Newspaper Clips

March 24, 2011

Deccan Herald B'lore 23.03.11 p-4

IIT-JEE exams on April 10

Examination is "doable," say stress experts

BANGALORE: IIT-JEE, the entrance examination for admission to the undergraduate courses of 17 premier institutes of technology, including 15 IITs, will be held on April 10 at various centres in Bangalore, Mysore, Mangalore and Belgaum in Karnataka.

The test consists of two papers of three hours each. Both papers will comprise separate sections on chemistry, physics, and mathematics.

With the examination fast approaching, experts stress that the high-profile examination is "perfectly doable" and students should not read "too much" into it. They give emphasis to preparation in the remaining 20 days. "This could prove decisive," says the head of a coaching centre.

Further, educationists suggest that candidates need to focus on easy and moderate questions rather than worrying about tough ones. The importance of consolidating what one has already learnt can be hardly overstated, they point out.

Don't overreact

H S Nagaraja, Founder Director of Base, a coaching centre in the City, says students should be careful about "overreacting" as the date of examination approaches.

"Overreaction may instill fear in them. This, in turn, may cause sickness, poor memory, and even drive students to blankness," he said.

So, what is the way out? Candidates should assess their strengths and try to build on them. Also, worrying too much about what one hasn't learnt will be of little help.

Revision crucial

Revision, Nagaraja says, is the key. Students should organise their revision sheets in all the three subjects and recall all the important concepts, mathematical concepts, and problem-solving techniques, he added.

DH News Service

A fact file

- The examination is held for admission to undergraduate courses of the Indian Institutes of Technology (IITs) at Bhubaneshwar, Bombay, Delhi, Gandhinagar, Guwahati, Hyderabad, Indore, Kanpur, Kharagpur, Madras, Mandi (Himachal Pradesh), Patna, Rajasthan, Roorkee (Uttarakhand), and Ropar (Punjab), and Institute of Technology-Banaras Hindu University (BHU), and Indian School of Mines, Dhanbad.
- Students who have passed 10+2, II PUC or any equivalent examination can write IIT-JEE. The II PUC examination will end on March 30, the ISC Board examination on March 31, and the CBSE Class 12 examination on April 13.
- Centres for IIT-JEE in Bangalore are: National College, Basavanagudi, BMS College of Engineering, Bull Temple Road, MES College, MES Kishore Kendra, both Malleswaram, and Army Public School, Kamaraj Road.
- Results will be declared on May 25.

Hindustan Times ND
24-Mar-11 p-1

US journal says more varsities duping Indians

Charu Sudan Kasturi
■ charu kasturi@hindustantimes.com

NEW DELHI: Tri-Valley University is only one of many dubious and unaccredited universities in the US that are duping foreign students — especially Indians — reported a leading US journal on higher education.

The report was based on an investigation carried out after the TVU scam in January, involving Indian students who were trapped in the US, following the university getting implicated in immigration fraud charges.

The journal claimed the University of Northern Virginia, the International Technological University (ITU) and Herguan University were among those that had been following a TVU-like business model. But they are not known to be facing any federal action.

"These universities are names that kept cropping up in our investigation, and so caught our attention. The investigation raises questions about how strictly the federal government is being able to ensure the quality of institutions it allows to admit foreign students," Karin Fischer, one of the journal's reporters, told HT.

The Washington DC-based Chronicle of Higher Education — the most widely read higher education publication in US academic circles — said in the report published this week that a combination of "lax" regulations and "chinks in the student visa system" were allowing these institutions to dupe students.

THE UNIVERSITY OF NORTHERN VIRGINIA, THE INTERNATIONAL TECHNOLOGICAL UNIVERSITY, HERGUAN UNIVERSITY ARE ON THE 'DUBIOUS' LIST

The University of Northern Virginia claimed it was the most popular American university for foreign students, but was comfortable remaining largely unknown, according to the report.

Dubious, non-accredited universities use loopholes in the rules to get permission from the authorities to admit foreign students, the journal said, adding that they falsely claimed that their credits were recognised by other accredited universities.

"Genuine, accredited universities complained to us that their students were leaving for dubious institutions after arriving in the US," Fischer said.

Mail Today ND 24-Mar-11
p-30

Cement research by IIT-M & Lafarge

THE first joint project by French cement major Lafarge Group's research arm and the Indian Institute of Technology-Madras (IIT-M) is expected to kickstart soon, an official said on Wednesday.

Revindra Gettu, professor at IIT-M's department of civil engineering, said the research project will test the durability of concrete as a building material in different climatic conditions.

The cement major's research arm, Lafarge Research Centre, and IIT-

Lafarge Research has funded the lab to the tune of ₹1.5 cr

M last year signed a memorandum of understanding (MoU), under which the IIT's civil engineering department set up a laboratory to carry out joint research programmes. Lafarge Research Centre has funded the laboratory to the tune of ₹1.5 crore over a period of three years.

"Lafarge aims to improve the performance of concrete to address sustainable construction and global warming challenges. This is done through cutting-edge scientific research and forming partnerships with other institutes and organisations," said Pascal Casanova, head of Lafarge Group's research and development. *IANS*

Times of India ND
24-Mar-11 p-21

Playing it cool: A man-made cloud to shield stadia from sun

Dubai: A Qatar-based engineering teacher has unveiled a design of an artificial cloud to shade and cool the open playgrounds to be used during the 2022 Football World Cup in Doha.

Saud Abdul Ghani, head of the mechanical and industrial engineering department at Qatar University, said that the project will be executed in collaboration with the Qatar Science and Technology Park.

"The artificial cloud will move by remote control, made completely of light carbonic materials and fuelled by four solar-powered engines," Ghani told local Arabic media on Wednesday.

"It will fly high to block direct and indirect sun rays and control temperatures at the open playgrounds," he added.

Abdul Ghani said the initial model of the cloud will cost $500,000 but the cost will decrease upon launching commercial models. These could also be used at beaches and car parks and could be controlled using mobile phones. PTI

Times of India ND 24-Mar-11 p-21

Test-tube study on aging may lead to Alzheimer's cure

Washington: In what may pave the way for a new generation of treatments for Alzheimer's and heart disease, scientists claim to have discovered a process through which aging-related diseases may develop.

A team led by Chris Easton and Dannon Stigers of Australian National University has used test tubes to simulate the living body, gaining new insights into how ageing-related diseases can progress.

