News for October 2016

The Crux of The Hindu and PIB

Vol. 26

Important News in the field of :

National
Economy
India and World
International
Science & Environment
Miscellaneous News

THE HINDU
INDIA'S NATIONAL NEWSPAPER SINCE 1878

Press Information Bureau, Government of India

: Aspirant Forum :

AN INITIATIVE BY UPSC ASPIRANTS
Contents

National News.........4
Economy News.........14
International News....23
India and the World..29
Science and Technology + Environment............42
Miscellaneous News and Events...................59
About the ‘CRUX’

Introducing a new and convenient product, to help the aspirants for the various public services examinations.

The knowledge of the Current Affairs constitute an indispensable tool for all the recruitment examinations today. However, an aspirant often finds it difficult to read and memorize all the current affairs, from an exam perspective. The Newspapers and magazines are full of information, that may or may not be useful for the exams. Thus, a candidate is forced to spend a substantial amount of his time in selecting and maintaining notes for the current affairs.

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Best Wishes
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The Hindu
Press Information Bureau (PIB)
TRAI to ask telcos to submit call failure data

The Telecom Regulatory Authority of India (TRAI) will ask all telecom operators to submit reports on the number of call failures on their network on a daily basis, even as the battle between existing telecos and new entrant Reliance Jio over points of interconnect has intensified. Reliance has alleged that Bharti Airtel, Vodafone and Idea are not providing adequate number of interconnect points for calls originating from its network.

Call failures

“Call failures at the point of inter-connect is a very serious issue. The call failure rate at the point of interconnect should be less that 0.5 per cent. It is unacceptably high... up to 80 per cent is some areas, which means consumers are suffering.

“It may be a dispute between operators and they can fight it, but not at the cost of consumers,” TRAI Chairman R.S. Sharma told The Hindu.

Centre to flag H1-B visa curbs

India is likely to raise its concerns in an upcoming meeting with the U.S., over a proposed legislation seeking to impose greater costs on firms that temporarily hire highly skilled foreign workers. The development comes in the backdrop of the U.S. Presidential election campaign where claims of local unemployment due to immigration and outsourcing have become a topic of debate.

During the forthcoming U.S.-India Trade Policy Forum (TPF) meet, New Delhi is expected to take up the Indian IT industry’s concerns about the proposed ‘Protect and Grow American Jobs Act’ that was introduced in the U.S. House of Representatives in July.

The proposed legislation is also called the ‘Issa’ Bill as “the bipartisan legislation” was introduced by U.S. Congressman Darrell Issa, aiming to “stop the outsourcing of American jobs by companies abusing the H1-B visa program.”

The House Judiciary Committee is to vote on the Bill that is being opposed by the Indian IT sector (the main users of H1-B visas), the apex IT industry body Nasscom and the US-India Business Council (an advocacy body for boosting US-India business ties).

India had in March said it had initiated a World Trade Organisation dispute proceeding against the U.S. for increasing fees on H1-B and L-1 non-immigrant visas.

“The Issa Bill is a bigger issue than the (H1-B and L-1) visa fee hike,” USIBC President Mukesh Aghi said in an interview. “If it becomes a law, it will kill the Indian IT industry. We are campaigning with (U.S.) Congressmen and Senators to convince them not to support the Bill. However, it is election season and logic does not prevail.”

The current H1-B norms under the (U.S.) Immigration and Nationality Act require H1-B ‘dependent’ companies (those with over 50 full-time equivalent employees of which 15 per cent or more are on H1-B visas) to submit certain documents.

Troublesome paperwork

However, firms are currently granted exemptions to ease their documentation-related troubles. They need not go through the troublesome paperwork if the potential H1-B employee has an equivalent of a Master’s degree or higher and he or she is paid at least $60,000 annually.

The ‘Issa’ Bill aims to do away with the Master’s degree exemption (as “they are easily obtained by foreign workers”) and hike the minimum annual salary threshold from $60,000 to $100,000 with an inflation adjustment. The new Bill seeks to “make it much harder for firms to bring in workers at a salary that could undercut American jobs.”

Sources said the Indian government and the IT industry had taken up the issue with U.S. government officials and businesses at a meeting of the bilateral working group on IT & communication technology. However, they were told that while the U.S. government understands the concerns, nothing can be done to prevent the US legislators from bringing up such Bills.

Industry sources said they fear further tightening of the Issa Bill as some American politicians recently claimed that it had left loopholes that the H1-B users can take advantage of. Referring to the recent debate on the Bill which allowed the $100,000 minimum annual wage threshold mentioned in it included ‘cash bonuses’, some U.S. legislators said this provision could be misused as often, bonuses are conditional on some goals being achieved. This could mean that the H1-B user firms might get away with actual lower annual wages.

Also, some legislators have demanded a higher minimum threshold since average annual IT salaries in urban areas exceed $100,000 and could therefore lead to locals with higher salaries being replaced by foreign workers.
State should aim to create 30 lakh jobs: ASSOCHAM

Kerala should aim to create about 30 lakh jobs and attract investments to the tune of Rs.600,000 crore to attain a double digit economic growth over the next five years, according to ASSOCHAM (Associated Chambers of Commerce and Industry of India).

A paper prepared by the Economic Research Bureau of ASSOCHAM said the new State government would need to ensure appropriate growth of industries with the potential to generate employment opportunities if it was to overcome the constraints of high labour costs.

“The government should also focus on investment-related activities and encourage private sector participation on a large-scale,” D.S.Rawat, general secretary, ASSOCHAM said in a pressnote issued here.

Undertaking required

Pointing out that the industry’s contribution to the State’s economy had declined from 22.5 per cent in 2004-05 to about 20 per cent in 2013-14, the paper highlights various issues affecting the industrial sector in Kerala, namely the dearth of land for setting up new industries, inadequate power supply, poor transport infrastructure, failure in attracting new private investors, struggling traditional and core industries and problems faced by small and medium enterprises in accessing funds.

Land acquisition

To address the issues, Assocham has called for a State-specific land acquisition and rehabilitation policy with options of equity partnership for land providers, employment opportunities and stable monthly income.

It proposes subsidies or incentives for companies willing to set up operations in backward or underdeveloped places and in places facing acute power shortage.

Aadhaar must for LPG subsidy after November

The government has made Aadhaar mandatory for availing cooking gas (LPG) subsidies but has given two months grace period for citizens to get the unique identification number.

The government currently gives 12 cylinders of 14.2-kg each at subsidised rates per household in a year. The subsidy on every cylinder is transferred in advance directly into bank accounts of individuals, who then buy the cooking fuel at market rates.

“Individuals desirous of availing LPG subsidies are here-by required to furnish proof of possession of Aadhaar or undergo Aadhaar authentication,” an Oil Ministry order said.

For those not yet having Aadhaar, it gave time till November 30, 2016 to make application for enrolment for the unique identification number. Oil marketing companies have been asked to facilitate enrolments.

Till the time Aadhaar is assigned, LPG subsidy would be transferred based on bank photo passbook and Aadhaar enrolment ID slip or voter ID card or ration card or kisan photo passbook or passport or driver licence along with a copy of request for Aadhaar enrolment.

Bill to protect HIV community cleared

“The Bill seeks to prevent stigma and discrimination against people living with HIV. These amendments will allow families that have faced discrimination to go to court against institutions or persons being unfair,” said J.P. Nadda, Health Minister at a conference after the Cabinet nod.

With the amendments, establishments keeping records of information of PLHIV have been asked to adopt data protection measures as the Bill requires that “no person shall be compelled to disclose his HIV status except with his informed consent, and if required by a court order.”

The Bill lists various grounds on which discrimination against HIV-positive persons and those living with them is prohibited. These include the denial, termination, discontinuation or unfair treatment with regard to employment, educational establishments, health care services, residing or renting property, standing for public or private office, and provision of insurance (unless based on actuarial studies). Further, requirement for HIV testing as a pre-requisite for obtaining employment or accessing
health care or education is also prohibited.

‘Step in right direction’
The Bill comes at a time when the national HIV programme has weakened due to Budget slashes and patients are facing drug shortages across the country. “This is a step in the right direction. We also need to address the inadequate funding, the procurement system that is resulting in drug shortages and the lack of clarity in the HIV policy. The programme has become low priority and my hope is that this Bill will empower civil society to hold those stigmatising the HIV community in contempt,’ said Dr. K. Sujatha Rao, former Director General, National AIDS Control Organisation (NACO). According to the proposal, every HIV infected person below the age of 18 years has the right to reside in a shared household.

Haj comes under the control of new Ministry
The Centre on Thursday formally announced that the work related to management of Haj pilgrimage, including administration of the Haj Committee Act, 2002 and rules has been transferred from the Ministry of External Affairs to Ministry of Minority Affairs with effect from October 1. A statement by the Ministry of the Personnel said here that Haj is one of the most complex organisational tasks undertaken by the government outside Indian borders and Indian pilgrims constitute the third largest national group performing the Hajj. According to the Ministry since 2013 about 1,36,000 pilgrims visit Saudi Arabia every year for performing Haj and given its complexity and geographical spread, Haj Management requires meticulous planning.

Polygamy no longer progressive, SC told
Polygamy may have been “progressive and path-breaking” centuries ago, but not now when women and notions of gender justice have evolved, the Centre told the Supreme Court on Friday. If Muslim countries, where Islam is the State religion, have disregarded polygamy and triple talaq, why should India, a secular country, continue to deny Muslim women their rights under the Constitution, it asked.

It said there was no legal bar against abolishing polygamy and triple talaq, given the “march of time and the need for social reform.” “It may be true that only some women are directly affected by a polygamous marriage, but the fact remains that every woman to whom the law applies lives under the fear, threat or prospect of being subject to these practices, which impacts her confidence and dignity,” the Centre said. The government listed “theocratic States”, with Pakistan at the top, followed by Bangladesh, Afghanistan and Iran, which have “regulated” their divorce law and polygamy to show that these are not “essential religious practices” that are beyond reform.

Government of India should not Make in India
India is recording historically high investments in technology-oriented industries such as telecom and over the top (OTT) services that ride on telecom networks such as financial technology and e-commerce.

The latest infusion of Rs47,700 crore by UK-based telecom giant Vodafone Plc. into its Indian arm is indicative of the fact that the Indian market remains much coveted despite the headwinds to global growth. Manufacturing investments are also targeting the tech-hungry Indian consumer.

Chinese telecom giant Huawei will begin manufacturing smart phones in India this year, the 40th such manufacturing investment in the country in the past two years alone. With such investments and parliamentary consensus on the GST, one may be tempted to conclude that ‘Make in India’ is on track. This may be premature. India’s transition from an agricultural economy to a service economy has posed a conceptual challenge for many who see industrialization as the only way to create jobs. Industrialization requires best-in-class infrastructure, cheap energy and a skilled workforce, all impossible prerequisites to fulfil in the short or medium term. But the ‘digital economy’ offers a way out.

While productivity gains from automation and digitisation have driven industrial growth in advanced countries over previous decades, their effects are not fully felt here. The digital economy can potentially mobilise millions of Indians, constituting the ‘informal workforce’, bringing them within a more productive fold. India’s biggest challenge is also its best opportunity: it has a large, young and untrained workforce that can intuitively understand applied technology, if given early exposure.

In fact, India can extract greater relative gains from the digital economy than its advanced country counterparts. Real income growth in advanced countries requires sustained and fundamental innovation whereas India can harness incremental innovation towards higher rates of
growth (mostly owing to a favourable demographic).
But continued innovation support through private sector investments is not inevitable. Many policymakers mistakenly believe that India cannot be ignored as an investment destination. Nothing is inevitable.
Conversely, Make in India’s greatest threat is the ubiquitous government-run enterprise itself. And this is borne out in a number of technology-oriented industries; which is worrying as successive governments have first created favourable conditions for investments and then jeopardised them.
For instance, the telecom industry, often cited as an example of successful liberalization, finds itself at a crossroads. It is dependent on falling voice call revenues despite enough global precedent to show that data revenues are the future. The industry lacks the bandwidth to deliver affordable data.
And there is policy inertia to address this, partly due to the existence of BSNL. Policymakers have hesitated from undertaking comprehensive reforms around key challenges such as Right of Way regulations, hoping that BSNL’s networks will save the day. And BSNL has not delivered the goods: the quality of its Internet infrastructure and service ethic are reminiscent of the pre-liberalisation era.
Instead of harnessing a well-designed ‘ring network’ as was originally conceptualised in ‘BharatNet’, India has to settle for optic fibre cables thrown on electricity poles, barely resilient enough to withstand a windy day.
Another competitive technology industry, broadcasting, is another example. While most advanced countries have public broadcasters, few have created legacy issues as profound as Prasar Bharati has here.
The private broadcasting industry has been haemorrhaging money owing to high cost of ‘carriage’ and regulatory restrictions on deriving more revenues. Prasar Bharati has been on the wrong side of both these issues—not readily relinquishing spectrum to private operators which could help lower carriage costs, and forcing private operators to circumscribe their lifeline advertising revenues by applying Mandatory Sharing regulations on high value content such as sports broadcasts. Policymakers have conflated national interest with consumer choice.
The result is that broadcasting investments have been muted over the past decade despite progressive liberalization of FDI caps. The larger lesson to draw is that governments should not be both regulators and competitors. This is not the easiest pill to swallow, particularly when sentimentality accompanies the notion of government-run enterprise.
The introduction of RuPay cards by the National Payment Corporation of India, which is heavily guided by the Reserve Bank of India, indicates that the government is tempted to enter markets to disrupt perceived monopolies even in the digital economy.
Ironically, India is a party to the US-led dispute with China at the WTO on the Chinese variant of RuPay, called UnionPay. India’s approach therefore is neither consistent nor wise. It is a legacy of the past, wherein the government created markets for ‘old economy’ industries such as energy and infrastructure.
While public enterprises have succeeded, to an extent, in traditional industries, they are not optimized for the new economy which requires constant innovation and high standards of service delivery.
The government should remain a licensor, regulator and adjudicator and let consumer choice select winners in markets where neither capital nor technology are constraints.
Samir Saran is vice-president, Observer Research Foundation, New Delhi; and Vivan Sharan is founding partner at Koan Advisory Group, India.

SC widens ambit of Domestic Violence Act

In a landmark verdict, the Supreme Court has widened the scope of the Domestic Violence Act by ordering deletion of the words “adult male” from it, paving the way for prosecution of women and even non-adults for subjecting a woman relative to violence and harassment.

The apex court has ordered striking down of the two words from Section 2(q) of the Protection of Women from Domestic Violence Act, 2005, which deals with respondents who can be sued and prosecuted under the Act for harassing a married woman in her matrimonial home.

‘Microscopic difference’

Referring to earlier verdicts, the apex court said “the mi-
croscopic difference between male and female, adult and non-adult, regard being had to the object sought to be achieved by the 2005 Act, is neither real or substantial, nor does it have any rational relation to the object of the legislation."

The apex court Bench of Justices Kurian Joseph and R.F. Nariman in its 56-page judgment said the remaining part of the legislation had been kept untouched and would remain operative.

ONGC signs pact to buy stake in KG basin

State-owned Oil and Natural Gas Corp (ONGC) has signed a preliminary agreement to take an operating stake in Gujarat government firm GSPC’s KG basin gas block.

The pact, signed last week, has a dispute resolution mechanism set out wherein any differences over issues like valuation or natural gas reserves would be referred to a three-member committee of outside experts. Karnataka State Petroleum Corp (GSPC) is keen to get ONGC on board to help tide over its difficulties in producing gas from the Deen Dayal fields, which a decade back were touted as the biggest discovery in India.

GSPC began trial production from August 4, 2014 but has not yet reached commercial production. “Daily plateau production gas rate envisaged from Deen Dayal Upad-haya (DDN) West field is around 5.663 million standard cubic metres per day as per approved Field Development Plan (FDP) for a period of 14 years,” an RTI reply said.

“There is problem of high pressure and high temperature in completion and drilling of wells in the field. No final date of commercial production has yet been given by the operator (GSPC),” according to the reply.

States plan tighter combing at tri-junction

Taking a serious note of reports on Maoist combatants using the hilly-forest terrain of the tri-junction of Kerala, Tamil Nadu, and Karnataka as a safe haven, security forces in the three States have decided to intensify combing operations in the area.

The plans detailing the role of each security formation and the modalities to be worked out for preventing Maoist insurgency in the region formed the core of a high-level meeting of security agencies here on Sunday.

The meeting, held at Government Guest House in Kochi, was led by K. Durga Prasad, Director General of the Central Reserve Police Force. “For reasons varying from extreme weather in forests to counter-insurgency operations, Maoists in Jharkhand and Chhattisgarh are slowly retreating from their strongholds.

Shifting base

It is highly likely that these forces will shift their base to the tri-junction and wrest the territorial control of the strategically important area, which is equally connected to Kerala, Tamil Nadu and Karnataka,” said a top officer, who attended the meeting.

The tri-junction region comprises the forests of Nagarahole and Bandipur in Karnataka, Mudumalai in Tamil Nadu, and Muthanga in Kerala.

Senior officers from the Kerala Police, ‘Q’ branch officials from Tamil Nadu, and representatives of anti-Maoist squads in Karnataka attended the meeting. It was organised about a month after reports emerged about a secret meeting of the Maoists in Wayanad, in which a central committee member of the CPI (Maoist) had taken part.

Maoist design

According to a top intelligence officer, ‘liberating’ the tribespeople in Western Ghats formed part of the Maoist party’s national design.

Intelligence agencies had earlier sent out a warning that a 40-member strong Maoist group was active in the corridor between Kannur and Palakkad.

The combatants were deployed in three units (dalams), namely Kabani dalam, Nadugani dalam and Bhavani dalam, each comprising at least 10 persons.

Inventory of arms

Last year, intelligence agencies prepared an inventory of arms possessed by these squads, which include Kalashnikovs, self-loading rifles, shot guns, workshop-grade anti-personnel weapons, and wayside bombs, among others.

Majority of the ammunition was presumably procured from their armed bases like Dantewada or Bastar.

Voices rise against proposal to amend Citizenship Act

The NDA government’s proposed amendment to the Citizenship Act, 1955, which plans to provide citizenship to religious minorities from Pakistan, Afghanistan and Bangladesh, is facing stiff opposition from Assam, Gujarat and Rajasthan — all BJP-ruled States.

The Bill has been criticised by the Opposition, which has accused the government of granting citizenship to persecuted minorities from neighbouring countries on “religious lines” and wooing the majority Hindu community.
With this amendment, the government plans to change the definition of “illegal migrants” that will enable it to grant citizenship to minorities, mostly Hindus from Pakistan, Bangladesh and Afghanistan, who fled their country fearing religious persecution.

The Bill creates an exception for Hindus, Sikhs, Buddhists, Jains, Parsees and Christians from Afghanistan, Bangladesh and Pakistan, and plans to reduce the requirement of 11 years of continuous stay to six years to obtain citizenship by naturalisation.

The Bill was introduced in the Lok Sabha in July this year.

**Panel hears NGOs**

A joint parliamentary panel, which is examining the Bill, heard petitions from several NGOs on Thursday.

One of the NGOs from Assam demanded that the requirement of 11 years of continuous stay should be waived for all Hindus and they should be immediately included in the National Register of Citizens (NRC), which is being updated.

The NRC is being updated in Assam to weed out illegal migrants who came to Assam after the 1971 war. The cut-off date for the NRC is midnight March 24, 1971 and all those who migrated to Assam from Bangladesh before this period would get Indian citizenship as per the Assam Accord signed in 1985.

**‘Appeasement of majority’**

At the meeting, parliamentarians raised objections that the government was amending the Act to appease the Hindu community as most of the people who would be benefited would be Hindus from neighbouring countries.

Home Ministry officials explained to the MPs that the Bill was being brought in to provide an enabling platform for immigrants desirous of Indian citizenship.

**NITI Aayog reviewing CONCOR divestment**

The NITI Aayog is re-examining its proposal for the Centre to strategically divest its stake in the Container Corporation of India Ltd. (CONCOR) after the Finance Ministry returned the plan on the ground that the move could potentially lead to a public sector monopoly becoming a private sector monopoly.

As part of the reappraisal, NITI Aayog is also taking on board the views of the Railways Ministry — CONCOR’s administrative ministry — according to a Finance Ministry official, who did not wish to be identified.

“The Railways Ministry has pointed out that the Competition Commission of India found no abuse of market dominance by CONCOR,” the official said. “It has been decided that a way of addressing the Finance Ministry’s concerns will be found…there is agreement that there should not be a private sector monopoly in the logistics sector,” he added.

**Centre to widen social security law dialogue**

The Centre plans to widen consultations over a proposed social security code for workers, after a series of labour law reform proposals ran into opposition from trade unions.

The labour ministry plans to hold several meetings with State governments to discuss the proposed law on social security for organised and unorganised workers beginning early next month, according to a senior ministry official.

“The idea is to build a GST (goods and services tax)-like consensus,” said the official, who did not wish to be identified. “We want a sense of acceptance and ownership among stakeholders as the labour code on social security will be one of the biggest reform measures.”

