

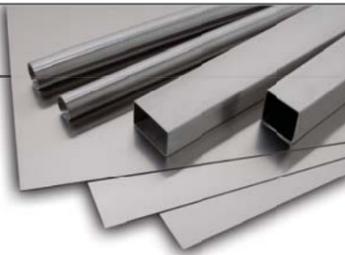
WORLD STAINLESS STEEL

INDIA & MIDDLE EAST

The insiders guide for the CRA industry in India, Iran, Bahrain, Egypt, Kuwait, Oman, Azerbaijan, Jordan, Kazakhstan, Qatar, Saudi Arabia, Bangladesh, Sri Lanka, UAE

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SPOTLIGHT ON:

The growing landscape of Indian stainless steel industry

At Jindal Stainless, as pioneers of the Indian Stainless Steel industry, we not only believe but also exemplify the triple bottom line philosophy of doing business that is, ensuring harmony among our social, environmental and economic performances. Sustainability lies at the core of this framework, and thus, serves as our focal point in decision-making, writes Abhyuday Jindal, Managing Director, Jindal Stainless.



NEWS

GAIL LOOKS AT PETROCHEMICALS, RENEWABLES FOR GROWTH

GAIL India Ltd. is eyeing expansion in petrochemicals, specialty chemicals, and renewables to supplement growth in its core business of natural gas marketing and transportation, its chairman Manoj Jain has said. *Read more on page 2.*

INDIA TARGETS 100 MT COAL GASIFICATION

India's target to gasify 100 million tonnes of coal by 2030 will entail an investment of over Rs 4 lakh crore, Coal Minister Pralhad Joshi said. Coal gasification is the process of producing syngas from coal. *Read more on page 2.*

LUB-RREF TO SET UP BANGLADESH'S FIRST LUBE OIL REFINERY

In a bid to make Bangladesh self-reliant in lubricant production, Lub-rref (Bangladesh) Ltd., a local producer of lube oil, will set up a state-of-the art base oil refinery with an investment of Tk 400 crore to increase production capacity. *Read more on page 6.*

SAPTAGIR PLANS BULK DRUGS UNIT IN HYDERABAD PHARMA CITY

Hyderabad-based bulk drugs and intermediates manufacturer Saptagir Laboratories is planning to enhance its capacities to meet the growing demand in the sector. *Read more on page 12*

CIL INVITES BIDS TO SET UP COAL TO METHANOL PROJECT

Coal India Ltd. (CIL) has floated a global tender for setting up the country's first coal to methanol plant in West Bengal at an investment of Rs 6,000 crore. The company is in dialogue with Indian Oil Corp and other government-owned oil companies. *Read more on page 16.*

RS 1.2 LAKH CR TO BE SPENT ON OIL, GAS PROJECTS IN FY21

State-owned oil firms plan to spend about Rs 1.2 lakh crore in the fiscal year to March 2021 on oil and gas exploration and production and refineries in a bid to boost economic activity in the nation that has been hit hard by the COVID-19 pandemic. *Read more on page 16.*

SANDVIK LAUNCHES SANICRO® 35, A SUPER-AUSTENITIC GRADE

Sandvik has launched Sanicro® 35, a unique grade that bridges the performance gap between stainless steels and higher cost nickel alloys. *Read more on page 20.*

HPCL TO INVEST RS 600BN IN THE NEXT FIVE YEARS

Hindustan Petroleum Corporation Ltd (HPCL) will invest over Rs 600bn for developing infrastructure during the next five years, Chairman Mukesh K Surana said at the company's 68th annual general meeting. The investments will be made in HPCL's refinery expansion and augmentation projects to increase the capacity of Mumbai Refinery to 9.5 million metric tonnes per annum (mmtpa) and Visakh Refinery to 15 mmtpa. "These projects will improve the complexity of the refineries and add to the overall Gross Refining Margins," added Surana. For the current fiscal, HPCL will

invest Rs 120bn in capital expenditure. The refiner said it has not revised its Capex downward despite the COVID-19 impact on the company. Of the Rs 120bn, HPCL will spend Rs 70bn in refinery and Rs 50bn in marketing. The company would also be setting up 500 fuel retail outlets during FY 20-21. Last financial year, HPCL commissioned 1,194 new retail outlets and 245 new liquefied petroleum gas (LPG) distributorships taking the number of total retail outlets to 16,476 and the number of total LPG distributors to 6,110. HPCL is currently exporting petroleum products to 14 coun-



tries and through its HPCL Middle East FZCO, a wholly-owned subsidiary set up in Dubai, it is expanding its presence in the Middle East and African markets, Surana said.

