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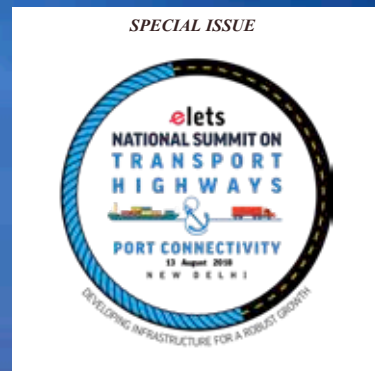


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EXPANDING TRANSPORT BUILDING ROBUST INDIA



Nitin Gadkari

Minister for Road Transport & Highways, Shipping & Water Resources, River Development & Ganga Rejuvenation, Government of India



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Our Publications and Initiatives



CONNECTING THOUGHT LEADERS

Founded in 2005, eGov magazine is published in both
print and online formats. Innovative use of ICT in
Governance is at the heart of our all eGov initiatives.



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> MAGAZINE

It compiles ICT-related advancements being introduced, exercised by various government organisations via eGovernance module.

> NEWS

Dealing with various key developments and policy-related decisions that define Indian governance style at large, this section throws light on the most important aspects.

> WEBSITE

With a reach of sixty lakhs, the website is pushing the Digital India campaign of the Government of India. It highlights various dimensions of anything and everything related to the changing trends of governance in India.

> EVENT REPORTS

This segment narrates the discussions and deliberations of participants at the occasional conferences held nationally or internationally.

> CASE STUDIES

It deals with in-depth detail of various projects being implemented in any part of the country, worth inspiring others in providing solutions.

> VIDEOS

The youtube channel 'EletsTV' deals with live recorded versions of tech-experts and key decision makers who participate in key debates or discussion of Elets knowledge conferences.

> INTERVIEWS

This section highlights various stakeholders, bureaucrats and policy makers influencing governance in the country.

Building Robust Infrastructure for an Impregnable India

As part of its ambitious dream to emerge as a developed country, India requires a strong system of easy connectivity, meaning a robust infrastructure of road, transport, and the highway.

Led by Union Minister Nitin Gadkari, the Ministry of Road Transport and Highways (MoRTH) appears to be focused on just that day-in and day-out in an unprecedented manner, scaling new heights of achievement in connecting every village to bigger towns and cities and strengthening scope of prosperity and growth for all.

In an endeavour to build a multi-modal system so that a smart transport network can be developed in the country as part of economic growth roadmap, the Ministry of Road Transport and Highways and Ministry of Shipping are working together under Gadkari.

Understanding the key role of these ministries, Elets Technomedia chose to organise the National Summit on Transport, Highways and Ports Connectivity in the national capital, the nerve centre of power and politics.

Our latest issue of eGov magazine thus also focuses on the development of roads and ports infrastructure in the country. Our cover story 'Expanding Transport Infrastructure Building Robust India' delves on the developmental projects going on in the country, and the future ahead.

From the MoRTH, Shambhu Singh, Additional Secretary and Financial Advisor; Abhay Damle, Joint Secretary; and Amit Ghosh, Joint Secretary have shared the inputs about roads and highways developmental projects of the country.

From National Highways Authority of India Niraj Verma, Member, Private Public Partnership (PPP) has shared his vision.

From National Highways and Infrastructure Development Corporation Limited (NHIDCL) Nagendra Nath Sinha, Managing Director; Satyabrata Sahu, Director (Administration and Finance) have shared the progress report of highways in India.

From the Shipping sector Kailash K Aggarwal, Joint Secretary, Ministry of Shipping, Government of India; Pravir Pandey, Chairman, Inland Waterways Authority of India and Parmeshwar Bali, Chartering Officer, Ports and Shipping have deliberated on various aspects of the sector.

The issue also carries a report of the 2nd National Urban Development Summit, Aizawl, organised by Elets in association with Mizoram Government's Urban Development and Poverty Alleviation Department. Inaugurated by Chief Minister Lal Thanhawla, it was participated by various key leaders from government and industry to discuss smart solutions for urban development.

With a host of interviews, and articles of top government officials and industry leaders, it is hoped this issue will prove to be a worthy read for the readers.



DR RAVI GUPTA

Editor-in-Chief, eGov magazine, and
CEO, Elets Technomedia Pvt Ltd

CONTENTS

AUGUST 2018 | Volume 14 | Issue 15



➔ 08 | COVER STORY

EXPANDING TRANSPORT INFRASTRUCTURE BUILDING ROBUST INDIA



14 SHAMBHU SINGH

Additional Secretary and Financial Adviser
Ministry of Road Transport and Highways
Government of India



16 NAGENDRA NATH SINHA

Managing Director
NHIDCL



20 AMIT GHOSH

Joint Secretary, Highways, Ministry of
Road Transport and Highways,
Government of India

38 | CONFERENCE REPORT



18 SATYABRATA SAHU

Director, (Administration
and Finance), NHIDCL



24 NIRAJ VERMA

Member, Public-Private
Partnership (PPP), National
Highways Authority of India
(NHAI)



28 PRAVIR PANDEY

Chairman
Inland Waterways
Authority of India (IWAI)



30 ABHAY DAMLE

Joint Secretary,
Ministry of Road Transport
and Highways (MoRTH),
Government of India



32 KAILASH K AGGARWAL

Joint Secretary
Ministry of Shipping
Government of India



34 PARMESHWAR BALI

Chartering Officer,
Ports and Shipping,
Ministry of Shipping,
Government of India



36 ABHYUDAY JINDAL

Managing Director,
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This September at InfoComm India 2018, see the cutting-edge technologies that will help you deliver first-rate public services as well as increase operational capabilities. Innovators moving the AV needle will be present – learn about their solutions as well as their ongoing research studies. Be the first to see new products debuting in the Indian market. Have illuminating discussions with industry experts at the Summit's free-to-attend educational sessions.

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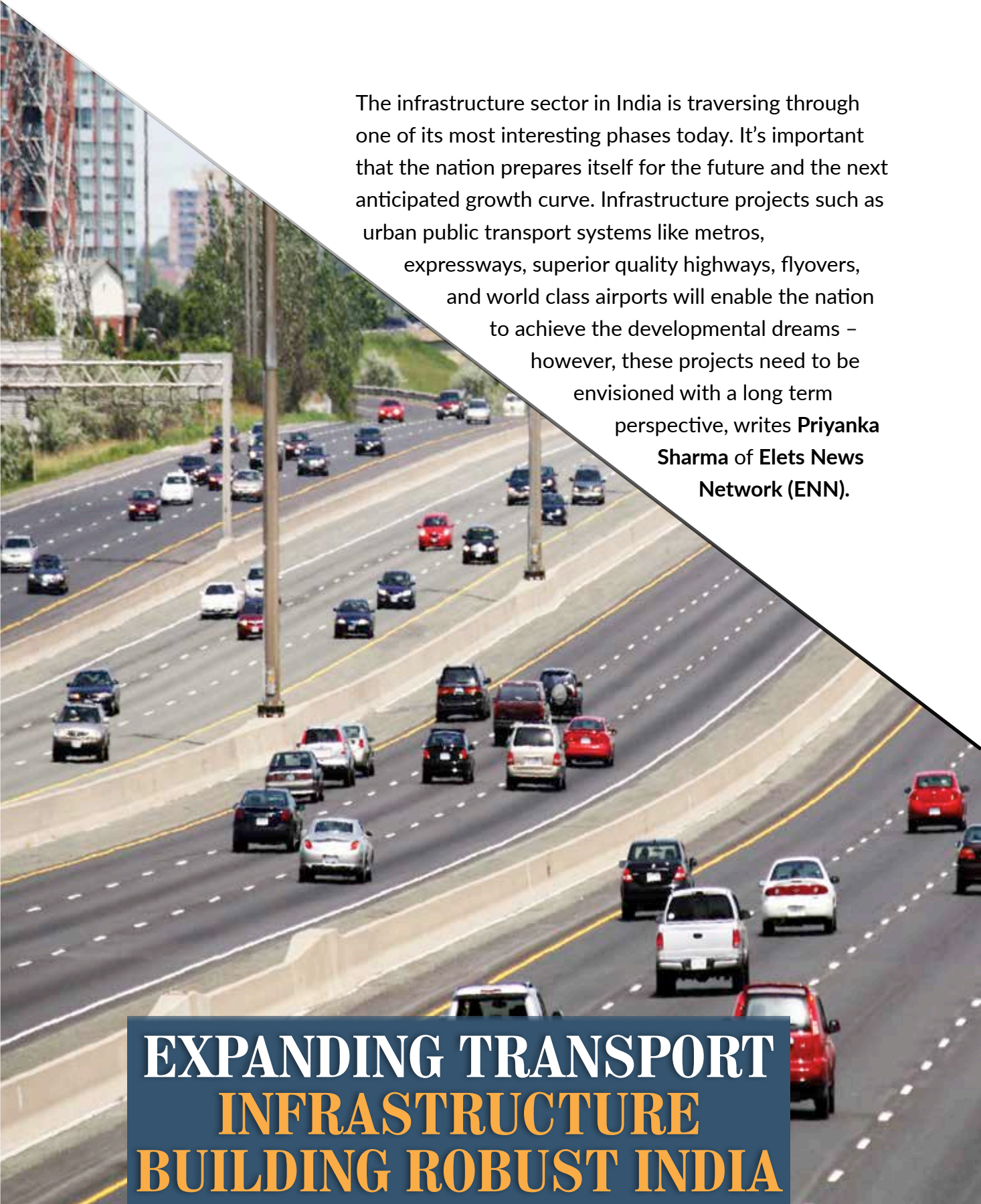
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The infrastructure sector in India is traversing through one of its most interesting phases today. It's important that the nation prepares itself for the future and the next anticipated growth curve. Infrastructure projects such as urban public transport systems like metros, expressways, superior quality highways, flyovers, and world class airports will enable the nation to achieve the developmental dreams – however, these projects need to be envisioned with a long term perspective, writes **Priyanka Sharma** of **Elets News Network (ENN)**.

EXPANDING TRANSPORT INFRASTRUCTURE BUILDING ROBUST INDIA

In the light of strengthening economic ties with India, the United Arab Emirates has committed \$75 billion towards infrastructure development in the country.

The UAE becoming the third largest trading partner of India, the partnership is expected to generate an estimated \$20 billion in economic benefits during the next decade for both the countries. The Memorandum of Understanding (MoU) will focus on development areas like Blockchain, Artificial Intelligence (AI) and Analytics, etc.

It is imperative to a country's growth that roads, highways and new waterways are developed. With the growing population, infrastructural growth should also be accelerated.

Some of the major programmes for the infrastructural development are:

Bharatmala Pariyojana

This umbrella programme for the highways was launched so that bottlenecks for road infrastructure development can be removed. This helps in improving the road traffic movement.

