



India Infrastructure Update



J. SAGAR ASSOCIATES
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POWER

Maharashtra to add 3,000 mw capacity

Maharashtra would add about 5000-mw fresh electricity generation capacity by 2010, according to the state energy ministry. While the additional capacity is being created entirely through the private sector, the government has estimated that it would require a total of Rs 560 billion to overhaul the power generation, transmission and distribution system.

The government also announced that it would discontinue load-shedding in the state for the next one year, and instead convert all three-phase lines to a single-phase system. The investment required would be about Rs 5 billion. Currently, there is load-shedding to the tune of 3,000 mw, going up to 3,800 mw during the summer months.

Among the power generation projects slated to come up in the state are two rice husk-based power plants - the Rs 300-million 10-mw plant being executed by MSM Energies in Amaravati District and the Rs 301.5-million 7.5-mw plant undertaken at Malshiras in Solapur District by Associated Power Team.

West Bengal corporation plans for 1000-mw power generation

West Bengal Power Development Corporation Ltd (WBPDC) announced plans to set up a greenfield, gas-based, 1000-mw plant at Katwa in Bardhaman District. To cost an estimated Rs 35 billion, the plant would have two units of 500-mw capacity each. The plans still have to be approved by the state government.

If cleared, construction on the project is likely to begin in 2007 and completed by 2010, during the Eleventh Five-Year Plan period. The corporation has already identified a 12-acre site near Katwa, strategically placed for its proximity to coal mines at Bardhaman, Asansol and Panchnana in Jharkhand, all of

which are owned by WBPDC, in case problems with gas supply arise. The mines have reserves of 180 million tons of coal. The Gas Authority of India Ltd has promised to supply gas for an additional 2500-mw power generation capacity if gas is available and cheaper when the projects come up.

WBPDC has also applied to the state government for a sixth unit at Bakreswar, a 500-mw plant, due to be completed by 2008. It has also prepared a detailed plan for setting up two additional units of 500-mw each at Sagardighi, which would be completed by 2009.

NPCIL TAPP Unit-4 ready to be commissioned

The 540-mw power generation unit of the Nuclear Power Corporation of India (NPCIL) at the Tarapur Atomic Power Project (TAPP) is ready and likely to be commissioned in May. The project has been completed seven months ahead of schedule and is expected to sell power at less than Rs 2.65 a unit, compared to the Rs 3.50 a unit estimated when the project was first conceived in the late 1980s.

The cost of the project, at Rs 60 billion, is substantially less than the expected Rs 65 billion projected when it was revived in 2000.

The TAPP Unit-4 is the single largest power unit in the country. It is to sell 39 percent of the power generated to Maharashtra, 19 percent to Gujarat, 17 percent to Madhya Pradesh and the rest to Goa, Daman and Diu, NPCIL announced.

Tata Power to add 250-mw

Tata Power Company (TPC) is planning to increase generation capacity at its Trombay plant in Mumbai by 250 mw at an investment of Rs 5 billion. The proposed expansion plan also involves combining the 250-mw gas turbine with the 150-mw existing steam turbine to create a combined cycle of 400-mw at the plant.

While the present capacity of the plant is 1,350 mw, demand is increasing by about 75 mw every year. The company plans to further augment generation capacity to 2,200 mw, which would involve projected investment of about Rs 88 billion.

TPC has also proposed a 1,000-mw project at Vile, in Maharashtra, for which environmental clearance is awaited.

Inside

Power	1
Oil & Gas	3
Roads & Rails	4
Telecom	5
Ports & Airports	6
Urban Infrastructure	8



Tata Power, DVC form joint venture

Private sector Tata Power Co. Ltd. and public sector company, Damodar Valley Corporation have joined to form a joint venture. To be called Maithon Power Ltd (MPL). With Tata Power holding a 74 percent stake in the new venture and DVC the remaining 26 percent, Maithon Power Ltd has been set up to execute a 1000-mw power thermal generation project.

The agreement is the first initiative in public-private partnership in power generation in the country.

Tata Power is partnering state-run entities in North Delhi Power Ltd, a JV for power distribution and in Powerlinks, a JV for transmission.