ETHANOL PLANT TO BE SET UP ON PPP MODEL IN KAWARDHA

In a first of its kind, an ethanol plant is to be set up soon on public-private-partnership (PPP) model at the Boramdev Co-operative Sugar Factory in Chhattisgarh's Kawardha district. The plant will generate employment opportunities and will financially benefit sugarcane farmers and sugar factories, an official statement said.

A meeting of the public private partnership appraisal committee (PPPAC) under the chairmanship of Chief Secretary R.P. Mandal to give final approval for the ethanol plant was held at Mahanadi Bhawan (Secretariat). The committee recommended the setting up of the plant by approving the financial tender and also approved the draft contract with the investor.

The financial tenders will be invited through the e-procurement portal from those bidders who qualify in technical tenders. The meeting was attended by Additional Chief Secretary of Finance Department Amitabh Jain and Principal Secretary of Planning, Economic and Statistics Department Gaurav Dwivedi among others.

WORLD'S FIRST CNG TERMINAL TO COME UP IN GUJARAT

The Gujarat Chief Minister Vijay Rupani recently said Bhavnagar will become the first Compressed Natural Gas (CNG) terminal in the world, as the government has given its sanction to the Rs 1,900 crore brownfield project. The terminal will have a capacity of 15 lakh tons annually. He said the state government has given the sanction and the Rs 1,900 crore project and will be developed by a consortium of developers, including the Padmanabh Mafatlal Group and one from the Netherlands. According to the information given by the government, Rs 1,300 crore will be invested in



the first phase of the brownfield port project. The project is a part of an ambitious mega project of developing Bhavnagar, where a liquid cargo terminal has a capacity of 45 lakh Container and White cargo terminal, and an RO-RO ferry services terminal would be developed.

LNG ALLIANCE TO INVEST IN INDIA'S NATURAL GAS MARKET

LNG Alliance Pte Ltd announced that it is opening a new office in Chennai, India. LNG Alliance Pte Ltd is a leading independent project developer in the natural gas and LNG sector. The team at the Chennai Office will assist the company in forging ahead with the development of India's virtual gas pipelines, downstream gas market integration, and LNG bunkering possibilities. LNG Alliance's introduction to India



will be a timely one. India seeks to raise the share of natural gas in its energy mix from its current 6.2% to 15% by 2030 and is currently scouting for affordable gas for price-sensitive customers. LNG Alliance plans to develop an end-to-end solution for India, using its strategic ownership positions in low-cost LNG supply at around USD 4/ mmBtu on a long-term basis to meet India's LNG demand.

IOC TO INVEST 1268 CR TO ESTABLISH COKER UNIT IN ODISHA

Indian Oil Corp (IOC) recently said that its board has approved an investment of Rs 1,268 crore for setting up a needle coker unit at the firm's Paradip refinery in Odisha. "The proposed unit will have a Calcined Needle Coke (CNC) production capacity of 56-kilo tonnes per annum. The estimated project cost is Rs. 1,268 crore," IOC said in a statement. With the production of CNC, IOC shall enter this niche product segment for the first time. CNC is used to produce graphite electrodes for deployment in high temperatures

(2,800 degrees Centigrade) electric arc furnaces of the steel industry. IOC Chairman S M Vaidya said the proposed unit will enhance refinery margins. "This needle coker unit is yet another significant step by Indian Oil towards de-risking the uncertainty in the petroleum oil business," he said. Presently, the entire needle coke requirement of the country (80-100 kilotonnes per annum) is met through imports. Production of needle coke at Paradip refinery will reduce import dependency and would contribute to the vision of 'Atmanirbhar Bharat', IOC said.

Needle coke is a substitute for natural graphite and offers higher quality consistency. With technological advancements, needle coke is now used to make carbon anode of lithium-ion batteries. As electric vehicle (EV) transportation is emerging as a viable option, the production of needle coke (anode for Li-ion battery) would add to the quest for self-reliance in India. This project can also be replicated at other Indian refineries that process low-sulfur-feed as a margin improvement initiative, IOC said.