The Ministry has laid special emphasis on areas of economic activity, places of religious and tourist interest, border areas, backward and tribal areas, coastal areas and trade routes with neighbouring countries under the programme.

To improve the National Corridor efficiency, 53,000 kms of National Highways have been identified.

In the first phase, 24,800 kms of roads will be developed by 2021-22.

It includes 5,000 kms of the National Corridors, 9,000 kms of Economic Corridors, 6,000 km of Feeder Corridors and Inter Corridors, 2,000

kms of Border Roads, 2,000 kms of Coastal Roads and Port Connectivity Roads and 800 kms of Greenfield Expressways.

For the phase I, Rs. 5.35 lakh crore have been kept by the Government. Bharatmala will be a major driver for economic growth in the country. The Government also hopes to generate 35 crore man-days of employment under this programme.

Setu Bharatam

Level Crossings on National Highways will be replaced by Railway Under Bridges (RUBs) and Railway Over Bridges (ROBs) under the Setu

Indian Bridge Management System (IBMS)

Under this new scheme, all the bridges and culverts on National Highways will be surveyed and monitored. The DPRs for this have already been submitted to the Ministry.

The inventory of 1.62 lakh bridges and culverts has been completed. 147 bridges have been identified which need immediate restoration or replacement.

Chardham Mahamarg Vikas Pariyojna

The main objective of this scheme is to



Bharatam initiative. This will ensure safety and smooth flow of traffic on roads.

More than 208 such ROBs and RUBs will be constructed at a cost of Rs 20,800 crore.

Detailed Project Reports (DPR) for 127 ROBs have been submitted to the Ministry. Based on DPRs, 78 ROBs with an estimated cost of Rs. 6,428.57 crore have been sanctioned last year.

provide easy access to the four prominent Dhams or pilgrimage, namely, Gangotri, Yamunotri, Kedarnath and Badrinath, situated in Uttarakhand. For this, the Government is building 889 km of roads with configuration of two-lane with paved shoulders.

The scheme was launched in December, 2016 at a cost of Rs 12,000 crore.

As of now, more than 24 projects related to this scheme has already been

sanctioned which will take care of 395 kms of roads. The Ministry plans to complete this project by 2020.

Delhi-Meerut Expressway

To connect both the cities in a hassle-free manner, the Delhi-Meerut Expressway (DME) starts from Nizamuddin Bridge in Delhi and follows existing NH 24 up to Dasna.

Many new features have been added in this project to curb the pollution. The 14-lane highway includes a 2.5 metre wide cycle track on either side of the highway, a vertical garden on the Yamuna Bridge, solar lighting system and watering of plants through drip irrigation only.

The stretch from Nizamuddin Bridge to Delhi-UP border was inaugurated by Prime Minister Narendra Modi on May 27, 2018.

While one leg of DME continues from Dasna on NH 24 to Hapur, the Ministry has planned Greenfield project from Dasna to Meerut in Uttar Pradesh. This leg of DME is expected to be completed in 15 months as against the original time slot of 30 months.

Vadodara-Mumbai Expressway: The 473 km expressway will link Ahmedabad-Vadodara Expressway to Mumbai-Pune Expressway thus, providing Expressway connectivity from Ahmedabad to Pune for a length of about 650 km. The project will be completed in three phases.

Bangalore-Chennai Expressway (262 km)

Bangalore-Chennai Expressway is a greenfield project which will be operated on closed toll system. The expressway will run in between Hoskote (Bangalore)-AP to Chennai and Electronic City (Bangalore) Hosur



100 percent cashless transaction have been achieved at all major ports. Land records have been digitised and all ports pensioners have been linked with Aadhaar biometric system, etc.

(Tamil Nadu) towards Chennai.

The Government is currently in the process of acquiring land, getting approvals and completing all the pre construction activities.

Bet Dwarka-Okha Bridge

The Government is working on the construction of four-lane bridge to connect the mainland at Okha to Bet-Dwarka Island off the Gujarat Coast. The bridge will spread over an area of 2.32 kms at a cost of Rs. 689.47 crores.

It will be the longest span cable stayed bridge in India and is expected to be completed in 30 months.

North East Road Network Connectivity Project- Phase I

403 kms of National Highways in Meghalaya and Mizoram will be developed in Phase I. Out of 403 km, approximately 52 kms will be in Meghalaya and 351 km in Mizoram. The estimated cost for this project is Rs 6,721 crore. The construction work is expected to be completed by 2021.

The maintenance works of chief roads will be completed by 2025 in both these Northeastern States. The new roads will not only improve the infrastructure of Meghalaya and Mizoram but will also improve the connectivity with inter-state roads and international borders. The work for development to two lane standards are under scheme "North East Road Network Connectivity Project Phase I" with loan assistance of Japan International Cooperation Agency (JICA).

"Our roads are now reaching close to the border and their development has been divided in phases. In the second phase, the roads will reach the last villages across the border," said Shambhu Singh, Additional Secretary and Financial Adviser, Ministry of Road, Transport and Highways, Government of India

The inventory of 1.62 lakh bridges and culverts has been completed. 147 bridges have been identified which need immediate restoration or replacement.

Developmental Projects of the Ministry of Shipping

Ports play an important role in facilitating the trade of the country. Indian ports handle 90 per cent by volume and 70 per cent by value in terms of external trade.

In 2016, around 57 projects were started with an investment of Rs 9,490.51 crore to handle 103.52 Metric Tonnes Per Annum (MTPA) of cargo. Similarly last year, 59 projects were started.

Sagarmala

The Sagarmala project was started in 2015. More than 142 Port Projects involving an investment of around Rs 91,434 crore for capacity enhancement have been identified for implementation during the next 10-15 years under this project.

"The connectivity issue of the East and the West side of the ports is taken care of by the Sagarmala project. There is a realisation of Rs 12 lakh crore investment in this. We are building new roads, new railway lines, new waterways, new ports, births, jetties, etc. There will be direct connectivity between port to port," said Parmeshwar Bali, Chartering Officer, Ports and Shipping.

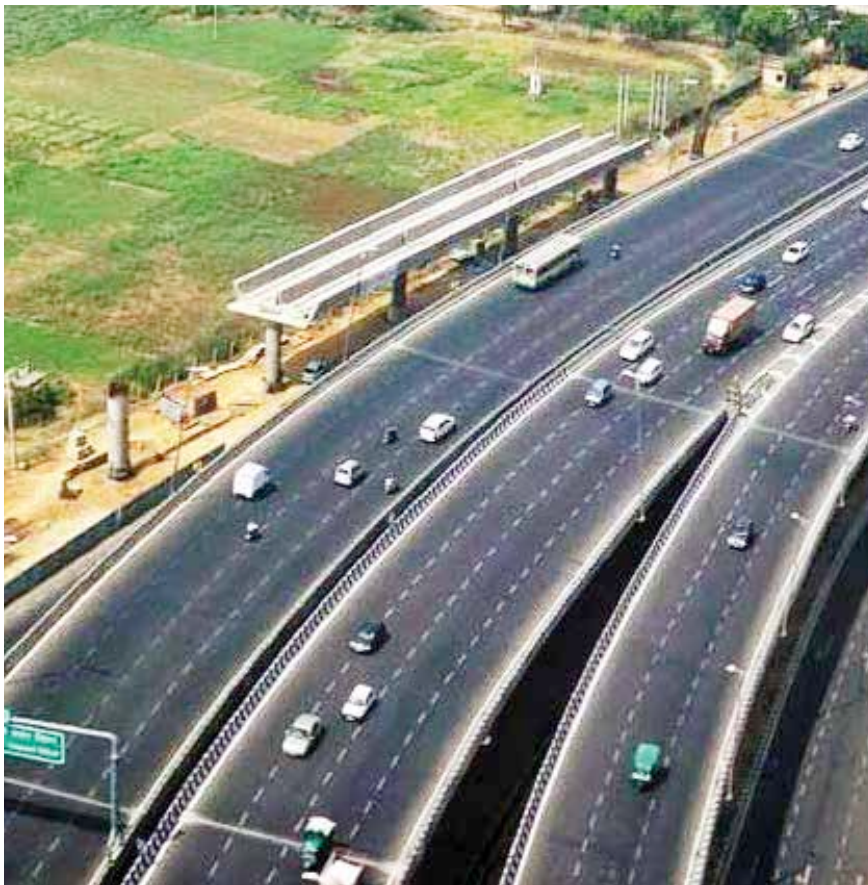
Ease of Doing Business

To promote Ease of Doing Business, a lot of new initiatives have been started by the Ministry.

Manual forms have been discarded, containers scanners have been installed at the ports, RFID based automation system have been put in nine ports, etc. RFID system has already been put in place at nine major ports.

In line with the Swachh Bharat Abhiyan of the Government of India, new schemes have been formulated for providing financial assistance to major ports for green initiatives and also for building their capacity for combating oil pollution. There is a ranking of ports on the basis of cleanliness to encourage the Swachh Bharat Mission.

Ports are also planning to generate more than 150 MW (solar and wind energy) in the next five years.



Focus is being given on setting up of Special Economic Zones (SEZs) and Coastal Economic Zones around major ports. SEZ at Jawaharlal Nehru Port Trust (JNPT), smart industrial port cities at Kandla and Paradip are under implementation.

In other initiatives, 100 per cent cashless transactions have been achieved at all major ports. Land records have been digitised and all ports pensioners have been linked with Aadhaar biometric system, etc.

Chabahar Port in Iran

India is also engaged in the development of Chabahar Port in Iran. An MoU has been signed between the two countries in this regard.

permission for cutting of trees have been identified as some of the main reasons for delay of highways projects.

Faulty DPRs have been found to be another reason for delay. Very often Detailed Project Reports (DPR) are made without taking actual ground realities into consideration. To tackle this problem, it has been decided to compile a list of projects that have been delayed for this reason. The consultants making faulty DPRs will be penalised and blacklisted by the Government.

Some of the challenges faced in respect of existing ports include inadequate road networks within the port area, inadequate cargo-handling equipment and machinery, inefficiency due to poor hinterland connectivity

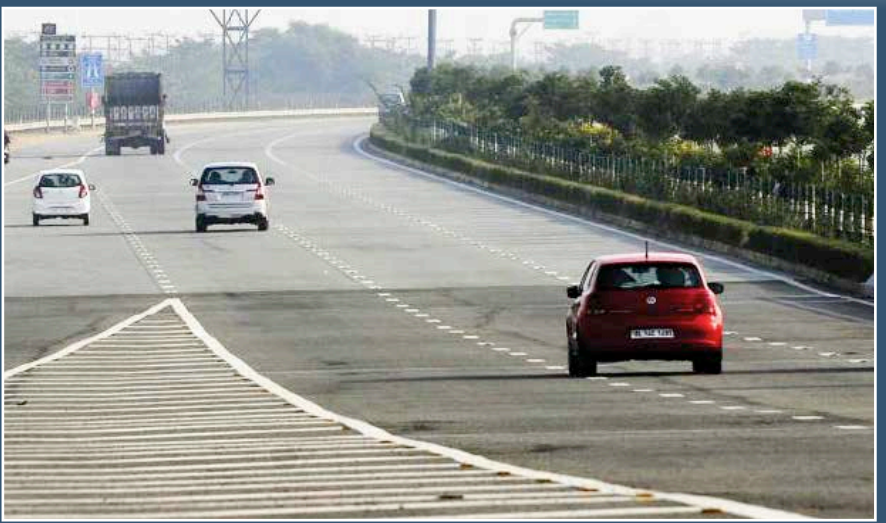
acquire them. If the cost of land acquisition has been reasonable, we would utilise our resources in more projects.,"added Singh.

