record for productivity as it has once again won awards for it - Best Value Added Productivity (VAP) Builder and Best VAP Improvement Builder, from the Building and Construction Authority, an agency under the Ministry of National Development, championing the development of infrastructure in Singapore.

At the same forum, Sembawang's contribution to building firms that adopt social and environmentally-friendly practices to minimise the effects

and inconvenience caused by construction activities, also won it the award for 'Excellence in Green & Gracious Builder Award' from the same agency. The Awards are in keeping with the Group's commitment towards achieving a sustainable business.

Sembawang is extremely conscious of creating an environment where all stakeholders work in a safe, comfortable and healthy environment. It believes that for any corporate social responsibility programme to be effective, the entire chain of operations needs to be involved. To this end, Sembawang involves its workers or sub-contractors at the worksites. It is



through such collective and inclusive efforts that Sembawang has attained 'Excellent' status.

Key Features of the "G&G" Movement

- A holistic and systematic approach to achieving excellence
- Intensive awareness programmes and continuous promulgation of best practices, such as publication of a handbook and quarterly HSE News Bulletin, for the purpose of sharing updates and providing educational information within the company and its stakeholders.
- Adoption of best practices from other industries. For instance, Sembawang used coir log made from biodegradable materials

Audit Day Pictures

Project teams presenting their best practices to the BCA Auditor



as an erosion control measure. When coir log is used to contain slurry, surrounding areas are not affected. Besides, coir log can be easily relocated and setup within minutes.

- Continuous engagement programme with stakeholders. Engineering noise control measures were adopted during boring work to reduce noise and vibrations.
- Extensive recycling of materials. Scrap metal waste was

- redesigned for cable hangers and timber waste was used for fire extinguisher holders.
- Extensive use of precast construction for bore tunnel at Down Town Line project reduced material consumption.



Punj Lloyd Launches Third Phase of 'Life Enrichment' Programme

Punj Lloyd has recently launched the third phase of its workers' welfare programme titled 'Life Enrichment', across its ongoing project sites at Cuddalore Refinery in Tamil Nadu, Mangalore Refinery in Karnataka and Dahej Furnace Cracker in Gujarat.

The Phase III programme is an extension of Phase II undertaken by Punj Lloyd at three Indian Oil Corporation (IOC) refinery project sites in 2010. In view of the quality work done by Punj Lloyd for its workers, International Finance Corporation (IFC) had also joined hands with Punj Lloyd and became the grant partner for Phase II of the programme last year.

Aimed at improving the lives of workers at their workplace and living

quarters, the programme undertakes various on-ground activities by way of organising free medical check-up camps, providing clean water and sanitation facilities and most essentially spreading awareness and increasing knowledge about HIV/AIDS and other epidemic diseases like malaria, dengue and the like.

The programme uses various communication tools, including focus group discussions and street plays. All these form part of concerted efforts of Punj Lloyd to standardise the living and health conditions of migrant workers and enrich their lives.

On the launch, PK Gupta, Director, Punj Lloyd, said: "We strongly feel that for our nation to grow, it is important for our society to address and resolve the issues

Punj Lloyd is confident that the "Life Enrichment" programme will have a cascading effect and will reach far and wide.



that pose as bottlenecks to its growth, including those pertaining to the spread of HIV/AIDS. It is a matter of pride that our programme has now reached the third phase, thereby widening our worker base. The combined benefits of better health through yoga, medical clinics, counselling and cleaner living conditions will contribute to an improved and enriched life for our workers."

The Population Council of India conducted an evaluation of Punj Lloyd's Life Enrichment Programme in 2010 to measure its impact. The report stated: "The evaluation study findings indicate that there were significant improvements in knowledge about safety, hygiene, health and sexually-transmitted infections with exposure to Life Enrichment Programme. The factors responsible for the programme's success are largely attributed to the active participation of the company management and social recognition of their workers, who were active participants in the programme implementation."

Life Enrichment was first launched as an HIV/AIDS intervention programme at Punj Lloyd project site, Medicity in 2007. Being an EPC

company, construction workers are the mainstay of the company's projects and migrant workers are a disadvantaged section of the society, vulnerable to diseases, especially HIV and AIDS. However, the stigma and fear associated with HIV/AIDS was a serious deterrent to workers' involvement in the programme, and Punj Lloyd quickly rechristened the programme 'Life Enrichment', reflecting its all encompassing and holistic nature.