FOUR ORDERS FOR BRONX STRAIGHTENERS FROM INDIA

An Indian state company placed several orders for Bronx straighteners to process bars and tubes at its two facilities in Telangana and Rajasthan. The company was looking for precision engineering, advanced technical capability, a strong reputation, and quick delivery.

Several rounds of technical tenders preceded the commercial tender process to ensure that only the best designs were considered. The Bronx machines will be able to process stainless steel and specialty alloy bars and tubes, with a cut length of 6 meters.

The order covers A 2-roll machine to straighten round bars with diameter up to 30mm, to be delivered by the end of 2020; Two 10-roll straighteners for tubes with up to 20 mm diameter, to be delivered by the second quarter of 2021; and A 6-roll machine to straighten tubes with up

to 30mm diameter, to be delivered by the third quarter of 2021. The straightening machines will be manufactured, assembled, and tested in the presence of the customer at the new facility of Fives Bronx Ltd. in the UK, where the company has recently moved.



INDIAN GOVT TO SANCTION TWO PETROCHEMICAL COMPLEXES TO AP

Industries minister Mekapati Gautham Reddy said the survey will identify the shortcomings in the management of the industries and suggest the remedies. Speaking to reporters at the APIIC office, Mekapati said that Union commerce minister Piyush Goyal has promised to sanction two petrochemical complexes to the state.

The minister said the government would ready the plans for setting up the petrochemical complexes which are expected to attract massive investments to the state.

Mekapati said that the Centre has agreed, in principle, to extend financial support to the state government's plans to construct eight fishing harbors along the coast. He said that the government is fully geared up to kick-start the works on Bhavanapadu and Ramayapatnam ports by December.

"The construction of new ports and fishing harbors are going to be game-changers to turn around the economy of the state," said Mekapati. He said that fishing harbors would help prevent fishermen from migrating to far off coastal states for fishing.

He said that the previous government had neglected the development of the harbors despite repeated pleas from the fishermen.

SRINAGAR AND JAMMU MAY GET METRO SERVICES BY 2024



Union minister Jitendra Singh said that the light transit metro train service in Srinagar and Jammu is expected to be ready by 2024. He said that the metro project for the two cities would cost around Rs 10,599 crore and the railway consultancy firm RITES Limited has already submitted the final detailed project reports and the metro project is likely to be developed by the year 2024.

The metro train service in Jammu will have its first corridor from Bantalab to Bari Brahmana and in Srinagar, it will be from Indira

Nagar to HMT station, he said. Mr. Singh said that the elevated metro system will not only facilitate people but also have a positive impact on the economy and the quality of life. According to the DPRs, he said, the metro coaches will be modern, lightweight, and made from stainless steel and aluminium, with an air-conditioning system. Singh also said it is a matter of pride that the highest railway bridge of the world is coming up on river Chenab in the Reasi district and is likely to be completed next year.

GAIL LOOKS AT PETROCHEMICALS, RENEWABLES FOR GROWTH

GAIL India Ltd. is eyeing expansion in petrochemicals, specialty chemicals, and renewables to supplement growth in its core business of natural gas marketing and transportation, its chairman Manoj Jain has said. The nation's largest gas marketer and the shipper has adopted a revised strategic plan identifying priority business initiatives. "This strategic plan will help us to address our challenges in changing industry scenarios and provide new areas for growth with geographic expansion," he said in the company's latest annual report.

GAIL transports over 70% of all gas shipped in the country through its network of 12,426-km network of natural gas trunk pipelines. It sells 55% of all-natural gas in the country and petrochemical plants at Pata and Lapatkata in Assam that gives it a 17.5% market share.

It has a small portfolio of wind and solar power generation capacity. "While gas will remain our core segment, we will look for growth in other areas such as petrochemicals, specialty chemicals, renewables, water, etc. to reach new heights in the coming years," he said. GAIL in the annual report for 2019-20 said it has undertaken 'Strategy 2030' exercise to define its journey through the next decade.

"The strategy has been developed to build a strong business portfolio and organisational structure which is not only robust enough to respond to the fast-changing business scenario but also unlocks growth opportunities for the long-term growth of the company," it said.