"The good old test tube has given us a window from which to look into the basic processes necessary for life and it has changed the way we think about how ageing related diseases develop," Stigers said.

It had been assumed that lifestyle choices such as exercise and smoking caused some people to develop ageing-related illnesses rapidly than others.

Poor lifestyle decisions increase exposure to free radicals which can damage proteins in the body leading to eventual disease.

> The researchers used test tubes to simulate the living body, gaining new insights into how aging-related diseases can slowly progress

But, in their research, the scientists were able to observe proteins being made with their building blocks already damaged, indicating there are two possible pathways to age-related disease development that can be exploited for future treatments.

"We are not saying that a healthy lifestyle is not important to prevent early onset of age-related disease, but we need to acknowledge that it may not be enough to advise people to eat the right foods and exercise regularly," said Stigers. PTI

Publication: The Times Of India Delhi;Date: Mar 24, 2011;Section: Times Nation;Page: 12;

Post-study, work no longer option in UK

Tirna Ray | TNN

New Delhi: Tougher entry criteria, limits on work entitlements and the closure of the post-study route are among the latest changes to the UK student visa system announced on Tuesday.

UK Border Agency regional director Chris Dix on Wednesday said students going to the UK for a degree will no longer be allowed a two-year timeline to look for job opportunities after their course ends. This is one of the major changes to the UK immigration policy. The Tier-I (post-study work) route will be closed from April 2012.

Dix said so far students had free access to the labour market for two years after their course ended and it allowed them to do low-skilled jobs. According to the new rules, only graduates with offers of skilled jobs from sponsoring employers will be able to stay on for work, provided the jobs match their skill-levels. Further, the salary offered by a company would have to be a minimum of £20,000/year. Dix added, "The firm has to be registered to accept overseas workers in the Tier-II point system."

DISTANT DREAM

Overseas study specialist Amrit Sujan said, "The new rules are not likely to affect Indian students who go for the academic experience." But a foreign university representative in India said the new rules may have a negative impact.

Also, the English language requirement has been changed to a higher level (from B1 to B2). This change will come into effect from April 6.

Publication: The Times Of India Delhi;Date: Mar 24, 2011;Section: Times Nation;Page: 17;

Now, hint of a scam in selection of PGI chief

New Delhi: A series of administrative decisions in the run-up to selection of the next chief of Post Graduate Institute for Medical Education and Research, Chandigarh, run counter the Centre's own guidelines for prestigious national medical colleges.

Documents with TOI show the new guidelines for selection of PGI chief violate government rules for AIIMS and AIIMS-like institutions. Many allege that it is meant to favour select candidates.

By juggling the Centre's qualification criteria, PGI has now made it possible for government servants, retired government servants or those working with government-affiliated institutions to apply for the post without any upper age limit.

The qualification for the next PGI chief and the upper age limit for candidates was brought up to 60 years from 50 years. Many are questioning this relaxation, citing that it could damage the institution in the long run. TNN

Times of India ND 24-Mar-11 p-12

In a first, HRD to launch survey on state of higher education

Akshaya Mukul | TNN

New Delhi: Faced with inadequate information on the subject, the HRD ministry will, for the first time in more than 60 years, launch a massive survey on the state of higher education in the country.

The task has been given to the National University of Educational Planning and Administration (NUEPA) and is likely to be completed in a year's time.

"Higher education in the country is plagued by lack of reliable data. It has hampered policy initiatives that need to be taken. For instance, the data on Gross Enrolment Ratio does not get updated properly taking into account the private sector's increasing intervention in higher education," an official said.

The decision to undertake the mammoth exercise was taken by a task force headed by a senior HRD official. The collection of data is expected to begin shortly and NUEPA would seek the help of educational institutions throughout the country to carry out the survey.

The aim of the survey is to provide adequate and reliable data on higher education. The survey intends to cover all institutions of higher education – both public and private — in the country. These include all universities, including deemed universities, institutions of national importance and other institutions of university level, general and professional/technical including engineering, medical, dental, veterinary, agriculture, computer, management, law, pharmacy, teacher training, etc. Even colleges and institutions that offer post-secondary education like polytechnics will be included in the survey.

"It would give us a real picture of higher education in the country," the official said. This exercise would be loosely based on the model of survey of elementary education that is carried out by NUEPA every year.

"Once we have the basic data, the plan is to update it annually just the way it is done for elementary education," the official said. The survey would collect data on basic profile of institutions like management, affiliation status, courses offered, and income and expenditure of the institutions, besides the data on enrolment and faculty.

Times of India ND 24-Mar-11 p-4

HC seeks Centre response on Jamia status

Abhinav Garg | TNN

New Delhi: A PIL challenging the grant of minority status to Jamia Millia Islamia university was admitted for hearing by the Delhi high court on Wednesday seeking responses from the Central government on the matter.

A bench of Chief Justice Dipak Misra and Justice Sanjiv Khanna sought replies from the HRD ministry and minority affairs ministry.

HC was hearing a PIL filed by one Vijay Kumar Sharma, president of NGO Yuva Bharti Samiti, alleging that "the Jamia Millia Islamia Act, 1988, incorporates and establishes the university and dissolves the Jamia Millia Islamia Society, which was managing and running it, and the National Commision For Minority Educational Institutions has no jurisdiction or authority to declare it a minority institution."

> A PIL has challenged the grant of minority status to Jamia stating that 'it is a Central university of national importance and is an alloy of secular Indian culture where members of all caste, creed and religions have been benefited'

Recalling the circumstances when the university was founded, the PIL claims Jamia was always envisioned as a secular national university and it's a travesty that it has been declared a minority institution. "The university is a central university of national importance and is an alloy of secular Indian culture where members of all caste, creed and religions have been benefited and cannot be conferred with the status of minority institution," the petition, filed by advocates Rakesh and Santosh Kumar, said.

"The Act does not provide any special consideration for a person belonging to a particular community and the posts of chief policy making body (Anjuman)... are open to persons of all caste, creed and religion with no special consideration to Muslims...," the PIL said, adding that grant of minority status defeated the purpose of the law which was enacted by Parliament.

Besides the ministries concerned, the court has also sought responses from the vice-chancellor of the university, the teachers' association and five others, including the students' union.

The NCMEI headed by Justice M S A Siddiqui had recently granted "minority" status to the university which will enable it to reserve up to 50% seats for Muslim students.