The Government has adopted measures for developing the port sector, which include the introduction of the Maritime Agenda aimed at bringing Indian ports on par with international ports in terms of performance and capacity. Around 352 ports have been identified to be implemented as major ports, and it is expected that the total port capacity will be increased to 3,200 million tonnes to handle 2,500 million tonnes of cargo by 2020.

The issue of port tariffs has been a cause of concern in the past. To address this issue, the government proposes to set up a single regulator – the Major Ports Regulatory Authority – which will be responsible for formulating guidelines, principles, approach and methodology for setting rates for facilities and services provided at port terminals.

The Road Ahead

India has travelled a long journey in connecting the remote areas of the country through roads and highways. The country has taken giant strides in generating new waterways. Yet, a lot needs to be done. The Government is continuously working in building new roads with a hope that 100 highways projects will be completed by the end of this year. Chief Secretaries of all States have been asked to hold monthly review meetings to sort out problems at their ends. Secretary Road Transport and Highways will hold meetings with Chief Secretaries of every state to sort out the encumbrances that are delaying the highways projects. Chief General Managers of projects have been directed to visit sites every 10 days to see the progress on ground. e.gov



Inauguration ceremony of the Phase-I of Shahid Beheshti Port at Chabahar, Iran was held on 3rd December, 2017. At the ceremony the Indian delegation was led by Pon Radhakrishnan, Minister of State for Shipping and Finance.

Major Challenges

Delay in land acquisition and utility shifting, environment clearance and

through rail, road, highways, coastal shipping and inland waterways, inadequate navigational aids, facilities and IT systems, insufficient dredging capacity, lack of technical expertise and a lack of equipment for handling large volumes.

"We find that in some states when we try to acquire the land, the State Revenue officials declare the land as commercial making it costly to

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Shambhu Singh

Additional Secretary and Financial Adviser
Ministry of Road Transport and Highways
Government of India

MoRTH Paving way for a Better India

Our roads are now reaching near the border and their development has been divided in phases. In the second phase, the roads will reach the last villages across the border. Lot of projects are also going on in other States as well, says **Shambhu Singh**, Additional Secretary and Financial Adviser, Ministry of Road Transport and Highways, Government of India in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.



“The highway between India, Myanmar and Thailand is an important area which we are developing. Myanmar’s 369 bridges are being built afresh by India. A totally Greenfield road from Imphal to Moreh is in the pipeline which will reduce the distance by 20 km.”

What IT initiatives have been taken by the Department of Road, Transport and Highways?

The use of IT in this Ministry was already pretty high. Now the Ministry has come up with an idea of Business Information Management System (BIMS) which allows the bidder to upload his technical bidding online. These bids are then examined and the bidder gets a certificate that all the documents have been uploaded online properly. The system automatically examines everything. This way, we have minimised the human interference in the process. The system has the ability to reject a bid if all the documents are not complete which saves time and make the system more transparent. By this month, all the tendering process will go online.

What is your take on the Digital India initiative of the Government of India?

A conscious decision has been taken this year that all the files will now be converted into electronic files. In our Ministry, all the documentation is quite high as we are dealing with detailed project reports, financial reports, etc. To examine these reports entirely online is difficult. We are trying to find solution for this. All simpler files are already in digital form and we work on them through e-office. The Ministry of Shipping is entirely on e-office. There is hardly any physical file there. We hope to overcome problems in our Ministry also. We will be going entirely digital in the near future.

What initiatives have you taken to decrease the road accidents?

Training of drivers, people, road designing, the engineering aspect of transportation, all things have to be taken into account for road safety. As immediate measures, steps like footover bridges, underpasses, changing design to cross a highway easily, are going on.

Efforts like driver training schools are being funded by the Government of India to a large extent. States have already started these schools and once they become totally functional, we hope that the training of drivers can be taken care of. Once the drivers are aware of the security measures they should take, we think the situation will improve. The Right of A Pedestrian should also be taken care of. There is no concept of a turn in developed countries. But in our country, especially in villages, they take wrong side of the road. These things need to change. Providing service lanes is like creating infrastructure twice, so they require proper planning. The segregation of highways is very important. We have to put barriers on the sides, we have to educate people. We recently had a road safety week and was participated by a lot of NGOs and people from across the country.

What initiatives have you taken for the development of North Eastern part of the country?

Apart from creating the connectivity within the Northeast like the Trans Arunachal highway, there are many other roads travelling across the Seven Sisters which are connecting places from south to north, which is very critical keeping in mind the international borders there. Quick supplies to people living there is also very important. Our roads are now reaching close to the border and their development has been divided in phases. In the second phase, the roads will reach the last villages across the border. Lot of projects are



“Efforts like driver training schools are being funded by the Government of India to a large extent. States have already started these schools and once they become totally functional, we hope that the training of drivers can be taken care of.”

also going on in other States as well. Improvement of roads, say from Silchar to Imphal has been done at a very rapid pace. Permanent bridges are being constructed in the hilly areas. Suspension and wooden bridges are getting replaced. The ‘Look East Policy’ and the ‘Act East Policy’ is being emphasised upon. The focus is on Asian highway work. The highway between India, Myanmar and Thailand is an important area which we are developing. Myanmar’s 369 bridges are being built afresh by India. A totally Greenfield road from Imphal to Moreh in Meghalaya is in the pipeline which will reduce the distance between these two places by 20 km. The present road

is very steep in certain areas where bigger lorries cannot go. The new road will enable the transportation of all the vehicles.

What challenges do you face in implementing projects?

We face challenges of the land, encroachments, removal of shops, facilities like water supply, electricity line, etc. The new Land Acquisition Act has made it extremely difficult to acquire land although under the National Highways Act we have our own authority to acquire land. From State to State, there is a different story. We find that in some states when we try to acquire the land, the State Revenue officials declare the land as commercial making it costly to acquire them. If the cost of land acquisition has been reasonable, we would utilise our resources in more projects.

How are you finding this new assignment of the Department of Road, Transport and Highways, having worked in some other important ministries earlier?

You might call it a role reversal. From Ministry of Home Affairs, to the point of internal security from the point of neighbourhood, I use to demand roads, list out the areas where roads are necessary and must be built but that was from the security point of view. Now that I am here, I am facilitating the road building. From demand supply, I have come to the supply side. [egov](http://egov.gov)



Nagendra Nath Sinha
 Managing Director
 National Highways and Infrastructure
 Development Corporation Limited
 (NHIDCL)

NHIDCL Building Robust Infrastructure

The National Highways and Infrastructure Development Corporation Limited (NHIDCL), a PSU under the Ministry of Road Transport and Highways (MoRTH), has also introduced new technology in procurement as well as in construction phases. We hope these new technologies' usage will bring out new features in projects, says **Nagendra Nath Sinha**, Managing Director, NHIDCL, in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.



“NHIDCL has promoted the information technology in a big way.”

How would you describe the overview of NHIDCL? Is it confined to looking after the North Eastern States and hilly regions?

NHIDCL has been mandated to look after the transport infrastructure and other infrastructure development in the Northeastern and strategic areas in other border states. The aim is to improve the connectivity in these regions so that socio-economic development can take place as well as the strategic needs of the country can be taken care of.

How would you describe the success rate of NHIDCL and its initiatives?

The NHIDCL is currently in the formative phase of its programme where we have started a large number of projects. A few highways have been completed already. Earlier, the completion ratio was very low. Under NHIDCL, the pace has been accelerated and quality has been improved.

NHIDCL has also brought new

technology in procurement as well as in engineering, design and construction phases. We hope that the use of these new technologies will bring out new features in the projects.

What are the key areas that you are taking care of?

Our concern in the areas through which we will be taking our highways relates to the geo-technical and geo-physical conditions of the area as well as the land that would be needed to lay that corridor, the obstacles in terms of availability of that land, structures already standing there, trees that need to be cut, permissions, etc. We look at all these aspects



besides the fact that these highways have to be optimally designed so that the public money can be used in the best possible way. We are conscious of the need to conserve ecology and environment. So we promote use of local materials. We optimise our design so that interference with geological features is minimum.

How do you look at the concept of PPP models in NHIDCL?

Presently, we don't have any PPP model project with us because we are



“We have also developed a portal called Enam Pro+. This portal is like an e-commerce website for the construction players where the technology, the construction material is available.”

working in the remotest part of the country. The geographical area of these parts is not such where 'use and pay' concept can be introduced in a wholesale manner.

How would you describe the set of challenges that are coming in your way?


The challenges are in securing the land for corridor, securing the clearances, etc. These are difficult prospects in the areas where we work. The pace in getting these clearances is not as fast as NHIDCL

would want it to be. In many States, the status of Land Records is not very good.

In some regions there are environmental and ecological problems. Issues like landslides, rock fall etc, are also a major problem area for us. In these areas, the availability of construction material is less and therefore the contractors face a lot of problems in procuring them. We are trying to solve these problems with the aid of technology. The other problems are the issues of stability, insurgency, etc, in these areas. There are some areas where our movement is restricted. So, it becomes a challenge to develop highways there.

How do you find the role of IT?

NHIDCL has promoted the information technology in a big way. We have pioneered the use of information technology in the selections of consultants and the platforms built by the NHIDCL have been put to use by the Ministry in all their projects.

We have also developed a portal called Inam Pro+. This portal is like an e-commerce website for the construction players where plant and machinery, the construction material is available. For this portal, we received the Gold award by the Department of Administrative Reforms and Public Grievances. 



Satyabrata Sahu
 Director (Administration and Finance),
 NHIDCL

NHIDCL Building New India

The National Highways and Infrastructure Development Corporation (NHIDCL) has taken a lot of digital initiatives for which they have been awarded by the Government of India also. All their projects are done through Engineering, Procurement and Construction (EPC) mode, says **Satyabrata Sahu**, Director (Administration and Finance), NHIDCL, in conversation with **Gautam Debroy** of Elets News Network (ENN).



“Building a good infrastructure is important for the defence of the country. It is also important keeping in mind the trade and commerce of the country.”

What are some of the initiatives taken by NHIDCL recently?

