

tion projects in preparation for the Olympics, the steel industry in India has grown by about 10 per cent in the past two years, compared with the global growth rate of about 6 per cent a year. The country's production of crude steel in 2005-06 stood at 42.1 million tonnes, reflecting an increase of 7.1 per cent over the previous fiscal. On the other hand, the consumption of steel during the year was pegged at 41.43 million tonnes, a massive growth of 13.88 per cent when compared with the 2004-05 figures. Likewise, the production of sponge iron also increased sharply by 25 per cent, from about 10.3 million tonnes in 2004-05 to 12.9 million tonnes in 2005-06. Currently, India is the largest sponge iron producer in the world and ranks seventh among steel-producing countries. The growth in domestic steel consumption is, by and large, in keeping with the International Iron and Steel Institute (IISI) forecast of a 10 per cent increase in steel use in 2006. While the IISI has projected the global demand for steel to grow by 4.9 per cent in the medium term up to 2010, it has pegged its forecast for the 2010-15 period at 4.2 per cent annually for the entire world. The IISI says India will lead the consumption growth story with an annual demand of 7.7 per cent, followed by China with 6.2 per cent. More heartening is the indication that the exciting phase in the domestic steel industry is expected to continue for the next five to seven years at the least, in terms of both consumption and production. Already, the growth in steel consumption, as projected by the United Progressive Alliance (UPA) government in the National Steel Policy (NSP) formulated in 2005, stands exceeded by a huge margin. The NSP had conservatively estimated the country's steel production to grow by 7.3 per cent, with an annual consumption growth of 6.9 per cent. Considering that the past two years have already witnessed a demand growth of over 10 per cent, the government expects the healthy trend to continue during the Eleventh Plan period (2007-12), provided an annual gross domestic product (GDP) growth of 9 per cent is achieved during the period as projected by the Planning Commission. Clearly, for primary steel producers, India is the place to be in as it has the greatest growth potential. Coupled with this are two other major factors. One, India is bestowed with the largest reserves of high-quality iron-ore in the world. Secondly, the annual per capita consumption of steel in the country is still one of the lowest in the world, at 35 kilograms against the global benchmark of 250-400 kg. In effect, the growth story in India is here to stay for quite a few decades in view of the sheer disparity in consumption levels. Not surprising, then, that when the three ore-rich states — Jharkhand, Orissa and Chhattisgarh — threw open their doors, steel-makers of all hues jumped into the fray to sign memoranda of understanding (MoUs) with more than one state government. In all, more than 116 MoUs have already been inked, pledging a total investment of a whopping Rs 3,57,344 crores in the

coming years. If all the pledges materialise, the country's installed steel production capacity will surge to anywhere between 150 million and 180 million tonnes by 2014-15, compared with the conservative NSP target of 110 million tonnes by 2019-20. Orissa signed 43 MoUs to hike its production capacity to 58.04 million tonnes. Not to be left behind, Chhattisgarh entered into 42 MoUs to augment its steel capacity to 19.32 million tonnes, while Jharkhand signed 31 MoUs to increase its capacity to 68.67 million tonnes. The extensive availability of rich iron-ore — the basic raw material for steel-making — in the three states has attracted big global names too who, at the outset, made it clear that they would require captive iron-ore mines to feed their greenfield steel projects. Initially, it was the home-grown Tata Steel that signed an MoU with the Orissa government, in November 2004 for setting up a six-million-tonne plant at an estimated cost of Rs 15,400 crores after the government made a commitment that its ore requirement of 250 million tonnes for a period of 25 years would be met. By the time Pohang Iron and Steel Company (POSCO), the South Korean major and third largest global steel producer, approached the Orissa government, the terms turned out to be far sweeter. Under the MoU signed in June 2005, POSCO plans to set up a 12-million-tonne plant at Paradeep, with an investment of Rs 51,000 crores. The initial proposal was for a 10-million-tonne plant. But there is a catch here. The government has committed itself not only to provide 600 million tonnes of ore on a captive basis for a period of 30 years but also allowing POSCO to export the quality domestic ore for use in its steel plants in Korea. It has demanded the raw material from mines in Sundergarh and Keonjhar districts. Lakshmi N Mittal, the non-resident Indian (NRI) tycoon and world's biggest steel-maker following the merger of Mittal Steels with the Luxembourg-based Arcelor in June last year, did still better. He put Jharkhand and Orissa in competition by proposing a steel venture in either state, depending upon the terms and incentives and the swiftness in approvals. Jharkhand lost out — owing to litigation over its Chiraia ore mines and for other reasons — to Orissa, which signed an MoU with Mittal-Arcelor in December last year for a 12-million-tonne steel plant at Keonjhar.