The National Democratic Alliance (NDA) government has announced a slew of labour reform proposals including...
SIT moots independent ED probe into money laundering

The Special Investigation Team (SIT) on black money has recommended that money laundering investigations by the Enforcement Directorate should be allowed without any dependence on registration of cases by other agencies.

“We have suggested that investigations into money laundering should be allowed without registration of a case (by other agencies). But, for this legal provisions need to be changed. It is very difficult and will take some time,” SIT Chairman Justice M.B. Shah told The Hindu.

The Prevention of Money Laundering Act (PMLA) at present provides that the Enforcement Directorate (ED) can pursue only those cases which have been registered by agencies like the Central Bureau of Investigation (CBI), State police units and the Income-Tax Department, under provisions pertaining to the offences listed in the Act.

CBDT plea rejected

The CBI had last year sought statutory powers to carry out money laundering investigations. However, the proposal was turned down by the government. In the past, the Directorate of Revenue Intelligence and the Central Board of Direct Taxes have also made such demands.

Based on the SIT’s recommendations, the Central government had earlier brought in some crucial amendments to the PMLA, apart from the Income-Tax Act and the Foreign Exchange Management Act, to strengthen the legal framework for effective action against those holding unaccounted income.

A latest amendment to the PMLA empowers the ED to continue with the money laundering investigations even if the police case is closed in the court. The Directorate can still pursue the probe into a financial angle and file a separate charge sheet.

As regards the declaration of Rs.65,250 crore of unaccounted money under the Income Declaration Scheme launched by the Centre, Justice Shah said it appeared to be a good beginning. “But, it is a known fact that still there is more unaccounted money in the country,” he said. Names of those who declared unaccounted money under the scheme cannot be shared with any agency, as they have been granted immunity. Justice Shah said the SIT had come across several examples of companies indulging in malpractices like over-invoicing and under-invoicing for concealment.

Overhaul steel policy: NITI Aayog's Saraswat
NITI Aayog member V.K. Saraswat has called for an overhaul of India’s steel policy framed in 2012 as the country is unlikely to meet the target to raise capacity to 300 million tonnes a year by 2025 with ‘mere tinkering in the present policy’ because the steel industry is ‘in the doldrums.’

Though India is now the third largest steelmaker in the world, a global glut and a surge in cheap imports from China, Russia, Korea and Japan has dented the domestic industry’s fortunes and the sector’s share in the banking system’s stressed assets kitty has gone up to 25 per cent.

In a paper on the need for a new steel policy, the NITI Aayog member has called for a new policy to be drafted under the guidance of the government think-tank that examines that entire value chain of the steel industry, from raw materials to taxation and logistics costs that have hindered growth.

Golden years
The steel sector had flourished between 2003-04 and 2007-08 and these ‘golden years was the time when India grew at over 9 per cent and sustained this growth rate for three years, whereas the same dipped to 4.7 per cent in 2013-14 from 8.9 per cent in 2010-11,” Mr. Saraswat said.

Though the Centre had extended financial support to the sector earlier, the paper noted that ‘presently, the government is trying to support the industry through the RBI’s strategic debt restructuring scheme for the third time, irrespective of whether the scheme works or not.’

“The steel sector, which has a long gestation period, needs long-term finance like pension funds which have the capacity to withstand cyclical volatility of profits unlike funding from banks, external commercial borrowings or capital markets,” Mr. Saraswat concluded.

Freight costs
Though India’s steel production cost is about $320-$340 per tonne compared to $400 in China and the global average of $390, it is uncompetitive in global markets due to freight costs, higher credit costs, industrial power tariffs, high iron ore royalties, import duties and cess on coking coal.

“For example, freight cost from Jamshedpur to Mumbai can be as high as $50/tonne in comparison with $34 a ton from Rotterdam to Mumbai... These factors have made Indian steel uncompetitive as the final cost of steel rises to around $420 per ton,” he said.

A day ahead of its introduction, the Centre has turned “optimistically cautious” about its regional connectivity scheme, which aims to activate torpid airports and make flying a cheaper option, Civil Aviation Secretary R.N. Choubey said.

“This particular area of business is happening for the first time on a large scale so it is not something which is easily understood (by entrepreneurs),” Mr. Choubey said at the sidelines of an event here.

“Therefore, I can say that we are cautiously optimistic.”
“I am not anticipating a flood of entrepreneurs who will queue up immediately after the scheme is launched but we will provide full support to airlines which wish to be a part of it,” he said.

The civil aviation secretary’s comments comes a day ahead of the regional connectivity scheme that will offer passengers air fares for Rs.2,500 for an hour’s journey to an unconnected airport. The Centre plans to revive dormant airports and attract regional airlines under the scheme.

To help airlines offer cheaper airfares on such flights, the Centre will provide subsidies to them by creating a regional connectivity fund. The fund will be financed by a levy on domestic flights on major routes.

However, most domestic airlines have termed the move illegal and are likely to challenge it in courts.

In a bid to make the scheme more attractive for lessors, the Union Civil Aviation Ministry has issued draft rules to help aircraft leasing firms to take back aircraft quickly from defaulting airlines.

Leasing norms
On request of the lessor, the registration of all planes will be cancelled within five working days and consequent-
ly, the Centre has to take action for export and physical transfer of the plane within another five days, draft Aircraft (Amendment) Rules, 2016 published by the Ministry said here.

When Kingfisher Airlines had ceased operations in 2012, the lessors faced legal hurdles in re-possessing the aircraft as the regulator, Directorate General of Civil Aviation, was not de-registering the aircraft which was an essential requirement for taking back the planes.

Minister of State Civil Aviation Jayant Sinha said that land and skill development were the two big bottlenecks grappling the aviation sector today.

“There are two constraints – skill development and land development.

“We need to resolves these bottlenecks to achieve a consistent 10-12 per cent growth in aviation sector every year,” Mr. Sinha said at the event.

He said availability of large area of land is an issue to ad-
New APMC Act in 2017 to boost farmers’ income

Government will be ready with second version of model Agricultural Produce Market Committee (APMC) Act by next year, aiming to increase farmers’ income by measures like taking contract farming out of the law. NITI Aayog and Agriculture Ministry are working on the new model law, which can be adopted by the states. At present, few states like Punjab have come out with separate contract farming law.

The new APMC Act will also have provision for promoting online or spot (e-national agriculture market) agriculture market platforms and ensure that all these measures are revenue neutral for states.

Jute industry seeks continued protection

The jute industry stressed on the importance of continuation of the protection extended through the mandatory Packaging Control Act at a meeting where the industry’s “over dependence on one product and a single-customer” also figured on the agenda. The meeting was chaired by the Union Textile Minister Smriti Irani — her second such stakeholders meeting, since taking charge. Among the other points of discussion were quality of B-Twill bags used for packing foodgrains, productivity norms for man and machine, increasing exports and jute goods diversification.

The issue of improved living and working conditions, and compliance with statutory payments and payments of workers dues came up for discussion. The issue of the protection extended to the jute industry featured prominently. It was pointed out that the Jute Packaging Materials Act, 1987 was meant as a substitute to the industry’s growth and development.

Over the years, the Act has undergone substantial dilution. While fertiliser and cement sectors have been totally exempted from using jute packaging, there has been relaxation in case of sugar and foodgrains as well. As against 100 per cent norm, only 20 per cent of the sugar output and 90 per cent of foodgrains are required to be packed in B-Twill sacking now.

The domestic market was the mainstay of the 12.3 lakh tonnes jute goods industry with 74 per cent of the output being accounted for by sackings. Domestic consumption was 87 per cent of consumption with only 13 per cent of this product heading to the export markets.

Bag quality

Admitting that the level of dependence on government for selling sackings was high, the industry said that the quality of the raw jute fibre in India was a reason behind the industry’s lopsided product mix. The industry depends to a large extent on fibre import from Bangladesh, its key competitor.

The meeting also flagged the issue of the quality of jute bags and import of bags from two neighbouring countries, against whom anti-dumping investigations have been started recently. A study conducted on basis of four parameters — dust emission, noise levels, illumination and occupational health safety conditions — found most
Higher subsidy for airlines connecting two regional airports

The Centre will provide higher a subsidy to airlines that operate flights between two regional airports under the regional connectivity scheme.

It will also allow airlines to transfer its rights or contract to get the subsidy from the government and fly on regional routes to another airline operating a similar type of aircraft, according to the regional connectivity scheme document. The subsidy amount given to airlines that operate between two unserved or underserved airports will be 10 per cent higher than the sum offered to airlines that connect only one regional airport. There are 16 airports that have had no flights in the past one year and another 399 airports or airstrips that have not seen flight operations for more than three years.

Three-year subsidy

Under the scheme, also known as UDAN, the Centre will provide a three-year subsidy to fund the losses of airlines to enable them to offer airfares at Rs.2,500 for an hour’s flight on half the seats. The subsidy amount for airlines connecting to one regional airport will vary between Rs.2,350 and Rs.5,100 per seat depending upon the distance covered between two destinations.

In another move, the Union civil aviation ministry has scrapped its earlier proposal to reduce the subsidy amount based on improved passenger load factor. Earlier, the draft scheme had proposed that if an airline manages to fill 90 per cent of its seats by operating regional flights in the first year of its operations, the subsidy amount in the subsequent year would be reduced by half as the route would become viable.

The government has also reduced the bank guarantee to be provided by airlines to fly on each regional route. Airlines will be required to submit a bank guarantee equivalent to 5 per cent of the total subsidy amount. An airline operating a 40-seater aircraft to fly thrice a week throughout the year on an 800-km distance flight will need to submit about Rs.8 lakh as bank guarantee, as against an earlier proposal of Rs.50 lakh for each regional route.

Airlines will still be required to submit an additional bank guarantee of Rs.1 crore if they seeks to fly from a non-operational airport.
SBI Chairman gets one-year extension
The government extended the term of Arundhati Bhattacharya, Chairman, State Bank of India (SBI) by a year, which will enable her to bring down the bank’s bad loans and help complete the merger process of the bank’s five subsidiaries and Bharatiya Mahila Bank.
Ms. Bhattacharya, 60, was appointed on October 7, 2013, for 3 years. The government has issued a notification extending her tenure.

“I am grateful to the government for giving me some more time to take forward the initiatives that I have taken,” Ms. Bhattacharya said. She had earlier said she wanted to complete the merger process in the current financial year. The merger of State Banks of Bikaner & Jaipur (SBBJ), Travancore (SBT), Patiala (SBP), Hyderabad (SBH) and Mysore (SBM), and also of the Bharatiya Mahila Bank, a bank for women set up in November 2013, will add Rs.8 lakh crore, or $120 billion, to its assets and will create a banking behemoth with global scale. With this merger, SBI aims to be in the list of top 50 large global banks.

The board of SBI had cleared the merger plan and had finalised the share swap agreement.

Bank’s health
Apart from completing the merger process, restoring the health of the bank is another priority for the Chairman. Gross non-performing assets of SBI have almost doubled in one year and reached a record level of Rs.1.01 lakh crore as on June 30, 2016 as compared with Rs.56,421 crore a year ago. In term of percentage of gross advances, it was 6.94 per cent as compared with 4.29 per cent a year earlier. Its net NPA was Rs.57,421 crore (4.05%), as compared with Rs.28,669 crore (2.24%), as on June 30, 2015.

SBI, though, has maintained a healthy provision coverage ratio of 62 per cent. All public sector banks and a few large private sector banks have seen a sharp rise in non-performing assets in the last three quarters due to the asset quality review of Reserve Bank of India (RBI). But SBI’s health is seen as being better than that of other public sector banks. SBI had put out a watch list of loans, or accounts that could potentially become NPAs, of Rs.30,000 crore, which is smaller than its peers’.

Ms. Bhattacharya had earlier said in an interview that NPA cycle would turn from the second half of this financial year, and the headline numbers would start declining.

Centre rethinks plan to widen EPF coverage
The centre is reconsidering a plan to widen the social security net for workers by bringing more factories under the provident fund coverage. The Cabinet Secretariat has pointed out a few contradictions in the Labour Ministry’s proposal to amend the Employees’ Provident Fund and Miscellaneous Provisions Act of 1952, senior labour ministry officials said.

The Labour Ministry had proposed to bring down the threshold limit for coverage of firms under the Employees’ Provident Fund (EPF) to factories with at least 10 workers. At present, the EPF Act is applicable to factories with minimum 20 workers.

Senior Labour Ministry officials said the proposal to decrease the threshold limit was found to be contradictory with another proposal in the Act to give an option to workers to switch to the National Pension System (NPS), managed by the Pension Fund Regulatory and Development Authority.

“It was observed that on one hand, there is a proposal to bring larger number of people under the EPF fold and on other hand, there is another proposal to give workers an option to opt out of EPFO and move to NPS. This is contradictory and needs a re-think,” the official said, on conditions of anonymity.

Further deliberations
“We will go for further internal deliberations before sending the final proposal for Union Cabinet’s nod,” the official added.

In his Union Budget 2015-16 speech, Finance Minister Arun Jaitley had proposed allowing EPF subscribers to opt for NPS and to make EPF contributions optional for workers below a certain income threshold.

In June this year, Centre proposed making EPF optional for textile workers earning less than Rs 15,000 a month as a part of a special package for the garments sector. The government’s proposal to bring factories with at least 10 workers under the EPF fold can bring 50 lakh additional workers under the social security coverage, All India Trade Union Congress Secretary D.L. Sachdev said.

“Central trade unions had unanimously supported the government in its endeavour to provide EPF coverage to factories with at least 10 workers while opposing any move to make EPF optional. However, this comes as a
major setback as around 50 lakh workers could have come under EPF coverage with this move,” Mr. Sachdev said.  
At present, 8.7 crore workers are subscribing to the EPFO out of which around 3.77 crore workers have been making active contributions to their provident fund account till 2015-16, data showed.

Labour meet
The proposal to cover factories with at least ten workers under the Employee Provident Fund Act was one of the recommendations of the 44th Indian Labour Conference Session which was held in February 2012.

Firms press accelerator to boost consumption
The last year has seen a profusion of companies that are looking to give consumers loans of amounts smaller than those doled out by banks, other companies looking to improve the credit ratings of consumers unable to secure loans, and still others trying to speed up the process by which electronic payments are made, and thereby incentivising consumption.

In doing so, these companies are bolstering the one leg of the economy that is emerging as a prime driver of growth — personal consumption.

The Bharat Microfinance Report 2016 by Sa-Dhan, the self-regulatory body for the microfinance industry in India, found that the vast majority — 61 per cent — of the non-income generating microfinance loans given in fiscal 2016 went towards financing consumption.

Housing segment
The second-highest segment was housing, at 18 per cent.

Private Final Consumption Expenditure — the measure of how much is spent on food, clothing, footwear, electronics, etc. — worked out to 55 per cent of India’s GDP in the first quarter of this financial year. It’s been around that mark for a while now, which shows how important private consumption is to the economy.

In order to facilitate this consumption, a number of micro-lending companies that cater to those people looking for small loans that banks are not typically ready to give have sprung up.

One such company is Moneytap, which recently unveiled an app that provides a credit line for consumers through the company’s partner banks, allowing consumers to take a small loan at any point by simply using the app.

“A credit limit is issued by a bank partner,” Kunal Verma, Founder, Moneytap, told The Hindu.

“This allows a person to open their app and borrow from that credit line into their own personal bank accounts instantly. For example, if I have a Rs.5 lakh credit line, then I can borrow any amount within that, and the interest is only charged on what is borrowed, not the entire credit line.”

Instant loans
With the loan tenures ranging from as little as two months to three years, and interest rates between 1.25-1.5 per cent per month, the app allows customers to instantly receive a loan, importantly, even outside of banking business hours.

“We see multiple use cases,” Mr. Verma explained. “Wherever a consumer has to have a pool of money and then has to pay in staggered amounts, like a wedding.

“Money can be taken out in chunks when the right time comes, and only then is interest charged on it. In addition, there also regular use cases, like Diwali season, buying an LED TV, iPhone, gifts, etc.”

And then there are companies like LoanTap Financial Technologies, which raised $3 million in August to expand its business. The Mumbai-based company, aimed at salaried professionals, makes it easy for them to receive credit.

Logging in
A potential borrower simply has to log on to the website using a Facebook or LinkedIn account, fill in the regulation KYC forms, and provide electronic bank statements.
So far, the company has disbursed loans worth Rs.70-75 lakh with an average borrowing amount of Rs.2 lakh for a duration of five years.

Rupeelend, yet another micro-lending company, was started in August 2015.

Occupying an increasingly competitive market, the company has sought to create a niche as an avenue for short-term emergency loans.

While this helps in meeting emergency medical expenses and tiding over salaries that suddenly fall short towards the end of the month, such services also help in servicing EMIs, according to the company’s CEO.

“Many of our clients use our service to pay for their EMIs for their house, or car,” Siddharth Ravindran, CEO of Rupeelend said. “So, in that way, you can say that such loans are fuelling consumption.”

Credit Worthiness
Apart from access to credit, another problem facing a large number of people is the matter of credit-worthiness.

A large segment of the population does not know about
credit scores, let alone how to improve them so that loan applications are not summarily rejected by banks. A number of companies have emerged to address this need as well, with some looking to help customers improve their credit scores and others trying to move past the conventional credit bureau scoring systems to ascertain the true credit-worthiness of a person.

“In India, many borrowers without credit history, collateral or active bank accounts remain ‘unbankable’ for lenders,” according to Index Advisory, a company aiming to bolster the credit bureau system.

“Thousands of people are deprived of medical expenses as they can’t qualify for loans. Many more are left homeless as they can’t get loans from the banks,” it said. The company has introduced a psychometric test that, along with credit scores, can accurately ascertain a borrower’s willingness to pay back. Ideally, this can then be used to provide loans to those who do not have a credit score.

‘New concept’

“It’s a new concept for the BFSI sector,” Yogesh Marwala, Executive Director, Index Advisory said.

“The test promises to considerably reduce risks borne by BFSI sector by assessing various parameters like intention, stability, integrity, business acumen, risk taking ability of the borrower.

“These tests out-perform screening based on personal interviews, biographical data, and past performance on loans taken.”

Companies like Credit Sudhaar address the same problem using different tools.

The reason banks are so wary of giving loans to those with no credit histories is, of course, the risk of default. If they don’t know anything about the potential borrower, then how can they be sure that he will repay the loan?

Social data

“Using concepts like big data, social data like LinkedIn, Facebook, psychometric tests and behavioural tests, we differentiate intentional defaulters and situational defaulters who just did not know,” Arun Ramamurthy, co-founder, Credit Sudhaar said in an interview.

“If an individual tells us that he works for, say, the Tatas, or his Facebook profile names some other company, then that is a red flag,” he said. On the other hand, if all the tools point towards the reliability of the potential borrower, then the bank can be more confident lending to him even though his credit score is poor due to lack of awareness, he added. Finally, there are companies like Trupay that, in easing bank transfers, makes the whole kirana ecosystem far easier to manage. “Kirana stores and local shops often have a concept of udsaar (credit).

“So, using the app, they can keep a track of such instances and send the customer a consolidated amount at the end of a week or fortnight,” Mr. Vivek Lohcheb, the company’s co-founder, said. “In addition, consumers can make payments much easier, using only their phones,” he said.

The risks

However, while all of these companies are making it easier for consumers to spend their money, such easy access to credit comes with its own dangers, according to industry watchers. “I don’t think it is a good thing,” D.K. Srivastava, Chief Policy Advisor, EY India, told The Hindu.

“Lending is done at a certain interest cost. So if it is done for consumption then it could generate a lot of NPAs since the loans are not being put to income generation uses,” Mr. Srivastava said.

New regime at RBI debuts with rate cut

The Monetary Policy Committee (MPC) decided at its first policy review to reduce the benchmark repurchase rate by 25 basis points to 6.25 per cent on Tuesday. The Reserve Bank of India’s key policy interest rate has now been cut to its lowest level since 2011.

“The decision of the MPC is consistent with an accommodative stance of monetary policy in consonance with the objective of achieving consumer price index inflation at 5 per cent by Q4 of 2016-17,” the central bank said in its statement.

Retail inflation dropped to a five-month low of 5.05 per cent in August. Governor Urjit Patel, who briefed the media for the first time since his elevation, gave no hint of what the committee’s future stance on interest rates could be.

However, his colleague on the MPC and RBI Executive Director M.D. Patra hinted that there was scope for policy interest rates to ease further when he said the neutral rate is 1.25 per cent, which is lower than the 1.5-2 per cent regime that prevailed under the previous governor Raghuram Rajan.

The neutral rate is the difference between the risk free rate and inflation — a key determinant of the policy rate. Market participants expect interest rates to ease further in the next policy review in December.

SEBI to audit its own governance standards

The Securities and Exchange Board of India (SEBI) has decided to practice what it preaches in the area of corporate governance and board structure. To start with, the independent board members will con-
duct a performance audit of the regulatory body. The capital market regulator is also in favour of inducting a woman board member – just like the norm for listed companies.