280-mw Dhauliganga power project commissioned

The 280-mw Dhauliganga power generation project in Uttar Pradesh has been commissioned. Involving the remarkable construction of a 5.4-km-long subterranean diversion tunnel into the 6.20-million cubic meter dam, before being released to an underground powerhouse at Aligarh. The generated power is carried through a 220-kv double circuit line to the power grid station at Bareilly.

Only the first of the four turbines, each with a 70-mw capacity, has been operational. With all four turbines functioning, the projected power generation is of 1134 million units per annum.

OIL & GAS

Divestment in OIL

The Union Government announced that it would offload 15% of its stake in Oil India Ltd (OIL), which would result in a float of about 31.5 million shares. Plans for the divestment are to be finalized soon, with the petroleum and finance ministries working out the modalities before seeking Cabinet approval.

The government currently holds 98.13% in OIL, with the balance held by OIL employees.

deal had run into problems over the pricing of the gas, with India looking at a maximum gas price of US\$2.75 per mmbtu at its border.

India has been looking to import between 90 and 95 mmscmd of gas, enough to generate 20,000-mw electricity, almost double the current capacity of 10,300-mw. Initially, India was projected to source about 60 mmscmd of gas from Iran. The Asian Development Bank has already been working on arranging multilateral funding for the project.

US opposed to Iran-Pakistan-India gas pipeline

The USA has declared its opposition to the proposed US\$4-billion gas pipeline from Iran to India through Pakistan. US Secretary of State Condoleezza Rice, on her recent visit to the subcontinent, made it clear that the USA is against the plan.

Following this, Union Petroleum Minister Mani Shankar Aiyar announced that the Government of India could pull out of the project because of high cost. Iran, on its part, is reported to have said that it would tap alternate markets in China and Japan, which are willing to pay a higher price.

Rice had also announced that the USA would be interested in investing in India's energy sector and hinted at assistance in setting up nuclear power plants in India.

Washington has reportedly suggested that it would consider the purchase of gas from Iran by India as an act in violation of the Iran-Libya Sanctions Act, which empowers President Bush to order punitive measures against any international company that invests more than US\$20 million a year in Iran's energy sector.

Earlier in February and March, negotiation on the Iran-India

ONGC strikes lucky

ONGC, which started its deepwater explorations in the Krishna-Godavari basin in 2003, announced that it has found large gas-bearing fields at a depth of 2,450 meters in the G1 location of the area. Initial testing indicates that this could well turn out to be a significant find with a potential of almost four trillion cubic feet (TCF) of gas. The find could also open up leads to similar gas structures in the area. This is the company's third gas find in the region, bringing ONGC's cumulative finds there to an estimated total potential of 8 TCF.

ONGC has another 12 blocks in the region. It had earlier found gas in the G4 and G29 locations of the basin.

Worldwide, about 50 billion barrels oil equivalent (BBOE) of hydrocarbons have been discovered in deep waters since 1985. About 20% of the discovered reserves have come into production.

Conservative estimates of deep-water reserves are placed in the range of 100 to 150 BBOE. The office of the Directorate-General of Hydrocarbons (DGH) of the Government of India, in the Ministry of Petroleum and Natural Gas, has estimated that reserves of oil and oil equivalent (BTOE) of about 11 billion tons are present in India's deep waters basins.



ONGC has budgeted for a total of 47 deep-water exploratory wells on the east and west coasts of India, the biggest-ever deep-water exploration effort by a single operator anywhere. Over the 45 years it has undertaken exploration, ONGC has established reserves of nearly six BTOE onshore and in shallow waters.

It's time to revamp

A growing number of analysts are saying that world oil production has peaked and that the easily mined oil has all been found. Apart from the Group of Rome, the London-based Oil Depletion Analysis Center (ODAC) holds that the world is running out of 'easy' oil and supplies will become scarcer and hence, more expensive, and that oil supplies are certain to remain tight through the rest of this decade unless there is a precipitous drop in demand. These predictions follow in the footsteps of geophysicist M King Hubbert, who had forecast ? correctly, as it turned out ? in the 1950s that crude oil production in the US would peak around 1970, after which it would decline. US crude production did indeed peak in 1970 at 11.3 million bpd and has since come down to 7.5 million bpd.