The state-owned Steel Authority of India Limited (SAIL) also undertook a major exercise to retain its position as the leading integrated steel producer in the country. The steel behemoth announced its 'Corporate Plan-2012,' envisaging an outlay of Rs. 37,000 crores to upgrade its plants and modernise its operations. Under the plan, expansion programmes are under way in various SAIL units to enhance the total production capacity to 22.9 million tonnes of hot metal from the present 12.5 million tonnes by 2011-12. Late last year, following the merger of IISCO with SAIL, Prime Minister Manmohan Singh laid the foundation

stone for the modernisation and expansion of ISP (ISCO Steel Plant) with an investment of Rs 9,592 crores. Mergers of a few more state-owned units with SAIL are on the cards with a view to consolidating public sector share in the steel market. The other public sector steel enterprise, Rashtriya Ispat Nigam Ltd (RINL), is already in the process of implementing an ambitious expansion programme for increasing its liquid steel capacity from the current three million tonnes to 6.3 million tonnes at an estimated cost of Rs 8,692 crores. Launched on May 20, 2006, the project is scheduled for completion by 2008-09. Needless to say, the demand for iron-ore has surged in view of the long-term supply commitments being given by the State governments at a time when the international market prices for the raw material are at a high.

This sparked off a debate among domestic steel-makers on whether liberal ore exports should be permitted, as in the past, or the ore should be conserved to the extent possible in view of the projected demand for steel. The government set up a committee under the Planning Commission, headed by Anwarul Hoda, to recommend changes in the National Mineral Policy. The existing policy permits free exports of iron ore with a ferrous content of less than 64 per cent. For export of high-grade ore with higher ferrous content, a licence is required and is currently canalised through the Minerals and Metals Trading Corporation (MMTC). The Hoda Committee recommended free exports of iron ore with a ferrous content of less than 65 per cent but advocated discontinuation of the existing regime of canalisation and export licensing for the high-grade ore. Instead, the panel suggested free exports of quality ore lumps with ferrous content of more than 65 per cent on payment of an export duty.

81. According to the passage, the steel industry in India has grown by \_\_\_\_\_ in the past two years and India ranks \_\_\_\_\_ among steel-producing countries.
  - 1) 12%, sixth
  - 2) 10%, seventh
  - 3) 8%, first
  - 4) 6%, eighth
82. \_\_\_\_\_ per cent is the projected global demand for steel to grow in the medium term up to 2010.
  - 1) 6.9
  - 2) 5.9
  - 3) 4.9
  - 4) 3.9
83. According to the International Iron and Steel Institute, India will lead the consumption growth with an annual demand of \_\_\_\_\_ per cent, followed by China with \_\_\_\_\_ per cent.
  - 1) 6.2, 5.7
  - 2) 8.7, 6.7
  - 3) 5.2, 3.2
  - 4) 7.7, 6.2
84. Which one of the following statements is incorrect?
  - 1) The licence for export of high-grade iron ore is being canalised through MMTC.
  - 2) With the merger of Mittal Steels with Arcelor, LN Mittal is the world's biggest steel-maker.

- 3) A South Korean company is the world's third largest steel producer.
- 4) As per Corporate Plan-2012 of Steel Authority of India Limited, the total production capacity will be enhanced to 12.5 million tonnes by 2011-12.

### Passage II

P Chidambaram might have rubbed Corporate India the wrong way by putting the big-bang reforms on the backburner, but he has definitely tried to buy peace with the *aam aadmi* by increasing investment in big-ticket projects like Bharat Nirman and National Rural Employment Guarantee Programme (NREG). While the outlay for Bharat Nirman has been hiked by 31.6%, allocations for the education sector and health and family welfare schemes have gone up by 34.2% and by 21.9%, respectively. Chidambaram also surprised many by increasing the education cess to 3%, from 2%, to fund secondary and higher education. The government also proposed to increase funding for the mid-day meal scheme from the primary level to the upper primary classes in 3,427 educationally backward blocks. However, it has pruned allocation for the Sarva Shiksha Abhiyan (SSA) — a scheme started by the NDA government. To arrest the dropout ratio after eighth standard, a means-cum-merit scholarship scheme covering one lakh students has been announced. The first year of the Eleventh Plan period will also see the appointment of two lakh teachers and construction of five lakh classrooms.