The varsity will no longer have to give reservation to SC and ST students also, the panel, a quasi-judicial body, had said while allowing the petitions of students union, Jamia Old Boys Association and Jamia Teachers Association. These petitions were filed in 2006.

Earlier, the NCMEI had said Jamia would continue to enjoy the central university status and the only "minority central university" in the country, given its unique character.

abhinav.garg@timesgroup.com

Hindu ND 24-Mar-11 p-7

Notices to Centre, UGC, Sanskrit Vidyapeeth on appointment of V-C

V-C appointed by an amendment increasing the retirement age to 70 years

J. Venkatesan

- **Bench dismisses plea to restrain V-C from functioning till disposal of writ petition**
- **UGC Act provides for appointment of Vice-Chancellor only for two terms of five years each**

NEW DELHI: The Delhi High Court has issued notices to the Centre, the University Grants Commission (UGC) and Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth (Deemed University) on a writ petition challenging the appointment of Vachaspati Upadhyaya as the University's Vice-Chancellor by increasing the retirement age to 70 years.

Acting on a public interest petition from Chennai-based scholar O. A. Varadadesikan, a Bench of Chief Justice Dipak Misra and Justice Sanjiv Khanna also issued notice to Professor Upadhyaya seeking his response. The Bench dismissed as not pressed an application seeking a direction to restrain the Vice-Chancellor from functioning till the disposal of the writ petition.

In his petition, Mr. Varadadesikan said Prof. Upadhyaya was appointed Vice-Chancellor for five years from November 14, 2009. Initially, he added, Prof. Upadhyaya was appointed as Vice-Chancellor for five years in 1994, and thereafter his tenure was extended from time to time beyond his age of 65 by amending the provisions of the Memorandum of Association of the Sanskrit Vidyapeetha.

The petitioner pointed out that Section 6 of the UGC Act provides for appointment of a Vice-Chancellor only for two terms of five years each. The Sixth Pay Commission also made it clear that no person should hold that office of the Vice-Chancellor for more than two terms, altogether subject to the maximum age of 70.

In this case, Prof. Upadhyaya completed three terms of five years each in June 2008 when he attained the age of 65 years. Thereafter his tenure was extended for a period of six months (two extensions of three months each). In November 2009, he was re-appointed by virtue of the amendment to the provisions of the Memorandum of Association of the Sanskrit Vidyapeetha to enable him continue till the age of 70.

The petitioner alleged that the Memorandum of Association was amended only to accommodate Prof. Upadhyaya.

Hindu ND 24-Mar-11 p-15

Earthquake: unpredictability is its middle name

R. PRASAD

- **Kobe city was ripped apart by a blind fault that had no surface expression**
- **The 2004 Sumatra quake triggered quakes even on the opposite side of the earth in Ecuador**

How safe are nuclear plants located in countries that have faults cutting across them or located close to tectonically active regions? How reliable and helpful is seismology (the science of earthquakes) in forecasting the probability of occurrence of damaging quakes?

The 6.3 quake that struck Christchurch in New Zealand on February 22 killed nearly 65 people and caused widespread damage to property. Were scientists expecting a killer quake to strike the city? The simple answer is, no.

Blind fault

The Christchurch quake occurred along a "blind fault." Blind faults have no surface expression, and scientists are plainly ignorant of their existence. Christchurch is not an isolated case.

The 7 magnitude quake of January 2010 that hit Haiti is another example. Blind faults have played a role in the not so recent past as well.

The 7 magnitude Loma Prieta earthquake that struck the San Francisco Bay Area in 1989, and the 6.7 magnitude Northridge quake of 1994 which hit southern California were caused by release of energy from blind faults. May 2003 saw a 6.7 magnitude tremor from a blind fault striking northern Algeria.

Japan had also witnessed a blind fault ripping apart structures way back in 1995. Kobe city that was struck by a quake will be most remembered for the damages caused (running to hundreds of billions of dollars) and thousands of fatalities.

As scientists continue to discover new blind faults, as in the case of the Puente Hills Fault that runs right under downtown Los Angeles, they have come to realise that the earth's crust, just a few kilometres below the surface, has an innumerable number of such weak zones.

Far away places hit

If blind faults are a great cause for concern, high magnitude quakes striking one part of the globe can result in smaller intensity quakes in places located as far as a few thousand kilometres away.

Luckily, till date, tremors, triggered by high magnitude quakes, striking places hundreds of kilometres away have been low-intensity ones.

Scientists never believed these tremors were possible till the 7.9 quake that rocked Alaska in November 2002, and the 7.3 magnitude earthquake of June 1992 that struck the town of Landers in California, set off jolts thousands of kilometres away.

If the Alaskan quake triggered tremors as far as 3,200 km away in the Yellowstone National Park in the U.S., the Landers quake led to smaller ones, again, in the Yellowstone National Park.

Scientists found that the 2004 Sumatra earthquake triggered quakes even on the opposite side of the earth in Ecuador.

In fact, according to a study published in May 2008 in the *Nature Geoscience* journal, 12 of the 15 major tremors (between 1992 and 2006) greater than 7 magnitude caused quakes even thousands of kilometres away.

Quake clustering

If places far away from major quakes are jolted, there is plenty of evidence to show that quakes come in clusters following a giant tremor. For instance, the 9.1 magnitude Sumatra quake of 2004 set off a series of nearby quakes, including one five years later. These are distinctly different from aftershocks.

But do giant quakes come in clusters? Though statistically significant evidence of a number of giant quakes occurring in clusters is not available, it is a fact that within a time interval of less than seven years there have been three giant quakes – December 2004 Sumatra quake of 9.1 magnitude, February 2010 Chile quake of 8.8 magnitude, and now the 9 magnitude quake off Sendai.

Similarly, six of the 16 greatest quakes have occurred between 1950 and 1965.

Another instance of comparably large quakes originating from the same or neighbouring faults is the 8.3 magnitude Kuril Islands event (north of Japan) of November 2006 followed by another one of 8.1 magnitude within two months (January 2007).

Stress loading

It is well known that release of stress during an earthquake can in turn load up the same fault or adjacent faults with stress.

So was that the case even with the Sumatra and Kuril Islands events?

Clustering has been seen even when the initial quake has not been a giant one. A 2009 paper in *Nature* cites how a series of quakes in 1992 shook California's Mojave Desert in quick succession.

It started with the 6.2 magnitude Joshua Tree quake of April 1992 followed by two quakes in June 1992 – the 7.3 magnitude Landers quake and the 6.5 magnitude Big Bear quake, and finally the 7.1 magnitude Hector Mine earthquake in 1999.