An ODAC study that analyzed 68 'mega projects' scheduled to go on stream by 2010, has found that all of the major new oil-recovery projects scheduled to come on-stream over the next six years are unlikely to boost supplies enough to meet the world's growing needs. The projects would add about 12.5 million bpd to world oil supplies by the turn of the decade.

In India, no major oil discovery has been made of the size of Bombay High, which was discovered in the early 1970s. The crude oil production from these fields peaked in the mid-1990s, and is now declining.

However, while British Petroleum estimates that total world oil reserves are at 1.2 trillion bbl, about 10% higher than previously reported for 2002, stating that global oil reserves have increased almost continuously over the past 30 years and world reserves now represent 41 years of production at current rates, ONGC spokespersons have said that the world still has 40-50 years before it runs out of oil and about 80-100 years of gas. By comparison, in 1980, reserves equivalent to only 29 years of production were known.

It is estimated that the world has now produced some 80% of the oil reserves that were known in 1980; yet exploration success and application of technology has led to current estimates of reserves being 70% higher.

IPCL likely to raise ethylene capacity

Indian Petrochemicals Corporation Ltd (IPCL), part of the Reliance Group, announced plans to expand its ethylene cracker capacity at Gandhar, Gujarat, by 100,000 tons to reach 400,000 tons. When completed, this would take the company's overall ethylene capacity to a minimum of 950,000 tons. IPCL has two other crackers at Vadodara and Nagothane in

Maharashtra. While the Nagothane plant has a capacity of 400,000 tons, the production capacity of the Vadodara cracker is being expanded by 40,000 tons to a minimum of 170,000 tons.

Saudi looking at Indian oil companies

Saudi oil companies have expressed interest in buying a stake in Indian petroleum majors. Saudi Aramco, the world's largest oil company, is reported to be negotiating with Hindustan Petroleum Corp. Ltd (HPCL) to buy into its Visakhapatnam refinery. The government has also offered a stake in the Indian Oil Corporation refinery at Paradip, Orissa.

Saudi Arabia will be supplying crude oil directly to the Visakhapatnam refinery and possibly also to Paradip, which would export refined petroleum products to markets in the Far East and Southeast Asia.

In return, HPCL has been invited by Saudi Aramco to pick up stake in the upcoming Yanbu export-oriented refinery on the Red Sea. Saudi Arabia, the single largest oil exporter to India, has also invited Gas Authority of India Ltd and ONGC Videsh Ltd to bid for gas blocks, which are likely to be up for bidding by the year-end. Saudi Arabia has been looking for exploration partners to develop some gas fields.

Pakistan calls for India to join gas pipeline project

Pakistan reiterated its invitation to India to join the Turkmenistan-Afghanistan-Pakistan (TAP) gas pipeline.

After maintaining that it had decided to opt for the Iran gas pipeline irrespective of whether India wanted to be a part of it, Pakistan recently said that it was keeping its options open on meeting its gas requirements.

The proposed Iran-Pakistan-India gas pipeline came under a cloud after the U.S. Secretary of State, Condoleezza Rice, said that Washington would not like India and Pakistan to pursue the pipeline due to the U.S. differences with Teheran.

"We will welcome India to join TAP. They are welcome if they join the project but Pakistan will go ahead with the projects even if India does not join," Pakistan's Petroleum Minister, Amanullah Khan Jadoon, said after a TAP ministerial meeting was held here today to examine the feasibility of the 1600-km long project costing around \$3.5 billion.

The Minister said the "southwest route (from Turkmenistan) is feasible for the gas line as it is not mountainous and the route is plain. The Asian Development Bank is also involved in the project."

The two-day meeting reviewed the feasibility study about the extent of gas reserves in Daulatabad gas fields and the security for the gas pipeline to be laid from Turkmenistan to Pakistan via Afghanistan.