Punj Lloyd is confident that the "Life Enrichment" programme will have a cascading effect and will reach far and wide. Nitin K Mishra, Project Manager - Cuddalore Refinery, who was also an ambassador in the implementation of Life Enrichment programme at the Hydrocracker Unit in Haldia, said: "I was delighted to hear that my site has been selected in the Phase III. In Phase II, I had witnessed the programme reach out to every site worker, transforming their lives".

NGI (Mixed Case) Project Synopsis

B B Mallick
General Manager – Projects
Punj Lloyd

The execution team of the NGI (Mixed Case) project in Abu Dhabi is overjoyed and they have ample reason to be! It is indeed a proud moment to be the first contractor to ever receive a bonus from a prestigious client like Abu Dhabi Gas Industries Ltd (GASCO).

The frontrunners in the Habshan Nitrogen Pipeline bid, Punj Lloyd received the project for detailed engineering, procurement, construction, pre-commissioning and commissioning of the project, called the NGI (Mixed Case), in March 2010.

In a bid to safeguard against an



anticipated short fall of sales and injection gas in Abu Dhabi, GASCO, on behalf of Abu-Dhabi National Oil Company (ADNOC), undertook this project for nitrogen generation and injection in Thammama “F” reservoir, utilising the existing lean gas injection compressors without major modification. This project intended to replace 600 MMSCFD yearly average of the lean gas being injected with nitrogen and release the same quantity to the sales gas network.

There are two Thammama “F” Lean Gas Injection trains, unit 96 and 97, installed as part of Habshan-I with a capacity of 830 MMSCFD 2 X 415 MMSCFD in winter condition and 740 MMSCFD 2 X 370 MMSCFD in summer condition. As part of Habshan-3 project, additional four trains are being added, units 391 to 394, which were designed for a total capacity of 1306 MMSCFD 4 X 326.5 MMSCFD in summer condition.

SCOPE OF WORK

The nitrogen generation to support the injection of 600 MMSCFD yearly averages was outside Punj Lloyd’s scope of this project.

The nitrogen was to be delivered



to Habshan by a 48 inch high pressure pipeline from the nitrogen generation facilities at Mirfa, in west Abu Dhabi, to Elixir’s pure N2 delivery point pig receiving area near Habshan gas complex fence line. Punj Lloyd was awarded the detailed engineering, procurement, construction, pre-commissioning and commissioning activities including the civil and structural work, compressor modifications, piping fabrication and erection, electrical, instrumentation and controls, non destructive testing, Post Weld Heat Treatment (PWHT).

QUALITY & HSE

The Nitrogen Generation and Injection (Mixed Case) project work was in the live gas plant of GASCO in Habshan (Habshan 0 to Habshan 4), Abu Dhabi. Owing to this, health & safety standards precautions had to be very stringent. Punj Lloyd achieved safe man-hours of 1,844,600 without any Loss Time Injury (LTI). Quality standards of the highest level were ensured, resulting in client satisfaction.

ACHIEVEMENTS

Punj Lloyd maintained a good pace of execution from the onset of the project and all activities like Engineering, Procurement, Construction, Precommissioning and Commissioning were timely, enabling completion and handover to GASCO, ahead of schedule.

Appreciating Punj Lloyd’s speedy delivery, GASCO presented the Company a bonus, a first time commitment for GASCO. For Punj Lloyd though, the beating of deadlines while ensuring high quality of work is not a first. The spirit to deliver quality projects in the tough deadlines set by client is integral to Punj Lloyd’s working. Many of our projects including the Dahej Vijapur pipeline in India, the South Sumatra to West Java Pipeline in Indonesia, MSQ upgradation for Haldia refinery, among others have enjoyed client appreciation owing to their successful delivery prior to the completion date. Another major achievement was the successful hydro testing of 5 km of 36”/30” process piping at 120 bar in a single test.