Are cratons safer?

Cratons, the old and stable parts of the continental crust, which are far away from the plate margins, are generally considered to be free from big quakes.

But the late 1811 and early 1812 quakes of more than 8 magnitude that jolted the New Madrid region in Mississippi, U.S. defied that assumption.

So will the 9 magnitude quake that rocked Japan on March 11 lead to minor jolts in far away places, big quakes in the neighbouring regions, and giant quakes in other regions of the world in the coming years?

How silica helps plants grow, flourish

"Maati hi Odan, Maati Bichavan Maati ka Tan Ban Jaayega"

So wrote the Hindi poet Bharat Vyas, in a different context. But it is relevant to us here. A typical man of 70 kg is made up of 43 kg oxygen, 16 kg carbon and just 1 gram of silicon.

Yet he cannot do without this little gram. Without it, his skin would suffer, his bones lose strength. He needs to take in anywhere between 5-20 milligrams of silicon per day, and most, if not all, of it comes through diet.

Research published ten years ago in the West showed that man takes in 30-33 milligrams per day, while a typical woman takes in a bit less, 24-25 mg per day.

Where does this intake come from? Beer, bananas, string beans and cereals. Banana packs in 14 mg per 250 g of the fruit, high grain cereals 10 mg/100 g and green beans 6 mg/250 g. Brown rice has 4 mg/200 g while white rice has 2.5 mg/200g (Gandhiji was right – eat brown rice and high grain cereals. And I like the idea of beer as a silicon supplier).

Plants happen to be the major source of silicon for our needs. But why did they start taking in this element in the first place?

And how do they do it? After all sand, which is silicon dioxide (called silica, to differentiate this compound or molecule from its parent element silicon), is not soluble in water.

The roots of plants must have a mechanism to take silica in the soluble form and transport it to the stem, leaves and other parts.

Strength to stalk

We now know that silica offers strength to the stalk and stem, keeping them from wilting, and to toughen and widen the leaves open so that they may capture light and photosynthesize efficiently. Silica prevents leaves from lodging or falling over, and the husk that covers the seeds has silica.

And the silicon helps warding off invading pests such as the yellow stem borer by killing off their larvae.

Of all plants, rice is the best one to capture silica from the ground and use it for its health. Silica is present to the extent of 10-15 per cent in all parts of the rice plant.

Transported in the soluble form through the roots, it is sent to various parts and processed to diverse morphological forms. In some parts, it is made into tough sheets and in others more granular. Through these specific forms, silica offers protection to the plant from stresses (heat, drought) and attack by pests and fungi, promotes better harvesting of sunlight for fast growth and in packaging the seeds.

THE MOST EFFICIENT: *Of all plants, rice is the best one to capture silica from the ground and use it for its health.* – PHOTO: REUTERS

SPEAKING OF SCIENCE

We now know that silica is first converted to the soluble silicic acid, in the presence of moisture and the right acidity conditions in the soil. This silicic acid is then transported in plants using proteins called Lsi1 and Lsi2, which belong to what biologists call as the aquaporin family.

The challenge

However, excessive use of fertilizers, insufficient amounts of water, increasing incidence of pests and microbes, and the depletion of soil silicon have all led to a decline in rice production.

It has therefore become important to find ways of enhancing the uptake of available silicon using novel methods.

It is this challenge that Professor S. Ranganathan of the Indian Institute of Chemical Technology, Hyderabad has taken up to address and solve.

A creative organic chemist who successfully practices and propagates the "art of organic synthesis", he argued that if one can hook on a water-soluble small molecule to the hydroxyl arm of silicic acid, one should be able to enhance the transport of silicon from the soil to the plant via the root.

He had known that people had used a polymer-based molecule to dissolve fine silica from the lungs of affected people.

He then wondered: why not strip the polymer down to its basic active unit (pyridine-N-oxide) and use it to transport silica? He did so and found this simpler version successful in attaching to the silicic acid (*J. Chem. Sci.*, 2004, *Biologia Plantarum*, 2006).

Yet, he was not satisfied, because pyridine N-oxides might lead to soil residual effects. He wanted to try more easily available and naturally occurring small molecules, which do not have ill effects on soil microbial organisms that are beneficial to the plant.

Extensive research

After extensive search, he found simple amino acids like glycine, glutamine, histidine, and even imidazole to enhance silica uptake three times better. And these are natural environment-friendly and easily available (*Crop Protection*, 2008, and in the journal called *P, S, Si and the Related Elements*, 2009, 2010).

The next step was to go from lab to land. Collaborating with the plant physiologist Dr. Voleti Sitapathi Rao of the Directorate of Rice Research (ICMR), Hyderabad, Professor Ranganathan tried his method on rice plants in the green house, field and in normal farmlands.

Not only does silica uptake go up (by 18 per cent in the stalk and 11 per cent in leaves) when imidazole is added, but it also cuts down the damage caused by the pest yellow stem borer by over 50 per cent in three different varieties (Rasi, Kasturi, Krishna hamsa) and reduces fungal damage (blast) remarkably.

Drs. Ranganathan and Sitapathi Rao are now asking that their method be field-tried on a more extensive scale, and I am sure it will be done soon. Here then is a promising example of translational research – sand to lab to land.

D. BALASUBRAMANIAN
dbala@lvpei.org

Mint ND 24-Mar-11

TUBERCULOSIS DRUG

CSIR in talks for clinical trials on two open-source molecules

By Jacob P. Koshy
jacob.k@livemint.com

NEW DELHI

Can open source work for clinical trials? On the eve of World Tuberculosis (TB) Day, officials of the open source drug discovery (OSDD) project, an initiative headed by the state-run Council of Scientific and Industrial Research (CSIR), said they were in talks with two drug firms to conduct clinical trials on two molecules, which if successful could lead to cheap, powerful drugs against the disease.

CSIR aims to achieve this in the typical open-source fashion of distributing the work among several entities, doing away with exclusive patent rights and thus keeping costs low, according to officials involved with the project.

However, OSDD's plans are contingent on an international panel of experts who will take a call in a month on whether the molecules were worth pursuing for clinical trials, according to Anshu Bharadwaj, a key researcher closely involved with OSDD.

TB is one of the leading causes of morbidity and mortality worldwide and claims around 1.7 million lives annually. One in five of these victims are found in India, which also harbours the highest number of TB patients compared with other countries.