AP to upgrade roads in tribal areas

The Andhra Pradesh Government announced an allocation of Rs 500 million for improvement of roads in the tribal agency areas of the state. This amount is from an allotment of Rs 6.25 billion from the National Bank for Agriculture and Rural Development (NABARD) for various development works in the state. Priority would be given to improvement of hilly roads in Bhadrachalam, Yellavaram, Parvathipuram, Salur, Srungavarapukota, Asifabad and other tribal constituencies in the state.

MP to construct new state highways

The Madhya Pradesh Government announced plans for adding 8099 km of roadways by 2008. Of this, 6,000 km would be state highway and 2,022 km of other radial roads. The government hopes to tie up with private local and global firms for the construction, offering contracts on build-own-operate-transfer basis. There would be special emphasis on linking places of tourist interest through quality roads, the government said.

The state has already completed construction of 880 km of roads in partnership with private players, involving investment totaling Rs 6.25 billion.

The recently established the Madhya Pradesh Road Development Corporation (MPRDC), set up under the state's Industrial Promotion Policy in July 2004, has been entrusted with the task of scouting partners for this venture. However, the government is yet to undertake any feasibility study on heavy traffic roads like the accident-prone Indore-Bhopal Road has not been completed.

New project for Kochi roads

The Kerala Government announced that it would shortly finalize plans for improving roads in Kochi city and its suburbs, an area that is expected to see rapid commercial development as the Vallaradam container transshipment terminal and other projects take off. The development works would include flyovers and four-lane roads that would meet highway construction standards. Experts in the field of transportation are expected to be involved in drawing up the road construction plans.

Meanwhile, NABARD has reportedly sanctioned Rs 3.8 billion for roads and bridges to be constructed in the state over the next two years. It is also reported to be considering projects expected to cost another Rs 2.2 billion.

Rs 5-billion road construction projects in East Godavari contracted to private contractors

The National Highways Authority of India (NHAI) has contracted Punj Lloyds Ltd and Gammon India to execute separate parts of a Rs 5-billion road construction project in East Godavari District of Andhra Pradesh. The project involves construction of four- and six-laned highway roads, construction of bridges, and a railway flyover bridge between Rajahmundry and Tuni.

Punj Lloyds has the major part of the contract, executing about Rs 3 billion worth of the business, with Gammon handling the rest.

Revenue from upper-class passengers falls, freight and other passenger earnings up

Indian Railways has cut down its target for earnings from upper-class passenger fares by over Rs 4 billion in its revised estimates for the financial year ending March 31, 2005. The budget for 2005-06 has projected a target of Rs 29.92 billion for earnings from upper-class fares, even lower than the estimate of Rs 32.26 billion in the 2004-05 budget. This is largely because of the impact of cheap airline fares on this segment of passenger travel by train. The railways announced it would introduce a frequent traveler scheme for the upper classes of train travel some time in August to make this more attractive. The modalities of this are being worked out.

However, the estimated earnings from second-class passenger fares and goods freight have been revised upwards by more than Rs 5 billion and over Rs 17 billion, respectively. Second-class passenger fares are expected to add more than Rs 112 billion to the railways' earnings in 2004-05. The bulk of Indian Railways' passenger earnings are from second-class fares, but the upper-class fares still constitute a significant proportion.

Freight earnings are expected to be about Rs 304.50 billion according to the revised estimates for 2004-05. Indian Railways has increased its target for goods movement by an additional 35 million tons of goods during 2005-06 and expect to rake in Rs 354.8 billion from this.

Railways stops subsidies on foodgrain transport

The Union Railways Minister announced that Indian Railways would stop giving subsidies to private traders and exporters of foodgrains. In addition, the railways would impose a 20% increase in freight rates. Following this, the Union Government is considering extending subsidies on foodgrain transport from the account of the Commerce Ministry.