Punj Lloyd achieved safe man-hours of 1,844,600 without any Loss Time Injury (LTI). Quality standards of the highest level were ensured, resulting in client satisfaction



A peep into some of our ongoing projects

Projects Recently Won

- **Contract for design & EPC of 124 km of six lane of Chittorgarh bypass to Udaipur, in the state of Rajasthan from GMR Projects valued at US\$ 199 million.**
- **The Loruk-Barpelo Road Project of Kenya Highways Authority, in joint venture with Intex Construction, valued at US\$ 54 million.**
- **An offshore project in Bombay High, Mumbai from ONGC valued at US\$ 97.3 million.**
- **EPC contract for the first polysilicon plant of Qatar, awarded by Qatar Solar Technologies (QSTec). The plant valued at approx. US\$ 1 billion, will manufacture 8,000 MTPY of high-purity solar grade polysilicon.**
- **BOP order for thermal power project from Haldia Energy, a wholly owned subsidiary of Calcutta Electric Supply Co. (CESC), valued at US\$ 244 million.**

C919: Arrival of Tunnel Boring Machines (TBMs)

David Michael Helliwell
Tunnel Manager
Sembawang Engineers & Constructors

Project C919 in Singapore, comprising construction of two key stations of Singapore – Botanic Gardens and Stevens for the Downtown Line 2, is making headway with its most critical equipment, the Tunnel Boring Machines (TBM), including the backup facilities, being delivered to the site. The gigantic proportions of



The whole unit measures 6.6 m in diameter. The heaviest piece is the front shield weighing 121 T while the middle shield, comprising two pieces, has the combined weight of 135 T.

The construction of the Downtown Line is part of the nation's plan to develop a comprehensive rail network system to meet its fast growing future travel needs.

the TBMs required them to be transported at night. Each TBM consists of the cutterhead, front shield, two pieces of middle shield, which have to be welded together once lowered into the shaft, and a tail skin. The whole unit measures 6.6 m in diameter. The heaviest piece is the front shield weighing 121 T while the middle shield, comprising two pieces, has the combined weight of 135 T. The backup consists of four gantries and a bridge section connecting them to the TBM.

Supplied by Herrenknecht, these TBMs are robust in design to manage the difficult ground conditions expected on C919, with Bukit Timah Granite to be

encountered at up to 400 MPa.

The TBMs has started to bore and the total length bored by both TBMs are 310 rings distance (434 m). Due to the small size of the launch shaft, the TBMs used a short launch technique. Only the TBM itself was inside the shaft, while the umbilical hydraulic hoses and cables connected it to the backup gantries on the surface.

The construction of the Downtown Line is part of the nation's plan to develop a comprehensive rail network system to meet its fast growing future travel needs.



Petro Fluid Catalytic Cracking unit at Mangalore, India

Sudhir Gupta

Resident Construction Manager
CDSP, MRPL Project, Punj Lloyd
Mangalore

All the four Coke Drums for the Coke Drum Structure Package of Mangalore Refinery Petrochemical Ltd (MRPL) have been successfully erected.

Erection of the first drum was a daunting task as weighing 468 MT, the drum of 10.20 m dia and 41.60 m tall had to be erected at an elevation of 30 m. The task was further compounded by adverse weather conditions as the site had seen heavy rainfall and consequent slushy and water-logged conditions during the entire month of July and August 2011, on account of the prevailing monsoon season.

Thereafter the team put stupendous efforts for transporting 14 Coke Drum Structural Module (ODC), varying from 9.71 m to 18 m height, 13 m breadth, 13 m to 16 m length, and weight varying from 111 MT to 200 MT from the fabrication yard to the site covering more than 800 m. Together with this, was the uphill task of erecting 16 modules extending upto height

from 30 m to 116 m. Twelve of the modules have already been successfully erected.

The successful erection of the four Coke Drums followed by Structural Module transportation and progressive erection has been a commendable achievement for the team, which is now racing ahead enthusiastically for the completion of the project. The work is being executed, as always, with strict adherence to the exacting Punj Lloyd safety standards and has bolstered Punj Lloyd's name amidst the project management company, Engineers India Limited and the Client, MRPL.

The successful erection of the four Coke Drums followed by Structural Module transportation and progressive erection has been a commendable achievement for the team, which is now racing ahead enthusiastically for the completion of the project.





As per GAIL, the project construction progress rate has been excellent, with all critical and major items completed on time

Vijaipur – Kota Pipeline

In January 2011, Gas Authority of India Limited (GAIL) awarded Punj Lloyd a contract to lay 112 km of pipeline from Vijaipur, Madhya Pradesh, to Boreri, Rajasthan, and to augment the capacity of the existing Vijaipur - Kota Pipeline.

Built as part of the Hazira - Vijaipur - Jagdishpur Pipeline expansion, the original 198 km Vijaipur- Kota Pipeline was commissioned in January 2007, costing a total of US\$ 66 million. The pipeline transports natural gas from Vijaipur in Madhya Pradesh to Kota in Rajasthan and has the capacity to transport 3.47 MMcm/d of gas. The main trunkline has an

18 inch dia while the Gadepan to Keshoraj Patan section has a 16 inch dia.