“In the recent board meeting, it was decided that independent board members will evaluate SEBI’s performance,” said SEBI Chairman U.K. Sinha while addressing the annual capital market summit by Federation of Indian Chambers of Commerce and Industry (FICCI).

“The whole-time members will only cooperate and offer assistance while doing it,” he added.

**Walk the talk**

The SEBI chairman, who is due to retire next year in February, said that the regulator would not insist that the market comply with something that the watchdog itself cannot do and that hence, it would evaluate its own corporate governance standards.

Currently, there are four part-time members on the SEBI board along with the chairman and the two whole-time members.

A position of a whole-time member is lying vacant ever since Prashant Saran retired in June.

According to Mr. Sinha, the independent members of SEBI’s board will meet separately to discuss issues related to such a performance audit of the regulator. He, however, did not elaborate on a time-line for such meetings.

Meanwhile, SEBI has also asked the finance ministry to appoint a woman member to the board of the regulatory body.

On a different note, the SEBI chairman said that the regulator is working on allowing new participants and products in the commodity derivatives segment.

Last month, the Securities and Exchange Board of India allowed commodity exchanges to launch option contracts and soon such contracts will be available for trading in two commodities - one each in the agriculture and the non-agriculture space.

**International backdrop**

For the first time in a long time, weak global demand is actually going to drag down trade volumes to decline. It is possible that this week the IMF in its meetings, there will be a further possible downgrading of global growth. I would be surprised if there isn’t.

The systemic central banks of the world continue to pose uncertainties for emerging markets causing volatility in EMs due to mixed U.S. macro data as also in the European Union. There is also the issue of the outcome of the U.S. Presidential elections.

**Asset quality**

The NPA situation is an important issue for the RBI and India. We will deal with the situation with firmness but also with pragmatism so the economy does not feel any lack of credit to support the growth in the economy. But we must remember that the situation has not occurred overnight and therefore will require skill and thoughtful endeavour to resolve.

Just five sectors contribute 61 per cent of the stressed assets of the banking sector – infra, steel, textiles, power and telecom. The sectors are each individually important and dealing with stressed assets will require skill and creativity. There are many reasons that led to this situation, but now helping banks to deal with this situation is of the utmost importance for the country. We will move at various levels to address the situation and we have indeed done so. We are working with the banks and the government on the subject.

**Monetary transmission**

The transmission through the money markets has been swift and decisive. And corporates are using those parts of the financial system more compared to vanilla bank credit. I agree that the transmission to bank lending and to bank borrowers has been less than any of us would have liked. We are hoping that over the next quarter or two, keeping in mind that the government has also reduced the small savings rate, that the MCLR calculation will now throw up more transmission. One thing to distinguish is that for new lending the transmission has been much more.

**MPC’s functioning**

We have been meeting over the last day-and-a-half going through presentations, discussions, drafting and coming to a conclusion on the policy repo rate. We have a great Monetary Policy Committee. The three external members are of outstanding pedigree. They are very well known academics. They have been involved in policy making of one sort or another for a long time. They bring value and
dispersion of opinion which is what the MPC is about. Our discussions were frank, often intense, but always friendly. We allowed each other to speak, and we ensured that there is no rancour and at the end of the day we agreed on a MPC resolution.

**Jaitley warns against risks of negative rates**

India has warned about the risks of low and negative interest rates and “significant loan impairments” in the banking system to global financial stability and called for “de-leveraging” balance sheets to spur growth.

“Disorderly de-leveraging of private debt could also impact growth. In order to guard against these risks, policy frameworks would have to be strengthened by accumulating buffers and de-leveraging balance sheets,” Finance Minister Arun Jaitley said at the annual fall meeting of the IMF and the World Bank.

“Gains from product and labour market reforms and strengthening of risk management practices to address balance sheet vulnerabilities would be helpful in further enhancing resilience,” he said. In his address, Jaitley said global financial stability appears to have improved with easing external financing conditions and some recovery in commodity prices.

“However, risks to global financial stability persist because of low and negative interest rates, overhang of private debt and significant loan impairments in the banking system.” Warning that growing populism could lead to further deterioration of global trade, he advocated multilateral efforts to support global growth.

**Rate cut by central bank unlikely to boost investment**

The Reserve Bank of India (RBI) Governor Urjit Patel appears to have pleased both the hawks as well as doves by cutting the repo rate by 25 basis points. This is lower than the 50 basis points cut that markets were expecting but enough to shed the hawk image that his predecessor had acquired. However, the next few months are going to be important as they will test the Governor’s approach to inflation targeting, a policy recommended by the committee he had chaired as Deputy Governor. In his first policy announcement Dr. Patel had clarified that the policy required targeting a band of 2-6 per cent, not a specific target of 4 per cent for Consumer Price Index (CPI) inflation.

**Private consumption**

“Domestic growth is currently being driven by private consumption rather than private investments,” said Rudra Sensarma, Professor of Economics, Indian Institute of Management, Kozhikode. According to him, close to normal monsoon, would help rural demand while the pay commission effect will support urban spending. There are already signs of a demand revival as evidenced by the rise in automobile sales in September last. Domestic passenger vehicle sales were up by 20 per cent (the highest in over four-and-a-half years) and the momentum in private consumption will continue with the festive season coming up. This will put pressure on prices of most commodities except food – the latter would benefit from a good harvest.

“Overall private investments remained muted due to excess capacity and high leverage across firms”, the rating agency Crisil stated in a recent report.

The rating agency’s upgrades in the current fiscal were primarily led by consumption-linked sectors such as automotive components and packaging. In contrast, investment-linked sectors such as construction, industrial machinery and real estate continued to dominate downgrades led by business-related reasons such as sluggish demand, stretched working capital cycles and pressures on profitability.

The fall in private investments was also in sync with the continuous decline in the production of capital goods, which weighed down the Index of Industrial Production (IIP). Exports remained weak with major markets such as the European Union, the U.K. and the U.S. continued to grapple with sluggish growth.

Crisil added that sustained industrial recovery is not yet on the horizon as indicated by the IIP, which declined in the first half. “So credit quality, especially for investment-linked sectors remained under pressure.”

With a debt-laden corporate sector struggling to invest in fresh projects the government has had to shoulder the responsibility of reviving the capital expenditure (capex) cycle. The RBI’s latest monthly bulletin (September 2016)
now, says M. Senthil Kumar, chairman of Southern India Mills' Association. With a drop in demand in the domestic and export markets, capacity utilisation in textile mills has also come down. With the existing capacity, India can produce up to 500 million kg of yarn a month. However, it is only about 470 million kg now. Bangladesh is the second largest buyer of cotton yarn from India and exports to Dhaka went up by 38.87 per cent in value between April and June this year and 52.1 per cent in terms of volume during the same period. This year, India's exports to Pakistan have also improved in terms of value and volume. Competitiveness of Indian cotton yarn in the international market should improve. Further, fluctuations in cotton price have hit the textile mills, Mr. Kumar said. The government should give two per cent under the Merchandise Export Incentivisation Scheme and three per cent under the interest equalisation scheme for one year. This will help India increase export to other countries too. Cotton Corporation of India should buy 70 lakh to 80 lakh bales of cotton in the peak arrival period and supply it to the mills later to stabilise the prices, he said.

Who will regulate pension products?
The Finance Ministry has set up a high-level committee to consolidate the regulation of pension products that is currently being done by three different watchdogs including the insurance and stock market regulators.

Creating confusion
While the Pension Fund Regulatory and Development Authority (PFRDA) was set up with the intent of regulating all pension products, insurers and mutual funds continue to sell pension products outside its watch, creating confusion among consumers looking to build a retirement nest egg. The move to set up a panel was made after the issue was flagged at recent meetings of the Financial Stability and Development Council chaired by Finance Minister Arun Jaitley.

Pension products floated by insurance companies come under the purview of the Insurance Regulatory and Development Authority (IRDA) while those sold by mutual funds are overseen by the SEBI.

"Right now, (pension product regulation) is piecemeal," PFRDA Chairman Hemant Contractor told The Hindu in an interview. “And I don’t know how much attention, say, a SEBI would be paying to pension products. Their attention would be on mutual funds and capital markets, and IRDA’s focus would be more on insurance. Pensions would be an incidental thing for them. If it were under us,
Draft Water Bill suggests basin-level management

Amid several inter-State disputes over river water sharing, the Centre has brought final draft of the National Water Framework Bill, 2016, that stresses managing water at basin-level and “right measurement” of State’s contribution to river system to resolve conflicts. The draft Bill pitches for establishing River Basin Authority for each inter-State basin to ensure “optimum and sustainable” development of rivers and valleys. The Bill is expected to be placed before the Union Cabinet for its approval in a month, before it is tabled in Parliament.

‘Public trustees’

It suggests States to recognise the principle that the rivers are not owned by the basin-States but are “public trustees.” It says all basin States have “equitable” rights over a river water “provided such use does not violate the right to water for life” of any person in the river basin. The draft Bill says every person has a “right to sufficient quantity of safe water for life” within easy reach of the household regardless of caste, creed, religion, age, community, class, gender, disability, economic status, land ownership and place of residence. It also suggests that States ensure water is conserved. “Presently, there are disputes because nobody [States] knows his/her contribution to a river’s catchment area. When a State will know its exact contribution to the catchment area, it will know quantum of its rightful share. The Bill focuses on right measurement of the water at basin-level,” Water Resources Ministry Secretary Shashi Shekhaw told PTI.

Describing the draft Bill as “comprehensive” one, he said the model law also stresses on Centre and States working in partnership for managing water. It proposes establishing institutional arrangements at all levels within a State and beyond up to an inter-State river basin level to “obviate” disputes through negotiations, conciliation or mediation before they become acute. “All the basin States are equal in rights and status, and there is no hierarchy of rights among them, and further, in this context, equality of rights means not equal but equitable shares in the river waters,” the Bill says.

Water being a State subject, the Bill, however, will not be binding on States for adoption.

PSUs, private firms on par in bankruptcy bill

The draft bill on the resolution of bankruptcy of financial firms would put public sector financial companies on par with their private counterparts, according to Moody’s Investors Service.

“Under existing laws, resolution of public sector banks can only happen by order of the government and in the manner it directs,” according to a note prepared by Moody’s. “This differential treatment would be removed if the bill becomes law, and they would be brought on an equal footing with other financial firms in terms of resolution.”

While the proposed law is a credit positive for banks, Moody’s said it would be a deterrent for senior unsecured creditors due to their altered rankings.
“Under the proposed law, uninsured depositors would rank above senior unsecured creditors in a liquidation scenario, compared to the existing scenario where they rank paripassu (on an equal footing),” the note said.

“Currently, resolution of financial firms in India is based on provisions spread across various laws,” according to the note. “More important, the current provisions are minor parts of laws made for other purposes. Thus, in practice, the resolution process has been ad-hoc to an extent. This bill addresses the lacunae of a having a legally codified framework for resolution, and hence is a credit positive in terms of enhancing overall systemic stability.”

**Significant delineation**

The note also highlighted the fact that once enacted, the Bill would create a significant delineation of regulatory powers between the Reserve Bank of India and the Resolution Corporation (RC), the organisation to be formed under the Bill.

“The RBI would have the predominant regulatory role for banks in the first three categories in terms of risk to viability, while the RC would be the key authority for banks in the last two categories.”

A key role of the Corporation will be to assign risk ratings to financial sector companies based on their viability, according to the draft Financial Resolution and Deposit Insurance Bill, 2016. The ratings will range between ‘low’, “where the probability of failure of a covered service provider is substantially below the acceptable probability of failure”, to ‘critical’, “where the probability of failure of a covered service provider is substantially above the acceptable probability of failure.”

**‘PPP model can revive private investment’**

India’s infrastructure needs can be addressed by enhancing the public-private partnership (PPP) model, which will help attract more private sector investment in sectors such as roads and highways, according to a Moody’s Investors Service report.

“Historical underinvestment and rapid economic growth are straining India’s existing infrastructure,” Abhishek Tyagi, Vice President and Senior Analyst at Moody’s Investors Service wrote.

“While the country’s PPP model has seen reasonable success in some sectors over the last 20 years, PPP activity has been low in the last four fiscal years due to challenges with the model.”

**Project delays**

The sharp drop in private investment in PPP projects in recent years was due to delays in project approvals and land purchases by the government, complicated dispute resolution mechanisms in concession agreements and lower than expected revenues due to aggressive assumptions, Mr. Tyagi wrote.

**‘One India’ push for ease of business**

The Centre is working with State governments to introduce a ‘One India’ concept, the most ambitious ‘ease of doing business’ initiative so far.

Under the ‘one-form-one-portal’ model, aimed at attracting huge investments, the processes will be simplified to an extent where investors will need to fill only a single e-form for investing and doing business anywhere in India. Currently, firms are mandated to complete multiple forms at the Central and State-levels, and it gets more complicated as each State has different requirements and regulations.

**‘Information wizard’**

“We are working on what could be the world’s best single window clearance mechanism with an in-built information wizard that will help investors with the application processes,” a senior official said. “(In this regard), we have just begun talks with the states, and will soon hold discussions with the private sector and users of government services,” the official, who did not wish to be identified, added.

The reform plan is among steps aimed at helping raise India’s global ranking on the World Bank Group’s ‘Doing Business’ index — from 130 in 2016 — to the top 50 among the 189 economies featured on the list. The proposed concept will also make it easy for investors to even change plans midway and shift projects to different locations in India where it is easier to do business.

As an initial measure, a draft ‘Common Application Form’ is being circulated among states for their feedback, the sources said, adding that a few states have already accepted the concept.
However, discussions will be held on possible exceptions, including for environment and security-related clearances. The Centre is already developing an eBiz project that is basically a government-to-business portal. The services offered under the portal — which firms and investors can use 24X7 online — are on starting, running and closing down a business. Introduced in January 2014, the portal has an integrated payment gateway and currently offers 17 pan-India services (at the Central government-level). The state-level services on offer include that of Delhi (two services), Andhra Pradesh (13) and Odisha (15). The upcoming services include seven Central government and other services, 13 from Andhra Pradesh, Maharashtra (10), Delhi (six), and Haryana and Tamil Nadu (eight each). Other States have been asked to link their services to the portal soon, and the aim is to integrate more than 200 services within a few years.

The focus now is on revamping this portal by identifying and removing glitches. The thrust will be on quality by reducing the cost, time and processes involved, and ensuring greater transparency. For instance, States have been asked to do away with the requirement of fees for services, wherever the fee involved is nominal. The portal will also be soon shifted to an ‘open source multi-platform’ system/browser. Also in the pipeline is a permanent account number (PAN)-based Business Identification Number (BIN) for firms. This unique business ID will integrate about 18 identification numbers including the existing Company Identification Number.

Full convertibility on capital account unlikely for few years

India is not looking at full capital account convertibility for the next few years, a senior finance ministry official said. Raghuram Rajan, the previous Reserve Bank of India governor, had said that the central bank was looking at bringing in capital account convertibility in a few years. Even the International Monetary Fund (IMF), that has advocated such convertibility for decades, has become more cautious about its benefits for developing economies in the recent past, the official said.

“I can only say on capital controls, the IMF which has been espousing for the past few decades the cause of full capital account convertibility… over the last couple of years, has also mentioned the fact that there are a lot of caveats to be overcome fully capital convertible for an economy that is not fully mature,” said Saurabh Garg, joint secretary in the Finance Ministry’s Department of Economic Affairs.

Emerging economy

“We are at a stage where we are still an emerging economy,” Mr. Garg said. “We cannot say that we are a mature or developed economy…we would perhaps not be fully capital convertible in the next few years, but I think that's the path we have chosen,” the official told participants at an Indo-Canadian Business Chamber meeting here. He added that it was difficult to predict when full convertibility would be considered.

“My hope is that we will get to full capital account convertibility in a short number of years,” Mr. Rajan had said last April. The then minister of state for finance Jayant Sinha had later endorsed the need for the same in order to deepen capital markets and help India play a more meaningful role in the global economy.

Enumerating the steps taken by the government in the past two years to ease access to foreign capital, be it portfolio flows or foreign direct investment, Mr. Garg pointed out that new instruments have also been made available for foreign investors such as rupee-denominated offshore bonds (also known as masala bonds) and alternate investment funds. The external commercial borrowings framework was liberalised significantly in December 2015 with the caps (on such borrowings) enhanced. Given the fact that we don’t have full capital account convertibility, there would be a certain amount of time when such caps would remain on the ECB framework,” he said.

Capital controls are used by the state to protect the economy from potential shocks caused by unpredictable capital flows. Capital account convertibility means the freedom to convert a currency for capital transactions and the rupee is not fully convertible on that front yet, though capital flows have been liberalised in recent years. “Whether we should already be fully capital convertible or not, I can’t say, but because of that, there are constraints and within those constraints, the government is working to ensure greater access to foreign capital with further liberalisation,” the joint secretary said.
SAARC summit ‘postponed indefinitely’
Blaming India for derailing the SAARC Summit, Pakistan announced that the summit scheduled for November 9 and 10 in Islamabad will now be held on an alternative date, even as Sri Lanka joined others in opposing the summit under the “prevailing environment”. Nepal subsequently issued an official statement seeking an indefinite postponement of the summit.

“A new set of dates for holding of the 19th SAARC Summit at Islamabad will be announced soon, through the Chair of SAARC (Nepal). Accordingly, we have conveyed the same to the Prime Minister of Nepal, the current Chair of SAARC,” a press release from the office of the Spokesperson of Pakistan’s Ministry of Foreign Affairs said.

, Sri Lanka joined India, Afghanistan, Bhutan and Bangladesh in demanding the summit should not be held.

“The General Provisions of the SAARC Charter require that decisions at all levels shall be taken on the basis of unanimity, and this applies to the convening Heads of State or Government of SAARC Member States as well,” the Sri Lankan Foreign Ministry said in a statement, adding, “Sri Lanka condemns terrorism in all its forms and manifestations, and stresses in this regard the need to deal with the issue of terrorism in a decisive manner”.

Countering terror
Addressing the media in Delhi, Afghan envoy Shaida M. Abdali demanded that SAARC should focus on counter-terror initiatives.

“SAARC has to adopt a new approach to ensure security for South Asia. Our previous approach in dealing with terrorism did not work. So Afghanistan has taken the initiative to not participate in the Islamabad Summit. We would like to reach out (to Pakistan) but business as usual cannot continue as global patience with terrorism has grown thin,” Mr. Abdali said.

In its statement seeking an alternate date for the Summit, Pakistan blamed India for “impediments” for the event and said, “The decision by India to derail the Summit effectively contradicts Prime Minister Modi’s own call to fight against poverty in the region. India’s decision to abstain from the Summit on the basis of unfounded assumptions on the Uri incident is a futile effort to divert the attention of the world from the atrocities perpetrated by India in the Indian Occupied Jammu & Kashmir.”

Meanwhile, Ministry of External Affairs spokesperson Vikas Swarup tweeted, ‘We note Pakistan’s decision 2 postpone SAARC Summit. They’ve been compelled 2 recognise the regional sentiment against terrorism.’

Maldives seeks SAARC meet at an early date
The Maldives has urged SAARC members to create an environment conducive to holding the 19th summit at an early date.

The appeal comes after some SAARC countries expressed their inability to attend the summit scheduled for November 9 and 10 in Islamabad because of terrorism and threats to regional and international peace.

A statement from the Maldivian Foreign Ministry said: “The Maldives condemns international terrorism, especially those originating from outside.”

Neighbouring Sri Lanka has expressed regret over the recent developments and said the environment was “not conducive” to holding the summit.

Meanwhile, the Maldivian Democratic Party (MDP), led by the former President Mohamed Nasheed, said it was “deeply saddened” by the loss of Indian soldiers in the recent terror attack. It lauded India for its “continued restraint and measured response.”

It said cross-border terrorism posed a great threat to the region. Pakistan must combat and delegitimise terror groups in the region.

U.K. to begin Brexit process by March 2017
British Prime Minister Theresa May announced that her government will trigger Brexit negotiations by the end of March, putting the country on course to leave the European Union (EU) by early 2019.

The move will plunge Europe’s second largest economy into two years of what is likely to be painful horse-trading with the rest of its EU partners, who have voiced deep frustration at the delay in setting a date to start the divorce proceedings.

Firm commitment
It was Ms. May’s firmest commitment yet to a clear break with the EU since she became Conservative Party leader and Prime Minister in the political upheaval that followed the shock June referendum vote to quit the bloc. “Britain is going to leave the European Union,” Ms. May told the opening day of the Conservative Party conference in the central English city of Birmingham.
“There will be no unnecessary delays in invoking Article 50. We will invoke it when we are ready. And we will be ready soon,” she said, referring to the article in the EU’s Lisbon treaty setting out a two-year process to leave. “We will invoke Article 50 no later than the end of March next year.”

European powers keen to dampen rising euroscepticism in their own backyards have been taking a hard line with Britain, warning that informal negotiations cannot start before the two-year notification process is triggered. Ms. May’s announcement means the process will start before next year’s crucial elections in Germany and France, with an uncertain impact on the polls in the EU’s most powerful nations.