We are not only looking after Northeastern States but are also responsible for border areas of Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Andaman and Nicobar Islands.

We are operating in 12 States. In the last 4 years, we have taken many initiatives. Recently, H.E. President of India has inaugurated a stretch of road from Udaipur to Bangladesh border. NHIDCL has over the years, provided very good quality roads in the Northeastern States. Almost 13,000 km of road development

has been entrusted to us. We have completed the construction of 700 kms of roads in the last three years.

In the last two years, a lot of activity has taken place. We are also building tunnels in these states. Similarly, in Andaman and Nicobar Islands, we are connecting 300 km of land from North to South at a cost of Rs 3,000 crore.

We are building a bridge to Bangladesh, we are doing activities in Nepal. In all, a lot of projects have been started by us in India and abroad.

Please brief us about the Feni Bridge project in Bangladesh.

The 150-metre bridge on river Feni in Bangladesh is being built at a cost of Rs 110 crore and will connect Tripura and Bangladesh. Trade activities will take place through this new bridge. The work has already started. We are building the foundation of the bridge currently. As of now, the work has been stopped due to rains, but it will resume after September.

People from Bangladesh and Tripura are going to benefit from this and it will be a boon to traditional businesses as well.



“The 150-metre bridge on river Feni in Bangladesh is being built at a cost of Rs 110 crore and will connect Tripura and Bangladesh. Trade activities will take place through this new bridge. The work has already started.”

How important it is to strategically improve the border roads?

India is a very key and great player in the subcontinent. We want to increase the connectivity of the border areas with the rest of the country and to other neighbouring countries as well. Building a good infrastructure is important for the defence of the country. It is also important keeping in mind the trade and commerce of the country. It also provides connectivity to people who were living in these far-flung areas for the past so many years without any proper means of travelling.

What are the challenges you are

facing?

We face a lot of challenges. There are natural constraints of climate. In Northeastern States, it rains continuously for five-six months.

Then, there are problems of avalanches, landslides, etc. We have problem of utility shifting like electric lines, both HT and LT, telecom lines, gas pipelines, water pipelines etc. State Governments are helping us overcome these challenges.

Land acquisition is also a problem. People have to be motivated. With the help of State Governments, we are trying to acquire the land. We are regularly


doing video conferencing with the District Magistrate of these areas. The three important authorities, Central Government, State Governments and the District Administration need to be in direct contact to overcome the hurdles.

What digital initiatives have been initiated by your Department?

We have taken a lot of digital initiatives. We have been awarded for various e-governance projects by the Government of India. We are doing all our projects through Engineering, Procurement and Construction (EPC) mode. We are engaging authority engineers to check the awards along with our staff. All the data of Detailed Project Reports, engineers and others are available on infracon portal. It makes the system transparent.

Second is Inam-Pro portal. Here, the names of the material suppliers and rates of the materials supplied are given. Then we have Bidder Information Management System or BIMS where information of all the bidders are available. Another initiative is the ePace portal for the monitoring of the projects.

How do you think the condition of roads will improve in the next five years?

We are maintaining the roads well. Every five years, the contract is renewed for the maintenance of the roads. 



Amit Ghosh

Joint Secretary
Highways
Ministry of Road Transport and Highways
Government of India

Bharatmala is envisaged to provide NH connectivity to 550 districts, and will be a major driver for economic growth in the country. Currently, only around 300 districts are connected with National Highways.

Transforming Highways Sector Through Digitisation

The Ministry of Road Transport and Highways (MoRTH) has been working consistently on improving internal processes through various digital initiatives to reduce cost and time of construction, says **Amit Ghosh**, Joint Secretary, Highways, Ministry of Road Transport and Highways, Government of India in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.

What are the major initiatives that have been taken to improve the Highway Sector in the recent past?

The Ministry of Road Transport and Highways achieved the highest ever award of 51,073 km of National Highway projects and highest ever construction of 28,531 km over a four year period from 2014-5 to 2017-18. Construction of National Highways has more than doubled from 12 km /day in 2014-15 to 27 km/day in 2017-18 and the total investments in the sector has increased by 2.5 times compared to 2014-15. This significant leap in the National Highways award and construction was achieved through

multiple policy initiatives taken by the Ministry.

Major policy initiatives like delegation of power, increased threshold for project appraisal and approval and enhanced inter-ministerial coordination etc, on process streamlining facilitated this growth.

Languishing Projects revived - 73 projects of length around 8,310 km revived through policy interventions like allowing 100% equity divestment for developers two years after start of operations, premium deferment in stressed projects – allows rescheduling of premium committed by concessionaires during bid stage,





Rationalized compensation to concessionaires for languishing NH projects in BOT mode for delays not attributable to concessionaires and One-time fund infusion.

Innovative project implementation models -developed and put to use.

a) Hybrid Annuity Model (HAM) - In the model, 40% project cost is provided by the Government as 'Construction Support' and balance 60% as annuity payments during operations period with interest (Bank Rate +3.00%). Separate provision for O&M payments to concessionaire. The private party does not have to bear the traffic and inflation risks. The model has been widely accepted by the market.

b) Toll - Operate - Transfer (TOT) Model - approved and implemented. In the Model, collection rights for Toll Fees for operational public funded NH projects is assigned for a 30-year concession period to concessionaires against upfront payment of a lump-sum amount. O&M obligations are with the concessionaire during the concession period. First round of bid completed at NHAI for TOT projects - bundle of 9 project stretches (length 680 km) bid out. H1 bidder quoted concession fee of Rs 9,681.5 cr (against NHAI estimated Rs 6,258 Cr). DPR preparation is in progress for TOT project bundles 2,3 and 4 at NHAI.

The various policy decisions have been supported by transformation and optimisation of various processes within the ministry and NHAI for pre-construction, construction and maintenance stages to improve quality, reduce construction time and cost. The changes include mandating use of



technology in preparation of DPRs, delegation of powers, streamlining of land acquisition process, Independent engineer/ authority engineer reforms, performance management system at NHAI, deployment of manpower from headquarters to field, revision of selection and payment criteria for DPR consultants, use of standard spans for structures, time-bound and online approval of GADs etc.

You have initiated Bharatmala for an overall highway infrastructure development. Tell us something about that.

Bharatmala Pariyojana is an umbrella programme for the highways sector that focuses on optimizing efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Feeder Routes and Inter Corridors, National Corridor Efficiency Improvement, Border and International Connectivity Roads, Port connectivity and Coastal Roads and Expressways. A total of 24,800 kms new interventions are being considered in Phase-I. In addition, Phase-I will also include 10,000 km of balance road works under the National Highways Development Project (NHDP), taking the total to a length of 34,800 kms of National Highways.

Bharatmala is envisaged to provide NH connectivity to 550 districts, and will be a major driver for economic growth in the country. Currently, only around 300 districts are connected with National Highways. It is proposed to increase the national corridors from existing 6 to 50. Due to this, it is expected that about 70 - 80 percent of freight will move over the NHs as against about 40 percent at present. Bharatmala is expected to have a positive impact on the Logistic Performance Index (LPI) of the country. The programme has been designed to bridge the gaps in the existing highway infrastructure so as to make the movement of men and material more efficient. Special attention has been paid to fulfil the connectivity requirements of backward and tribal areas, areas of economic activity, places of religious and tourist interest, border areas, coastal areas and international connectivity routes with neighbouring countries. Apart from this, one objective of the programme is to help generate direct and indirect employment at a large scale in the infrastructure sector along with ensuring development of highway amenities and better road connectivity thereby enhancing economic activity in different parts of the country.

Phase-I is to be implemented over a period of five years i.e. between 2017-18 and 2021-22 in a phased manner.

“The Ministry is open to suggestions and continuously striving to improve internal processes, reduce congestion at toll plazas, reduce cost of construction, improve quality and accelerate construction”



What challenges do you face in the Highway sector?

With the inspiring leadership of our Hon'ble Minister we were able to overcome major challenges in the sector and bring in reforms that have helped the National Highways sector. In the beginning of 2014, the entire National Highways sector was bleeding and private investment was almost non-existent and the sector was staring at lot of projects turning into NPAs. Timely policy interventions supported by innovative models such as Hybrid Annuity has revitalised the sector and private investments. The total investments in the sector have increased 2.5 times compared to 2014-15 which is a sign of strong growth in the sector. Various issues pertaining to land acquisition have also been addressed which was a major bottleneck for highway projects. Having said that, the Ministry is open to suggestions and continuously striving to improve internal processes, reduce congestion at toll plazas, reduce cost of construction, improve quality and accelerate construction.

Tell us something about National Road Transport Strategy 2030.

With the objective to understand the

future transportation requirements for both passenger and freight transportation along with improving productivity of our assets, improve efficiency, introduce alternative fuels for road transportation, leveraging digital technologies and introduction of new road transportation technologies, the Ministry has undertaken a study to prepare a National Road Transportation Strategy 2030. The study is currently in progress.

Under this study, the forecast for freight and passenger movement requirements till 2030 will be used to arrive at the strategy along with estimation of capital investments required.

What special emphasis you have laid on the Northeast states?

Under Bharatmala pariyojana, more than 3,000 kms of economic corridors are to be developed in the North East alone covering major cities in the North East. Additionally, various feeder routes, inter-corridor routes, national corridors, ring-roads, bypasses, border roads, international connectivity with Bhutan and Bangladesh to promote trade would be developed under Bharatmala. To promote international trade with neighbouring countries, a Multi-Modal Logistics Park is proposed to be

developed at Jogighopa in Assam where the State Government has already confirmed land availability and the DPR is in progress.

What is your take on the border roads especially along the eastern sector?

Under Bharatmala, around 3,300 kms of border roads of strategic importance have been identified to be built along the international boundaries and around 2,000 kms of roads are required for connecting India's major highway corridor to International trade points so as to facilitate Export-Import (EXIM) trade with Nepal, Bhutan, Bangladesh and Myanmar. Out of this, around 2,000 kms have been included in the plan for Phase-I of Bharatmala. Other border roads are developed and maintained by Border Roads Organisation (BRO).

What IT initiatives have you taken in the Highway sector?

To achieve the ambitious targets set by our Hon'ble Minister, MoRTH has been continuously working on improving internal processes through various digital initiatives to reduce cost and time of construction. Following are some of the major initiatives:

(i) Project Monitoring and Information System (PMIS)

To ensure timely delivery of projects, a state-of-the-art Project Monitoring Information System (PMIS), has been developed in-house. A series of Executive Dashboards have been designed to provide updated progress on all these data fields, at various levels, such as national, Regional Office (RO) level, Project Implementation Unit (PIU) level and project level. An in-built algorithm automatically highlights focus projects with key pending issues, so that focused interventions for these projects can be discussed during these reviews. Apart from dashboards views of data, the PMIS is also enabled with Geographical Information System (GIS), which provides a geographical visualization of all NHAI projects on an India map.