While the railways' revenue from carrying fertilizers and farm products is expected to be more than Rs 50 billion in 2005-06, the new policy on subsidies may eventually further reduce the freight load carried by the railways, which has already been adversely affected by the door-to-door service offered by road transport services. The share of Indian Railways in total freight traffic is today 38%, significantly down from the 1950-51 level of 86%. The shift to roads transport began with the railways restricting piece-meal booking, concentrating on rake bookings, following which the Union Government liberalized road policies in 1986, withdrawing restrictions on national permits to road carriers. Meanwhile, Indian Railways plans to increase the axle-load limit for wagons to 23 tons. This would result in a 24-percent increase in the loading capacity of freight trains, a move that would help meet the demand for additional freight wagons.

FIPB fine-tuning norms for FDI in telecom

The Foreign Investment Promotion Board (FIPB) is fine-tuning norms for foreign direct investment (FDI) in telecom services before the new rules allowing 74% FDI are notified in the government gazette. The FIPB, under the chairmanship of the Secretary of the Department of Economic Affairs in the Union Finance Ministry, will address any existing anomalies in the current FDI guidelines before the government issues the notification. This is done through the Department of Industrial Policy and Promotion (DIPP) and, subsequently, by the Department of Telecommunications (DoT).

February-end, while the total subscriber base of fixed lines stood at around 45.6 million.

In addition, about 50,000 new broadband connections were added during October-December, 2004, with the number of subscribers for the 'always-on' high speed (of more than 256-kbps) connections at 650,000 at end-December.

However, telecom operators believe that with the stringent verification process introduced by DoT recently, the growth in the market for mobile subscriptions is likely to slow down. Sales in March have shown a fall of about 30%, more so in the non-metro circles, where growth had been highest.

TRAI orders cut in international leased line rates

The Telecom Regulatory Authority of India (TRAI) announced dramatic cuts in the international leased lines rental rates. The rates have been reduced by anything between 35% and 71%. For 155 mbps leased lines, tariffs have been reduced by 70% to Rs 29.9 million per annum.

For 45 mbps leased lines, the tariffs have been reduced by 71% to Rs 10.4 million per annum, while for 2 mbps leased lines, prices have been reduced by 35% to Rs 1.3 million per annum.

While independent ISPs are large users of international leased lines, the new tariffs are expected to benefit mainly small and medium BPO companies. Leased lines account for between 5% and 10% of the total cost of operations in small and medium BPO units. The size of the domestic BPO industry is estimated at around Rs 3.6 billion per annum, with an annual growth rate of over 40%.

Reducing prices of leased lines will make them significantly more competitive in dealing with competition from companies in the Philippines, Malaysia and the Caribbean countries, which are emerging as threats to Indian operators.

The new tariffs are effective from April 1, 2005. India has only three international private leased circuit operators, against 14 in Korea, 24 in France and 32 in the US.

Tele-density touches 9 percent

The country's tele-density has touched 9%, the bulk of new subscribers in the mobile segment. Of approximately two million new telecom subscribers added in February 2005, mobile subscribers accounted for about 1.7 million subscribers, compared to 400,000 subscribers added in the fixed-line segment. Within the mobile sector, GSM accounted for 1.1 million mobile subscribers as against 500,000 CDMA subscribers.

The C-category telecom circles, which include Himachal Pradesh, Bihar, Orissa, Jammu & Kashmir, Assam and the Northeast, reported the highest growth rates at 5.5%.

The total mobile subscriber base stood at 51.4 million at

TRAI orders no movement on fixed wireless phone use

TRAI has directed operators to strictly ensure that the terminal used for fixed wireless services should be strictly confined to the premises of the subscriber and that this may not be transferred or moved to other premises temporarily. Many subscribers use the same instrument at both their residences and place of business.

Such mobility has implications with respect to applicability of access deficit charges (ADC), according to TRAI. The directive states that fixed wireless services should not be removable or detachable from the subscribers' premises.

Recent months have seen both TRAI and DoT issue a number of directive regarding mobility and connectivity. Services like 'push-to-talk', fixed wireless and local direct dialing services, have been stopped.

Improved broadband offers

State-owned Maharashtra Telephone Nigam Ltd (MTNL) and Bharat Sanchar Nigam Ltd (BSNL) as well as Airtel, India's largest private telecom operator, have launched broadband Internet services at much cheaper rates than others available. While MTNL is offering the connectivity at Rs 399 per month, BSNL is charging Rs 499 per month and Airtel Rs 500 per month.