Generally, drug companies expend money and effort on promising molecules till the pre-clinical or animal-trial stage and outsource tests on human subjects to professional contract research organizations (CROs), a booming ₹1,500 crore business in India. The few promising molecules for diseases such as TB and cholera languish in the pre-clinical trial stages as these diseases generally afflict poor people who can't afford the cost of these drugs and, therefore, translate into very little commercial benefit for firms.

> OSDD's plans are contingent on an expert panel's call on whether the molecules are worth pursuing for trials

"What we're trying to do differently is to carry out the clinical trial process efficiently and professionally with the same amount of quality that now goes into developing say cancer drugs," said Bharadwaj.

Two companies, which Bharadwaj and other CSIR officials wouldn't name citing confidentiality agreements, have agreed to "give away" two molecules that have shown positive results in pre-clinical trial studies to the OSDD consortium. In return, OSDD conducts clinical trials and gains rights to commercialize any resultant drugs on condition it has the rights to license it non-exclusively.

"Clinical trials are an expensive and time-consuming process and companies don't spend money on drugs that won't give them commercial returns," said Bharadwaj. "We will integrate hospitals, academicians, universities and even CROs to do this quickly and efficiently and even fund the project. For neglected diseases there are few other effective options by which to get a drug out."

OSDD draws a variety of academicians and students spanning biologists and engineers, to collaboratively look for new drug targets and molecules for TB. Unlike the conventional drug discovery process, which takes place in pharmaceutical laboratories, OSDD's results are freely available on a website and all contributors gain credit, rather than money or patent rights, for their work.

TB spreads through a class of bacteria called mycobacterium TB and is transmitted by infected people when they cough, sneeze, talk or spit.

Each infected person with active TB, if untreated, can infect 10-15 people every year on average, although every person infected with the TB bacilli doesn't necessarily fall ill. The key line of attack against the disease is the World Health Organization-recommended directly observed treatment, shortcourse (DOTS), which is a combination therapy of drugs such as isoniazid, rifampin, ethambutol and pyrazinamide.

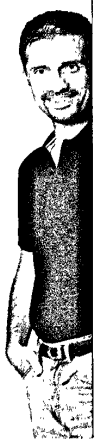
One of the major obstacles with DOTS is the treatment duration of six to nine months, which according to experts, several patients shirk. This aggravates their condition and triggers more severe conditions such as Multi Drug Resistant TB and Extensively Drug Resistant TB. Treating them requires two years of expensive treatment with second-line anti-TB drugs, which also cause unpleasant side effects.

Mint, ND 24-Mar-11 P-29

OTHER SPHERE

ANURAG BEHAR

EDUCATION FOR EMPLOYMENT



Let me paint caricatures at two extremes.

The "liberal educationist" believes in education for its own sake: That only learning anchored in deep thoughts and broad perspectives can be called education; that stoking the thirst for knowledge is sufficient to handle life. To him, thinking of how education can prepare someone for a vocation is somewhere between ludicrous and sacrilegious.

The "instrumental educationist" wants the child to prepare for employment—the earlier the better. After all, the real purpose of education is generating livelihood—everything must be aligned to that. Skills and knowledge relevant to employment must be central to the curriculum. In this view, the ability to think critically, perspectives about society and scientific understanding of nature are somewhere between distractions and unaffordable luxuries.

The power of caricatures lies in their advocacy of a more practical "middle ground": in this case, a "liberal" education that is appropriately instrumental/pragmatic. I shall explore the considerations that can help us develop this "in between" pragmatism, broadly in the context of school education.

First is "valuing" and being "comfortable" with work. The school environment and curriculum have to encourage and be sensitive to this. One simple step, for example, is having children take care of their classroom. The more complex issue is how the curriculum should deal with the "value" of different kinds of work. Since the dice is socially loaded against "manual" work compared with "intellectual" work, whether the curriculum reinforces this bias or attempts to be equitable in its approach becomes important. As with the other dimensions, designing the curriculum well is necessary, but the practice in the classroom is paramount.

> Balancing between the extremes of liberal and instrumental education is necessary for a holistic social outcome

Second is "skills". We shouldn't jump to interpret "skills" to mean plumbing and masonry. They must be seen more broadly, not merely as mechanical, narrow, and associated with marginal understanding. They range from motor skills, numeracy, language, working with people, dealing with uncertainty and so on—from the fundamental and general to the specifics. The key is to integrate these in schooling in a graded, age-appropriate manner.

Third is "choice": giving each child the broadest range of options for her future — educationally and vocationally. This is crucial at the age when children are compelled to make choices that cannot later be reversed or changed. Forcing choices at too young an age is unfair and inequitable; at too late an age, it may just be too late. A related issue is ensuring educational continuity and the flexibility of changing tracks later in life—a person trained to be an electrician should be able to pursue an academic career in anthropology as much as electrical engineering.

Fourth, a liberal education aims to foster and enable important abilities: The ability to think analytically and critically, to synthesize, to reflect, to have curiosity, to learn, and so on. These are not just ends in themselves, but also have direct relevance to livelihood and work. The kind of education that does a good job with these abilities deeply enables livelihood, else significantly limits it.

The fifth dimension is that of character, which liberal education is acutely conscious of. Tenacity, willingness to take risk, integrity, initiative, empathy and so on, are all shaped in a complex manner through life. School education has an influence on all this, and so on shaping of character. I don't need to underline the importance of character to livelihood and employment.

Sixth is "relevance". There is no point in millions becoming vocationally educated in rural India to be plumbers, when rural India doesn't have much plumbing to fix. In very simple terms, what students prepare for must exist and have relevance in their social milieu. And this social milieu changes over time.

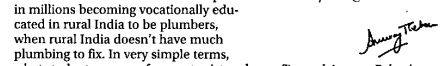
This directly leads us to the overwhelming importance of the kind of society we are aspiring to build and are actually building in the overall context of education, especially of the "instrumental" kind. The social framework is important for all the dimensions listed above. Let's just take two instances.

If we want equitable development, which (let's say) is distributed, local and sustainable, the "relevant" vocations will be different from what we will find in an industrial, urban-centric development model. If we want to build a diverse society with a deep commitment to the rights of individuals, we will treat the dimension of "choice" differently than if our primary aspiration were economic growth.

This then is the reality of the task - of finding the "in between". It is complex in itself if we just consider the six dimensions, and it is made even more complex in the context of the society that we are building.