INDIA TARGETS 100 MT COAL GASIFICATION

India's target to gasify 100 million tonnes of coal by 2030 will entail an investment of over Rs 4 lakh crore, Coal Minister Pralhad Joshi said. Coal gasification is the process of producing syngas a mixture consisting mainly of carbon monoxide, hydrogen, carbon dioxide, natural gas, and water vapour from coal.

"Coal gasification and liquefaction is no more an aspiration, but a requirement. For encouraging the use of clean sources of fuel, the government has provided for a concession of 20% on the revenue share of coal used for gasification. This will boost production of synthetic natural gas, energy fuel, urea for fertilisers and production of other chemicals," Joshi said.



This 100 MT coal gasification will happen in three phases. In the first phase from 2020-2024 4 million tonnes (MT) of coal will be gasified and around Rs 20,000 crore will be invested for the same. In the second phase from

2020-2026, 6 MT of coal will be gasified which will involve an investment of Rs 30,000 crore. In the third phase from 2022-2030, 90 MT of coal will be gasified and Rs 3.6 lakh crore will be invested for the same.

INDIA - ARAB ENERGY PARTNERSHIP GROWING

As much as 53% of India's oil imports and 41% of gas imports now come from the Arab region which is vital for India's energy security, according to Sanjay Bhattacharyya, Secretary in the Ministry of External Affairs, MEA. "The nature of the energy partnership has evolved from mere hydrocarbon ties between buyer and seller to participation in upstream and downstream projects, joint ventures in refineries and building of strategic oil reserves," Bhattacharyya told members of the Federation of Indian Chambers of Commerce and Industry (FICCI) in New Delhi, said a Wam news agency report.

He said: "India has stakes in oil blocks in the UAE, Iraq, Syria, Libya, Yemen, and South Sudan. We are also embarking on a partnership in renewables."

"The key elements of our economic engagement are characterised by energy security, food security, human resource exchanges, growing trade, and investment relations, and strong connectivity. It is multi-faceted

and extensive but the potential is bigger," said Bhattacharyya, who looks after the Gulf and overseas Indian affairs, among other charges, in the MEA.

Envisioning "India's Economic Engagement with the Arab Region" in the future, the senior official listed five areas of endeavor.

The thrust areas in the future will be: Joint ventures in infrastructure and manufacturing, tapping Arab sovereign wealth funds, and integrating into supply chains. New emerging technologies, especially in ICT, consultancy, fintech, logistics, edutech, healthtech, and others that have enormous potential; High technology cooperation that has the potential to be stepped up; Indian businesses may explore venturing into less-explored markets. The current focus of Indian business is for trade, investment, and technology exchanges with GCC, Egypt, and Israel; and Cultural exchanges will promote goodwill among the people and facilitate economic engagement.



Building a Stainless India



PASSIONATELY PROGRESSIVE

As the pioneer of stainless steel in India, Jindal Stainless, over its five-decade long journey, has helped nurture an ecosystem that understands, adopts, and advocates stainless steel. Right from training young engineers in premier colleges and training fabricators at grassroot levels to educating masses and sensitizing decision makers, Jindal Stainless has laid the foundation and grown the outreach of the mettle of today and the metal of tomorrow, Stainless Steel.

To know more log on to www.jindalstainless.com

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The growing landscape of Indian stain

At Jindal Stainless, as pioneers of the Indian Stainless Steel industry, we not only believe but also exemplify the triple bottom line philosophy of doing business that is, ensuring harmony among our social, environmental and economic performances.

By Abhyuday Jindal, Managing Director, Jindal Stainless



Sustainability lies at the core of Jindal Stainless' business philosophy, and thus, serves as our focal point in decision-making. With over 50 years of footprint on the global stainless steel industry, it is our focus on sustainable development that has helped us fare through the cyclicity of our business and the ever-changing global dynamics. We have transcended the conventionality biases and consistently upgraded our methods and learning capabilities to stay relevant. Our vision is to improve lives through trustworthy and innovative stainless solutions that serve the growing needs of the generations to come. With the society at the helm of a revolution aimed at making every aspect of life sustainable yet aesthetic, we believe that stainless steel perfectly fits the bill.