The current project also involves the installation of 292 km of spur pipelines with diameters of 12 and 18 inches to meet the demand of natural gas from various consumers in the Boreri, Bhilwara and Chittaurgarh districts in the state of Rajasthan. Engineers India Limited was contracted to perform the design and engineering works for the project, which commenced construction in February 2011.

Construction of the Vijaipur - Kota Pipeline posed a number of challenges, including a requirement for specialised machinery and manpower to overcome the 20 per cent hard rock encountered along its route. The route also traverses

the 400 m-wide River Parbati, which has a rocky bed; this section of the pipeline was horizontally directionally drilled.

Due to the fact that 1.5 km of pipeline and piping works had to be performed in the operating process area of GAIL's online gas terminals, special health, safety and environment (HSE) measures were necessary. HSE plan and procedures were developed and monthly HSE committee meetings were organised. All employees were required to have a HSE induction before deployment and were engaged in daily toolbox talks directing them how to go about their daily work and how to navigate hazards.

The narrow right-of-way was in a forest area, and required further safety precautions. Hazard identification and risk control was conducted for all critical

activities, including excavation and trenching, lowering in, blasting and hydrotesting. Every quarter, the lifting tools and tackles were inspected, colour coded and certified by a third party. An emergency plan was also prepared in case of incidents such as fire, grave injury, collapse of equipment and floods, and mock drills of this plan were executed periodically to ensure all workers were aware of the procedure.

GAIL said that the project construction progress rate has been excellent, with all critical and major items completed on time, and with approximately 170 joints made per day without any repair – no mean feat considering the small size of the crew. Our large and young plant fleet also enabled fast mobilisation of equipment, ensuring minimum downtime.



Cracker Furnace at Dahej, India

P S Bose
Senior General Manager - Tankage
Punj Lloyd

Punj Lloyd is installing 8 Cracking Furnaces at OPAL Petrochemical Complex located at Dahej. The proposed complex will consist of a Dual Feed Cracker of 1100 KTPA capacity which will crack C2, C3, C4 and Naptha to produce maximum polymer grade ethylene and propylene as petrochemical feed stock to the downstream basic polymer units of LLDPE, HDPE, Polypropylene and SBR. The Dual Feed Cracker unit (DFCCU) was awarded to Linde/ Samsung Consortium who in turn, awarded Punj Lloyd the contract of all eight cracking furnaces. The erection of eight steam drums of the eight furnaces has been completed using our self-owned 500 MT crane. A feat made possible with the commendable management and execution skills of the project team.

The Cracker unit was awarded to Linde/ Samsung Consortium who in turn, awarded Punj Lloyd the contract of all eight cracking furnaces

The New Face of Rural India



Louise Sharma
Group Head – Corporate
Communication & CSR
Punj Lloyd

Punj Lloyd initiated developmental work in villages as part of its commitment to society; it looked at all facets of growth, ranging from literacy to livelihood and to the sustainability of these initiatives

It is often said that the true test of India's growth lies in the extent of rural development in the country. True enough, if you chance upon a child in a remote village speaking English with clear diction, you experience a profound sense of accomplishment.

India is a vastly populated country with a large populace residing in villages, far removed from the cities. While the Government of India is driving many developmental initiatives, increasingly, corporate houses have felt the need for faster inclusive growth, extending support to many villages across the length

and breadth of the nation.

Punj Lloyd is one of the few organisations to have addressed village development holistically. Solemn believes in providing a turnkey solution, Punj Lloyd held the view that in village communities, most issues are generally interlinked. Hence, when Punj Lloyd initiated developmental work in villages as part of its commitment to society; it looked at all facets of growth, ranging from literacy to livelihood and to the sustainability of these initiatives.

Under the aegis of Pandit Kanahya Lal Dayawanti Punj Foundation, Punj Lloyd's work in the Bhadohi district of Uttar Pradesh, India, concentrated on

Punj Lloyd is one of the few organisations to have addressed village development holistically. Solemn believes in providing a turnkey solution, Punj Lloyd held the view that in village communities, most issues are generally interlinked.

three villages Baripur, Narepar and Bankat. Efforts made in the field of social development can be clearly gauged by the holistic development of the district.