Hence, we need to continually discover and invent newer models of liberal education that is adequately pragmatic, or vice versa. We have to borrow from both extremes, in design and in practice. There are no simple, easy, or quick solutions.

Anurag Behar is co-CEO of Azim Premji Foundation and also leads sustainability initiatives for Wipro Ltd. He writes every fortnight on issues of ecology and education. Comments are welcome at othersphere@livemint.com



To read Anurag Behar's previous columns, go to
www.livemint.com/othersphere

Mint ND 24-Mar-11 p-6

SKILL DEVELOPMENT

Govt plans ₹100 cr ad campaign to promote vocational education

By Prashant K. Nanda
prashant.n@livemint.com

NEW DELHI

The government is expected to launch a ₹100 crore advertising campaign to popularize vocational education, which is considered less prestigious, and prepare candidates for jobs in industries that are facing a shortage of skilled workers.

Ads would be placed in print, television and on the internet—particularly social networking websites—to encourage youngsters to train to become plumbers and automobile technicians, among other things, said Dilip Chenoy, managing director at National Skill Development Corp. (NSDC). The government aims to impart such skills to around 500 million people by 2020.

India's automobile sector alone faces a shortage of 300,000 skilled workers, according to a KPMG survey released last year.

Vocational education would bring significant change in the job market by increasing employment and raising productivity, said Narayanan Ramaswamy, executive director (education) at KPMG.

Another NSDC official said people assume vocational education is for poor students and may not be rewarding enough. This attitude needs to change, he said, requesting anonymity because he is not authorized to speak to the media.

NSDC is a public-private partnership between the Central government and industry lobbies such as the Federation of Indian Chambers of Commerce and Industry (Ficci), Confederation of Indian Industry (CII), Associated Chambers of Commerce and Industry of India (Assocham) and National Association of Software and Service Companies (Nasscom).

"Our partners have indicated the need to adopt a communication medium to improve the acceptability (of vocational education)," Chenoy said.

The ad campaign is likely to start by September, said the anonymous NSDC official mentioned above. NSDC is yet to award the contract for the campaign, but has met at least three advertising agencies. Their presentations have been forwarded to the Prime Minister's Skill Development Council, he said.

He said youngsters spend a lot of time on social media, or websites such as Facebook, Orkut and Twitter, and advertising on these websites would be particularly useful in catching their attention.

"Any effort to reach out to the masses needs a sustained campaign," said Sudhir Sahni, president, advertisement at the agency Ogilvy and Mather. He said his company has given a presentation on the subject.

"Now the number of institutes offering vocational education is more than students going there. So it's a supply-demand issue—maybe because people don't think skill education is exciting or fruitful," said Sahni, who declined to give details of the proposal.

A campaign can change the attitude and tell people that vocational education can provide them better employment than the usual academic line, he said.

Though NSDC has signed agreements with at least 23 organizations to promote skill development across India, less than 25,000 students have received training in the last one year, according to government data.

Financial Express ND 24/03/2011 p-1

Small cos up talent bar, scout IIMs for hiring

■ Number of small and medium firms visiting top B-schools has increased by 14-16% against last yr

Diksha Dutta & Kirtika Suneja

New Delhi, Mar 23: Jaipur Rugs, a company with an ₹70-crore sales and 400 employees, hired two students from IIM lucknow this year. Another student from IIM Ahmedabad is in the process of being hired. The salary wasn't great either — just ₹40,000 per month — pointing to the rising aspirations of small and medium enterprises, which are now scouting the corridors of elite B-schools to enhance talent quality. This year, the number of small and medium companies visiting IIMs has increased by 14-16% as compared to last year.

Flipkart, an e-commerce company founded in 2007 with an ₹80-crore turnover, recruited 12 IIM graduates this year. "It is very important that we hire talent from top B-schools as they bring with them the ability to learn afresh, innovate and simplify the current challenges we face while making e-commerce happen in India," says Sachin Bansal, founder, Flipkart, adding that IIM Bangalore was the only B school they visited last year, but this time they have successfully completed campus hiring from IIM A, B and C. The company made the 12 offers across various verticals like business development, supply chain management and product development.

Offering flexibility and better profiles as their USPs, there were other companies like Insta Group, Hyderabad Industries, Tally Solutions and more which tried to lure the best talent at the top B-schools.

And, people like 26-year-old Soham Bandyopadhyay, who graduated from IIM Calcutta this year, fell for it. Not short of job offers, Bandyopadhyay opted for an expanded work portfolio in a relatively small company, Insta Group. What attracted him was the flexibility to apply his skills to different segments, plus the fact that the job offer came with a salary on a par with his peers at IIM.

The 550 employee-strong Insta Group, a tradeshow and marketing events organiser founded in 2003 that today stands at a valuation of Rs 200 crore, went to IIM for the first time this year. Almost 100 students applied for the firm and four were selected. Ranjan Banerjee, company director and COO, says they are trying to build a company brand on the campus and plan to go to all the IIMs next year. "People who were looking for an entrepreneur streak and wanted freedom to work took our placement," he says.

■ Continued on Page 2

SMALL COMPANIES A SURPRISE AT IIMS

Company	● Size (sales, number of employees) IIM students hired
Jaipur Rugs	₹70 crore, 400 employees 2 from IIM Lucknow, 1 from IIM Ahmedabad (still in pipeline)
Insta Group	₹200 crore, 550 employees 4 from IIM Calcutta
Tally Solutions	₹200 crore, 550 employees 4 from IIM Indore
Flipkart	₹80 crore, 600 employees 12 from IIM Ahmedabad, B'lore and Calcutta

Small cos up...