However, the minimum data transfer speed is 256 kbps against the internationally recognized speed of 2 mbps.

BSNL, which operates India's largest telecom network, aims to have two million broadband subscribers by March-end, 2006, and reach all the district headquarters in the country.

BSNL may acquire MTNL

The Union Government is considering a new route for the divestment of Mahanagar Telecom Nigam Ltd (MTNL). This follows a DoT suggestion that the Bharat Sanchar Nigam Ltd (BSNL) be permitted to buy into 52 percent of the MTNL stake. BSNL would subsequently set up MTNL as a subsidiary.



Private rail lines for ports

Indian Railways is considering inviting the private sector to construct freight corridors in at least three sections, to cater to rising demand for transportation of goods by rail from hinterland to ports. The sections under consideration are on the run between Delhi and the Jawahar Lal Nehru port in the Navi Mumbai, the Rewari-Ahmedabad and Surat-Hazira corridors.

Indian Railways is also considering allowing private sector participation in other sectors that connect industrial hubs, ports and special economic zones, as well as for augmentation of capacity along the golden quadrilateral highway network and its connecting roads. The Delhi-Mumbai corridor is the busiest segment on the rail network, accounting for about 80% of freight.

The government is considering setting up special vehicles - Pipavav Railways Corporation Ltd, Hassan-Mangalore Rail Development Company and Kutch Railway Company - as joint ventures between private players and Rail Vikas Nigam Ltd, an entity under Railway ministry.

Proposed AERA to regulate tariffs

The Union Ministry for Civil Aviation announced that the task of managing tariffs would be handed over to the proposed Airport Economic Regulatory Authority (AERA) once it is established. Setting up the regulatory authority would be a critical part of the proposed comprehensive civil aviation policy; a separate legislation would be enacted to set up the authority.

The regulator would lay down tariff structures and performance standards. However, the government proposes to impose a cap on a hike in user charges at the Delhi and Mumbai airports after these are handed over to corporate managements, limiting these to between 10 percent and 15 percent. The cap will apply to both passenger and cargo traffic.

Immediate revamp of metro airports to check congestion

The Union Ministry for Civil Aviation has announced that a sum of Rs 2.5 billion would be sanctioned for the Airport Authority of India (AAI) to make immediate improvements in the Delhi and Mumbai airport infrastructure. This would include extension and revamp of parking bays, taxiways and terminal buildings to cope with the rapidly growing traffic. This would be an interim arrangement, till the new facilities, to be developed with private sector participation, are ready in three years.

The ministry earlier this year sanctioned Rs 60 billion for upgrading 35 non-metro airports, of which plans for 10 would be executed this year. The AAI has already initiated moves to expand the Coimbatore, Thiruchi and Madurai airports for handling wide-bodied jetliners and increasing passenger capacity. The airport at Coimbatore also involves construction of a new cargo facility. Alongside, the Andhra Pradesh

Government announced its decision to develop the Vijayawada, Rajahmundry and Cuddapah airports with private participation. Work at the three airports would be taken up as a single package.

The ministry has also set up a committee to check congestion and speed up aircraft landings and take-offs at the two airports, aiming to increase aircraft turnaround to 35 movements per hour, compared to 25 at present.

The revamp of ground infrastructure available at the two airports has become imperative especially after the announcement of the new 'open skies' policy. Queuing up for an entry into Mumbai and Delhi has become common and many airlines are being nudged to park their aircraft at Ahmedabad, Vadodhara and Pune at nights and start their morning flights from these smaller cities.

Even as the airport infrastructure is bursting at the seams even with only 170-plus flights a day, the industry expects that the number would jump to over 400 in the next five years as seven or eight new airlines line up to launch business and existing carriers, Indian as well as international, press more flights into service.

Restructuring of metro airports on track

The Group of Ministers (GoM) on airport restructuring has given its 'in-principle' approval for the Request for Proposal (RFP) for restructuring the Delhi and Mumbai airports. Work on the revamp of the airports is thus on schedule; the next step is approval of the RFP by the ministries concerned, which includes the defense, law, finance and civil aviation ministries.