There are already divisions within Ms. May’s government over whether to go for a “hard” or “soft” withdrawal. “Hard” Brexit would mean quickly severing all links with EU institutions and pulling out of the single market, relying instead on World Trade Organization (WTO) rules to trade overseas. “Soft” Brexit would retain access to the single market in some form, but EU leaders have made clear that this would require continued free movement for EU workers into Britain.

Putin scraps plutonium disposal deal with U.S.

Russian President Vladimir Putin ordered a halt to an agreement with the United States on plutonium disposal, citing Washington’s “unfriendly actions”. The deal, signed in 2000, was meant to allow both nuclear powers to dispose of weapons-grade plutonium from their defence programmes, a move seen as a key step in the disarmament process. The two countries recommitted to the deal in 2010. Mr. Putin charged earlier this year that the United States was not honouring the agreement by disposing of plutonium in a way that allowed it to retain its defence capabilities.

The suspension is symbolic of the breakdown in nuclear nonproliferation cooperation, an expert said. The decree published states that Russia is pulling out of the agreement “due to a drastic change in circumstances, the appearance of a threat to strategic stability due to unfriendly actions of the United States toward Russia”. It claimed that Washington was “unable” to carry out the terms of the agreement and that Moscow “must take urgent measures to defend Russian security”.

SAARC must address terror, says Sri Lanka

Pushing for revising the agenda of SAARC, Sri Lanka joined the growing demand that the regional organisation counter cross-border terrorism. Addressing the media after a meeting with Prime Minister Narendra Modi, visiting Prime Minister Ranil Wickremesinghe cited Sri Lanka’s experience with war and terrorism, and warned that SAARC would become irrelevant without addressing terrorism. “The issue of cross-border terrorism is on the table and the heads of states of SAARC will have to address this challenge. SAARC will become irrelevant if cross-border terrorism is not addressed,” Mr. Wickremesinghe said. “Cross-border terrorism might worsen if SAARC is thrown away,” he said and added that three countries out of the eight-member regional grouping was afflicted by security problems. He, however cautioned against war. “I don’t think war [India-Pakistan] is an option. Your Prime Minister has already taken a lot of steps to defuse tensions.” “For India and for me, this is a crucial phase; a solution needs to be found. Let us see how we can move forward on dealing with this phase,” he said asking for diplomatic measures.

Sri Lanka was the fifth country to issue a statement against holding the 19th SAARC summit in Islamabad in November. He said Sri Lanka’s decision against attending the summit was decided through a process of democratic consultations, and highlighted that Sri Lanka was discussing “several options” in shaping the South Asian regional order.

Bilateral issues

India’s preparation to deal with the emerging challenges figured in Mr. Wickremesinghe’s meeting with Mr. Modi and both sides discussed bilateral issues such as India’s aid and technical support to Sri Lanka. In his meeting with Mr. Wickremesinghe, Union Home Minister Rajnath
Singh appreciated that Sri Lanka “is in general agreement with India on the need for a UN CCIT [Comprehensive Convention against International Terrorism].”

Mr. Wickremesinghe met Union Petroleum and Natural Gas Minister Dharmendra Pradhan. He said that in the midst of the “crucial phase” in South Asia, his country would continue with the peace-building process that started following the end of the war against the Tamil Eelam fighters.

“Sri Lanka is a country that works in cooperation with the international community on the basis of truth seeking, justice, reconciliation and development,” he said.

Mr. Wickremesinghe’s demand on SAARC with a counter-terror focus follows India, Afghanistan, Bangladesh and Bhutan citing “cross-border terrorism”, “imposed war” and “interference” from Pakistan, and cancelled planned participation in the November SAARC summit in Islamabad.

Last week, Afghan Ambassador to India Shaida Mohammad Abdali also demanded that the SAARC should address the threat of cross-border terrorism.

**Treaty hurdle no bar for U.S. investments**

U.S. companies are finding novel ways to address investment protection and dispute-related issues with their Indian counterparts as talks remain in a limbo over a proposed Bilateral Investment Treaty (BIT).

According to the USIBC, a premier advocacy body to boost bilateral economic and commercial ties, the BIT is “no showstopper” for the flow of funds between the two nations. The BIT is aimed at promoting and protecting two-way direct investments.

“Companies are finding innovative ways to deal with dispute resolution,” USIBC President Mukesh Aghi told The Hindu. He said, for instance, the Gujarat International Finance Tec-City (GIFT City) – India’s first International Financial Services Centre (IFSC) – has offered American investors the option of using the Singapore arbitration model to solve disputes.

U.S. investors are also signing up with Indian firms to use London and Brussels as seats of arbitration, he added. So, the absence of an India-US BIT is not an issue from an investor’s perspective, Mr. Aghi said.

He also said that at the board-level of a company, the first question that gets asked is about the dispute settlement mechanism for protection of the company’s rights when it proposes investments worth billions of dollars in India.

**U.S.-China investments**

He cited the example of U.S. and China, where a robust bilateral Foreign Direct Investment (FDI) flow between the two countries has happened so far without a BIT. According to ‘statista’, a statistics portal calculating FDI on a historical-cost basis, the FDI from China in the U.S. in 2015 amounted to $14.84 billion, while the U.S. investments in China totalled $74.56 billion in the same year. Therefore, “BIT is not a show stopper,” Mr. Aghi said.

Foreign direct investment from India in the U.S. in 2015 was $9.25 billion, while U.S. investments in India were around $28.34 billion, according to ‘statista.’

Ajay Pandey, Managing Director & Group Chief Executive Officer, GIFT City, said many companies, including from the U.S. and Europe, have shown interest in using the Singapore International Arbitration Centre facility that is coming up in GIFT City.

Mr. Pandey said: “To make GIFT City an attractive investment destination, we have realised that besides ease of doing business initiatives and tax incentives, a robust dispute resolution mechanism is a must.”

Though U.S. and India had held the first round of BIT negotiations in August 2009, talks have not progressed much.

U.S. Ambassador to India Richard Verma had recently said taking forward BIT negotiations have become “difficult” as India’s new ‘Model BIT Text’ (on the basis of which New Delhi will be negotiating BITs with other countries) “substantially narrows the scope of investments” that can be covered by the BIT.

The other concern the U.S. expressed was regarding India’s model BIT text requiring “that disputes be exhausted in local jurisdictions before alternative investor-state dispute mechanisms can be initiated.”

Citing ‘judicial delays’ in India, investors from the developed world have been demanding flexibility in India’s BITs that will allow them to take disputes to international arbitration tribunals without waiting to exhaust remedies available in India. However, after foreign investors invoked existing BITs to drag the government to international tribunals, India has become wary about the Investor-State Dispute Settlement mechanism in its BITs.

Overseas investors usually seek massive amounts as compensation claiming they suffered ‘heavy losses’ due to various factors, including frequent changes in government policy.

**BRICS people’s forums to meet ahead of summit**

A large number of people representing various social movements, trade unions, academia and civil society formations from BRICS countries will assemble at Porvorim...
and to build resistance against neo-liberalism and corporate globalisation.

The meetings, under the banner of People’s Forum, will take place at Xavier Centre of Historical Research at Alto Porvorim, just ahead of the official BRICS Summit to be held in the state.

Goa has been an active site of struggle against neo-liberalism and for women’s empowerment and environmental justice. Groups from Goa along with other organisations from across the country will jointly host the event which will include plenaries, self-organised workshops, cultural events and films.

The opening plenary will see participation by Medha Patkar of the National Alliance for People’s Movements and other eminent leaders of social movements. The workshops will look at people’s alternatives built by social movements in BRICS countries as a counter to neoliberalism.

“BRICS can be a formation to counter US control in world politics and bring to the table the framework of equality, solidarity, mutual development and cooperation, in realising a new world vision of development. But for this, it is necessary to look at development from the lens of the peoples of these countries who have faced the brunt of development propagated by the superpowers which, for instance, marginalised their agricultural and industrial sector,” human rights activist Ms. Albertina Almeida said.

‘BRICS pact may polarise nations’

An immediate push for a BRICS Free Trade Agreement (FTA) will polarise heavily-industrialised and lesser-industrialised nations within the five-member grouping, warned South African trade and industry minister Rob Davies.

In an interview ahead of the Goa BRICS Summit, Davies said, the bloc comprising Brazil, Russia, India, China and South Africa should instead adopt a practical and gradual approach of identifying opportunities in sectors such as ‘aircraft manufacturing and maintenance’ to create value chains in the five emerging economies.

On the ‘informal’ proposal by China for a BRICS FTA, he said South Africa and the African continent have so far been mainly producers of primary products, but want to retain the policy space for industrialisation to reap the benefits of the ‘Fourth Industrial Revolution’ — meaning, industrialisation using computerisation and other newer technologies.

Referring to certain “structural imbalances” in BRICS trade, he said, for instance, South Africa mainly exports raw materials to China and imports fully-manufactured items from that country.

Correcting imbalances

If such a scenario continues, it will not help create value chains that will support industrialisation in South Africa, he said, adding that such imbalances need to be corrected first.

“So we can go for cooperation agreements and have business-to-business contacts, and not get enamoured by the title of a highly ambitious agreement that would only cater to the interests of some, but won’t have broader developmental outcomes,” he said, adding that BRICS countries should discuss ways to promote inclusive growth and reduce inequality.

Davies said it was important that the New Development Bank or the BRICS Bank identified viable renewable energy and infrastructure projects including in South Africa and India, and provide affordable finance.

Also being discussed was a BRICS Visa for easier movement of people, he said.

Regarding the yet-to-be-concluded negotiations on the proposed India-Southern African Customs Union Preferential Trade Agreement that began in 2007, Davies said, “We had lost momentum, but there is an appetite to resume the talks.”

The delays were due to the sensitivities involved in committing to lowering duty barriers.

Austrian govt. to demolish house where Hitler was born

The house where Adolf Hitler was born will be torn down and replaced with a new building that has no association with the Nazi dictator, the Austrian government has announced as it moved to eliminate the property’s pull as a place of pilgrimage for neo-Nazis.

The plan still has to be formalised in legislation and voted on in Parliament. But the Interior Ministry said demolition was recommended by a government-appointed commission.

With the Social Democratic and centrist People’s Party in the majority, and most opposition parties expected to support the plan, passage was likely no more than a formality. Interior Minister Wolfgang Sobotka said that “a
thorough architectural remodelling is necessary to permanently prevent the recognition and the symbolism of the building.”

Ministry spokesman Karl-Heinz Grundboeck said that means that except for its foundations, nothing will be left of the house in the western town of Braunau and that a new structure will be erected in its place.

A ministry statement quoted Mr. Sobotka saying he wants to ensure that any association with Hitler is eliminated at the site, adding that he could conceive of it being repurposed to house either government or social agency offices.

The statement said the commission had recommended against leaving the site empty, which could be interpreted as an attempted “denial of Austrian history.”

Will continue to play a full role in EU till we leave, says May

Theresa May, Prime Minister of United Kingdom (U.K.) vowed that Britain will play a full part in the European Union (EU) until it leaves. Ms. May was to use the meeting in Brussels to update EU counterparts on her plan to start formal exit talks by the end of March, paving the way for Britain to leave the bloc by early 2019. But as she arrived to take the seat, she made clear Brexit was not the only issue on the table, calling for a “robust and united” EU response to Russia’s “atrocities” in Syria.

“The UK is leaving the EU but we will continue to play a full role until we leave and we’ll be a strong and dependable partner after we’ve left,” she told reporters.

EU president Donald Tusk repeated that there would be no negotiations before Britain triggers Article 50 of the EU's Lisbon treaty, which begins a two-year countdown to leaving.

Ms. May’s plan to trigger Article 50 by March, unveiled at her party conference earlier this month, has been welcomed by European leaders. But she angered many member states by stating her intention to limit EU migration into Britain, while also seeking “maximum freedom” to operate in the EU’s single market.

European leaders have repeatedly said the two demands are incompatible, and warned London should expect to pay a heavy price for its decision to leave.

In a sign of the complexity of the discussions ahead, Ms. May had indicated that she could seek to extend the negotiation process, telling lawmakers it might take “two years or more”.

Fighting OPEC only for the ‘brave,’ says oil bull Hall

OPEC is back in the business of influencing oil prices as Saudi Arabia works with Russia and Iran to limit output, and only “a brave person” would bet against this, oil bull Andy Hall said in his latest investor letter.

The hedge fund manager is up nearly 18 per cent for the year at his $2.5 billion Astenbeck Capital Management in Southport, Connecticut, after his fund rose 6 percent in September as oil rallied.

Capping output

With the Organization of the Petroleum Exporting Countries now looking to limit output for the first time since 2008, the cartel can no longer be ignored, he said in Astenbeck’s October investor letter, seen by Reuters.

OPEC declined to cut output two years ago after oil breached $100 a barrel, instead letting the biggest oil market collapse in a generation happen as the price plunged.

“Now Saudi Arabia has declared it wants higher prices and is working with the rest of OPEC - and quite possibly Russia - to achieve them by curbing production,” he said, adding that this included Saudi arch rival Iran.

“It’s a brave person who bets against this combination of factors.”

Algiers deal

Hall’s remarks come as OPEC officials embark on an unusual flurry of meetings in the next six weeks to nail down details of the Algiers deal. Oil prices settled down 1 percent after hitting June highs above $50 this week. Prior to that, they jumped as much as 15 percent over a week after OPEC announced its planned cuts on Sept. 28.

Still, the market is trading at just half of the mid-2014 high above $100.

Astenbeck did not return an email seeking comment.

OPEC hopes to bring its output to 32.5 million to 33 million barrels per day, cutting about 700,000 bpd from a global glut estimated by analysts at 1.0 million to 1.5 million bpd. The amount that each member cuts would be decided at the group’s policy meeting in Vienna in Nov. 30, it said.

OPEC pledge

Many analysts are skeptical of OPEC’s pledge as it has been maxing out production whenever possible.

“Quibbling over whether Angola will honor a commitment to cut its production by a few tens of thousands of barrels...
per day is really not the issue," Hall wrote, adding that the output of most OPEC members has possibly peaked in recent years.

What mattered was the cartel saying it “was back in business ... planning to once again control its collective production, which still accounts for a third of global oil production and the majority of oil exports," he said.

Hall is best known for earning a $100 million trading bonus from Citigroup by correctly calling oil’s first move above $100 before the financial crisis. He has not done as well at Astenbeck, which he officially launched in 2009. He posted a 36 per cent loss last year, his worst, by underestimating the potent supply from U.S. shale oil.

**Canadian major buys 20% in Edelweiss ARC**

Caisse de dépôt et placement du Québec (CDPQ), one of North America's largest pension fund managers, announced a long-term partnership agreement with Edelweiss Group.

CDPQ is a Canada-headquartered long-term institutional investor that manages funds primarily for public and para-public pension and insurance plans. As on June 30, it held $254.9 billion in net assets. As part of the tie-up, the foreign investor will acquire a 20 per cent equity stake in Edelweiss Asset Reconstruction Company (EARC), which has assets totalling Rs.30,000 crore. The agreement also includes target investments by CDPQ of Rs.5,000 crore over four years that will provide Edelweiss Group with capital to invest in stressed assets and private debt opportunities in India, totalling between Rs.12,000 crore and Rs.14,000 crore, said a statement jointly released by Edelweiss and CDPQ.

‘*World Bank must aid countries to manage shift away from coal*’

The World Bank and other global development lenders like the Asian Development Bank must help countries such as India to finance the shift of their coal production to more efficient technologies so they can meet their COP21 commitments, World Coal Association Chief Executive Benjamin Sporton said.

By not financing coal projects, the World Bank is actually pushing countries to use inefficient technologies leading to higher emissions, Mr. Sporton told The Hindu.

“The World Bank has taken a policy view that they don’t want to finance coal,” Mr. Sporton said in an interview. “But we have seen evidence from some countries where, because the World Bank does not invest in coal and so does not invest in super critical and ultra-super critical plants, these countries invested in sub-critical plants, which have much higher CO2 and particulate matter emissions.”

Super critical and ultra-super critical (USC) plants (USC) substantially reduce carbon dioxide emissions and virtually eliminate particulate matter emissions, Mr. Sporton added, saying that India must invest in them despite their higher upfront cost.

“As we make new coal projects in India, we should ensure that the default technology should be super critical or USC,” he said. “The existing sub-critical projects need to be seen on a case-by-case basis on whether they should be upgraded or shut down and replaced.”

“But what needs to be made clear is that countries like India have committed to a path that includes coal, so international development banks must enable these countries to meet their targets,” Mr. Sporton said. “India’s Paris commitment includes building more super critical and USC plants and the international banks must help them do that.”

The Intended Nationally Determined Contributions submitted by 19 countries — India included — said they were going to use coal, Mr. Sporton said. “India basically said in its INDC that coal would be the backbone of its energy mix for decades to come.”

“Even if you look at the U.S., their Clean Power Plan says that coal would be about a quarter of their energy mix by 2030,” he said. “So, even developed nations need coal. In my mind, the Paris agreement is about reducing the emissions from coal, rather than reducing coal itself. The problem is carbon dioxide, not coal.”

India’s push towards renewable energy, while lowering the share of coal in the overall energy mix, does not mean that coal is going to be done away with, Mr Sporton said. “Between now and 2040, electricity supply will triple, coal will almost double and non-hyrdro renewables will see a 10-times increase.”
India and The World

SAARC summit ‘postponed indefinitely’
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, Sri Lanka joined India, Afghanistan, Bhutan and Bangladesh in demanding the summit should not be held.

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Counteracting terror
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Meanwhile, Ministry of External Affairs spokesperson Vikas Swarup tweeted, ‘we note Pakistan’s decision 2 postpone SAARC Summit. They’ve been compelled 2 recognise the regional sentiment against terrorism.’

India may consider Iran’s plan to develop Chabahar airport
India may examine a proposal from Iran to develop the airport at its strategic Chabahar port as part of comprehensive infrastructure development that includes rail-road connectivity to the port.

The Chabahar port in the Sistan-Balochistan province on the energy-rich nation’s southern coast lies outside the Persian Gulf and is easily accessed from India’s western coast bypassing Pakistan.

“There is already an operational airport at Chabahar. The Iranian delegation to India has asked us whether India would be willing to develop and modernise it during the review on the latest development and situation on the bilateral pact...on the Chabahar port,” an official told PTI.

Apart from discussions on expanding scope of cooperation to cover development of the entire Chabahar port, it was discussed that air transport could be of much significance, the official said.

The high-level Iranian delegation led by Minister of Roads and Urban Development Dr Abbas Akhoundi and comprising Ambassador Gholamreza Ansari and Deputy Minister and MD for PMO Mohammad Saeid Nejad, among others, held a meeting with Indian authorities led by Transport Minister Nitin Gadkari here.

The official said Chabahar has an operational airport and the Iranian minister enquired whether India would be willing to modernise it.

After meeting the Iranian team and a delegation from Afghanistan, Mr. Gadkari hoped that Chabahar project will open a new gateway for development of India, Iran and Afghanistan by boosting connectivity and trade.

A “milestone” pact on the strategic Chabahar port in southern Iran that will provide India access to Afghanistan and Europe by passing Pakistan was signed by India and Iran in May this year.

Maldives seeks SAARC meet at an early date
The Maldives has urged SAARC members to create an environment conducive to holding the 19th summit at an early date.

The appeal comes after some SAARC countries ex-
pressed their inability to attend the summit scheduled for November 9 and 10 in Islamabad because of terrorism and threats to regional and international peace.

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The neighbouring Sri Lanka has expressed regret over the recent developments and said the environment was “not conducive” to holding the summit.

Meanwhile, the Maldivian Democratic Party (MDP), led by the former President Mohamed Nasheed, said it was “deeply saddened” by the loss of Indian soldiers in the recent terror attack. It lauded India for its “continued restraint and measured response.”

It said cross-border terrorism posed a great threat to the region. Pakistan must combat and delegitimise terror groups in the region.

Centre to flag H1-B visa curbs

India is likely to raise its concerns in an upcoming meeting with the U.S., over a proposed legislation seeking to impose greater costs on firms that temporarily hire highly skilled foreign workers.

The development comes in the backdrop of the U.S. Presidential election campaign where claims of local unemployment due to immigration and outsourcing have become a topic of debate.

During the forthcoming U.S.-India Trade Policy Forum (TPF) meet, New Delhi is expected to take up the Indian IT industry’s concerns about the proposed ‘Protect and Grow American Jobs Act’ that was introduced in the U.S. House of Representatives in July.

The proposed legislation is also called the ‘Issa’ Bill as “the bipartisan legislation” was introduced by U.S. Congressman Darrell Issa, aiming to “stop the outsourcing of American jobs by companies abusing the H1-B visa program.”

The House Judiciary Committee is to vote on the Bill that is being opposed by the Indian IT sector (the main users of H1-B visas), the apex IT industry body Nasscom and the US-India Business Council (an advocacy body for boosting US-India business ties).