"In all, we have hired 15 students from various B schools, including from tier-II institutes such as Welingkar Institute of Management and IIMT Ghaziabad," he adds. Banerjee, however, confesses that while they offered business development profiles to students from other B schools, IIM students were offered designations of corporate planning manager or online marketing manager with a CTC of ₹13 lakh per annum. Tally Solutions also picked up four students from IIM Indore this year, offering a package of Rs 10 lakh. Siddharth Setia, secretary, student placement committee of IIM Indore, gets in the students' perspective. "Traditionally, students used to chase packages, but after the slowdown, they have started looking at better profiles too, which mid-tier companies offer. Moreover, the salary gap also no longer exists." But money is not all that matters, as seen in the case of Jaipur Rugs. Sanjay Singh, company senior HR manager, says, "Our organisation needed people who could bring in a system of functioning like MNCs and so we went to IIM this year. We promised these students a challenging entrepreneurial experience, which attracted them." The unconventional had its pull too. Since the company is into a lot of work that involves the rural experience, Jaipur Rugs attracted those who were sick of congested cubicles. The company has been hiring from B schools like IRMA, BHU, XIM Bhubaneswar and TISS for the past few years. Known for hiring fresh graduates in large numbers, the BPO industry is also not far behind. For instance, EXL Service made 20-25 offers at IIMs this year, much higher as compared to seven-eight last year. Sanjay Gupta, EXL HR head, explains that the company is focusing a lot on its KPO business comprising transformational deals, for which they needed analytical and knowledge-based skills. Also, their packages are competitive - Rs 10-15 lakh depending on the experience of the students.

Business Standard ND 24/03/2011 p-11

Education — economy's growth engine

MARKETMIND
ARVIND SINGHAL

It is very heartening to see the education sector getting its due attention at least in the mainstream media, even if the governments at the centre and the state continue to pay little more than just lip service to the same. A lot has been made out of the increase of 24 per cent in the budgetary outlay for Ministry of Human Resource Development (MHRD) this year, taking the Budget to about ₹52,000 crore or about US$ 11 billion, to take care of the educational needs of 25 million newly born per year from K-12 to higher education and vocational training. Of course, the overall spending on education is much more on account of private spending simply because the government has — for decades — neglected this vital social sector. Annual spending by Indians going for studies abroad is now estimated to be in the region of ₹15,000-20,000 crore. Annual spending on private tuitions and coaching is estimated to be in the range of ₹35,000-40,000 crore.

Despite such huge deficit in supply versus demand for education at all levels, exacerbated even more if quality is also added as one of the parameters in the equation, should have prompted any government to take up structural reforms in the education sector on priority. Yet, some of the most important bills relating to education sector continue to languish in the parliament. Since the government does not have the financial resources, anymore, to establish or subsidise fresh capacity in education sector to make it universally accessible, accountable, and affordable for all Indians, at the very least it must enable the right framework to attract private capital and global body-of-knowledge to at least partially make up for the increasing deficit.

However, this particular piece is not about reforming the education sector per se or to highlight the current failings since these are very well known now. Instead, it is to draw attention to the potential of education sector itself as one of the growth drivers for the Indian economy (and not only because a more educated population will make all the sectors of the economy more efficient and productive). The potential has to be seen in the context of a few key global trends including aging of population in almost all the major developed countries, and the potential of India to deliver, beyond IT and BPO, a number of attractive on-site/ offshore "outsourced" services to these developed countries.

A recent story in Forbes Asia magazine highlights the emergence of Jaipur as a dentistry centre, attracting visitors from many parts of the world and creating new business (and employment) opportunities in Jaipur and in Rajasthan as most of these visitors explore tourism as well. The potential of medical tourism has been widely spoken and written about a lot but to fully realise the same, the government needs to provide policy and fiscal support to such an "industry" on the same philosophy as it did for the IT sector decades ago, allowing that sector to take off. In addition, the human resource estimates in the healthcare sector from MCI and other institutions have to, therefore, be upped very substantially. Further, as the populations outside India age, there would be an increased global demand for healthcare-givers including doctors, nurses, and technicians. It is very likely that such governments overseas will have no option but to liberalise visa regimes to allow for a more liberal entry of such workers even if they do not get permanent residency in those countries.

Almost a similar case can be made out for many other professional programmes (other than, perhaps, MBA) such as law, industrial design and architecture, high-quality engineers, and others. The case for creating education capacity specifically for "export" of such talent/services is even stronger in vocational skills need beyond just the construction and transport sector. There will be an increasing global demand for skilled workers in other sectors such as hospitality, food services, beauty and grooming, travel and leisure, etc. India can and must plan to "capture" such market segments too, which have the potential to increase the flow of inward remittances well beyond the estimated US$ 55 billion received in 2010.

Beyond just the demographic dividend, India now needs to think of generating a very strong financial dividend from investing in education, and to this extent, must encourage and attract investment in education sector in the same way as it seeks investment in any other sector.

arvind.singhal@technopak.com

Daily Excelsior Jammu 22.03.2011 p-1

Creation of artificial lake on River Tawi

Facing delay at CWC, J&K seeks design clearance from IIT

By Mohinder Verma

JAMMU, Mar 21: Facing inordinate delay at the Central Water Commission (CWC), the State Government has approached the Indian Institute of Technology (IIT) Delhi for approval to the design of barrage to be constructed on River Tawi for creation of artificial lake and one by one clearance to different stages of the project is expected shortly.

Official sources told EXCELSIOR that design of barrage and all other necessary documents were submitted to the Central Water Commission about five months back but till recent past the same were only exchanging tables at different levels leading to delay in start of work on the prestigious project, which otherwise would become major attraction point in Jammu.

There was hardly any document which was not furnished to the Commission during the past five months but despite this clearance to even minor works was not given resulting into men and machinery mobilized by M/s GVR Infrastructure Projects Limited, which has been allowed the work of creating artificial lake, remaining idle and un-utilized, they said

Keeping in view delay at the Central Water Commission level and subsequent loss of precious time in start of work on the project, Irrigation and Flood Control Department, after the approval of Minister Incharge, Taj Mohi-ud-Din, placed the matter before the State Cabinet recently.

"The Cabinet after detailed discussion on the issue gave nod to Irrigation and Flood Control Department to approach Indian Institute of Technology (IIT) Delhi for study and subsequent approval of the design of barrage so that work for creation of artificial lake could be started without loss of more time", sources informed.

The design and all the related documents have now been placed at the disposal of IIT Delhi experts, who have also started study of the same, sources further said, adding the IIT Delhi has agreed to accord one by one clearance to different stages of the project to pave the way for start of work.

"In the Notice Inviting Tender (NIT) there was a clause that design of barrage would be get cleared either from Central Water Commission or Indian Institute of Technology (IIT) Delhi that is why this decision has been taken", they said in response to a question, adding IIT Delhi too have experts of international repute and they have already been guiding in several national projects like tunneling on Udhampur-Katra-Qazigund railway line.

According to the design, which was earlier submitted to CWC and now IIT Delhi, total length of the barrage would be 373 meters---133 meter on Badi Tawi and 240 meter on Nikki Tawi. There will be a total of 34 gates---21 on one side and 13 on another side and all would be mechanically and electrically operated.