The RFP would subsequently be given to the nine successful short-listed bidders, including the Reliance Group, DLF, the GMR group and the Bharti Group.

Meanwhile, Australian firm Airplan, the global technical advisor for the restructuring, has made a preliminary estimate that the exercise would require capital investments totaling more than Rs 151 billion ? Rs 87.2 billion for Delhi and Rs 64 billion for Mumbai.

Kerala to introduce budget airline

Cochin International Airport Ltd (CIAL) has been picked up as the vehicle for the Kerala Government's dream budget airlines project. The government has directed CIAL to undertake a feasibility study for the proposed project, tentatively named Kerala Airways, which is aimed at exclusively serving the Kerala-West Asia sector and is to be run by a combination of non-resident Indian investors and the state government.

Government may acquire stake in minor ports

The Union Ministry for Shipping and Surface Transport proposes to acquire up to 33 percent equity in minor ports, with its



contribution not exceeding Rs 3 billion. At present, minor ports are under the jurisdiction of states. The proposal has been included in the draft Cabinet note on the National Maritime Development Policy, which is to be circulated to the various ministries for comments.

India has about 185 minor ports, a few of which - like Pipavava, Mundhra and Kakainada - are being operated by the private sector in partnership with state governments.

The draft policy has also suggested that major ports should plan to increase their capacity level by 30 percent over projected traffic, in order to cope up with growing volumes. It has also recommended that steps - such as developing dry ports and dedicated rail and road network within 100-200

kilometers around ports - be taken to ensure smooth backward integration of port infrastructure.

The ministry has also suggested that a port infrastructure upgradation fund be set up. This would be in addition to the proposed Rs 5-billion fund for developing the inland water transport sector. In addition, the draft policy has suggested that future construction of container terminals should specify a minimum terminal length of 1,000 km so as to better deal with increasing cargo.

The government also announced that foreign exchange earning norms for small ports under the Export Promotion Capital Goods (EPCG) scheme would be liberalized.

URBAN

Agra plans 'Land Bank'

The Agra Development Authority has proposed setting up a 'Land Bank' at Taj Nagri Phase III, close to the Taj Mahal, acquiring 977 acres from the Agra district administration. The purchase would cost the ADA Rs 1.5-billion, payable in two installments, with an up-front payment of Rs 300 million. The ADA plans to lease or sell plots as a source of revenue; in recent years the ADA has seen a fall in its income from land lease, which was an average Rs 1 billion every year earlier.

Gandhidham civic body plans waste management

Gandhidham Municipality announced that it would shortly introduce solid waste management system to serve Gandhidham and nearby Adipur. The proposed management system is expected to cost a little over Rs 18 million. Under the new disposal system, solid waste will be deposited by dumpers in an allotted filler, to be turned every 25th day and subsequently removed for further processing. In Gandhidham, the Kandla Port Trust (KPT) and the Indian Farmers Fertilizer Company (IFFCO) at Udainagar generate huge amounts of solid waste.

Kochi prepares for waste treatment facility

The Kerala Government has appointed FACT Engineering and Design Organization (FEDO) as consultant for setting up a Rs 600-million waste treatment facility for Kochi. The facility is to be set up on 500 acres of land owned by Fertilisers and Chemicals Travancore Ltd (FACT) at Ambalamugal, near Kochi, and would be implemented by FEDO. A new company will be floated as a special purpose vehicle (SPV) with equity

participation from the user industries for setting up the common facility.

Alongside, the Clean Kerala Mission (CKM) has petitioned the state government to strictly enforce the establishment of captive solid waste management systems at marriage halls, hotels, hospitals and other medical institutions and charge a user fee from those availing themselves of the common waste disposal facilities. It has also proposed that slaughter-houses and fish markets that have more than 10 stalls should have a solid waste processing plant.

The Mission has also asked for the promulgation of a state legislation to regulate the manufacture, processing, storage, sale and use of plastic substances as well as regulation of non-biodegradable wastes.