(ii) Integrated Technology

Solution (ERP): MoRTH has initiated implementation of an ERP solution to digitally integrate all systems and processes across MoRTH, NHAI and NHIDCL including all the regional offices. Through this ERP solution, MoRTH aims to integrate more than 60 softwares and tools on a single platform along with digitization of over 30 lakh documents. The project is expected to be completed within two years and improve process efficiency and transparency.

(iii) Infracon: In order to make the evaluation process during procurement of consultancy firms more objective, user friendly and transparent, "INFRACON" has been developed by NHIDCL as a comprehensive National Portal for infrastructure consultancy firms and key personnel. The portal has the facility to host firms and personnel CVs and credentials online and has linkage to Aadhaar and Digilocker for data validation and purity.

(iv) Inam-pro: INAM-Pro (Platform for Infrastructure and Materials Providers) is a web based application for Infrastructure and Materials Providers and would act as a common platform for Infrastructure material providers viz. Cement Companies, Steel Companies Infrastructure providers, Ministry of Road Transport and Highways and other stakeholders.


(v) Electronic Toll Collection: To reduce congestion at toll plazas, MoRTH has fast-tracked the implementation of Electronic Toll Collection through Fastags. It has now been decided to equip all the Toll Plaza lanes with gantry mounted ETC Infrastructure and installation of Weigh-in-Motion (WIMs) systems in about 50% of the lanes. The NHAI has been vigorously pursuing the provision of ETC infrastructure on all the lanes, the target for installation of ETC infrastructure on all lanes of the

balance Toll Plazas is December 2018. As on 26th July, 2018, a total of 25.99 Lakh Fastags have been issued, up from 60,000 fastags in December 2016, with more than 20 percent of the collections being received through ETC.

(vi) Sukhad Yatra: Interactive mobile application to empower National Highways user with relevant information. Key modules includes receive real-time toll plaza waiting time, report any highway related incident or provide feedback on highway quality, explore highway details and related amenities and purchase FASTag.

(vii) Bidder Information Management System (BIMS): MoRTH has developed the Bidder Information Management System (BIMS) to streamline the process of pre-qualification of bidders for EPC/HAM/BOT mode of contracts for all National Highway works and other Centrally sponsored works with enhanced transparency and objectivity. The BIMS portal will be operated in conjunction with the CPPP portal for invitation of bids for civil works for EPC mode and significantly reduce time for assessment of pre-qualification.

(viii) Bhoomi-Rashi: Land acquisition is critical for the commencement and completion of construction, which begins once alignment plan and land acquisition plan is approved. Bhoomi Rashi is now being widely adopted for issuing the notifications, and more than 900 notifications have been issued using the portal so far. Bhoomi Rashi portal has been instrumental in reducing the time taken for approval and publication of notifications pertaining to land acquisition

With integration of Bhoomi Rashi with PFMS, users of MoRTH have the provision of making payments to the beneficiaries directly through the portal. 





Niraj Verma
Member, Public-Private Partnership (PPP),
National Highways Authority of India
(NHAI)

NHAI Using PPP Model to Build Durable Roads

We have introduced Toll Operate Transfer (TOT) wherein we invite participation of the concessionaire or PPP partners in operation phase of the concession period. TOT mode are offered for the roads that are completed by NHAI under EPC. We had first made a bundle of such roads and then offered these roads for operation under TOT mode, says **Niraj Verma**, Member, Public-Private Partnership (PPP), National Highways Authority of India (NHAI), in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.



“ More than 20,000 kms will be covered under Bharatmala project. We have taken decision to take up 60-70 percent of roads under HAM, 10 % under BOT (toll) and the rest under EPC.”

What are the achievements and challenges of Public-Private Partnership (PPP) model in highway sector?

The National Highways Authority of India (NHAI) is one of the leading players in the world in implementing PPP model in highway sector . Some PPP models being used by us are Built Operate Transfer (BOT) Toll, BOT Annuity, and Hybrid Annuity. NHAI is also implementing road projects under

Engineering Procurement Construction (EPC) . In this mode, construction of road project is financed by NHAI. Coming back to PPP projects, I would like to mention that we have implemented many important road projects like the one in Delhi-Gurgaon (Gurugram), Ahmedabad- Vadodara, Chenani- Naseri tunnel projects etc

Earlier, we had followed the waterfall mechanism for selection of mode of implementation. In this, we would first

appraise the projects under BOT toll. For this, the equity return to the investors would be kept at 15 per cent. If these projects were not suitable under BOT toll i.e if the EIRR would be found less than 15 %, we would take up the project under BOT Annuity and only after failing in our attempt to take up under these two, we would have opted for EPC. However, in the immediate aftermath of economic downturn in 2008, there was less appetite for the BOT projects. We thus took up many projects under EPC. In December 2016, we introduced another form of PPP - the Hybrid Annuity mode or HAM. First example of successful HAM is Delhi-Meerut Expressway Package I. This project starts from Sarai Kale Khan and ends at Delhi-UP Border.

How would you describe the state of affairs in the context of Bharatmala programme?

Bharatmala pariyojna has several components like economic corridor, feeder roads, port connectivity roads, roads in Border areas, connectivity to religious places, bypasses and ring roads. In nutshell , we have an ambitious target of around 20,000 kms of roads to be implemented under Bharatmala. NHAI is one of the implementing agencies of MoRTH (Ministry of Road Transport and Highways) under Bharatmala. The other two agencies are State PWD under the Ministry of Road Transport and Highways and National Highways and Infrastructure Development Corporation Limited (NHIDCL), a sister organisation of NHAI. The NHIDCL is implementing roads in the Northeast and hilly areas under Bharatmala. As far as the present status of progress is concerned, we have prepared Detailed Project Reports (DPR) for more than 10,000 kms of roads. We have already awarded many such roads under Bharatmala.



Is there any roadmap or strategy to ensure expedition of the PPP model?

When we award projects under PPP, we try to ensure that we meet our condition precedents. In other words, there should be sufficient availability of work-front and prior clearances of environment/forest, etc, so that the concessionaire can start the construction immediately after the appointed date. There were some PPP projects which had started languishing. For these projects, we have creatively used the available tools, which includes - giving one-time fund infusion (OTFIS) from NHAI to the eligible projects, increasing the concession period for the delay not attributed to the concessionaire (for BOT) or giving the missed annuity for Annuity projects. Several of such projects , which have been brought back on track through OTFIS, etc, are Delhi-Jaipur Road, Chhapra-Hajipur Road and Srinagar-Bannihal road

How many PPP projects are in the pipeline for next five years and how many kilometres will be covered under it?

In next five years, Bharatmala targets are the priority targets, which are to be implemented by NHAI. More than 20,000 kms will be covered under Bharatmala project. We have taken decision to take up 60-70 percent of roads under HAM, 10 % under BOT

(toll) and the rest under EPC.

What are the three major challenges you face while implementing these projects?

PPP projects are basically a collaborative effort of the Government authority and the concessionaire. Once, we award the project, we have to meet our conditions precedent like availability of land through acquisition process, shifting of utilities, clearance from forest department, etc, as applicable. Ensuring that this is done in such a way that 80-90% of land is available is the first challenge. Secondly, we have to ensure that the land is encumbrance free at the time of appointed date (a date after which the construction work starts). In other words, the buildings etc in the right way should be demolished, the trees should be removed and the utilities (like electric lines) should be shifted at the time of appointed date.

Lastly, the concessionaire has arrived at the financial closure by tying up with the banks for bringing the loan amount. Subsequent to this, the construction is done. For this, the concessionaire is given six months under BOT (toll/annuity) and five months under HAM. Concluding financial closure within the stipulated time is another challenge as any further delay would mean that the project would get delayed. egov.gov

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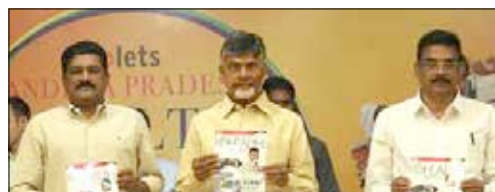
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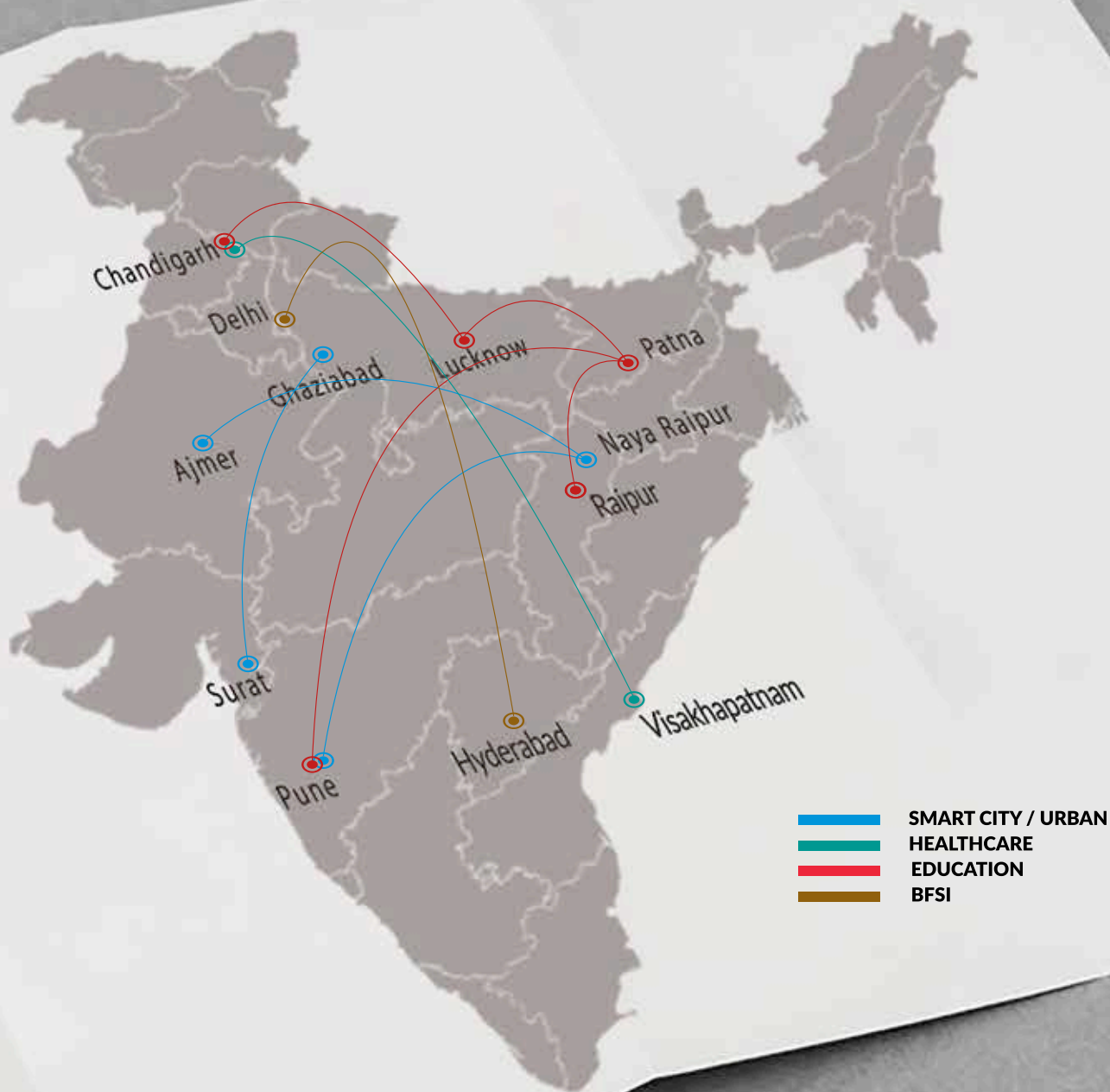
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Pravir Pandey

Chairman

Inland Waterways Authority of India (IWAI)

IWAI Building Futuristic Waterways for India's Economic Growth

Inland Waterways, a network in the form of rivers, canals, backwaters and creeks that can be used for transportation in place of or in addition to roads and rails, is the cheapest and the most environment-friendly mode of transportation. It reduces a lot of environmental pollution and pressure on both other modes of transportation, says **Pravir Pandey**, Chairman, Inland Waterways Authority of India (IWAI) in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.