As the saying goes, well begun is half done. But how many of these noble intentions will translate into actions? There are many unanswered questions. One, are the increased outlays enough to achieve the social goals enumerated in the UPA government's common minimum programme (CMP)? Two, is the greater allocation to the flagship programmes in proportion to the GDP growth? And more importantly, will the increased allocation also fix the lacuna in the delivery mechanism? The CMP, for instance, has set a 6% target for education spend (as a proportion of the GDP). However, the spend has hardly touched the halfway mark as the coalition government moves closer to the end of its tenure. The education cess has also been swelling the general pool without any firm commitment from the government on incremental spending to meet specific objectives. Experts also question the success of the Bharat Nirman project touted as "the cornerstone of the UPA government's policies" to fight rural poverty. The IDFC, for instance, raises doubts about the sustainability of the project in its India Infrastructure Report 2007. According to Prof Jean Dreze, one of the architects of the NREG and member of the Central Employment Guarantee Council, the two big disappointments in the Budgets are the allocations for Integrated Child Development Services (ICDS) and the Rural Employment Scheme.

"Both are virtually unchanged as a proportion of

GDP. If anything, they have declined," points out Dreze. The universalisation of ICDS, one of the core commitments of the CMP, assumes importance from another angle. The Supreme Court in a December 2006 directive called for the doubling of operational *anganwadis* by 2008 and wanted the government to ensure that all ICDS services be extended to all children under six. "This cannot be done without increasing financial allocations. The absence of any such increase in the Budget is an alarming indication of lack of political commitment to this programme. It is also, in effect, a violation of the court's order," he says.

In the case of Rural Employment Guarantee Schemes, it was estimated by the now-defunct National Advisory Council (NAC) that at least around Rs 20,000 crore would be required for the fair implementation of the NREG Act in the country's 200 poorest districts. However, only Rs 6,000 crore has been spent as of January 2007 and the implementation is also tardy in many states, says Dreze. "The need of the hour is not only to expand the number of districts covered by NREGA, but also to raise expenditure levels much closer to the NAC projections. Instead of this, the government proposes to extend NREGA to 330 districts without any increase in expenditure. This is another sobering indication of lack of commitment to flagship programmes and to the rural poor," says Dreze. TV Mohandas Pai, Director and HR Chief, Infosys, says that the government, instead of so many incremental steps, should have undertaken certain path-breaking initiatives in irrigation and health insurance for the poor. "The government should think of revolutionary steps to catapult the economy into a much higher orbit. For instance, the subsidies for food, fertilizers, kerosene and LPG, which account for about Rs 75,000 crore, can be done away with, and instead, a direct income transfer of Rs 1,000 each, to say 10 crore below-poverty-line families, which the government has already identified, could have been done," he says. This way, at one stroke, nearly 50 crore people (assuming five people in a family) will get a kind of social security, Pai argues.

While it is debatable whether the government would go in for such innovative methods to address social inequalities, a reality check would be in order. Otherwise, the ghost of India Shining would come back to haunt the UPA government as well.

85. Which one of the following statements is incorrect?

- 1) The implementation of National Rural Employment Guarantee Scheme has not been fair.
- 2) The mid-day meal scheme has been proposed to be extended to upper primary classes in certain educationally backward blocks.
- 3) During the period 2007-08, it is planned to construct five lakh classrooms.
- 4) None of these

86. Which one of the following statements is/are true?

- 1) The education cess has also been swelling the general pool without any firm commitment from the government on incremental spending to meet specific objectives.
  - 2) The outlay for Bharat Nirman has been hiked by 31.6%.
  - 3) The CMP has set a 6% target for education spend.
  - 4) All are true
87. Experts question the success of the Bharat Nirman project touted as the cornerstone of the UPA government's policies to
- 1) develop rural employment scheme.
  - 2) integrate child development.
  - 3) develop rural areas.
  - 4) fight rural poverty.
88. In the case of Rural Employment Guarantee Schemes, it is estimated by the now-defunct National Advisory Council (NAC) that at least around \_\_\_\_\_ crore would be required for the fair implementation of the NREG Act in the country's 200 poorest districts.
- |              |              |
|--------------|--------------|
| 1) Rs 25,000 | 2) Rs 20,000 |
| 3) Rs 10,000 | 4) Rs 15,000 |