Indian stainless steel market

Stainless steel consumption is generally linked to the GDP growth rate in the country. Today, India is the second largest producer and consumer of stainless steel in the world with total melt shop production of 3.9 MMT, second only to China. As the pioneer and industry leader, Jindal Stainless has played a key role in developing this ecosystem of stainless steel consumption in the country across all levels, along with key stakeholders. It is, therefore, a remarkable milestone that consumption of stainless steel in India touched a new peak of 2.5 kgs per capita in 2019, registering an increase of ~150% in a period of 8 years. The per capita consumption was a mere 1.2 kgs in 2010. This feat has also taken India to the league of top 15 countries in the world in terms of per capita consumption of stainless steel.

From being a net importer in 1980, the Indian stainless steel industry has evolved over past few decades across all critical parameters, from R&D to production and consumption patterns. Moreover, Indian stainless steel products, both longs and flats, are exported to markets like US and EU now. The Indian stainless steel market is one of the fastest growing markets in the world with a CAGR of 8-9%. The long-term vision of the industry is to enhance domestic stainless steel consumption to ~5kg/person in the next few years. This looks achievable as stainless steel finds an indispensable place across myriad sectors, including railways & metro, nuclear, public utilities and infrastructure, transportation, process industry and kitchenware. The current capacity in India is adequate to meet this existing, and growing, quantum of demand while also meeting requisite quality standards. Indian stainless steel manufacturers are equipped to produce a wide range of grades under 200, 300 and 400, and duplex series which are adequate to meet the domestic consumer demand. As of today, there's no grade or specification for which India has to depend on imports. Moreover, most of these grades are a part of the stainless steel quality control order and are made as per Bureau of Indian Standards (BIS) specifications.

Major segments

The major stainless steel consuming segments in India include Automotive, Railway & Transport (ART) & Architecture, Building & Construction (ABC), and process industries. Due to its high strength-to-weight ratio and resistance to impact and temperature shocks, stainless steel is



^ Cold rolled coils getting ready for dispatch at Jindal Stainless' Hisar plant.

the most efficient alternative in many segments. While developed nations deploy 19% stainless steel in automobiles, developing countries like India consume it to the tune of ~5%. This number is set to grow with the Bharat Stage VI norm which is now in effect since April 2020, as its implementation mandates use of stainless steel exhausts. The Indian Railways, which plans to convert 55,000 mild steel train coaches to the significantly safer LHB technology, is adopting stainless steel coaches. In the ABC segment, due to its longevity, hygiene and non-corrosiveness, the consumption of stainless steel is growing at a healthy pace for public infrastructure, as

well as for usage in seismic and coastal zones. Its maintenance-free long life and inherently hygienic characteristics are now making stainless steel an ideal choice for process industries in India.

The Indian government is now laying emphasis on life-cycle costing for creating long-lasting and sturdy infrastructure over the next 4-5 years. There are 8 major Indian cities where metro construction is in progress, apart from 17 other cities where projects are under various phases of planning. In addition to this, Indian Railways' decision to redevelop and modernize 400 railway stations is ongoing in a phased manner. As per government records,



^ Jindal Stainless has been successful in creating a stainless steel downstream cluster around Hisar plant where ~1000 MSMEs (Micro, Small and Medium Enterprises) are employing thousands of people.



^ Fully prepared for future growth, Jindal Stainless can scale up its Jajpur facility in Odisha, India, to 3.2 MMT with reasonable effort and investment.

less steel industry



^ Leading mints around the world rely on coin blanks from Jindal Stainless.

around 50 new airports are planned to come up in the next 10 years. Moreover, the Airports Authority of India (AAI) is also planning to dedicate portions of 50,000 acres of urban airport land under its territory for building multiplexes, shopping centers, and convention centers. Such projects are expected to generate demand for stainless steel in the future.

The journey of Jindal Stainless

Over the last five decades, we have practiced and inspired excellence in leading the Indian stainless steel industry. The current pandemic may have slowed the overall pace of our plans, like it has with other industries, but it surely hasn't halted them altogether. At Jindal Stainless, in the wake of newly emerging business environment, we have quickly adapted to the new normal and are prepared for the next phase of growth. We have scaled up our annual installed melt shop capacity to 1.9 MMT. Our Jajpur facility in Odisha, India can be scaled up to 3.2 MMT with reasonable effort and investment, given the vast availability of land and supporting utilities.