This would be second of its own kind barrage in Jammu and Kashmir as one such has already been constructed on Ujj. The gated barrage has been chosen in order to ensure that silt or bounders during the rainy season don't cause any sort of damage to it.

When contacted, Minister for Irrigation and Flood Control, Taj Mohi-ud-Din said that seeking design clearance from IIT Delhi was imperative as it was getting delayed at CWC due to long queue of projects with the Commission and clearance was not likely for at least one more year.

"Now, we will start receiving one by one clearance from IIT Delhi very shortly and subsequently the contractor would be able to start work for completion of entire project within a period of two years", he added.

Times of india Kolkata 23.03.11 p-12

Indian Women Lag Far Behind Their Chinese Counterparts And Indian Men When It Comes To Appearing For GMAT

Chinese women school India in doing business

Hemali Chhapia | TNN

In most management colleges in India, the number of boys nearly always overshadows the strength of girls. Similar is the case in the global entrance exam GMAT, which sees a small percentage of Indian women trying their luck.

The skewed trend has put India behind China in another sphere, as more and more Chinese women are taking the GMAT and breaking the glass ceiling by making it to top B-schools of the world. While women made up just 24% of the total Indian GMAT takers in 2010, they formed 63% of the aspirants in China.

In India, the scenario hasn't changed much in the last five years. According to the Graduate Management Admission Council, the agency that conducts GMAT, 77% men and 23% women from India took the management test in 2006. Four years later, the ratio stood at 76% men and 24% women. In real numbers too, Indian women appearing for the test declined.

In China, on the other hand, the trend has been very different. The number of men applying for the GMAT has risen but not as much as women's.

Thanks to Chinese women, the management test is witnessing a correction of gender imbalance. There were 1 lakh female test takers in 2009. The next year, 1,05,900 women represented 40.1% of all tests takers. "Driving much of that growth was China, as nearly 63 per cent of GMAT exam takers in China were women," noted GMAC.

"One possible reason why there are so many Chinese women taking the GMAT exam is that there is a growing interest in accounting programs," said Michelle Sparkman Renz, GMAC director of research communications.

David A Wilson, president and chief executive officer of GMAC, said: "Education, and business education in particular, offers women in China their best chance to become upwardly mobile. So, we're seeing more and more women considering business school as an option and taking the GMAT to facilitate this."

Another plausible cause for fewer Indian girls signing up for master's program could be the low percentage of their enrolment in universities and professional courses.

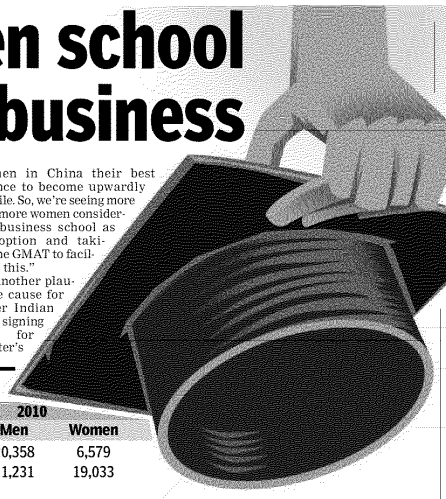
Rahul Choudaha, a New York-based higher education trend watcher, said: "In addition to general factors influencing GMAT test takers, Indian women face socio-cultural pressures of early marriage and family. Foreign MBA programs require work experience, which makes it even more difficult for women with family to get support for investing time and money in foreign MBA."

NEIGHBOUR'S ENVY

Country	2009		2010	
	Men	Women	Men	Women
India	23,263	7,370	20,358	6,579
China	8,891	14,659	11,231	19,033

Source: GMAC

> Business education offers women in China their best chance to become upwardly mobile. So, we're seeing more and more women considering business schools
>
> David A Wilson | GMAC PRESIDENT



Mahesh Benkar

Dragon takes lead over elephant in UK varsities

Anahita Mukherji | TNN

Mumbai: Indians might form the single largest ethnic minority in the UK, but when it comes to the student population, the dragon trumps the elephant. The largest pool of foreign students in Britain is from China while India occupies the No. 2 slot with 12.5% fewer students.

This, despite a fourfold increase in the number of student visas issued to Indians over the last decade. While 10,000 Indian students were given visas to study in Britain in the year 2000, the figure leapt to 41,350 by 2010.

At present, there are around 70,000 Indian students in the UK, compared to about 80,000 from China. Until five years ago, Indians were in the lead, with Chinese students getting a few hundred fewer student visas. Then, in 2008, the equation got reversed. But while the difference was insignificant in the past, in 2010, Chinese students far outnumbered Indians.

"Access to international education is an important component of education in China, and great importance has been attached to it by the Chinese government. In 2009, international Chinese student enrolments exceeded 2,30,000 for the first time," says Cathe He, education marketing manager of British Council China.

She also points to the increasing bilateral cooperation in the field of education between Chinese and British governments.

"Since 2000, the UK and China have had in place a series of agreements for developing educational collaboration," says He. "The UK was among the first few countries that signed a mutually recognized qualification agreement with the Chinese government. It is also the leader in establishing joint programmes with Chinese institutions that allow many Chinese students to go to the UK to study for the final year of their undergraduate course."

The jury is still out on why there are more Chinese students than Indian pupils in the Britain, but Kirti Narain, an academician who has worked for years in China and currently heads Jai Hind College in Mumbai, feels this is largely because the Chinese do not have faith in their system of higher education. "Everyone in China wants a degree from a foreign university and the UK is a favoured destination," she said. "Those with a degree from the UK are highly valued in Chinese universities."

According to Nazia Vasi, founder of Inchin Closer, a consultancy that offers multinational companies a host of services in India and China, Indian students head to the UK solely for a degree while the Chinese look at the dual benefit of a foreign education as well as a chance to improve their English. "When Chinese students return to their country speaking good English, their salaries automatically double, especially in multinationals. Good English helps them interact with the top brass, and form a link between Chinese-speaking workers and English-speaking managers," she said.

RACING AHEAD

Indian students in the UK

70,000 (approx)

Chinese students in the UK

80,000 (approx)

STUDENT VISAS ISSUED BY BRITAIN

YEAR	INDIA	CHINA
2010	41,350	43,500
2008	27,000	27,400
2006	21,000	20,400

Source: British High Commission