### Passage III

All men by nature, desire to know. An indication of this is the delight we take in our senses: for even apart from their usefulness they are loved for themselves; and above all others, the sense of sight. For not only with a view to action, but even when we are not going to do anything, we prefer seeing (one might say) to everything else. The reason is that this, most of all the senses, makes us know and brings to light many differences between things. By nature, animals are born with the faculty of sensation, and from sensation, memory is produced in some of them, though not in others. And therefore, the former are more intelligent and apt at learning than those which cannot remember; those which are incapable of hearing sounds are intelligent though they cannot be taught, e.g. the bee and any other race of animals that may be like it; and those which, besides memory, have this sense of hearing can be taught. The animals other than man live by appearances and memories, and have but little of connected experience; but the human race lives also by art and reasonings. Now from memory, experience is produced in men; for the several memories of the same thing produce finally the capacity for a single experience. And experience seems pretty much like science and art, but really, science and art come to men through experience; for 'experience made art', as Polus says, 'but inexperience luck.' Now art arises, when from many notions gained by experience, one universal judgement about a class of objects is produced. For to have a judgement that when Callias was ill of this disease that did him good, and similarly, in



the case of Socrates and in many individual cases, is a matter of experience; but to judge that it has done good to all persons of a certain constitution, marked off in one class, when they were ill of this disease, e.g. to phlegmatic or bilious people when burning with fevers — this is a matter of art.

With a view to action, experience seems in no respect inferior to art, and men of experience succeed even better than those who have theory without experience. (The reason is that experience is knowledge of individuals, art of universals, and actions and productions are all concerned with the individual; for the physician does not cure man, except in an incidental way, but Callias or Socrates or some other, called by some such individual name, who happens to be a man. If, then, a man has the theory without the experience, and recognizes the universal but does not know the individual included in this, he will often fail to cure; for it is the individual that is to be cured.) But yet we think that knowledge and understanding belong to art rather than to experience, and we suppose artists to be wiser than men of experience (which implies that wisdom depends in all cases rather on knowledge); and this because the former know the cause, but the latter do not. For men of experience know that the thing is so, but do not know why, while the others know the 'why' and the cause. Hence we think also that the masterworkers in each craft are more honourable and know in a truer sense and are wiser than the manual workers, because they know the causes of the things that are done (we think the manual workers are like certain lifeless things which act indeed, but act without knowing what they do, as fire burns, but while the lifeless things perform each of their functions by a natural tendency, the labourers perform them through habit); thus we view them as being wiser not in virtue of being able to act, but of having the theory for themselves and knowing the causes. And in general, it is a sign of the man who knows and of the man who does not know, that the former can teach, and therefore, we think art is more truly knowledge than experience is; for artists can teach, and men of mere experience cannot.

Again, we do not regard any of the senses as Wisdom; yet surely these give the most authoritative knowledge of particulars. But they do not tell us the 'why' of anything, e.g. why fire is hot; they only say that it is hot. At first, he who invented any art whatever, that went beyond the common perceptions of man was naturally admired by men, not only because there was something useful in the inventions, but because he was thought wiser and superior to the rest. But as more arts were invented, and some were directed to the necessities of life, others to recreation, the inventors of the latter were naturally always regarded as wiser than the inventors of the former, because their branches of knowledge did not aim at utility.

Hence, when all such inventions were already established, the sciences which do not aim at giving pleasure or at the necessities of life were discovered, and first in the places where men first began to have leisure. This why the mathematical arts were founded in Egypt; for there the priestly caste was allowed to be at leisure. We have said in the Ethics what the difference is between art and science and the other kindred faculties; but the point of our present discussion is this, that all men suppose what is called Wisdom to deal with the first causes and the principles of things; so that, as has been said before, the man of experience is thought to be wiser than the possessors of any sense-perception whatever, the artist wiser than the men of experience, the masterworker than the mechanic, and the theoretical kinds of knowledge to be more of the nature of Wisdom than the productive.

Clearly then, wisdom is knowledge about certain principles and causes.

89. What is the relationship between sensation and memory?

- 1) Human beings are intelligent as they can reason, whereas animals do not have the capacity of reasoning.
- 2) Human beings have sensation and memory both.
- 3) All animals have sensation but some animals do not have memory.
- 4) When sensation is remembered, it becomes a memory experience and this leads to connected experience, which in turn gives rise to reasoning.

90. What is the difference between art and experience?

- 1) Art does not give the cause and effect of things, whereas experience gives the cause and effect of things.
- 2) Experience and art give rise to one another and they are complementary and supplementary to each other.
- 3) Art explains the cause of things together with its effects, whereas experience gives us just the effect of things, not the cause.
- 4) Both experience and art are views of a contradictory time and space and this is where the difference between the two lies.