India had in March said it had initiated a World Trade Organisation dispute proceeding against the U.S. for increasing fees on H1-B and L-1 non-immigrant visas.

“The Issa Bill is a bigger issue than the (H1-B and L-1) visa fee hike,” USIBC President Mukesh Aghi said in an interview. “If it becomes a law, it will kill the Indian IT industry. We are campaigning with (U.S.) Congressmen and Senators to convince them not to support the Bill. However, it is election season and logic does not prevail.”

The current H1-B norms under the (U.S.) Immigration and Nationality Act require H1-B ‘dependent’ companies (those with over 50 full-time equivalent employees of which 15 per cent or more are on H1-B visas) to submit certain documents.

Troublesome paperwork

However, firms are currently granted exemptions to ease their documentation-related troubles. They need not go through the troublesome paperwork if the potential H1-B employee has an equivalent of a Master’s degree or higher and he or she is paid at least $60,000 annually.

The ‘Issa’ Bill aims to do away with the Master’s degree exemption (as “they are easily obtained by foreign workers”) and hike the minimum annual salary threshold from $60,000 to $100,000 with an inflation adjustment. The new Bill seeks to “make it much harder for firms to bring in workers at a salary that could undercut American jobs.”

Sources said the Indian government and the IT industry had taken up the issue with U.S. government officials and businesses at a meeting of the bilateral working group on IT & communication technology. However, they were told that while the U.S. government understands the concerns, nothing can be done to prevent the US legislators from bringing up such Bills.

Industry sources said they fear further tightening of the Issa Bill as some American politicians recently claimed that it had left loopholes that the H1-B users can take advantage of. Referring to the recent debate on the Bill which allowed the $100,000 minimum annual wage threshold mentioned in it included ‘cash bonuses’, some U.S. legislators said this provision could be misused as often, bonuses are conditional on some goals being achieved. This could mean that the H1-B user firms might get away with actual lower annual wages.

Also, some legislators have demanded a higher minimum threshold since average annual IT salaries in urban areas exceed $100,000 and could therefore lead to locals with higher salaries being replaced by foreign workers.

India fair to boost intra-BRICS trade

To boost trade among the BRICS nations, India, for the first time, will organise a trade fair for the bloc that also includes Brazil, Russia, China and South Africa.

Intra-BRICS trade in 2014 was just $297 billion — less than five per cent of the $6.5 trillion worth trade that the five countries had with the world that year. Goods imports from the world into the BRICS countries were $3.03 tril-
il in 2014, while global goods exports of BRICS countries were $3.47 trillion that year.

**First fair**
The first BRICS Trade Fair & Exhibition will be held from October 12-14 in the national capital, ahead of the BRICS political summit in Goa (October 15-16, 2016). This initiative was proposed by Prime Minister Narendra Modi last year. The focus of the Fair is ‘Building BRICS – Innovation for Collaboration’. The Fair is meant to give an impetus to intra-BRICS economic engagement, an official statement said. It will showcase about 20 key sectors. These include aerospace, agro-processing, auto, chemicals, green energy, healthcare, railways, textiles, infrastructure, IT, engineering goods, tourism, gems & jewellery and skill development.

Besides established companies, start-ups and innovators from BRICS will showcase their offerings to help technology solution providers share knowledge in dealing with challenges in healthcare, education, energy efficiency, waste management and urbanisation management. Leaders from Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand have been invited for meetings at the Fair.

**SAARC must address terror, says Sri Lanka**

Pushing for revising the agenda of SAARC, Sri Lanka joined the growing demand that the regional organisation counter cross-border terrorism.

Addressing a meeting after a meeting with Prime Minister Narendra Modi, visiting Prime Minister Ranil Wickremesinghe cited Sri Lanka’s experience with war and terrorism, and warned that SAARC would become irrelevant without addressing terrorism.

“The issue of cross-border terrorism is on the table and the heads of states of SAARC will have to address this challenge. SAARC will become irrelevant if cross-border terrorism is not addressed,” Mr. Wickremesinghe said.

“Cross-border terrorism might worsen if SAARC is thrown away,” he said and added that three countries out of the eight-member regional grouping was afflicted by security problems.

He, however cautioned against war.

“I don’t think war [India-Pakistan] is an option. Your Prime Minister has already taken a lot of steps to defuse tensions.”

“For India and for me, this is a crucial phase; a solution needs to be found. Let us see how we can move forward on dealing with this phase,” he said asking for diplomatic measures.

Sri Lanka was the fifth country to issue a statement against holding the 19th SAARC summit in Islamabad in November. He said Sri Lanka’s decision against attending the summit was decided through a process of democratic consultations, and highlighted that Sri Lanka was discussing “several options” in shaping the South Asian regional order.

**Bilateral issues**

India’s preparation to deal with the emerging challenges figured in Mr. Wickereremesinghe’s meeting with Mr. Modi and both sides discussed bilateral issues such as India’s aid and technical support to Sri Lanka. In his meeting with Mr. Wickremesinghe, Union Home Minister Rajnath Singh appreciated that Sri Lanka “is in general agreement with India on the need for a UN CCIT [Comprehensive Convention against International Terrorism],” Mr. Wickremesinghe met Union Petroleum and Natural Gas Minister Dharmendra Pradhan.

He said that in the midst of the “crucial phase” in South Asia, his country would continue with the peace-building process that started following the end of the war against the Tamil Eelam fighters.

“Sri Lanka is a country that works in cooperation with the international community on the basis of truth seeking, justice, reconciliation and development,” he said. Mr. Wickremesinghe’s demand on SAARC with a counter-terror focus follows India, Afghanistan, Bangladesh and Bhutan citing “cross-border terrorism”, “imposed war” and “interference” from Pakistan, and cancelled planned participation in the November SAARC summit in Islamabad.

Last week, Afghan Ambassador to India Shaida Mohammad Abdali also demanded that the SAARC should address the threat of cross-border terrorism.

**India calls Security Council unresponsive, ineffective**

India strongly criticised an “unresponsive” Security Council for being indecisive on sanctioning leaders of organisations that it had designated as terrorist entities after China extended its “technical hold” on India’s bid for a U.N. ban on JeM chief Masood Azhar.

India’s Permanent Representative to the U.N., Syed Akbaruddin, told the General Assembly that the 15-nation Security Council, the “principal organ” tasked with the maintenance of peace and security, had in a variety of ways become “unresponsive to the needs of our time and ineffective to meeting the challenges it is confronted
with”. Without naming China, Mr. Akbaruddin referred to its technical hold on India’s bid against Azhar, saying the council was a body that “ponders for six months whether to sanction leaders of organisations it has itself designated as terrorist entities”. “Then, unable to decide, it gives itself three more months to further consider this issue. One has to expectantly wait for nine months before the process is completed to know if council members have decided on a single issue,” he said in the General Assembly debate on the Report of the Secretary-General on the Work of the Organisation here. The Chinese hold lapsed, and had it not raised an objection, the resolution designating Azhar a terrorist would have been passed automatically.

Indo-Pak chill won’t impact S. Asia
The current standoff between New Delhi and Islamabad will not impact the growth prospects of the South Asian region including India, the Geneva-based ‘World Economic Forum’.

Fastest growing
Speaking to media persons ahead of the WEF-Conference of Indian Industry (CII) ‘India Economic Summit’ that will begin, Jennifer Blanke, chief economist and member of the executive committee, WEF, said South Asia was the world’s fastest growing region and there was no reason to believe that the recent geopolitical tension would impact the region’s growth prospects.

“There is a sense of excitement that growth will happen and I remain bullish on South Asia,” Ms. Blanke said. “There are several challenges in the region, which are at the same time opportunities as well,” she said.

Chandragjit Banerjee, director-general, CII, also said the economy and business in India and South Asia would not get affected due to the tension at the India-Pakistan border.

“We see demand picking up and more investments coming in,” Mr. Banerjee said. “There has been a strong monsoon and good agricultural bounce-back... Indian industry has appreciated the government’s position on foreign policy and it has had a positive impact so far on the region’s growth.”

Philipp Rosler, member of the managing board, WEF, told The Hindu: “The more peaceful the environment, the better it will be for investments and business. We are lucky the Summit has not been affected due to the tension. However, at the same time, we hope for a quick and peaceful resolution (of issues).”

On criticism that the Summit was losing relevance as important members of the NDA government, including Finance Minister Arun Jaitley were not taking part in it, Banerjee said Mr. Jaitley was unable to attend as he was on an official visit to Canada and the U.S.

Summit’s focus
Besides, the Summit’s focus was on topics that concern ministries other than finance, he said. These included the digital economy, travel & tourism, energy, entrepreneurship, infrastructure, start-ups, skill development, gender equity, urbanisation, boosting manufacturing and urbanisation.

Ms. Blanke said though monetary policy is important to boost growth, structural reforms such as ensuring labour market flexibility were also critical to power growth. Sarita Nayyar, managing director, WEF USA said the WEF was undertaking some initiatives with States including Maharashtra, Karnataka and Andhra Pradesh to increase farmer income by helping forge partnerships around value chains. Another important topic of discussion would be fighting cybercrime through public-private partnerships, she said. Mr. Rosler said the WEF was looking to help kick-off some projects in digital infrastructure, financial inclusion, as well as education and health.

India-EU free trade talks by year-end, says German envoy
German Ambassador Martin Ney said India and the European Union need to have a modern, bilateral investment protection agreement as the existing pact between them has become “somewhat outdated.”

“There is a definite need for a modern investment protection agreement. The existing agreement needs a fresh look at the legal route,” he declared, while expressing optimism over the negotiations on the Free Trade Agreement between India-EU to resume by the year end.

Stating that both India and the EU realised the need for a modern investment protection agreement, Mr. Ney said Prime Minister Narendra Modi and German Chancellor Angela Merkel had, a year ago, favoured resumption of the FTA negotiations.

Year-end resumption
Ever since, there had been some movement, including EU Commissioner Cecilia Malmstrom writing to her counterpart in India offering to resume negotiations.

“I am quite optimistic that by the end of the year we might see resumption of the (FTA) negotiations,” the Ambas-
India seeks reforms to U.N. panel
India told the 1267 Committee of the United Nations in March that it had proscribed Jaish-e-Mohammed but did not suggest the need to act against its “main leader, financier and motivator” Masood Azhar. India sent the request to the committee following the January 2 Pathankot attack which it blamed on the outfit. India also blamed the September 18 Uri attack on the group. However, the bid to designate Masood Azhar as an international terrorist has run into difficulty, with China extending its technical hold on India’s submission.

Seeking reform of the working of the committee, Vikas Swarup, spokesperson of the Ministry of External Affairs External Affairs, said the committee was non-transparent and it had to address procedural shortcomings. In Pakistan, a major debate has broken out after Dawn, a prominent newspaper, reported that Pakistan’s Foreign Secretary Aizaz Ahmad Chaudhry told the military and intelligence leadership that Pakistan would risk international isolation if it failed to contain terror organisations such as Jaish-e-Mohammed, Lashkar -e-Taiba and the Haqqani Network.

In its report on a special briefing that Mr Chaudhry gave for a group of military and civilian officials, the newspaper said Mr. Chaudhry asked the ISI and the military to stop supporting cross-border terrorism.

India has termed the report “speculative,” but the report was echoed by prominent leader of Pakistan People’s Party Aitzaz Ahsan who said Bhutan, Nepal, Bangladesh and Afghanistan left Pakistan.

India, Sri Lanka eye economic pact
Prime Minister Narendra Modi and Sri Lanka Prime Minister Ranil Wickremesinghe will sign an enhanced bilateral economic partnership by the end of this year to allow the free flow of services, investments and technology. This will be in addition to the existing Free Trade Agreement (FTA) between the two nations.

Mr. Wickremesinghe said that closer economic ties can accelerate growth among India’s five southern States and Sri Lanka and categorically denied there was any military engagement involved in the island nation’s negotiations with China for its ‘One Road, One Belt’ initiative. “Prime Minister Modi and I decided we must conclude it (the proposed technology and economic co-operation agreement) by the end of this year,” Mr. Wickremesinghe said, speaking at the India Economic Summit hosted by the World Economic Forum and CII in the capital. “This offers a strategic economic advantage to our country and the fastest-growing southern Indian States.”

Southern States
Sri Lanka and the five southern States, including Karnataka, Andhra Pradesh and Tamil Nadu, together have a population of 272 million people and a combined gross domestic product of more than $500 billion, Mr. Wickremesinghe said. “These five States, with Sri Lanka, have an economy, whose GDP is equivalent to that of Sweden.” There is room to grow much faster if the two countries work together, he said.

“We are cognizant that the economic asymmetry between us and India is going to increase in the future, when the latter emerges as a global player in an increasingly multipolar world,” he said, reasoning out the need to deepen ties.

Sri Lanka suggested the creation of a larger special zone of economic co-operation around the Bay of Bengal to India, which takes on board Singapore, Indonesia and Malaysia in addition to BIMSTEC countries. BIMSTEC stands for Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Co-Operation and its members are Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal.

“He’s have a whole area around the Bay of Bengal of vibrant economic cooperation and a vibrant one. That’s what we envisage and should work for. The growth is here,” Mr. Wickremesinghe said.

Sri Lanka is negotiating a Free Trade Agreement (FTA) with Singapore, while India already has comprehensive economic partnership pact with the latter, so there is scope for a trilateral arrangement to boost the three economies, he said.

Beyond China
Seeking to allay India’s concerns about the island nation’s ties with China, the Sri Lankan Prime Minister said they are negotiating an FTA with China under its ‘One Belt, One Road’ initiative as it is necessary to make the...
Chinese investments in the country realise their full potential. “There’s been a lot of suspicion as to a military element in it,” Mr. Wickremesinghe said. “There is none,” he asserted.

He took a jab at the developed world and said that Asia’s fast growing economies could bail out the world economy. “The rules of globalization were written by the West and the Empire,” Mr. Wickremesinghe said. “We have only played by it. At the end of the day, it’s not neoliberalism or free-market or anything else that worked,” he said. “Asia will bail the world out, if we are allowed to write the rules,” Mr. Wickremesinghe said. “Otherwise we create our own system and deliver (on making our people happy) by building our own markets,” he added.

**GE to raise exports from India**

American conglomerate GE may ramp up its exports from India, its vice-chairman John Rice said and urged India to create a new export credit agency to boost exports and add jobs.

“It is good to have manufacturing capabilities, but the true benchmark is to compete on a global scale. We export 50 per cent of what we make in India and we believe that number should go even higher,” Mr Rice said at the India Economic Summit in the capital.

**Export emphasis**

“GE has been making in India for a long time and we have made significant new investments in Bihar and Pune,” Mr. Rice said. “I would offer a simple suggestion that the government’s Make in India program should put more emphasis on exports,” said Mr Rice, who is also co-chair of the summit hosted by World Economic Forum and CII.

**Job creation**

As India needs to create one million jobs every month and help people keep those jobs, the GE vice chairman said that it is imperative to create the right skill sets for the youth to get jobs and perpetuate a culture of productivity. “We must think of what is required in the 21st century, with a fourth industrial revolution under way. Are we collectively, whether it is industry or government, investing in the right training and capacity building for that?” he said. He mooted an export credit agency to spur Indian exports.

Commerce and Industry Minister Nirmala Sitharaman reacted with caution to the idea of a new export credit agency and said: “That can always be thought of, but several aspects would need to be attuned to India’s needs.” India already has two agencies for export finance and credit — Exim Bank of India and the Export Credit Guarantee Corporation of India.

**India seeks greater pharma market access in Japan**

Seeking greater market access for the Indian pharmaceuticals sector in the Japanese market, Commerce Minister Nirmala Sitharaman said the share of India in the Japanese drug market continued to be below par and limited mostly to active pharmaceutical ingredients (or APIs - raw materials for drugs). She said the demand for generic medicines in Japan and India’s capability to meet this demand can prove a win-win for both countries.

“The Japanese pharmaceutical market offers a huge untapped potential for Indian pharma industry,” an official statement quoted Ms. Sitharaman as saying. “India’s strength in pharma sector is well established. This, coupled with the decision of Government of Japan towards attaining an 80 per cent share of generic medicines by 2018, should provide an opportunity for the generic drug industry of India,” according to the statement. Indian companies should use the India-Japan Comprehensive Economic Partnership Agreement (CEPA) much more to boost exports to Japan, she said at a seminar organised by think-tank RIS.

The minister voiced concern over India’s trade deficit with Japan increasing from $3.1 billion before the CEPA was inked in 2011 to $5.2 billion thereafter. She said there was a need to address implementation issues of CEPA.

For example, she said, Japan had accorded preferential tariff to fish surimi from India. A negligible amount of an imported cryo-protectant, TSPP, is applied for preservation. Though the value of the TSPP is less than 0.5 per cent of the overall product cost, it is precluded from CEPA benefits as the ‘product is not of Indian origin’, she pointed out.

**Amid tension, cotton exports to Pak. fall**

Rising hostilities between India and Pakistan have brought their $822 million-a-year trade in cotton to a juddering halt, as traders who are worried about uncertainty over supplies and driven by patriotism hold off signing new deals.

The nuclear-armed rivals have seen tensions ratchet up in the past few months over the disputed territory of
Kashmir, and cotton traders in both countries said they were watching developments along the de facto border with alarm.

Pakistan, the world’s third-largest cotton consumer, usually starts importing from September, but some Indian exporters said the number of inquiries had slowed to a trickle in the last two weeks.

‘Not buying’
In the clearest sign yet of souring relations affecting commerce, Pakistan-based importers also said they were not buying.

“At the moment there is no cotton trade. It’s at standstill. There is uncertainty that, God forbid, if war breaks out, what will happen?” said Ihsanul Haq, Chairman of the Pakistan Cotton Dealers Association.

Pakistan Cotton Commissioner Khalid Abdullah said a “low quantum of trade activity is still taking place.” He said the Pakistan government had not directed traders to stop buying Indian cotton and expected trade to normalise when tensions eased.

Indian government officials said they had not yet noticed trading had stopped.

Choke trade
But some Indian officials said last week that Prime Minister Narendra Modi’s government was considering whether it should choke trade with Pakistan to put pressure on its neighbour, even though the trade balance is in India’s favour.

Trade between India and Pakistan, which have fought three wars since their independence from British rule in 1947, is small.

In the 2015-16 fiscal year ending on March 31, official trade between the two countries was $2.6 billion. Cotton is the largest component of that total trade.

It is not clear whether other goods and commodities traded between the two, such as jewellery and dry fruits, have been hit by the escalation in hostilities as well, but the disruption to cotton shipments is potentially significant.

In the crop year ended Sept. 30, Pakistan was India’s biggest cotton buyer after its own crop was hit by drought and whitefly pest.

It imported 2.5 million bales from India, and supported Indian cotton prices at a time when China was cutting imports, traders said.

Hurting exports
Lower purchases by Pakistan this year could hurt exports from the world’s biggest producer of the fibre and put pressure on Indian prices, but could also help rival cotton suppliers like Brazil, the United States and some African countries.

Chirag Patel, chief executive officer of Indian exporter Jaydeep Cotton Fibers, said the country could export 5 million bales in the 2016/17 crop year, but exports could plunge to 3 million bales without Pakistani imports.

An exporter based in Mumbai estimated that Pakistan will need to import at least 3 million bales in 2016/17, and India will have a surplus of around 8 million bales.

“As soon as the (political) situation improves, cotton trade will definitely resume between the two countries,” said Haq of the Pakistan Cotton Dealers Association.

But for now, traders on both sides of the border said the environment was not conducive to doing business.

New markets
“Many cotton exporters are not interested in selling cotton to Pakistan.”

“They are trying to find other markets,” said Pradeep Jain, a ginner based in Jalgaon in the western state of Maharashtra.

Shahzad Ali Khan, chairman of Pakistan Cotton Ginters Association, referred to a move by the Indian Motion Picture Producers’ Association (IMPPA), a small filmmakers’ body, last week, banning their members from hiring Pakistani actors.

India unhappy over Russia-Pakistan ties
India’s ties with Russia are likely to be affected if Moscow continues to expand military relations with Islamabad.

Criticising Pakistan-Russia ties, Indian Ambassador to Russia Pankaj Saran warned of “problems” ahead in bilateral ties, even as both sides planned a major summit on the sidelines of the upcoming Goa BRICS summit.

“We have conveyed our views to the Russian side that military cooperation with Pakistan, which is a state that sponsors and practises terrorism as a matter of state policy, is a wrong approach. It will only create further problems,” said Mr. Saran in an interview with Ria Novosti, the Russian official news agency.

Third occasion
Mr. Saran’s comments mark the third occasion in less than a month when India officially conveyed unhappiness over the growing Pakistan-Russia ties after both countries held the first ever joint military exercise in Pakistan’s northwest.

India had expressed concern over the exercise with Pakistan during the 22nd India-Russia Inter-Governmental Commission (IRGC) that was held on September 13. Subsequently, MEA spokesperson Vikas Swarup had also highlighted India’s discomfort over Islamabad-Moscow ties.