Give us an overview of the Inland Waterways Authority of India.

Inland Waterways is a large socio-economic project in India. For many years, we have concentrated on railways, airways and roadways. Countries like the US and China have used their waterways as a very effective mode of transportation. In China, 10 percent of transport is handled by waterways. Vietnam is utilising 40 percent of its waterways and Bangladesh is utilising 22 per cent of its waterways. The US is using 13

percent of its waterways while in India we are utilising just one percent.

Time has come to look at the waterways very seriously and move towards this cheap, environment-friendly mode of transportation. The Government is committed to develop waterways in a big way.

We are doing a Jal Marg Vikas Project on National Waterway I on river Ganga with the technical and financial assistance of World Bank. It is a Rs 5,369 crore project. The Government

“There is a huge potential for inland waterways to grow exponentially as work on all our rivers is still raw. But financial and technical assistance will be required.”





has enacted the National Waterways Act, 2016 through which we have declared 111 waterways.

What initiatives have been undertaken by you for North-Eastern States?

In the North East, the main waterway is Brahmaputra, another is Barack river. They not only serve Assam but have the potential to connect mainland India with the Indo-Bangladesh border. Eighteen other waterways have been declared in the North East apart from these two. Again, we are talking to the World Bank for financial and technical assistance.

We have started Ro-Ro service on the river Brahmaputra. There are very few bridges on Brahmaputra and that too very far from each other. Earlier, people use to travel at least 300 km to reach these bridges and pass them. Now through these Ro-Ro service, citizens cross the river in just 1-2



hours and save time and transportation costs. So, overall logistics costs automatically come down. There is a huge demand for Ro-Ro services now.

What role is your organisation playing in connecting business with the Bangladesh?

Three million tonnes of cargo move to and fro Indo-Bangladesh border. It is primarily fly-ash, construction material. Now, there is a treaty between Bangladesh and India -- a protocol treaty of trade and transport.

Under this, cargo vessels can come to India through Sunderbans and our vessel can go to Narayanganj, Dhaka, Ashuganj (the places in Bangladesh), etc. There is a good cooperation between the two countries. It is a seamless travel between the two nations. The treaty facilitates trade and good relations between them.

What sort of challenges that you come across usually?

We face technical issues of hydrological, river morphology, issues of adequate draft of depth in the river

during the lean season, etc. Our rivers are highly silted. For the first time, a serious study has been done in river Ganga by top consultants in the world who are teaching us ways and methods through which we can augment the capacity of rivers through safe navigation.

Where do you see IWAI five years down the line?

The authority has been in existence since 1986. The total expenditure on inland waterways was roughly Rs 1,300 crores from 1986-2013. Since 2014 till date, we have spent more than Rs 2,000 crores. So a major turnaround has happened. There is a huge potential for inland waterways to grow exponentially as work on all our rivers is still raw. But financial and technical assistance will be required. The Hamburg Consultancy report states that at this stage more than five million tonnes of cargo is moving. We are doing a lot of things like building multi-modal transport, navigational jetties, etc.

We plan to move more than 20 million cargo in the next two-three years shifting the burden from road and rail to waterways. www.egov.gov



Abhay Damle

Joint Secretary
Ministry of Road Transport and Highways
(MoRTH)
Government of India

All passenger cars are also mandated to be fitted with ABS to improve their safety and stability. All the cars will also have compulsory air-bags, speed warning audio alert, seat belt audio alerts and reverse sensors.

MoRTH Ensuring Road Safety

Strong efforts are being made to improve safety of vehicles to ensure that even the cheapest models also have the best safety parameters. The Ministry has launched a mission to upgrade the standards at par with the global standards, says **Abhay Damle**, Joint Secretary, Ministry of Road Transport and Highways (MoRTH), Government of India, in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.

Tell us about your initiative to promote affordable mobility for lower and middle classes?

In December, 2016 guidelines for healthy growth of the ride sharing sector in the country were issued. The States have started facilitating the aggregator services (hired cabs) for the benefit of common public. Aggregator based taxi services have helped reduce the travel costs by about 30-40 per cent. In the case of car pooling, the saving is more than 50 per cent. It has also helped in reducing congestion due to lesser dependence on personnel cars and idle running of such cars.

The Ministry has exempted the e-rickshaw from the permit requirements. This has helped in growth of the e-rickshaw in the country providing non-polluting very affordable last mile connectivity to the lower and middle income group.

Have you also taken steps to simplify forms for obtaining driving licenses?

The ministry had issued advisory to the states to do away with the requirement of obtaining a transport license for light motor vehicles. Earlier, the auto rickshaw, taxi and LCV drivers were



required to renew their license every three years. This was leading to inconvenience. Millions of drivers will benefit from the decision that the taxi and LCV drivers shall not require separate commercial licence.

The Ministry has replaced multiple forms required for obtaining the learner licence, permanent licence or for updating the details with a simple single form. Inclusion of Aadhaar number and the option for organ donation has also been provided in the new simplified form.

Tell us about your online services for vehicle registration and driving licence.

The Vahan 4 and Sarathi 4 online platforms for vehicle registration and

the driving licenses were launched in 2015. As on date, about 90 per cent offices are providing online services to the driving licence applicants. This has improved the ease of transactions with the transport departments and has given relief to the public from rent seeking practices. The beneficiaries are largely from the middle class.

What is your take on eliminating VIP culture?

By removing red and amber lights from the vehicles of various authorities-based on the decision of Union Cabinet, the Ministry has revised the rule for sporting the light on the top of the vehicles and practice of use of red and amber lights used by unauthorised people has been done away with. Only emergency duty vehicles are allowed to have light on the top. This has been a game changing regulations, giving the common public a sense of equality.

Tell us about your initiatives taken to improve the safety of vehicles sold and compensation of road victims?

Efforts have been made to ensure that even the lowest category of passenger vehicle sold in the country comply with the enhanced safety standards. The safety for common man is not negotiable and, therefore, the Ministry has issued regulations to improve safety of the two-wheelers, cars and heavy vehicles. Similarly, the emission norms have been tightened to relieve the cities from high level of vehicular pollution.

To assist the accident victims in getting speedier and reasonable compensation from insurance companies, the Ministry has notified that every accident victim or his next of kin, compensation of Rs 5 lakh in case of death. Further, in case of grievous hurt and disablement, the compensation amount shall be upto Rs 5 lakh proportionate to the extent of injury



caused. This will ensure that even the poorest of the poor gets a decent compensation. Notwithstanding this, the accident victim reserves the right to claim a higher compensation through the court, if he is not satisfied with this amount of compensation.

What are the significant features of Motor Vehicles (Amendment Bill), 2017?


This Bill proposes far reaching reforms to improve road safety and the ease of transaction with the transport departments. This proposes simplifications, provision of online services to the customers and reducing discretion. The bill has been passed by the Lok Sabha in April 2017 and is pending consideration and passage by the Rajya Sabha. Once passed by the Rajya Sabha, the bill shall help in reducing the corruption in transport sector and facilitate the delivery of services in an expeditious and objective manner.

Tell us about your initiatives about vehicle and passengers' safety?

Strong efforts are being made to improve safety of all the types of vehicles to ensure that even the cheapest models also have the best safety parameters. The Ministry has launched a mission to upgrade the

standards at par with the global standards.

All two wheelers have been mandated to be fitted with Combined Braking System (CBS)/ Anti-Lock Braking System (ABS) with effect from April, 2019. This will improve the on-road safety of two wheelers by avoiding skidding. Apart from this, all the two wheelers have also been mandated to have a day light running system to improve their conspicuity. Helmet is provided as a compulsory accessory at the time of sale of all new two wheelers. This has helped to improve helmet compliance amongst two wheeler riders. The Ministry has framed new standards for user friendly helmets which will reduce the cost of the helmets while providing the best comfort as well as safety to the users.

All passenger cars are also mandated to be fitted with ABS to improve their safety and stability. All the cars will also have compulsory air-bags, speed warning audio alert, seat belt audio alerts and reverse sensors. All heavy vehicles have been mandated to have ABS fitted on them. The bus body code has been implemented which would also help improve the passenger safety as well as ensure minimum level of comfort. The truck body code has also been notified. 



'Ministry of Shipping Upgrading India's Port Capabilities'



Kailash K Aggarwal

Joint Secretary
Ministry of Shipping
Government of India

The Ministry of Shipping, entrusted with the responsibility to formulate policies and programmes on shipping and ports sectors and their implementation, is presently focussing under Sagarmala programme on four main areas – Port Connectivity, Port Modernisation, Port-led Industrialisation and Development of the Communities along the ports, says **Kailash K Aggarwal**, Joint Secretary, Ministry of Shipping, Government of India in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.

Of late, the Ministry of Shipping has been undertaking a lot of initiatives for its development in Port Sector. Please share about some of them.

The Ministry of Shipping under sagarmala programme has undertaken a study for Port-led development to reduce logistic costs which are high in

India compared to other countries. Taking cognizance of the developments in other countries and based on this comprehensive study, four focused areas have been identified wherein Ministry of Shipping has decided to put in the efforts. These four areas are port connectivity, port modernisation, port-led industrialisation and development of the communities along

the ports. Based on these themes, about 550 projects have already been identified, in consultation with ports, State Governments, Line Ministries and Industry.

Sagarmala Project is basically an initiative to develop logistics sector performance and connectivity between ports, rail and road. Can you shed some light on it?