Over the years, we have substantially expanded our product portfolio to modern and future-ready applications across nuclear, railways, automobiles and defence segments. Our products range from stainless steel slabs and blooms, and hot and cold rolled coils, to plates, coin blanks, and precision strips. We are the world's largest producer of stainless steel strips for razor blades and India's largest producer of coin blanks. Every year, 18 billion razor blades across the world are made using our stainless steel precision strips. Our coin blanks are used not just for Indian currency, but also by leading mints around the world.

Jindal Stainless' strong network serves customers through 9 domestic and 13 international offices. Our five service centres across India cater to our domestic customers, while a strategically located service centre in Spain serves global customers. Our manufacturing facility in Indonesia is tactically located

to serve the South Asian markets. We have a full-fledged R&D unit at our plant in Hisar which has pioneered breakthrough applications of stainless steel in the defence sector, paper & pulp industry, and various general applications.

As the manufacturing industry ushers in the digital revolution of Industry 4.0, Jindal Stainless has firmed up its digital infrastructure. We were India's first manufacturing company to migrate to SAP HANA cloud computing and now to BW4HANA, leading the digital transformation wave in the industry. We have also migrated to all digitized sales and customer-oriented processes along with an e-commerce module. Not only has this ensured transparency but also strengthened resolve towards customer centricity. Our skilled work force is the backbone the organisation, and has been the driving force behind our success.

Going beyond business

It has been our constant endeavour to foster the development of the stainless steel ecosystem in India. Our manufacturing facilities ensure sound employment opportunities for the Indian masses that multiply when it comes to downstream industries. We have already been successful in creating a stainless steel downstream cluster around Hisar plant where ~1000 MSMEs (Micro, Small and Medium Enterprises) are employing thousands of people. Segments like pipe and tube, hinges and accessories, re-rolling, general fabrication, and stainless steel distribution today have an annual capacity of 1,75,000 MT, owing to the presence of Jindal Stainless in Hisar. We are working along with the government for a downstream stainless steel park in Kalinganagar. The park will be a natural extension to our Jajpur facility in Odisha, where small industries will feed our ancillary requirements and our finished goods will serve as input material for units involved in downstream manufacturing.

Our newest venture, *Stainless Academy*, is an initiative to bridge the skill gap and create awareness on stainless steel. Through multi-pronged ways, it is designed to reach out to consumers, fabricators as well as budding engineers and architects. For spreading awareness about the health, hygiene, cost, ecological and other benefits of stainless steel among diverse audience, we have

Indian institutes like the Indian Institutes of Technology (IITs) to introduce an elective course on stainless steel. The curriculum focuses on detailed study of stainless steel and includes practical exposure at one of our manufacturing facilities.

As a developing economy, India not only requires sound business establishments, but businesses that aid social development

Jindal Stainless is one of just two stainless steel suppliers in the world selected to supply 1,100 tons of stainless steel to the prestigious International Thermonuclear Experimental Reactor (ITER) Cryostat Project in France.

created stainless steel showcase vans that travel the length and breadth of the country, highlighting the benefits of the metal. These vans are used for creating awareness amongst end-consumers as well as for live demos and trainings for fabricators. As of now, nearly 10,000 fabricators have been trained by the Company. On the academic front, we have collaborated with premier

as well. We stress on the importance of going 'beyond business' and work to uplift the communities at the bottom of the pyramid. With a 50-year legacy of sustainable development and caring for people, Jindal Stainless has always considered itself as extended arms of the Government – in creating a society where everyone has a world to work for, and a world, that works for all.

CSR Highlights:

Jindal Stainless stresses on the importance of going 'beyond business' and working to uplift the communities at the bottom of the pyramid. The following are just some of the many social initiatives being undertaken by the company.

- A philosophy of inclusive growth for all communities by enabling social and environmental development with socially responsible investments.
- Activities like skill development, women empowerment, health & rural development projects are ongoing at both Hisar and Jajpur.
- Promotion of micro enterprises & SHGs: Agarbatti making, tailoring centre, poultry farming, etc. around the manufacturing facilities.
- Weekly health camps in peripheral villages, digital equalizer program to aid computer literacy among children, use of theatre and muppet shows to fight gender bias against the girl child, provision of free clean drinking water in government schools, special educational classes for deaf and mute children.