The statement of the Indian ambassador is significant as
it set the mood for the 17th India-Russia Annual Summit on October 15 in Goa. The summit, to be held in the backdrop of the BRICS summit, will witness signing of a number of bilateral pacts. During the summit, both sides will also plan the 70th anniversary of the establishment of diplomatic ties between the two nations.

**Terror issue**

India is likely to take up the issue of terrorism at the BRICS summit, pushing the case for an international counter-terror convention. Russia condemned the September 18 terror strike in Uri which claimed the lives of 19 Indian soldiers but went ahead with the military exercise with Pakistan even as India blamed Pakistan for not acting against the terror modules.

However, Russian government think tank sources indicated that Russia may not be on the same page with India on Pakistan. Boris Volkhonsky, head of the Asian division of the Russian Institute for Strategic Studies in Moscow, said Russia had re-evaluated its ties with Pakistan.

“We believe that terrorism is a global problem and Pakistan is a victim of terrorism as well,” said Mr. Volkhonsky, highlighting that Moscow did not want to leave Pakistan alone.

**Robust cooperation**

Mr. Saran, however, laid out the robust technical and military cooperation between Russia and India, which, he said, was expected to grow. Recently, India-Russia ties reached a new landmark in nuclear energy cooperation with the dedication of Unit 1 of the Kudankulam nuclear power project jointly inaugurated by Prime Minister Narendra Modi and President Vladimir Putin through video conference. Both sides also agreed to work together on the remaining stages of Kudankulam 2,3,4,5 and 6. Other projects are also likely to come up under the ‘Make in India’ programme.

**India's yarn exports decline**

India’s cotton yarn exports fell 11.58 per cent in value terms and 4.44 per cent in terms of volume during April - June this year compared to the same period last year. Exports to China, the main buyer of Indian cotton yarn, have declined, industry sources said.

**China import**

China imported 149.66 million kg of cotton yarn during the first three months of last financial year (2015-2016) and it dropped to 99.09 million kg during the same period this year. The decline in exports started in April 2014. Total cotton yarn exports from India used to be 140 million kg a month and it has dropped to about 100 million kg now, says M. Senthil Kumar, chairman of Southern India Mills’ Association.

With a drop in demand in the domestic and export markets, capacity utilisation in textile mills has also come down. With the existing capacity, India can produce up to 500 million kg of yarn a month. However, it is only about 470 million kg now. Bangladesh is the second largest buyer of cotton yarn from India and exports to Dhaka went up by 38.87 per cent in value between April and June this year and 52.1 per cent in terms of volume during the same period. This year, India’s exports to Pakistan have also improved in terms of value and volume. Competitiveness of Indian cotton yarn in the international market should improve. Further, fluctuations in cotton price have hit the textile mills, Mr. Kumar said.

The government should give two per cent under the Merchandise Export Incentivisation Scheme and three per cent under the interest equalisation scheme for one year. This will help India increase export to other countries too. Cotton Corporation of India should buy 70 lakh to 80 lakh bales of cotton in the peak arrival period and supply it to the mills later to stabilise the prices, he said.

**‘BRICS pact may polarise nations’**

An immediate push for a BRICS Free Trade Agreement (FTA) will polarise heavily-industrialised and lesser-industrialised nations within the five-member grouping, warned South African trade and industry minister Rob Davies.

In an interview ahead of the Goa BRICS Summit, Davies said, the bloc comprising Brazil, Russia, India, China and South Africa should instead adopt a practical and gradual approach of identifying opportunities in sectors such as 'aircraft manufacturing and maintenance' to create value chains in the five emerging economies.

On the ‘informal’ proposal by China for a BRICS FTA, he said South Africa and the African continent have so far been mainly producers of primary products, but want to retain the policy space for industrialisation to reap the benefits of the ‘Fourth Industrial Revolution’— meaning, industrialisation using computerisation and other newer technologies.

Referring to certain “structural imbalances” in BRICS trade, he said, for instance, South Africa mainly exports raw materials to China and imports fully-manufactured items from that country.
Correcting imbalances
If such a scenario continues, it will not help create value chains that will support industrialisation in South Africa, he said, adding that such imbalances need to be corrected first.
“So we can go for cooperation agreements and have business-to-business contacts, and not get enamoured by the title of a highly ambitious agreement that would only cater to the interests of some, but won’t have broader developmental outcomes,” he said, adding that BRICS countries should discuss ways to promote inclusive growth and reduce inequality.
Davies said it was important that the New Development Bank or the BRICS Bank identified viable renewable energy and infrastructure projects including in South Africa and India, and provide affordable finance.
Also being discussed was a BRICS Visa for easier movement of people, he said.
Regarding the yet-to-be-concluded negotiations on the proposed India-Southern African Customs Union Preferential Trade Agreement that began in 2007, Davies said, “We had lost momentum, but there is an appetite to resume the talks.”
The delays were due to the sensitivities involved in committing to lowering duty barriers.

India, Russia to set up agro irradiation centres
Expanding their cooperation in civil nuclear energy, India and Russia are collaborating to set up integrated irradiation centres in India to reduce agricultural losses.
A bilateral agreement for cooperation in the development of a network of integrated infrastructure irradiation centres was signed between the Indian Agricultural Association, Hindustan Agro Co-Op Ltd (HACL) and United Innovation Corporation (UIC), a subsidiary of ROSATOM State Atomic Energy Corporation of Russia, on the sidelines of the BRICS Business Forum in the national capital.
The agreement is to be implemented through a Joint Venture and aims to set up 25 integrated irradiation centres. It was signed by Bharat Dhokane Pandurang, Chairman of HACL, and Denis Cherednichenko, CEO of UIC.
In irradiation, food products are subjected to a low dosage of radiation to treat them for germs and insects, increasing their longevity and shelf life.
In India, according to estimates, post-harvest losses in food and food grains are around 40-50 per cent, primarily due to insect infestation, microbiological contamination, physiological changes due to sprouting and ripening, and poor shelf life.
“The wastage of fruits and vegetables alone is about Rs. 60,000 crore annually. Including cereals, meat, pulses and flowers, the annual loss is estimated to be Rs. 2,50,000 crores,” Mr. Pandurang added.
He said that there were a few low level irradiation plants in the country, which are not adequate.
“The use of irradiation will make it possible to reduce the loss of onions in India, which currently go bad because of germination and inadequate storage, by 42,000 tonnes per year on average, as well as to reduce grain losses from [the current] 15 per cent to 3-5 per cent per year,” Mr. Cherednichenko said after the signing.
In the first phase, seven centres will be set up in Maharashtra, which will begin with the upgradation of the current centre at Rahuri in Ahmednagar district.
They added that the irradiation doses are recommended by the International Atomic Energy Agency (IAEA) and the final product is absolutely safe.

Putin, Modi to inaugurate work on Kudankulam reactor today
With two 6 X 1,000 MW Pressurised Water Reactors (PWR), built with Russian technology, up and running, the Nuclear Power Corporation of India Limited will commence construction of the third and the fourth reactors at the Kudankulam Nuclear Power Project (KKNPP) site. Russian President Vladimir Putin and Prime Minister Narendra Modi will formally lay the foundation for the new reactors through video-conferencing from Goa, venue of the two-day BRICS summit.
NPCIL chairman and managing director Sathish Kumar Sharma and Atomstroyexport Group of Companies (the Engineering and Construction Division of Russian State Atomic Energy Corporation) president Valery Limarenko will jointly lay the concrete at the KKNPP site.

India and Hungary set to sign two agreements
Vice-President Hamid Ansari arrived in this historic capital city of Hungary afternoon to a warm welcome, the atmospherics of the occasion contrasting with the chilly local weather.
Accompanied by his wife Salma Ansari, he is here for a three-day visit with a crowded schedule of bilateral meetings and other engagements ahead.
Earlier, speaking to the accompanying media team on Air India One, the special aircraft, Mr. Ansari spoke of the
need to “close the gap” [on India’s part] in terms of bilateral contact at the senior level with Hungary. In 1993, Vice-President Shankar Dayal Sharma visited Budapest. During the past decade, in contrast, two Prime Ministers and three Foreign Ministers of Hungary have visited India.

Recalling “old ties” between the two nations on the cultural and academic fronts, Mr. Ansari said the tradition of studying India was still very much alive among Hungarian academics. “Deep cultural relations are embedded” in the bilateral relationship, he added. One of the Vice-President’s engagements here will be an interaction session with university students.

The Vice-President spoke of India’s intervention during the 1956 “revolution” in the country that has since been repeatedly acknowledged by Hungarian leaders. Mr. Ansari expects to be able to utilise the visit to find out and “take readings from” the Central European point of view on a number of current developments of interest to India. The Vice-President is set to sign two agreements here, the city of the majestic Danube River, one of them relating to water management. There is a business dimension to the visit, with India looking to leverage Hungary’s positive position, while exploring opportunities in fields including information technology in the larger Central European region.

The Vice-President is accompanied by Minister of State for Chemicals and Fertilizers Mansukh L. Mandavia and senior officials of the Ministry of External Affairs. Mr. Ansari will proceed to Algeria.

India, Russia sign deal on information security

India and Russia sealed a deal on ‘information security’ aimed at countering terrorism, drug trafficking and other illegal cross-border activities.

During a bilateral summit between Prime Minister Narendra Modi and President Vladimir Putin, India expressed appreciation for Russia’s “unequivocal condemnation” of the cross border terror attack in Uri.

“Russia’s clear stand on the need to combat terrorism mirrors our own. We deeply appreciate Russia’s understanding and support of our actions to fight cross border terrorism that threatens our entire region. We both affirmed the need for zero tolerance in dealing with terrorists and their supporters,” Mr. Modi said.

The Russian position on cross-border terrorism from Pakistan is significant since it had held a joint military exercise with Pakistan in the last week of September. Foreign Secretary S. Jaishankar said Russia’s ties with Pakistan will “never” lead to anything that might be contrary to India’s interest. Echoing India’s concerns, Sergey Chemezov, head of Rostec State Corporation said Russia does not intend to sell any military hardware to Pakistan at “present”.

“The military exercises in September this year were directly connected with modernising counter terror operations in Pakistan,” Mr Chemezov told the media.

The 17th bilateral summit also saw India express its commitment to ties with Moscow. Prime Minister Modi said, “An old friend is better than two new friends,” highlighting the “special and privileged strategic partnership” between India and Russia. The summit also saw both Prime Minister Modi and President Putin discuss ways to prevent “safe havens” for terrorism.

“Terrorism is a global issue. The [country that is the] epicentre of terrorism is near India. But the actions of that country [Pakistan] are having global impacts. We agreed on the need to have an international legal framework on terrorism and better border management,” said Mr. Jaishankar.

India rekindles bond with Hungary

Capping the highest level visit in decades by a ranking Indian leader to Hungary, by Vice-President Hamid Ansari, the two countries signed two agreements, and during a joint media conference Mr. Ansari and Hungarian Prime Minister Victor Orban spoke in warm terms about the bilateral relationship.

However, even as Mr. Ansari dwelt on a meeting of minds on the need for the elimination of the “scourge of terrorism” to counter which concerted international action was needed, Mr. Orban seemed to stop short of getting into the issue, while speaking on the need for “peaceful development” and mentioning threats that need to be countered in the course of such development.

Hungary will support India in achieving its international aspirations, the Prime Minister said. He recalled the extremely helpful role played by the Indian charge d’ affaires M.A. Rahman during the “revolution” of 1956, and said that phase Hungary can never forget. Prime Minister Jawaharlal Nehru himself had at that point interceded with the Soviet Union under Nikita Khrushchev to save the life of Arpad Goncz who later went on to become the Prime Minister of Hungary.

Water management pact

One of the two memoranda of cooperation that India and Hungary, a country of two great rivers, signed relates to water management. The other provides for cooperation between the Indian Council for World Affairs and the In-
India to lend a helping hand to Myanmar’s reconciliation efforts

India has offered to help in Myanmar’s national reconciliation effort, officials said here, shortly after State Counsellor Aung San Suu Kyi began her first state visit to India, with a meeting at Rashtrapati Bhavan.

“President Mukherjee referred to India’s rich experience in building a federal nation state, taking into account the ethnic and linguistic diversity of its people and offered any assistance desired by the Government of Myanmar in this regard,” a source said.

During the meeting with External Affairs Minister Sushma Swaraj, the issue of reconciliation came up again. “The two leaders discussed the manner in which India could support Myanmar’s agenda of national reconciliation, socio-economic development and strengthening democracy,” said an official.

The Myanmarese leader received a ceremonial welcome at the Rashtrapati Bhavan. Ms. Swaraj conveyed condolences on India’s behalf for the terror attack of October 9 which led to a week of violence that claimed dozens of lives in Rakhine province of Myanmar. On October 16, Ms. Suu Kyi had expressed solidarity in the Goa BRICS-BIMSTEC for India’s fight against terrorism.

In Goa, the visiting leader, who also is the winner of the Nobel peace prize had described “rising terrorism” as an issue of ‘common concern’ between India and Myanmar. India’s proposal for “assistance” came a day after the Ministry of External Affairs announced that New Delhi is willing to play a more active role in stabilising and unifying the Bay of Bengal community, including Myanmar.

India, Myanmar to ‘stay connected’

India extended support to Myanmar for a “better connected future while welcoming State Counsellor Aung San Suu Kyi.

Both countries agreed to cooperate in security and strategic issues and signed three agreements.

“We have much to do. We are behind India in the field of economic and political development but we are confident that we will be able to make up for the lost time with the support and understanding of our friends. That is why the capacity building programmes that India is envisaging for us will be of tremendous help. This will move us forward from a position where we are, behind all the other South Asian countries to the position we used to hold once, when we were the first country in Southeast Asia,” said Ms. Suu Kyi laying out the scope of India-Myanmar ties.

Both sides signed three agreements following a meeting between Prime Minister Narendra Modi and Ms. Suu Kyi, to assist insurance, power and banking sectors.

Reflecting on the agreements, Mr. Modi said the power agreement would help create a framework for advancing linkages between India and Myanmar.

“We have offered to scale up power supply from Moreh in Manipur to Tamu in Myanmar. We will also partner in a pilot LED electrification project in a site designated by the government of Myanmar,” Mr. Modi said.

**Common concern**

The meeting between the two delegations was held three days after Ms. Suu Kyi attended the BRICS-BIMSTEC meet in Goa where she spoke about the “common concern” of terrorism. Myanmar’s western province of Rakhine has been facing unrest since October 9 when a major terror strike killed several security personnel. Subsequently a major military campaign has begun to deal with the militants.

Mr. Modi’s comment on security cooperation between two countries came more than a year after India carried out military operation against militants along the Myanmar border.

**Goa periscope: A Russian sub leased**

India and Russia have reportedly reached an agreement on the lease of a second nuclear submarine during the summit between Prime Minister Narendra Modi and Russian President Vladimir Putin in Goa last week.

As reported by Alexei Nikolski in the Vedomosti , a leading Russian daily: “According to a source in the Russian defence industry, the long-discussed lease to transfer a multipurpose Project 971 nuclear submarine to India from the Russian Navy was signed in Goa.”

**Plan for large fleet**

India had earlier leased an Akula-II class nuclear attack...
India, Algeria mull fertilizer JV

India’s keen desire to initiate a joint venture arrangement with Algeria for a multi-billion dollar fertilizer plant located in the North African country seemed to have moved to the front burner following a meeting here between Algerian Minister for Industry and Mining and the Indian Minister of State for Chemicals and Fertilizers Mansukh L. Mandaviya.

India, which has up to 96 per cent phosphate dependency, with the volumes running to some six million tonnes a year, is seeking a 49 per cent share in an Algerian block that has a capacity of six billion tonnes with 26 per cent to 50 per cent phosphate content.

“But this will take time,” one official said, adding a note of tentativeness. For, a whole basket of issues needs to be discussed and tied up, and multiple Indian companies will need to come together in the effort, including in engineering terms. A consortium approach will need to be devised.

Indian Ambassador Satbir Singh spoke to The Hindu explaining India’s potential stakes in such a project and putting the issue in perspective in the context of Indian efforts over a period of time for cooperation with other countries in securing the country’s fertilizer economy, especially in relation to phosphatic fertilizers. India has ongoing arrangements and cooperative ventures in this field with neighbouring Morocco but on a much smaller scale than what is in prospect in Algeria.

For India, such a project will have major favourable food security implications and could ease the fertilizer subsidy burden as well. India currently imports raw phosphate resources from a number of African countries including Tunisia, Jordan, Egypt and Syria, as also from Russia, Canada and Israel among others.

No specific agreements were signed at the end of Vice-President Hamid Ansari’s three-day visit to Algeria, but the process of giving a governmental push to the project had truly started, an informed official said.

India’s aspirations in Algeria also span the information technology, pharma and space sectors. India believes there are good prospects for diversified expansion across sectors.

Automobile assembly

India’s bilateral trade with Algeria currently stands at $1.5 billion a year with the trade balance in Algeria’s favour given India’s import of oil and gas. The major item of exports from India has been automobiles, although qualitative restrictions have now kicked in. Algeria instead seeks assembly on its shores.

Saris constitute another interesting item of Indian export to Algeria. They are today an essential part of the trousseau for a typical Algerian bride.

“Overall, the [Vice-President’s Algeria] visit could be termed ‘a good start’,” Secretary (West) Sujata Mehta told mediapersons. She added that the keywords of the visit can be said to be renewal and reinvigoration: it spells making contact with an old friend. Yet, there is a need to reconfigure the relationship in contemporary mode, she asserted.

Pakistan warns India against breaching Indus Water Treaty

Pakistan warned “appropriate action” if India violated the Indus Water Treaty and said it was closely monitoring the situation, amid reports that New Delhi might revisit the key water sharing accord.

“Appropriate action will be taken in line with the Treaty in case of any violation by India,” Foreign Office spokesperson Nafees Zakaria said at the weekly briefing.

Keeping a watch

Pakistan was keeping a close eye on the situation; Radio Pakistan quoted him as saying. Mr. Zakaria’s remarks come amid reports that India may review the 56-year-old Indus Water Treaty.

He said India was making “desperate attempts” to divert attention from the “atrocities and human rights violations” being committed in Kashmir.

He said Pakistan was highlighting “Indian brutalities in Kashmir” at world fora and there had been “very substan-
tive outcome” of these efforts but the international community remained concerned about the situation.

**Ceasefire violations**
Responding to a question, he claimed that India violated ceasefire on the Line of Control for more than 90 times this year.
He also termed the Indian treatment to Pakistani artistes “very disappointing and highly regrettable” as he deplored India’s decision to “use SAARC for its political ambition,” according to the report.

India, Sri Lanka look at infrastructure partnerships
Foreign Secretary S. Jaishankar called on Sri Lankan President Maithripala Sirisena morning and discussed potential

India-Sri Lanka partnerships in areas such as transport, energy and infrastructure.
Mr. Jaishankar, here on an economic diplomacy initiative, is accompanied by an official delegation of top officials from public sector companies such as GAIL, NTPC, IOC and RITES.
A team from the Confederation of Indian Industry (CII) has also accompanied him, official sources in Colombo said.
Mr. Jaishankar, who arrived in Colombo on a three day-visit, is holding a series of meetings with key government officials and business heads in Colombo. “His meeting with the President lasted a little over 20 minutes and was largely focussed on the economic diplomacy initiative,” a senior official with the Sri Lankan government told The Hindu.

, the visiting Indian delegation is to hold sector-wise meetings with their Sri Lankan counterparts. On the agenda, official sources said, are discussions on likely partnerships in the power sector — using Liquefied Natural Gas (LNG) — developing the Trincomalee Oil Farm and expansion of the airports in Palally in Jaffna Peninsula and Colombo, among other projects.
Following Sri Lanka’s decision this September to scrap an NTPC-aided power project in the strategically-important Trincomalee, India has offered to partner the country in LNG and solar power initiatives.
The Foreign Secretary’s visit comes a week after Mr. Sirisena met Prime Minister Narendra Modi in Goa, on the sidelines of the BRICS Summit, where India offered to build a solar power plant in Trincomalee.
India and Sri Lanka are also negotiating a trade deal, the Economic and Technological Cooperation Agreement (ETCA).
Google to set up ‘Cloud Region’ in Mumbai

Google will open a new ‘Cloud Region’ in Mumbai that will help the tech giant offer its cloud platform services to developers and enterprise customers in India. Expected to be live in 2017, the local region in India will help make Google cloud platform services even faster for Indian customers, Google said in a statement. The announcement was made at the Horizon event in San Francisco. However, the company did not disclose any financial details. The business-to-business (B2B) based Cloud services have also been re—branded as Google Cloud. With more than one billion end-users, Google Cloud has gained significant traction in India and across the world. Its global customers include Snap Inc (formerly SnapChat) and Niantic Labs (Pokemon Go).