The Mission has so far cleared integrated solid waste management projects involving a cost of Rs 300 million, and implemented by 26 municipalities and three gram panchayats. It provides technical and financial assistance for preparing projects. While the state's five municipal corporations are not covered by the Mission's waste management project, other local government bodies - including municipalities and gram panchayats - do.

Manipal to establish center of excellence in waste management

Manipal Education and Medical Group (MEMG) has signed an understanding with Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) of Germany to establish a state-of-the-art 'center of excellence in waste management' at Manipal Hospital, Bangalore. The center, once completed, will showcase world-class biomedical waste management, involving segregation, collection and disposal, effluent treatment and environmental management systems.



AP launches housing scheme for urban poor

The Andhra Pradesh Government has launched the Rajeev Gruhakalpa program, which aims to provide affordable housing for the urban poor. Under this, the state government proposes to provide the necessary land and starting infrastructure facilities such as water, electricity, sewerage and roads free of cost. The cost of providing infrastructure per unit would be Rs 25,000. The government has reportedly set a target of providing 100,000 houses in the Hyderabad urban agglomeration area and a total of another 100,000 houses in other municipal areas of the state during 2005-06. The unit cost of constructing the house itself has been estimated at Rs 75,000. Of this, the beneficiary has to bear 10 percent of the cost, while the rest of the cost would be financed by banks at an interest rate of eight percent. The Andhra Pradesh Bankers' Committee has approved the scheme. The government proposes to involve reputed non-governmental organizations in the implementation of the program. About 41,000 applications have been received so far in Hyderabad and another 47,000 applications in Rangareddy District.

TN success with bio-medical waste disposal system

A Thanjavur bio-medical waste disposal set up by the Medicare Enviro Systems has had significant success and is currently treating bio-medical wastes from 186 private hospitals located in the districts of Thanjavur, Tiruvarur, Nagapatinam and Tiruchi in Tamil Nadu. The fully automated bio-medical waste management plant includes arrangements for autoclaving, shredding, incinerating and deep burial of bio-medical wastes. The management system involves collection of pre-segregated wastes from the hospitals every day, using three dedicated vehicles. While anatomical wastes are burnt in incinerators, other wastes like sharps are autoclaved and shredded.

The Rs 10-million plant is capable of handling wastes estimated to be generated from a total of 15,000 patient-beds but is currently handling wastes related to about 3,250 beds. The hospitals pay Rs 3 per bed for disposing off the wastes.

Meanwhile, the Confederation of Indian Industries (CII) has

asked the Tamil Nadu Government to establish solid waste disposal sites for industry at the Melaikottiyur and Gummidipoondi industrial belts near Coimbatore.

Municipal corporation looks to generate power from city's solid waste

The Tiruchi Municipal Corporation has submitted a proposal to the government for a 2.5-mw power generation plant that would use solid waste for fuel. The plant, to be set up using bio-methane technology under a build-own-operate-transfer (BOOT) arrangement, would use the 380 tons of solid waste generated every day in the town. The Institute of Energy Studies (IES) of Anna University, which conducted a project feasibility study, has submitted a favorable report. The corporation has already set up a committee to work on inviting tenders to execute the project, which is expected to cost around Rs 350 million.

MP plans waste treatment plant

The Madhya Pradesh Pollution Control Board (MPPCB) announced it would shortly implement the long-delayed waste treatment plant at Pithampur, servicing the Indore-Ujjain belt. Similar plants would be set up in other districts of the state.

The Rs 300-million Pithampur plant would treat between 20,000 and 25,000 metric tons of waste.

The government is also planning to create awareness about hazardous waste and set up special treatments plants for this.

Housing Scheme For Urban Poor On The Anvil

The Union Government will introduce a national mission on basic services to provide housing and basic infrastructure facilities for the urban poor in slums, Kumari Shelja, Union Minister of State for Urban Employment and Poverty Alleviation, has said. Speaking at the valedictory of the World Mayors' Conference, the Minister said the issues of sanitation, water supply and other basic infrastructure facilities for slum dwellers would be addressed through the programme.

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