Education

Punj Lloyd's involvement with Sitamarhi, dates back to the time when Chairman Emeritus - SNP Punj visited the land and an instant bond was established. Sitamarhi is a popular pilgrimage place. Of great mythological significance, it

is here in the Ashram of Rishi Valmiki, on the holy banks of the Ganga, that Sita was sheltered when sent on exile by Lord Rama in the famous epic Ramayana. She gave birth to Luv and Kush and later returned to the lap of Mother Earth when questioned about





The school started making rapid strides as a co-educational school in a male dominated society.

her chastity. Realising that education was the only medium which could transform the mindset of the villagers, Punj Lloyd set up the Dayawanti Punj Model School in Sitamarhi,

Catering to over 1400 students every year, today the school is a centre of learning, fighting evils of illiteracy, gender bias, social evils, inculcating good values in the children and ensuring that

the honest and the best in the remote village

standards of the country. The landscape of the village is the best in the world. The structure, the landscape of the village is the best in the world. The structure, the landscape of the village is the best in the world.

and for the young village children, the new world of the stadium for events, boasting of an acoustic

events, boasting of an acoustic

curtain created using German technology. A hi-tech stage, complete with sound and light and a wooden floor fitted with springs to prevent fatigue. A well stocked library, a highly advanced computer room and even a Science Centre. Thomas Huxley had said "Science is simply common sense at its best". The Science Centre at the school was designed to bring simple principles of Science to children using interesting examples - the art of patience via the hand skill coordination game, the mysteries of concave and convex mirrors, or the head on a platter. Young children surprise you with their knowledge of megapixels of cameras, knowledge acquired during their photography classes in school.

Dayawanti Punj Model School might have made its mark today but its institutionalisation was not free of challenges. Good teachers did not wish to stay in a backward area to provide education to

village children, questioning the standard of education that could be provided! The villagers themselves were not inclined to the concept of education, especially that of the girl child. Battling with these multifarious issues, Punj Lloyd set out on an ambitious project, its first step being the construction of high quality accommodation for teachers, providing for their every need and encouraging them from places beyond UP to come to the village for a worthy cause.

Once the teachers' quarters



were established, Punj Lloyd started construction of the school - the district's largest educational institute. Every employee of the Foundation was handpicked based on levels of commitment, trust and dedication towards charitable causes. For that reason every employee has a story to tell. They recall how getting village children to the school was a challenging task. Teachers had to go door to door, urging families to send their children and highlighting the provision of free education for the girl child. Slowly the message spread, with girls taking their first step towards education. In days to follow, the village community opened its mind to education, wanting their sons to get an equal opportunity. The



Punj Lloyd set out on an ambitious project, its first step being the construction of high quality accommodation for teachers, providing for their every need and encouraging them from places beyond UP to come to the village for a worthy cause.



Punj Lloyd identified families below the poverty line, providing them unique ID cards and inviting them for free foodgrain every month.



school started making rapid strides as a co-educational school in a male dominated society.

Coming from poor underprivileged families, mostly farmers or small scale handicraft workers, the school children had no access to either nutritious food or a regular supply of power, both of which were

serious deterrents to their growth and learning. Struggling to meet their basic needs, the families were far too poor to concern themselves with matters of hygiene, cleanliness or development. Punj Lloyd then realized that the existence of the school was unsustainable unless the children of extremely poor families were provided further amenities to free them from the pressures of their family problems.

The school took the next major step of establishing a hostel

As many as 1300 families are each provided 11 kg grain every month, including rice and pulses.

for children whose families were either too far to send their offspring to school or too poor to sustain their education. The hostel mess provides for the childrens' health. Nourishing nuts and milk are provided twice a day to all the children. An occasional banquet is organised on festivals where children get served special food.

Entertaining movies or those with a special message are often screened in the school providing children a peep into the real world. A special troupe of the famous Sri Ram Centre of Delhi is invited to

Sitamarhi to present Ramayana to the children. The children watch the epic, so poignantly presented, the strong deliveries and rich costumes fascinating them.

Food Grain Distribution

Punj Lloyd realised that while education was of paramount importance in the development of Sitamarhi, it was also vital to look at the social development holistically. Poverty being the bane of mankind, it was crucial to alleviate poverty to allow the villagers to rise. Punj Lloyd identified families below the poverty

line, providing them unique ID cards and inviting them for free foodgrain. As many as 1300 families are each provided 11 kg grain every month, including rice and pulses.