New species of Pika discovered

Scientists claim to have discovered a new species of Pika, a mammal belonging to the rabbit and hare family (Lagomorpha), in the Himalayas in Sikkim. After six years of research, a team of international collaborators, led by scientists from Bengaluru’s National Centre for Biological Sciences (NCBS) announced the discovery. The team published their findings in the JournalMolecular Phylogenetics and Evolution in September. “Discovering a new mammal in 2016 from a hotspot like the Himalayas proves that we need to conduct much more research in the region,” said NCBS scientist and first author Nishma Dahal, who hails from Sikkim.

Distinct tissues

The team collected fecal pellets and tissue samples of what they expected to be the Asian Pika and found them to be “quite distinct from all other species”. “We needed international collaboration to confirm the tissue samples were different from all existing species,” Ms. Dahal added.

Pikas are members of the rabbit family and live in the mountains or in temperate regions. The common name “pika” is used for any member of the Ochotonidae family. According to Ms. Dahal, Pikas do not hibernate unlike other mammalian species inhabiting such cold climates. “Pikas are a keystone species and ecosystem engineers, and studying their evolution can shed more light on the Himalayan ecosystem,” said Uma Ramakrishnan, whose laboratory at NCBS led the study. Although the animal looks similar to the Moupin Pika, genetically it is completely different. “There are specific differences which are not visible in physical observation and only on closer study. But genetically it is very different, and we are proposing to elevate the sub-species to a different species,” said Ms. Dalal.

Ecological niche

The discovery points to the need for more research on Himalayan ecology and the importance of international collaboration in validating new research. The research began as a study of the impact of climate change on the Himalayan biota. “Back when NCBS got funding from the Department of Biotechnology in 2010, research on the American pika was making news. Few lower elevation populations were reported to have gone extinct and that was corroborated to increased temperature in those regions,” said Ms. Dahal. This led the team to study the Asian pika. Researchers from the Zoological Museum of Moscow State University, Moscow, Russia; Institute of Zoology, Chinese Academy of Sciences, Beijing, China; Stanford University, Stanford, USA, collaborated in the research.

Japanese researcher wins Nobel for work on cell recycling

Yoshinori Ohsumi of Japan won the Nobel Medicine Prize for his pioneering work on autophagy — a process whereby cells “eat themselves” — which when disrupted can cause Parkinson’s and diabetes.

A fundamental process in cell physiology, autophagy is essential for the orderly recycling of damaged cell parts and understanding it better has major implications for health and disease, including cancer. Mr. Ohsumi’s discoveries “have led to a new paradigm in the understanding of how the cell recycles its content”, the jury said. Researchers first observed during the 1960s that the cell could destroy its own contents by wrapping them up in membranes and transporting them to a recycling compartment called the lysosome — a discovery that earned Belgian scientist Christian de Duve a Nobel Medicine Science, Tech. and Environment

Science, Tech. and Environment
NGO promoting clean energy bags UN climate solutions award

An Indian NGO, Swayam Shikshan Prayog, has bagged a UN climate award for 2016. The NGO, which trains women to become clean energy entrepreneurs across Maharashtra and Bihar, is one of the 13 projects to be recognised at the forthcoming UN climate summit in Marrakesh, Morocco, in November.

In an official release, the UNFCCC, the nodal UN climate body, has applauded the project for building a rural distribution network of 1,100 women entrepreneurs facilitating access to clean energy, water and sanitation products and services in several communities.

Prema Gopalan, co-founder of Swayam Shikshan Prayog, who has worked for 10 years in the clean energy sector, told The Hindu that many of the women in her NGO hail from the Marathwada drought-hit areas and have attained a new identity as a result of their entrepreneurial work.

“They have learnt to be better community leaders. The initiatives they have undertaken are both sustainable and scalable,” she said. The NGO, founded in 1989 in Mumbai, has received financial support from the Maharashtra government, USAID, Miseror, Europe, and CSR funds from HSBC and Alstom, till now.

With India ratifying the Paris agreement, Ms. Gopalan highlighted the importance of micro-level, scalable initiatives to help the rural population contribute to India's ambitious renewable energy target. India’s Intended Nationally Determined Contributions (INDCs), submitted to the UNFCCC, speak of increasing the share of renewable energy in India's energy mix to 40 per cent by 2030.

“While the government only eyes big-ticket projects when it comes to renewable energy it should also look at the potential of reaching out to the vast rural population through small initiatives such as these. It requires marrying the government's livelihood missions with that of new and renewable energy,” Ms. Gopalan, who is also an Ashoka Fellow since 2003, said.

Easy access

Nita Tanwade, 36, one of the rural entrepreneurs who work with the NGO told The Hindu that over 2000 families in her village Sawargaon in Tuljapur taluk have purchased solar lights and cook stoves from her. “For several hours in a day, people in my village suffered power cuts. Many couldn't afford to get an electricity connection,” she said and recalled that villagers had contributed funds to install solar lights at the home of an elderly couple.

For those who cannot afford to buy the solar lamps, priced between Rs. 500 to 700 and the cook stoves that cost between Rs. 2500-3000, Ms. Tanwade said she sold it to them on credit and the villagers paid her back in monthly instalments.

The use of woodfire for cooking in rural areas has been identified as one of the primary causes of indoor air pollution, which contributes to global warming, and also causes respiratory illnesses. According to the International Energy Agency's World Energy Outlook 2015, 67 per cent of the population in India depends on traditional biomass for cooking, which, in absolute numbers, works out to 841 million people in the population.

Ms. Gopalan said that the UN climate award is a global recognition for replicable models on clean energy that can help put an end to India’s biomass dependency. The UNFCCC release cites how through the promotion of clean cook stoves by women entrepreneurs, over 200,000 women and households now save almost 100 tonnes per day of fuel wood. “Maharashtra has started allowing women to even supply excess solar energy to the grid. If all Indian states adopt such enabling policies, India can soon become self-sufficient in energy, the clean way.”

India ratifies Paris climate deal

Deputy Secretary General Jan Eliasson said the message of nonviolence is as relevant today as it was during Gandhi’s lifetime and lauded Prime Minister Narendra Modi for his commitment to environment.

A U.N. postal administration stamp to honour singer M.S. Subbulakshmi was also released during the function. Carnatic singer Sudha Raghunathan and team performed at the event. Dr. Subbulakshmi performed at the U.N. in 1966.

Mr. Modi’s announcement last month on India’s decision to ratify the agreement was a sudden turnaround from its earlier position that the domestic process was incomplete. To meet the national commitment made under the agreement, India has to implement an array of standards in its energy production and emission monitoring.

India had also linked the ratification of the treaty to its admission to the Nuclear Suppliers Group.

EU vote paves the way for Paris deal ratification

In a historic vote held at the plenary session of the EU Parliament in Strasbourg, a majority of the members vot-
ed in favour of ratifying the Paris Agreement. The vote paved the way for the entry into force of the Agreement in November this year, with 610 out of 678 Parliament members voting in favour of the ratification.

As per the rules of the Agreement, adopted in Paris last year, the cumulative emissions of the ratifying parties must cross the minimum required threshold of 55 per cent of global emissions for it to enter into force. Tuesday’s EU vote will help the treaty to cross this minimum. Accounting for approximately 12 per cent of greenhouse gas (GHG) emissions globally, the EU-28 nations will add to the 52 per cent of global emissions that the 62 ratifying parties have covered already.

Only seven EU nations — France, Germany, Malta, Slovakia, Hungary, Austria and Portugal — have ratified the Paris Agreement at the national level. However, after the EU submits its instrument of ratification, the member nations will work on following the requisite procedures back at home.

French Environment Minister Segolene Royal said that the EU is looking to formally submit its ratification instruments, which will ensure that the treaty comes into force by November 7, when the 22nd Conference of the Parties (COP) to the UN Framework Convention on Climate Change takes off in Marrakesh, Morocco. As per the rules, the Agreement will enter into force 30 days after at least 55 parties, representing at least 55 per cent of global emissions have ratified it.

New frog species discovered in Australia

A new frog species that closely resembles the Graceful tree frog (Litoria Gracilenta) was discovered in Australia’s largest virgin forest in Queensland, a scientist said. The frog discovered in Queensland’s Cape York was only determined to be a new species on September 27 after undergoing rigorous tests for a year, scientist Jodi Rowley told Xinhua news agency. Ms. Rowley said her colleague Keith McDonald from the Queensland museum had first laid eyes on the Cape York tree frog, scientifically known as Litoria Bella, in 2000 during one of his field-work outings.

However, it was only recently that the frog was determined to be a new species after a science journal verified their work and published the findings. “By looking at differences in its appearance, as well as its advertisement call and DNA, we now conclude that the Cape York Graceful Tree frog is a distinct species, bringing the number of known frog species in Australia to 239,” Mr. McDonald said.

ISRO gears up for crew rescue test

The Indian Space Research Organisation (ISRO) is gearing up to conduct a critical ‘crew bailout test’ to see how fast and effectively the crew module of an intended space mission could punch out from the spacecraft in the event of an emergency.

The test, known as Pad Abort, will be held at the launch pad of SHAR in a month or two, Vikram Sarabhai Space Centre (VSSC) Director K. Sivan told The Hindu in an interaction on the sidelines of the ongoing expo in connection with the World Space Week celebrations at Ernakulathappan ground here.

The test of the technology to eject the crew module to safety forms part of a gamut of critical technologies being developed by the space agency as it awaits the nod from the government for the ambitious ‘human in space’ programme. “While the overall aim is to master the technology that aims at rescuing the crew if a launch is aborted at any stage, the present test will try out the scenario of aborting a launch at the pad itself,” he said.

GSAT-18 to be ready for work in a month

The Indian Space Research Organisation expects to make the newly launched GSAT-18 communication satellite ready to operate in about a month after it settles in its space orbit according to official.

The spacecraft carrying 48 transponders is India’s heaviest at 3,404 kg. ISRO, whose two rockets cannot lift this weight, used an external launcher, the European Ariane-5, to put it in orbit from the Guiana Space Centre at Kourou in South America at around 2 a.m. IST. GSAT-18 will augment ISRO’s present capacity and will be used by telecommunication, broadcasting, VSAT and satellite-based news gathering sectors.

This is the 14th in the fleet of Indian communication spacecraft and the 20th Indian payload to be flown by Arianespace.
The launch company said ISRO has signed it up for two more launches in 2017 — the country’s first 5,700 kg-high throughput satellite GSAT-11, and communication spacecraft GSAT-17.

Immediately after it was released into space, the Master Control Facility in Hassan took control of GSAT-18 and found it in normal health, ISRO said. It was put into an intermediate elliptical geosynchronous orbit of roughly 257 km x 35,880 km above the ground with an inclination of 6 degrees to the Equator. In the coming days, the orbit will be made circular at 36,000 km with a 24-hour period, and the spacecraft will be slotted at 74 degrees East longitude.

New termite species discovered in Kerala

A new termite species, Glyptotermes Chiraharitae, has been discovered at Kakkayam in the Malabar Wildlife Sanctuary. The species are named ‘Chiraharitae’, after the tropical evergreen forests of the Western Ghats, where the termite was spotted. The flying adults of this species are approximately 10 mm long, while the soldiers are around 9.5 mm long.

Amina Poovoli and K. Rajmohana, Senior Scientists, Zoological Survey of India, who discovered the species, said winged adults, soldiers, and immature nymphs termed ‘pseudergates’, which could develop into winged adults, were spotted in a termite colony at Kakkayam. The research paper describing the new species was published last week in Zoosystema, the journal of Natural History Museum, Paris.

They said termites were of three types — dry wood, damp wood, and subterranean. The new species are of the damp wood category, and they infest parts of woods with high moisture content, the decaying or rotting areas in particular.

**Wood dwelling**

They are exclusively wood dwelling and do not require any contact with soil. Its relatives are known to attack mango, sal, banyan trees, Rhododendron, Artocarpus, silver oak, and jamun trees.

There are reports that its related species are serious pests of tea bushes in Sri Lanka and southeast Asia. **285 species in India**

Compared with other insect groups, termites are not a multifarious speciose. “We have only 285 species in India, with just 61 documented from Kerala, and here lies the importance of the new discovery,” they said in a statement.

Earlier in 2013, the same authors had published a new species of termite in the forests of Idukki district, the genus of which was endemic to Sri Lanka till then. These discoveries indicate that several species around us are still awaiting discovery. This also flags the need for in-depth studies to unveil our real biological wealth.

Subsurface ocean lies deep within Saturn’s moon Dione

Saturn’s moons Titan and Enceladus are already known to hide oceans beneath their icy crusts, but a new study suggests a subsurface ocean lies deep within Dione as well. The findings, based on new data from the Cassini mission to Saturn, suggest that Dione harbours a deep ocean between its crust and core.

In this study, researchers of the Royal Observatory of Belgium showed gravity data from recent Cassini flybys can be explained if Dione’s crust floats on an ocean located 100 kilometres below the surface. The ocean is several tens of kilometres deep and surrounds a large rocky core.

The researchers believe that Dione’s ocean has probably survived for the whole history of the moon, and thus offers a long-lived habitable zone for microbial life. “The contact between the ocean and the rocky core is crucial,” said Attilio Rivoldini, co-author of the study.

“Rock-water interactions provide key nutrients and a source of energy, both being essential ingredients for life,” Rivoldini noted.

Seen from within, Dione is very similar to its smaller but more famous neighbour Enceladus, who’s South Polar Region spouts huge jets of water vapour into space. Dione seems to be quiet now, but its broken surface bears witness of a more tumultuous past. The study findings were published online in the journal Geophysical Research Letters.

The Cassini-Huygens mission is a cooperative project of NASA, ESA (European Space Agency) and the Italian Space Agency. After almost 20 years in space, the Cassini mission will end on September 15, 2017, NASA recently said.

**Kochi researchers target residual glioma cancer cells**
Scientists at the Amrita Centre for Nanosciences and Molecular Medicine at Amrita University, Kochi, have come a step closer to using photodynamic therapy for treating residual cancer cells of a high-grade brain tumour (glioblastoma). Photodynamic therapy uses a photosensitive drug that becomes active under the action of light and converts molecular oxygen into reactive oxygen species that kill cancer cells.

While the photosensitive drug injected into the body intravenously is not cancer-cell specific and is less efficient in absorbing light to generate reactive oxygen species, scientists at the Amrita Institute have turned to nanotechnology and used light in the near-infrared region to achieve better results. Light in the near-infrared region can penetrate to about 0.8 cm into body tissues.

“The drug encapsulated in a nanoparticle has peptides functionalised on its surface and is selectively absorbed only by cancer cells. The nanoparticles containing the drug have better ability to kill cancer cells as they absorb three times more light in the near IR region than the free drug,” says Dr. Manzoor Koyakutty from the Amrita Centre for Nanosciences and Molecular Medicine. “We have incorporated a photosensitiser into the nanoparticle to enhance the light absorption capacity.” Dr. Koyakutty had carried out studies on mice while he was in Erasmus University Rotterdam, the Netherlands.

A unique chemical bonding used for anchoring the photosensitiser to the nanoparticle increases the stability of the drug by as much as nine times, says Dr. Koyakutty. The prolonged period of stability of the drug provides a longer window for therapy; light in the near-infrared range can now be given in fractions to activate the drug at regular intervals.

“Even if the tumour mass is removed from the brain, some residual cancer cells will be present near the tumour site. We can’t remove healthy brain tissue that contains some cancer cells. So once you remove the tumour mass we can apply the nanoparticles containing the drug at the site where the tumour was present and use near-IR [light] to kill cancer cells in the neighbouring areas,” says Dr. Shantikumar Nair, Director of the Centre.

“Recurrence is very high in the case of glioma. Patients don’t have a cure if it recurs. So if recurrence can be prevented patients can have substantial additional life,” says Dr. Nair.

“Photodynamic therapy is a well known treatment option but can be used only when cancers are near the skin as light cannot penetrate deep. So it has not become a popular treatment option but has potential,” says Dr. Rajiv Sarin, Professor, Radiation Oncology and in-charge of Cancer Genetics Unit at Tata Memorial Hospital, Mumbai. “Getting clinical benefits in patients with cancer is more challenging as cancer is seldom near the surface.” The scientists are planning to undertake studies on mice and then larger animals.

IIT Hyderabad finds a chink in E. coli armour

Researchers at the Indian Institute of Technology, Hyderabad have made a promising start to render E. coli bacteria more susceptible to host immune response. The researchers have found a potential way of preventing the bacterial surface-associated polysaccharide — capsular polysaccharide (CPS) — from attaching on the surface membrane and forming a protective encapsulation of the bacteria, thus making the E. coli vulnerable to attack by the host’s immune system. The CPS is synthesised by the bacteria and exported to the surface to offer protection by evading the host immune response. Surface-association of CPS also offers impermeability to antibiotics, thus establishing infection in the host. Certain surface-associated bacterial proteins help in the attachment of CPS on the bacterial surface.

“If you know how the CPS is attached to the bacteria’s membrane protein then we can design a drug that can go and bind to the protein and prevent the CPS from getting attached to the bacterial surface,” says Dr. Thenmalar Vel Rathi Navelan from the Department of Biotechnology, IIT Hyderabad. “The CPS is not the same in all the E. coli strains but varies. In all, there are 80 such capsular polysaccharides. We have modelled the 3D structures and developed an organised repository of 72 CPS varieties,” says Dr. Rathinavelan the corresponding author of a paper published in the journal Nucleic Acids Research. “The database is called EK3D [ E. coli K antigen 3-Dimensional Structure Database].” The database can facilitate the development of efficacious drugs against E. coli infections.

After developing the models of 72 CPS structures, the team has proposed the binding site of CPS on the bacteria’s membrane protein surface. The results were published in June 2016 in the journal Scientific Reports.

Dual role

“The bacterial membrane protein has a dual role. Besides facilitating the binding of CPS, it also conducts water from inside the bacteria to outside and from outside to inside to maintain the osmotic pressure,” she says. The
team has identified five water diffusion points (two inside and three outside the bacteria. The osmotic pressure becomes high when the amount of CPS is more on the surface. Under such circumstances, water is transported from inside the bacteria to outside to dilute and spread the concentration of CPS and avoid the rupturing of the cell. This also helps in keeping the CPS in a hydrated condition and prevents further accumulation of CPS on the surface. But when the concentration of CPS is less on the surface the pressure inside the bacteria reduces. Water is transported from outside to inside the bacteria to normalise the pressure. “Basically, optimal concentration of CPS should be maintained, and this is achieved through water conduction, called osmo regulation,” Dr. Rathinavelan says. The team is now working on proving what they had observed — the attachment region of CPS to the bacterial membrane protein and the dual role of the protein in conducting water. “If we can alter the water conduction property of the protein we can control the accumulation of CPS on bacterial surface and make the bacteria accessible to the host immune system,” she says. “Alternatively, if we block the CPS binding site with a drug molecule then CPS cannot bind to the bacterial membrane. The site where the protein binds to the membrane can also be targeted. These strategies may pave the way for tackling emergence of multi-drug resistance in Gram-negative bacteria.”

Indian researcher produces stable solar cells
In a first, a researcher from Pune’s Indian Institute of Science Education and Research (IISER) has successfully produced a stable, high-efficiency, all-inorganic perovskite nanocrystal solar cells. The new material has 10.77% efficiency to convert sunlight to electricity. The results were published on October 7 in the journal Science.

Traditional research has been around a hybrid organic-inorganic halide perovskite material. Though the hybrid material has high efficiency of over 22%, the organic component in it is volatile and becomes unstable under ambient conditions within a short span of time. This renders the material unsuitable for commercial photovoltaic applications.

Problems in bulk form
So Abhishek Swarnkar, a research scholar from the Department of Chemistry at IISER and lead author of the paper, and others from the National Renewable Energy Laboratory, Colorado, U.S., replaced methyl ammonium, the organic component, with cesium to produce the material of cesium lead iodide.

“Though the completely inorganic material is stable, there are problems. In bulk form [bigger size crystal], the cesium lead iodide perovskite absorbs sunlight light only up to about 400 nm. So it does not have much application as a photovoltaic material,” says Mr. Swarnkar.

One way of making the bulk material capable of absorbing the entire range of visible sunlight (400-700 nm) is to heat it to 300 degree C so that is attains a desirable crystal structure. But when the material cools down to room temperature, where photovoltaics normally operate, it once again regains its undesired crystal structure and loses the ability to absorb sunlight beyond 400 nm.

“We found that by reducing the size of the crystals to nanometre range, the material at ambient temperature is able to absorb visible sunlight till 700 nm. This is because the material retains the desirable crystal structure (cubic phase) even at room temperature,” he says. The nanocrystals were found to be stable from —196 degree C to about 200 degree C.

New species of Jurassic reptiles discovered
Scientists have identified a new species of extinct marine reptiles that lived during the age of the dinosaurs, from fossils collected over a century ago.

The newly identified species of British Ichthyosaur, which resembled dolphins or sharks, were ocean dwelling reptiles. They were fierce predators, some growing up to 15 metres long.

Ichthyosaur lived around 200 million years ago in the early Jurassic period, a time when the U.K. was a small series of islands.