We are firstly identifying the key areas as per the Sagarmala Project. Secondly, we are talking to various stakeholders to ensure these projects come up and thirdly, monitoring of these projects and trying to remove the hindrances in the implementation of these projects. This will lead to reduction of the logistics costs that will improve the productivity. Recently, Ministry has changed some policies leading to relaxation of cabotage and the initial response is very good. The key focus is to make sure that we are as competitive as the advanced countries of the world in port led development.

There is a huge skill gap in the Port and Marine sector. What steps have been taken in this regard by the Ministry of Shipping?

To fill the gaps of skilling, Ministry is working in convergence with Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY) of the Ministry of Rural Development, Government of India. We have identified about 60 modules where specialised training in Maritime Sector has been decided to be implemented in convergence with DDUGKY. Secondly, a centre of excellence by the name of CEMS (Centre of Excellence for Marine Studies) to impart training in ship building and ship design sector has been developed and two such centres are coming up at vizag and Mumbai.

CEMS entails, investment of about Rs

800 crore and not only Indian students but students from neighbouring foreign countries are also likely to come and avail these opportunities. A centre at IIT Chennai has come up where studies and research on port related and inland water issues have been taken up to reduce dependence on foreign consultants and develop competency within India. Safety training for all the workers at Alang Ship Yard, which is one of the world's biggest ship-breaking yard is being ensured. Apart from that, for the development of port community, the Ministry of Shipping is funding the fishing harbours.



What key steps have you undertaken to improve the logistics sector's performance?

We are focusing on ease-of-doing-business (EoDB). More than 24 areas have been identified for EoDB. The important parameters at a port for judging performance is the turnaround time (time taken by ship from time of entry to time of exit) and dwell time. For this purpose, paper work is being eliminated through IT tools along with scanning of cargo which prevents the physical examination, and setting up of testing laboratories in the port area. All these steps are taken to ensure logistics at the port area are sufficient

enough so that people do not have to run to various agencies. Another focus area is development of Multi Modal Logistics Parks (MMLP).

To reduce the customers' botherations, the ports are moving to hinterland to capture the cargo. Jawaharlal Nehru, Port Trust (JNPT) has taken lead and it is developing four Inland Container Depots (ICD) at Jalna, Wardha, Sangli and Nashik with the purpose to fetch the cargo near the origin point. It will reduce the logistics cost. Ports are also developing surplus land for the purpose of setting up industries in port area. The aim is that the units set up will be very near to port which will save logistics costs. Surplus land of ports will be used for generating revenue as well as industrial development.

The Government is soon going to disburse 194 projects worth Rs 72,000 crore, which of the sectors or components are expected to receive this fund ?

Focus is on Port modernisation, capacity enhancement of ports and connectivity to ports. The projects which are to be awarded are the related to these areas.

The focus is also on mechanisation of ports, addition of new berths at ports, enhancing drafts at ports keeping the aspect of handling bigger ships at ports. Also there is emphasis on Coastal berths. In the perspective plan, it is revealed that the cost of logistics by rail is much higher compared to transport by water. So, the target is to increase the percentage of goods being transferred by water from 6 to 12 per cent. There is need to promote coastal shipping and for that, the Ministry of Shipping is partly funding the creation of new coastal berths. Currently, we are moving about 100 million tonnes of coastal cargo from one port to another in India. The emphasis is of sagarmala programme to enhance coastal cargo substantially. egov.gov



Parmeshwar Bali
Chartering Officer (Ports)
Ports and Shipping
Ministry of Shipping
Government of India



‘Indian Ports Now Have Better Turnaround Factor’

As the Government of India has undertaken various developmental initiatives, the connectivity related issues of Ports in India be it Road, Rail, Aviation and Waterways have been undertaken under the Sagarmala Perspective plan. The expected investment under the Sagarmala will be more than Rs 12 lakh crore, says **Parmeshwar Bali**, Chartering Officer (Ports), Ministry of Shipping, Government of India, in conversation with **Gautam Debroy** of **Elets News Network (ENN)**.

“There are 208 smaller ports which are under the State Governments. The Government is also planning a coastal service linking one port to another port.”

What have been some of the most prominent initiatives of the Ministry of Shipping in the recent times towards ensuring an improvised ports connectivity?

We have taken a lot of initiatives. We have increased the mechanised systems at the ports and have removed old forms, etc.



We have also put different types of scanners at the ports like mobile scanner, etc. Now, full rack of railways can go through these scanners. We have put Radio-Frequency Identification (RFID) tag on the containers and travellers which would automatically go through the gates. Also, there will be no restrictions put up at the gate. We describe it as the automatic gate entry system.

Besides, we have undertaken a number of initiatives to improve the turnaround time also. Now, it does not take more than 70-75 hours. Earlier, it used to take three to four days.

Kindly shed some light on the terminology 'turnaround time'.

Turnaround time is the time taken by a ship to unload and load the cargo when it touches a port. The ship unloads the cargo and returns to the sea, carrying new materials or cargo with it. This is described as the turnaround time.

The Government of India seems to have introduced a lot of developmental initiatives. Is there any plan commenced under the Sagarmala Project as well?

The connectivity issue of the East and the West side of the ports is taken care of by the Sagarmala Project. There has been a realisation of Rs 12 lakh crore investment in this. We are building new roads, new railway lines, new waterways, new ports, berths, jetties, etc. There will be direct port to port connectivity.

Are you laying any special emphasis on the coastal areas?

Some States have 500-700 long coastlines. Over this coastline, there are 12 major ports which contribute to the existing 70 percent of the existing trade, i.e. around 700 million tonnes. There are 208 smaller ports that are under the State Governments. The Government is also planning a coastal service linking one port to another port.

How do you perceive the significance of private players' role in this?

We have a policy to encourage private players in this sector. Under the Public-Private Partnership model, they can also build ports.

What are the major challenges in this sector?

There are a lot of problems like competition from other ports, labour problem, etc.

How do you foresee the progress of this sector five years down the line?

We are focusing on improving the port capacity. Currently, it is 1,800 million tonnes. We are trying to take this to 2,500 million tonnes and the cargo capacity, which is currently 1,250 million tonnes, will be improved to 1,800 million tonnes. [mca.gov](https://www.mca.gov.in)



Abhyuday Jindal
Managing Director
Jindal Stainless Group



“Predicting the possible increase in the usage of this product, the Government Of India has also established a national standard for the same. The use of stainless steel rebars will lead to durable bridges, roads, and buildings.”

Jindal's Rustless Solutions for Indian Coastline

It is imperative to use stainless steel bridges and foot overbridges which have a much longer life and are non-corroding. This can also avoid huge destructions and economic loss, writes **Abhyuday Jindal**, Managing Director, Jindal Stainless Limited for **Elets News Network (ENN)**.



Coastal areas are one of the harshest environments with high levels of airborne salts and high- speed winds which carry them to the interiors. India is bestowed with a huge coastline of approximately 7,500 km covering almost 13 States. This coastline is both a boon and a bane. While cities have thrived along this long coastline and are also the lifeline in these cities, they also have thrown up the huge problem related to rust.

Rusting, as it is commonly known, is the by-product of a chemical process called corrosion. A red or orange coating forms on the surface of iron-based metals when they are exposed to air and moisture. The

process is further accelerated in the coastal regions when the moisture is loaded with heavy salts. As corrosion continues, it causes irreparable damage to the surface particularly large structures that are steel intensive.

Corrosion has now been recognised as a universal problem causing losses to the tune of billions of dollars every year. The results of the studies have brought to the fore one astonishing fact -- annually corrosion costs for a nation ranges from approximately 1 to 5 percent of the Gross National Product (GNP).

India loses more than \$40 billion a year -- about 4 per cent of the size of

the total economy -- due to corrosion in infrastructure and other industries. This is especially worrying as many of our industrial hubs are located along the coast for proximity to the ports, exposing a very large percentage of Indian industries to the damaging effect of corrosion.

The outcome of many studies clearly shows that stainless steel is the preferred choice as it defies corrosion and abrasion of any nature.



Various studies in India have shown that among the user industries, corrosion is maximum in the petrochemical industry followed by Oil and Gas, Energy, Shipping, Railways, Ports, etc. Not only are these industries situated in the coastal areas, it is also the hub for the industrial activity like exports and imports.

The infrastructure which supports this activity is old and corrosion has already set in. The recent Elphinstone Road bridge collapse in Mumbai resulted due to such unsafe structures. This is also because historically steel was used for making bridges. The use of stainless steel is a true innovation in this field. It is therefore imperative to use stainless

steel bridges and foot over bridges which have a much longer life and are non-corroding. This can also avoid huge destructions and economic loss. ISSDA has estimated that more than 50 per cent of the 1.2 lakh railway bridges in the country are over 100 years old and need immediate attention to avoid another mishap.

The use of stainless steel is the only solution to such problems. The longer life cycle of stainless steel makes it more attractive. Overall costing for the life cycle of stainless steel is significantly lower. Stainless steel is known for its inherent quality of strength, resistance against fractures, weldability and a very good corrosion resistance. Since they are largely used by pedestrians, cyclists etc, it is made lightweight and can be fabricated to any design lending a signature to the city.

Worldwide, the use of stainless steel in creating skywalks and pedestrian bridges are well documented like the bridge over the Sickla Canal in the south of Stockholm or the Helix bridge in Singapore which is totally made of stainless steel. There are several other such bridges in different countries and India cannot be left out of this especially since we have decided to create world-class Smart Cities which should become iconic lifelong.

Along with the Smart cities, the Government of India also plans to build 25,000 km of roads as part of the Centre's ambitious Bharatmala project along India's borders, coastal areas, ports, religious and tourist places as well as over 100 district headquarters. It is expected to cover 44 economic corridors huge international exposure and we cannot afford to have any disruption of economic activity in this belt owing to a bridge collapse or a similar accident. It is critical to use products and find the solution with a longer life, better aesthetics and stainless steel definitely scores better than any other metal.

India has a long coastline which is straight and regular and does not offer sites for too many good harbours. This inherent infrastructure bottleneck is likely to be removed through the Sagarmala which is a port-led infrastructure development project which entails setting up of new mega ports, modernisation of India's existing ports and development of 14 Coastal Employment Zones (CEZs). This would also include the enhancement of port connectivity via road, rail, multi-modal logistics parks, pipelines and waterways, etc. It is expected to result in boosting merchandise exports by \$110 billion.

This means huge concrete structures which will have to come up at the ports. The use of stainless steel reinforcement will prevent premature failure of the concrete structure in bridges, roads, or any other structure which will be exposed to the sea water. Predicting the possible increase in the usage of this product, the Government of India has also established a national standard for the same. The use of stainless steel rebars will lead to durable bridges, roads, and buildings.