Health

Equally important was health. A healthy community could be expected to rise to the challenges of development but with no signs of any medical aid in the near vicinity, this was unlikely. Dropouts from school were enough to prompt Punj Lloyd to launch its health initiative. Arrangements were made





for announcements to be made in villages within a radius of 12 km from Sitamarhi, about the free medical camps. With treatment coming to their doorstep, hoardes of villagers gathered around the mobile medical ambulance eager for treatment for their ailments. The ambulance makes its rounds, village to village, armed with a physician, a gynecologist and an ophthalmologist. Free medicines are provided to the villagers.

Aside from the free medical camps, the Foundation has also instated a 24 hour hospital. The hospital has brought to the village the latest medical facilities including ultrasound, ECG X ray, laboratory for diagnostic tests, operation theatres, among others. Special cards have been provided to over 1300 families of Baripur, Narepar and Bankat villagers who are below the poverty line, entitling them to free treatment at the hospital. Besides catering to

emergencies, routine child births, surgeons are called in for advanced surgeries like hysterectomy, hernia, hydrocele, gall bladder etc.

A dedicated team of doctors and nurses attend selflessly to the wellbeing of the village community. A special team of doctors from Venu Eye Hospital, Delhi visit Sitamarhi regularly to conduct eye surgeries on the senior population suffering from cataracts and other disorders. Calipers and Prosthesis are provided to handicapped and polio affected children and adults.

Concurrent to these health initiatives, additional methods are adopted to generate awareness about the need for cleanliness and hygiene. The cleanest house is presented a Solar Lantern. For most houses devoid of a power supply, a solar lantern brings an end to their dark evenings. The initiative has resulted in attitudinal changes where

Concurrent to these health initiatives, additional methods are adopted to generate awareness about the need for cleanliness and hygiene.





now the villagers are conscientious about health and hygiene.

A major milestone in the progress of Sitamarhi was the inauguration of a clocktower, 160 feet high, in the school premises. A lofty structure, the clocktower is visible from all corners of the surrounding villages, evident of a community conscious of the essence of time and poised to grow further.

Community Weddings

Focusing on youth, another significant community initiative is the conducting of mass weddings. The youth comprise a significant

proportion of a growing population and have immense potential to contribute meaningfully to a community. It is through the medium of mass weddings that Punj Lloyd could address the concerns of this population. Counseling sessions are arranged at three levels for the couples to get married. From the priest who inculcates in them the sanctity of marriage to separate counseling sessions from medical experts for both men and women.

The mass weddings also gained immense popularity as they relieved poor struggling families of the burden

of getting their daughters married to good men. In an endeavour to assist the young couple take stock of their new life, their every need was anticipated and household items from beds, mattresses, utensils to clothes, a cycle and sewing machine were provided.

Temple

Punj Lloyd also set up the Sita Samahit Sthal Temple, a hallmark of this beautiful land with millions of devotees flocking to seek blessings. The temple is one of its kind - the only Sita temple in the



country. A famous sculptor was commissioned to create the beautiful statue of Sita, so endearing and ethereal. Encrusted with beautiful precious stones and breathtaking illustrations from the Ramayana, the Samahit Sthal Temple is further complemented by the 108 feet high statue of Lord Ram's follower, Hanuman, standing in proximity on a twenty feet high artificial rock. These temples have given the people a sense of belonging, making them proud bearers of a land with a rich mythological past.

With the increasing number of worshippers, the Foundation set up an establishment to accommodate the devotees during their pilgrimage. The temple complex is acclaimed to be one of the cleanest temple complexes in India. It is also serene, transporting one away from the madding crowd into the divine space.



Self Empowerment

Seeking to develop self confidence of young girls and help generate employment opportunities for them, Punj Lloyd next launched a Bal Bhawan. Offering a range of activities from tailoring, embroidery, painting, arts, music, crafts, photography, car driving and beautician courses, the subsidised costs encourage young girls to fruitfully utilise their time and learn skills that they enjoy and can pursue as a profession. The girls are encouraged to come forth and participate in other events planned by the Trust.



Dilip Mankame, Senior General Manager - Marketing, receiving the Construction Week 2011 awards for 'Corporate Social Responsibility' and 'Engineering Company of the Year'



Sembawang team showcasing its environment expertise at the annual Singapore International Water Week 2011's exhibition



H.H. Shaiekh Abdullah Bin Zayed Al Nahyan, Minister of Foreign Affairs, Government of UAE, accompanied by a high level business delegation, in New Delhi, seen along with Atul Punj, Chairman, Punj Lloyd Group.



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