91. Why, according to the author, were the mathematical arts founded in Egypt?

- 1) Because the sciences which do not cater to necessities or pleasures develop only after the previous two have been invented and only then, men have time for themselves. So was the case in Egypt where the priestly caste had ample leisure time.
- 2) Because the inventors of luxuries were considered more important than the inventors of necessities and in Egypt, the kingly and priestly

class had developed great standards in luxurious tastes and attitudes.

- 3) Because they were men of experience and had wisdom and knowledge about certain principles and causes.
- 4) Because Egyptians were considered to be connoisseurs of art and crafts and had superior civilization as opposed to the other ancient civilizations.

92. Which of the following can be considered to be the central idea of the passage?

- 1) Art is superior to experience.
- 2) What actually is "Wisdom"?
- 3) "Experience made art, but inexperience luck".
- 4) Knowledge is wisdom.

#### Passage IV

There are a few instances of diseases that have laid waste huge tracts of forests throughout India. Caused mainly by pathogens and pests, these diseases are deadly and are capable of wiping out entire forests and plantations, causing immense economic as well as ecological loss.

Meanwhile, forest pathologists and entomologists are grappling with new maladies that are surfacing almost every year. But with meagre resources and just a few experts working on the issue, things are heading virtually towards a cul-de-sac.

Moreover, no assessment has been made so far to quantify the devastation. While large chunks of forests fall prey to maladies, it is also an opportunity for some politicians and timber merchants to cash in on it. Research and documentation on forest disease, particularly on forest pathology, began in India way back in 1929, by pioneering pathologists KD Bagchi and BK Bagchi. Although it has been eight decades since then, not much headway has been made in this direction. The forestry sector today is ailing due to its misplaced priorities, resource crunch, and mismanagement. "Forest management lacks scientific approach," says Surendra Kumar, director of the Himalayan Forest Research Institute (HFRI), Shimla.

The scientific community involved with forest diseases is today a dispirited lot. With only a few stalwarts left in this field, forest disease is a neglected area of research. Moreover, bureaucracy is increasingly taking over the scientific institutions and scientists in most of these institutes are a marginalised group.

To top it all, there are no institutions dedicated to forest diseases. Although the ministry of environment and forests is the facilitator for such research, it is not paying enough attention to promote scientific research of forest diseases. In fact, the government's lackadaisical approach came to the fore with the Sal borer epidemic in Madhya Pradesh in 1998. While forest bureaucracy slept, the beetles merrily continued to wipe out entire tracts of precious

Sal forests. Eventually, with no solution in sight, thousands of valuable trees were hacked. There were also allegations that the Sal tragedy was a chance for the timber mafia in the state to cash in on timber through the legal loophole, with the nexus of politicians.

Today, things haven't changed one bit. India's forest department and research institutes have yet to formulate contingency plans to face any assault of similar dimensions.

Forest diseases are elusive. Although experts claim that they know quite a lot about forest diseases, there are still aspects of the maladies that are not completely understood. Says RS Bhandari, entomologist in the Forest Research Institute (FRI), Dehradun, "We know about all the important pests and insects, their life cycles and their development. But there are a few diseases which remain an enigma." According to Jamaluddin, head of the pathology department in the Tropical Forest Research Institute (TERI), Jabalpur, "Due to micro climatic changes, we are discovering new aspects of the same disease every year. Diseases have also increased manifold." Another FRI scientist points out that although forest diseases are increasing, there is no study to estimate the economic and ecological damage caused by these pests and pathogens.

Varying with different geophysical regions and climatic conditions, pathogens and pests are essentially responsible for the tree maladies and their mortality. When the pristine, natural and mixed forests existed, forest diseases acted as a natural control measure to check the proliferation of a particular species that could threaten the balance of the ecosystem. Perhaps, this is why forest diseases paled into insignificance in the past. But today, with shrinking forests and increasing monoculture plantations, any outbreak of disease takes on a virulent form.

To top this, changed climatic and forest patterns and environmental pollution have given rise to newer forms of forest diseases. While trees are forced to take an additional load of human-induced environmental changes, the introduction of monoculture has substantially increased the problems. Whatever little we know about forest diseases today comes primarily through mycology, the study of forest pathogens. Mycology explains that the prime pathological reasons for forest disease are fungi, bacteria and viruses. "Among these, fungi play a major role, while the other two are relatively less significant. There are 150 to 200 major pathological infections in central India. Out of these, only five per cent are bacterial. The rest are fungal," says Jamaluddin.

Most of these pathogens stay close to a tree, waiting for a chance to infiltrate. Their entry points are small openings or wounds in the tree. However, invasion is not always easy. Like human beings, trees