The uses of stainless steel in construction and building are endless and innovations continue across the globe. However, in the Indian context, we need a corrosion management policy in order to leverage the substantial savings in corrosion-related costs through the use of stainless steel and other products. This can be achieved by creating awareness about corrosion, updating policy regulations, standards, and management practices and introducing stainless steel for best design practices in construction and mega infrastructure development projects with the mandatory use of stainless steel, especially in the coastal development projects. egov.gov



DELIBERATING URBAN DEVELOPMENT CHALLENGES AND OPPORTUNITIES IN MIZORAM

To deliberate on the challenges and possible solutions for the rapid urbanisation in the country, the Urban Development and Poverty Alleviation Department (UD&PAD), Government of Mizoram in association with Elets Technomedia Pvt Ltd organised National Urban Development Summit in Aizawl on March 9, 2018.

Chief Minister Lal Thanhawla inaugurated the summit where Zodintluanga, Minister for Urban Development and Poverty was the Guest of Honour.

There were discussions on Urban Landscape, International Collaboration and Experience For Inclusive Urban Growth, Smart Cities Challenges and Opportunities ,Challenges in Urban Development, Digital Revolution and Innovation in Urban Transformation, etc.

From the Government of Mizoram, Home Minister R Lalzirliana, Finance Minister Lalsawta, Industry and Commerce Minister H Rohnuna, Officer on Special Duty (States), Ministry of External Affairs M L K Raja presented their vision at the summit.

To share the industry perspective India Post, ICFAI University, Leading Edge Adventures, IIM Kolkata, US India Strategic Partnership Forum participated in the summit.

Representatives of Poland, Russia and Singapore were also present.

HOST PARTNER



PU
Hon'ble Chief



Mizoram

LAL THANHAWLA CHIEF MINISTER OF MIZORAM

We have many ongoing State, local, urban development and maintenance initiatives aimed at improving city developments, including the Master Plan (Aizawl Vision 2030). Our key priority areas are infrastructure development, urban development, tourism, agriculture and horticulture to bring the city in the centerstage. We are implementing Central Flagship programmes such as Swachh Bharat Abhiyan, Smart Cities Mission, and Housing for all, etc.



Inaugural: Exploring Best Practices for India's Urban Landscape



Distinguished guests at the summit



ZODINTLUANGA
Urban Development and Poverty Alleviation Minister,
Government of Mizoram

On the front of urban development, the Government of Mizoram has taken up urban development in various forms such as urban governance, urban infrastructure, urban planning, urban sanitation, urban transportation and mobility and urban poverty alleviation. For urban infrastructure, we have taken initiative under NEDP (New Economic Development Programme).



DR C VANLALRAMSANGA
Secretary, Urban Development & Poverty Alleviation,
Government of Mizoram

Urbanisation in India is expanding unprecedentedly and people are migrating to cities in a large number and to meet this need is and will continue to be strategic policy matters. The Government of Mizoram is trying its best to formulate policies for better urban development and our results are paying off.



ARVIND RAY

Chief Secretary, Government of Mizoram

Mizoram has 52 percent of its population living in urban areas, so this kind of summit is a great opportunity for us to be a party to all Smart Cities Mission programmes of the Government of India. In Aizawl, we have proposed to set-up a 20 MW solar park and all departments are advised to harness Solar Power.



UDAI CHANDRA RAI

Chairman, Namchi Municipal Council, Government of Sikkim

Sikkim's Namchi city has been selected under the Smart Cities Mission. We are trying hard to tackle the challenges and develop the city in an effective way so as to make it smart. We have already established best and efficient Solid Waste Management system. The collection efficiency has been our prime focus, there is door-to-door waste collection, etc. All the prime public and commercial establishments have to have mandatory solid waste collection facilities where NMC collects it on a daily basis.



MAMTA SHANKAR

Economic Advisor, Ministry of Development of North Eastern Region, Government of India

We encourage institutions to develop and promote technology as per the demands of the State. Till now, we have done well by connecting Railways to the broad gauge and started over 1,100 flights connecting other parts of the country.



AWADESH SHARMA

CEO, Ujjain Smart City Limited, Government of Madhya Pradesh

In Ujjain, we have set up a Command Control Centre to monitor the programmes, which saves a lot of money, time and energy. But each city has its limitations and attributes, so we have to devise a unique plan for it to make it smart and more livable by putting more influence on implementation rather than planning.

International Collaboration and Experience for Inclusive Urban Growth



R L RINAWMA

Principal Adviser to Chief Minister,
Government of Mizoram

India's urban population will soar from 340 million to 590 million by 2020 and it will be a daunting task to deal with this rapid urbanisation. We are moving in the right direction but the implementation has to be more focused and cautious. But as a State, we have to collaborate with the Government of India in our projects, to make them efficient and more viable.



ER. VALBUANGA

Programme Director, State Investment Program Management
and Implementation Unit (SIPMIU), Aizawl, Mizoram

To establish a broad-based inclusive growth, we have to reduce poverty and disparities across all the regions and communities. By ensuring access to the basic infrastructure and basic amenities, we have to develop a comprehensive strategy for better health and socio-economic transformation.

INDUSTRY PRESENTATION ON
IMPORTANCE OF CAPACITY BUILDING
COMPONENT IN SMART CITY



CAPTAIN SATISH PATHANIA
Managing Director, Leading Edge
Airparks and Adventures

We are working on three aspects which are one-way or the other related to smart city planning, like cable car, STOL (Short Take-Off and Landing) aviation and eco adventure transport. This means that urban transport is best suited for the unplanned or crowded settlement like Aizawl and will create opportunities for tourism sector as well.

INDUSTRY PRESENTATION



DR H LALDINMAWIA
Head of the Department, Department of Geography,
ICFAI University, Mizoram

It is necessary to implement an effective policy of smart rural programme to cooperate with the Smart City programmes running across the nation. For a city like Aizawl, it is high-time it started a long-term or a permanent policy to deal with the emergency situation, where we need to relocate some public amenities.



People from all walks of life participated in the summit



Smart City: Challenges and Opportunities



VANLALMAWIA RENTHLEI
Chief Executive Officer, Aizawl Smart City &
Joint Secretary, UD&PA, Government of Mizoram

As a hilly state, we have more limitations than other states, so we have to formulate our policies, plans and strategy according to those limitations and implement the Smart Cities Mission with the support of the Union Government. Mizoram is doing quite well in promoting sustainable urban infrastructure, smart e-services and smart mobility.



BELINA RANA
Joint Commissioner & Additional CEO, Faridabad Smart
City Limited, Government of Haryana

FSCL has taken 58 projects in Area based Development programme (ABD) and 10 Pan-City projects. In infrastructure projects, we are taking smart mobility, sustainable infrastructure, smart urbanisation and other smart solutions. To make city more aesthetic, the corporation is making smart toilets, open-air gyms and renovation of cultural heritage.

Challenges in Urban Development & Municipal Administration



HAULIANLAL GUTE
Secretary, Jaipur Development Authority

We have different authorities and stakeholders on the same stage and working for the same cause of making city smart. The Government of Rajasthan has done a commendable job to expedite the works under Smart Cities Mission by bringing different agencies under one umbrella.



DR H LALTHLANGLIANA
Municipal Commissioner,
Aizawl Municipal Corporation

Aizawl had been planned without a proper roadmap and strategy, thus, our infrastructure was in a mess. But to make things better and developing the city under Smart Cities Mission, Municipal Corporation has taken giant steps towards digitisation and all the information about smart initiatives is made available in public domain. Citizens can monitor the work happening in their area and can come with some suggestion.



Leveraging Technology for Sustainable Urban Development



ARUN DEV GAUTAM
 Secretary, Department of Home and Transport,
 Government of Chhattisgarh

Smart Mobility is a very crucial aspect in implementing Smart Cities Mission. I truly appreciate the active role of civil societies in managing traffic in the city and acting as a helping hand for administration. The involvement of all communities in all sorts of concepts which are being utilised to make city smart is also a plus point for the all-round development of the city.



MUNISH CHANDAN
 Head SeMT/CISO/Joint Chief IT Officer, Department of
 Electronics and Information Technology, Government of Haryana

Our Government has good policies and ideas for making city smart, but there is a huge gap when it comes to implementation and practices. For the real digital empowerment, citizen participation is equally important as government. The citizens also have to adapt to the changes brought by the policies of government and spread awareness in their society.

Digital Revolution and Innovation in Urban Transportations



LALMUANSANGA RALTE
Deputy CEO, Aizawl Smart City Ltd

Under the Department of Urban Development, there is a plan to revamp the urban transportation sector with the technical assistance of Asian Development Bank. To reduce further congestion on roads, we are planning to introduce ropeway in the East and West corridor of the city with the plan of procurement of 300 state-of-the-art buses.



NAVIN RAI
Joint Chief Town Planner, Urban Development & Housing Department, Government of Sikkim

The concept of Smart City can be described in many ways, but at the end it is all about the people and improving their lives. So we have taken many initiatives to improve livability, like sanitation drive, improving urban infrastructure, making transport accessible to remote areas and internet connectivity to the citizens.



RAJIV RAI
Municipal Executive Officer, Executive Head, Namchi Municipal Council, Government of Sikkim

Namchi Municipal Council is one of the smallest council in India but we are facing the same problems which others big cities council are facing. With the financial constraint and limited access to the main areas, we have taken some good initiatives like to keep city clean, we have implemented garbage collection points which mentions driver contact number, so that citizens can track the activity of garbage truck.

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The Elets 2nd National Urban Development Summit witnessed in-depth discussions on various issues pertaining to the urban overhaul such as best practices for India's urban landscape, international collaboration and experience for inclusive urban growth, etc.

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Mizoram CM Lal Thanhawla Launches Special Issue of Aizawl



Gujarat CM Vijay Rupani launches Special Rajkot Issue



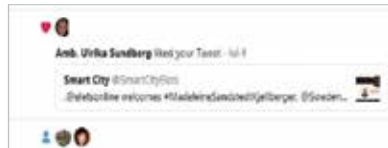
Uttarakhand CM Trivendra Singh Rawat Launches Special Haridwar Issue



Rajasthan CM Vasundhara Raje Launches Special Issue of Digi Fest, Bikaner

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The Government of Telangana and Greater Hyderabad Municipal Corporation (GHMC) in association with Elets Technomedia Pvt Ltd will be hosting two-day Conclave on

August 27 - 28, 2018, Hyderabad



K CHANDRASHEKAR RAO
Hon'ble Chief Minister
of Telangana



CHIEF GUEST
K T Rama Rao
Hon'ble Minister of IT, Municipal
Administration and Urban Development,
Government of Telangana

PROGRAMME CHAIR

Commissioner, Greater Hyderabad
Municipal Corporation

This unique Conclave will also focus on the role of private players and organisations, and their possible collaboration with the Government and the role of Corporate Social Responsibility (CSR).

Be a part of this Conference and Expo and meet the key policymakers and industry leaders of Telangana

For queries contact: **Sudheer Goutham : +91 99661 07831, Hemangini Rajput : 9998685070**
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