The six year study, led by the University of Manchester, set out to search for British examples of Ichthyosaurs and researchers identified features in the skull and fins of fossilised remains that distinguished the new species from others. The skeletal remains, out of which the new species has been identified was on display at the University of Bristol, for many years.

The research was carried out by Dean Lomax, scientist at University of Manchester and Judy Massare, professor at Brockport College, in the U.S. Specimen ‘2530’, the complete skeletal remains of the large Ichthyosaurus found in Walton, Somerset, was donated to the University of Bristol around 80 years ago by the City Museum.

It was originally part of the Channing Pearce collection purchased by the museum in 1915 and donated to the
‘Quite amazing’
“It is quite amazing — hundreds of people must walk past this skeleton every day, yet its secrets have only just been uncovered,” said Mr. Lomax. “We have named the species Ichthyosaurus larkini in honour of the British palaeontologist Nigel Larkin — the name Larkin actually means ‘fierce’ so it is quite fitting for a fast-moving predator,” he said.

“Ichthyosaurs are among the more arresting and captivating fossil specimens known. We are in fact very lucky to have two such specimens on display in the Wills Memorial Building, as part of the University Of Bristol School Of Earth Sciences Collection,” said Jonathan Hanson, from University of Bristol.

S. Africa basks in continent’s first solar-powered airport
At first glance, there’s nothing out of the ordinary about the regional airport in George, a town of just 1,50,000 residents on South Africa’s south coast.
In fact though, the small site is Africa’s first “green” airport to be powered by the sun. The control tower, escalators, check-in desks, baggage carousels, restaurants and ATMs — every service here depends on a small solar power station, located a few hundred kilometres away in a field of dandelions next to a runway.
Its 2,000 solar panels produce up to 750 kW every day, easily surpassing the 400 kW needed to run the airport. The excess is fed back into the municipal power grid, and a computer screen in the terminal informs passengers: “Within this month [September], 274 households were supplied through this system with green electricity.”
For environmentally-conscious travellers keen to reduce their carbon footprint, it’s a welcome development.
“Planes have such a big carbon print,” said passenger Brent Petersen, 33, in George. “If we compensate, that’s cool.”

George Airport was originally built in apartheid-era South Africa in 1977 to make getting home easier for PW Botha, a government minister at the time and later president. It now serves as a transit hub for shipments of home-grown flowers and oysters, as well as golfers visiting one of the region’s many courses. Some 7,00,000 passengers pass through its doors each year.

Indian researcher produces stable solar cells
In a first, a researcher from Pune’s Indian Institute of Science Education and Research (IISER) has successfully produced a stable, high-efficiency, all-inorganic perovskite nanocrystal solar cells. The new material has 10.77% efficiency to convert sunlight to electricity.
The results were published on October 7 in the journal Science.
Traditional research has been around a hybrid organic-inorganic halide perovskite material. Though the hybrid material has high efficiency of over 22%, the organic component in it is volatile and becomes unstable under ambient conditions within a short span of time. This renders the material unsuitable for commercial photovoltaic applications.

Problems in bulk form
So Abhishek Swarnkar, a research scholar from the Department of Chemistry at IISER and lead author of the paper, and others from the National Renewable Energy Laboratory, Colorado, U.S., replaced methyl ammonium, the organic component, with cesium to produce the material of cesium lead iodide.
“Though the completely inorganic material is stable, there are problems. In bulk form [bigger size crystal], the cesium lead iodide perovskite absorbs sunlight light only up to about 400 nm. So it does not have much application...
as a photovoltaic material,” says Mr. Swarnkar.

One way of making the bulk material capable of absorbing the entire range of visible sunlight (400-700 nm) is to heat it to 300 degree C so that it attains a desirable crystal structure. But when the material cools down to room temperature, where photovoltaics normally operate, it once again regains its undesired crystal structure and loses the ability to absorb sunlight beyond 400 nm.

“We found that by reducing the size of the crystals to nanometre range, the material at ambient temperature is able to absorb visible sunlight till 700 nm. This is because the material retains the desirable crystal structure (cubic phase) even at room temperature,” he says. The nanocrystals were found to be stable from —196 degree C to about 200 degree C.

‘Beardog’ discovery offers clues to how canines have evolved

For decades a fossilised carnivore jawbone sat largely unnoticed in a drawer at Chicago’s Field Museum. Now the scientist who grew curious when he opened that drawer has established with a colleague that the fossil belonged to an early, long-extinct relative of dogs, foxes and weasels known as a beardog. The Field Museum fossil and another at the University of Texas each represent a new genus, the taxonomic rank above species. The researchers believe these beardogs, which lived up to 40 million years ago, may eventually tell the world more about the evolution of dogs and other carnivores and how animals adapt to changes in climate.

According to a paper published in the journal Royal Society Open Science, the jawbones belonged to two closely related types of Chihuahua-sized beardogs, new genera now named Gustafsonia and Angelarctocyon. The Field Museum fossil set off the research by post-doctoral researcher Susumu Tomiya, who works at the museum and spends much time taking care of its large collection of fossils.

“In my spare time I like to walk around the aisles in the collections and open up drawers,” he said. “One day I just stumbled on these interesting-looking jaws of a little carnivore.”

The researchers also compared the fossil with one written about in an earlier paper at the University of Texas. Mr. Tomiya and Mr. Tseng concluded both belonged in what had essentially been a blank spot in the branch of the mammalian tree that includes dogs, raccoons, weasels and similar animals. Beardogs evolved alongside the ancient cousins of present-day dogs, cats, bears and other carnivores.

The evolution of beardogs from the small varieties classified by Mr. Tomiya and Mr. Tseng to the much larger animals that needed more food and habitat seems to match evolutionary paths of other animals that led to extinction, Mr. Tomiya said. Beardogs were extinct by 5 million to 10 million years ago, he said.

The two genera of small beardogs also lived at a time of climate transition in North America, from subtropical to cooler and relatively dry. Further study could help answer questions about what kinds of animals adapted well to that change, Mr. Tomiya said.

Cyber security deterrence achievable: Expert

Deterrence in terms of national cyber security is a big challenge the world over, given that identification of the sources from where the threats emanate is a time-consuming process, according to cyber expert Ben Wootliff. However, it is achievable, he added.

“It can be difficult to find an attribution to a cyber attack: was it a foreign state, an individual or an activist group? It is a tricky issue,” said Mr. Wootliff of the Hong Kong-based Control Risks, who was in the national capital to participate in a cyber security and internet governance
Mr. Wootliff, who has carried out over 200 investigative due diligence, litigation support, fraud and investor intelligence assignments in Asia, Europe and Latin America, said: “When you attack without determining the identity (of the perpetrator), it undermines deterrence.” The perpetrators could be operating from different foreign jurisdictions, hiding behind multiple levels of disguise in the cyber space. “Attribution often takes time and therefore, deterrence can be used over the long term. We want to retaliate quickly, but do not have the required information immediately available to us,” he said.

In the recent past, Indian government agencies and corporates have come under cyber attacks on multiple occasions. This May, two cyber security firms claimed to have identified espionage groups that targeted computer systems in government agencies and e-commerce businesses.

There are largely three sources of cyber threats to corporates: state-sponsored; criminals out to extort money; and activist groups which believe that a particular corporate’s activities undermine their cause, said Mr. Wootliff.

Common tool
“Certain states may want to steal intellectual property or technology, information or assets. Activists get motivated often by publicity and also by grievance or the cause they promote,” he said, adding that ransomware is currently the most common tool for cyber criminals to extort money from corporates. Through ransomware, which is increasingly becoming sophisticated in terms of technology, criminals block access of corporates to their own data stored in servers and demand ransom to release it. The cyber expert said law enforcement agencies are often able to identify the sources of such threats, which are usually located abroad, but in many cases certain foreign jurisdictions do not show much interest in taking action against perpetrators.

While safeguarding critical national infrastructures, like banking systems, power grids, core national security assets, remains top in the priority list of government agencies, Mr. Wootliff said an institutionalised mechanism should also be in place to address the grievances of individual consumers who suffer huge financial losses and mental trauma owing to cyber-attacks.

India to ban release of potent greenhouse gas
Environment Minister Anil Dave has said India will no longer permit the release of HFC-23, a family of potent greenhouse gases, released when local companies produce the refrigerant HCFC-22. Mr. Dave is at Kigali, Rwanda, in the midst of thrashing out a deal with developed countries to amend the Montreal Protocol, a 1987 agreement whereby countries have agreed to limit the emission of gases that destroy the ozone layer.

The latest amendment is to discuss the phasing out of hydrofluorocarbons (HFCs, of which HFC-23 is one), only beginning to be used in India and still used in developed countries and once a replacement for the ozone-destroying gases. Over the years, HFCs were found to be exacerbating global warming.

The Kigali talks will also discuss the years by which the developing and developed countries will cap HFC emissions and switch to a new suite of gases that cause less global warming and become the mainstay of home and car air-conditioners and industrial cooling solutions.

No compensation
Moreover, Indian companies will not be compensated for the costs involved in ensuring that these gases are not released. India’s Environment Ministry has said this was a “… major break away from the concept of financial assistance for every action on environment, in which India has taken the lead …..” though strictly speaking the handful of Indian companies responsible for HFC-23 emissions (that are released in the production of HCFC-22) benefitted substantially in previous years from carbon credits.

Independent analysts told The Hindu that India’s move was “well-timed” in that it set a conducive environment for all countries to arrive at an equitable deal or Saturday, when the Kigali deliberations are expected to conclude. India’s announcement was low-hanging fruit that would not be a burden to Indian industries.

“Today’s announcement hasn’t in anyway compromised India’s negotiating position,” said Arunabha Ghosh, CEO, Council on Energy, Environment and Water, a research
Zinc oxide (ZnO), the base material for UV detection, can have superior performance in terms of faster detection of photo signals in the order of milliseconds even when UV has superior performance in terms of faster detection of photo signals in the order of milliseconds even when UV.

The researchers developed the photodetector by integrating semiconducting vanadium doped zinc oxide (VZnO) nanoflakes with a conducting polymer. The photodetector has superior performance in terms of faster detection of photo signals in the order of milliseconds even when UV light intensity is low.

The results were published in the journal ACS Applied Materials & Interfaces.

Self-powered UV photo-detector charges energy storage devices

In a novel approach, researchers from the Indian Institute of Science (IISc), Bangalore, have developed a cost-effective, high-performance, self-powered UV photodetector that can use the harvested optical energy for direct self-charging of energy storage devices such as supercapacitor. It can also be used for operating electronic devices in the absence of external power source.

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With two 6 X 1,000 MW Pressurised Water Reactors (PWR), built with Russian technology, up and running, the Nuclear Power Corporation of India Limited will commence construction of the third and the fourth reactors at the Kudankulam Nuclear Power Project (KNPP) site.

Russian President Vladimir Putin and Prime Minister Narendra Modi will formally lay the foundation for the new reactors through video-conferencing from Goa, venue of the two-day BRICS summit.

NPCIL chairman and managing director Sathish Kumar Sharma and Atomstroyexport Group of Companies (the Engineering and Construction Division of Russian State Atomic Energy Corporation) president Valery Limarenko will jointly lay the concrete at the KKNPP site.

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Zinc oxide (ZnO), the base material for UV detection, can be doped with vanadium to produce photodetectors that are self-powered. When doped with vanadium, the microstructure of ZnO changes from nanorods to closely-packed nanoflakes, causing an increase in the surface area to the volume of the material.

Doping ZnO with vanadium also creates surface defects within the band gap (between the conduction and valence bands) of ZnO, which helps in trapping the UV radiation that falls on the nanoflakes.

"The nanoflakes are 80 per cent more porous than nanorods.

The nanorods are one-dimensional and so the possibility of light reflection from the top surface is more. But nanoflakes are two-dimensional and the light penetration is more," says Buddha Deka Boruah from the Department of Instrumentation and Applied Physics at IISc and the lead author of the paper.

The UV light that gets into the pores undergoes multiple reflections and finally gets absorbed.

"The vanadium-doped zinc oxide nanoflake structure has 98 per cent light-harvesting efficiency, which is much higher than the 84 per cent seen in zinc oxide nanorods," said Prof. Abha Misra from the department who is the corresponding author of the paper.

The VZnO nanoflakes were annealed (heated and allowed to cool slowly) in the presence of hydrogen gas at 350 degree C (hydrogenated) to increase the conductivity and reduce the recombination of photo-generated charge carriers.

More photocurrent

Compared with ZnO, which generates only 40 nA photocurrent, the nanoflakes (VZnO) produced five times more photocurrent. Once the nanoflakes were hydrogenated, the current generation capacity further increased to 1,000 nA, said Boruah.

If the increased optically active surface area of the nanoflakes enhanced the generation of electron-hole pairs (photo response), resulting in increased current generation, hydrogenation brought about a further enhancement in the electron-hole pair generation as well as increased free electron density, leading to more current generation. When exposed to UV light, the device, after hydrogenation, was able to detect photo signal within milliseconds, which is nearly 100 times faster than conventional UV photodetectors, said Prof. Misra.

New compound that delays ageing identified

Scientists have identified a compound that may delay physical ageing processes and prevent Alzheimer’s and
Parkinson’s diseases. Previous research has shown that a main process in ageing is the capacity of the cells to keep our genes, our DNA, more or less intact. However, changes in the cells’ power stations, the mitochondria, also affect ageing processes.

Researchers from the University of Copenhagen and the National Institute of Health in the U.S. have shown that the co-enzyme NAD+ bridges the gap between two main ageing theories — repairs to the DNA and poor functioning mitochondria.

“Our new study shows an age-dependent decrease in the level of NAD+, and this decrease is far greater for organisms with early ageing and a lack of DNA repairs,” said Vilhelm Bohr from the National Institute of Health. “We were surprised to see that adding NAD+ postponed both the ageing processes of the cells and extended life in worms and in a mouse model,” said Mr. Bohr. The researchers bred mice and roundworm with the illness Ataxia telangiectasia (A-T) for the purpose of the study, which appears in the journal Cell Metabolism.

In Ataxia patients, the part of the brain that is responsible for coordination gradually degenerates, DNA repairs are lacking, and they experience other symptoms characteristic of early ageing. **Drop in NAD+**

“We know from previous studies that a drop in the level of NAD+ results in metabolism errors, neuro-degeneration and ageing, but the underlying mechanisms remain unclear to us,” said Mr. Bohr. “Our new study stresses that the substance NAD+ plays a main role both in maintaining the health of the cells’ power stations and in their capacity for repairing the genes,” he said. The study was conducted on model organisms.

**Genetic secrets of purple rice**

The mysterious ways of genes influencing the character of crop plants through long periods of domestication, selection and modern breeding continues to perplex genomics specialists, as found out by the genome researchers working on coloured rice, Purpleputtu recently. Even the whole Genome Sequencing (WGS) of the Purpleputtu rice variety has not fully opened the windows to the genetic secrets to the researchers.

Researchers at the SciGenom Research Foundation, Chennai, said the genome sequencing of Purpleputtu revealed around 65,000 unique genetic mutations compared with the reference sequence, of which about 50 are in the genes of the colour pathway. The question of how specific genes and gene networks control the expression of its uniqueness, the purple colour, still remains an unanswered mystery, say researchers.

In most cultivated white grain rice varieties, a regulatory gene, Rc is missing 14 base pairs, which is believed to have changed the phenotype of seeds from coloured to white. The presence of the 14 base pairs is believed to help regulate the anthocyanin pathway enzymes to produce coloured seeds, and its absence is accounted for the grains remaining more or less white.

The sequencing revealed that the 14 base pairs of Rc gene were absent in Purpleputtu variety. Yet, its seeds remained true to the nomenclature and were found retaining the colour, explained George Thomas, Director, SGRF, and Arjula R. Reddy, advisor to the Foundation. This leads to the conclusion that there are alternative regulatory pathways operating in Purpleputtu, they explained.

**Scientists produce electricity from water without using energy**

In a major breakthrough, scientists at Delhi’s National Physical Laboratory (NPL) have developed a novel way of producing electricity from water at room temperature without using any power or chemicals. A team led by Dr. R.K. Kotnala used nanoporous magnesium ferrite to split water into hydronium (H₃O) and hydroxide (OH) ions and used silver and zinc as electrodes to make a cell that produces electricity.

The hydroelectric cell that uses magnesium ferrite of 1 sq. inch size produces 8 mA current and 0.98 volt. According to a paper published in the International Journal of Energy Research, magnesium ferrite of 2-inch diameter produces 82 mA current and 0.9 volt. Now, the hydroelectric cell material design has been improved and a 2-inch diameter material generates 150 mA current and 0.9 V.

“When we connect four cells [of 2-inch diameter] in series the voltage increases to 3.70 volts and we can operate a small plastic fan or a LED light of 1 watt,” says Dr. Kotnala, the senior author of the paper.

“At a stretch, we can operate the LED for one week as zinc hydroxide, which forms at the anode, gets into the nanopores of magnesium ferrite and reduces its activity.” Since magnesium has high affinity for hydroxide, it spontaneously splits or dissociates water into hydronium and hydroxide ions. The hydroxide ions get trapped inside the nanopores of magnesium ferrite and generate an electric field. The electric field helps in further dissociation of water.

Magnesium ferrite is made as an oxygen-deficient mate-
rial and has plenty of oxygen vacancies. To further enhance the activity of magnesium ferrite, about 20 per cent of magnesium is replaced with lithium. The substitution of lithium at magnesium site increases the sensitivity of magnesium ferrite. This is helpful in dissociating water at room temperature as the electrons get trapped in the oxygen deficient sites.

“Because electrons are trapped in the oxygen vacancies they attract water molecules towards the surface of magnesium ferrite. Only when water molecule is brought very close to the magnesium atom can magnesium have any affinity with hydroxide and start the dissociation process,” he says.

‘GST must absorb green cess on diesel cars’

Mercedes-Benz India MD and CEO Roland Folger is hopeful of the Goods and Services Tax (GST) structure subsuming the green cess levied on registration of diesel cars above 2000 cc in the National Capital Region.

“It does not make sense to have two different, not concurring, not co-ordinated tax systems,” he told the media. Noting that he expected the new structure to address levies linked to environment protection and CO2 standards, Mr. Folger said once that happened; the one per cent cess (environment protection charge) could go. The cess came into force after a ban on diesel cars above 2000 cc in NCR was lifted in August by the Supreme Court. The car-maker, he said, had volunteered to pay the cess. He added that Mercedes Benz’s is on track to unveil vehicles conforming to the BS-VI fuel emission norms in 2018. The emission spectrum of petrol and diesel would then be the same, he added.

Ashok Leyland rolls out country’s first electric bus

Hinduja Group’s flagship company Ashok Leyland unveiled its ‘Circuit’ series — comprising the first 100 per cent electric bus made in India.

Microsoft builds first speech-recognition system

In a major breakthrough in the field of speech recognition, Microsoft researchers have created a technology that accurately recognises the words in a conversation like people do — a feat that may soon help people suffering from speech-related issues.

The team from Microsoft Artificial Intelligence and Research reported a speech recognition system that makes the same or fewer errors than professional transcriptionists. The researchers reported a word error rate (WER) of 5.9 per cent, down from the 6.3 per cent WER the team reported just last month. The 5.9 per cent error rate is about equal to that of people who were asked to transcribe the same conversation, and it is the lowest ever recorded against the industry standard “Switchboard” speech recognition task.

“We’ve reached human parity. This is an historic achievement,” said Xuedong Huang, the company’s chief speech scientist in a Microsoft blog post.

The milestone means that, for the first time, a computer can recognise the words in a conversation as well as a
person would.
In doing so, the team has beat a goal they set less than a year ago — and greatly exceeded everyone else’s expectations as well.
“Even five years ago, I wouldn’t have thought we could have achieved this. I just wouldn’t have thought it would be possible,” said Harry Shum, executive vice president who heads the Microsoft Artificial Intelligence and Research group.

The research milestone comes after decades of research in speech recognition, beginning in the early 1970s with DARPA, the U.S. agency tasked with making technology breakthroughs in the interest of national security.

“This accomplishment is the culmination of over 20 years of effort,” said Geoffrey Zweig, who manages the Speech & Dialog research group.

The milestone will have broad implications for consumer and business products that can be significantly augmented by speech recognition. That includes consumer entertainment devices like the Xbox, accessibility tools such as instant speech-to-text transcription and personal digital assistants such as Cortana.

“This will make Cortana [Microsoft personal assistant] more powerful, making a truly intelligent assistant possible,” Mr. Shum said.

To reach the human parity milestone, the team used Microsoft’s Computational Network Toolkit (CNTK), a home-grown system for deep learning that the research team has made available on GitHub via an open source license.

CNTK’s ability to quickly process deep learning algorithms across multiple computers running a specialised chip called a graphics processing unit vastly improved the speed at which the team was able to do research and, ultimately, reach human parity.

Moving forward, the researchers are working on ways to make sure that speech recognition works well in more real life settings.

That includes places where there is a lot of background noise, such as at a party or while driving on the highway. In the longer term, researchers will focus on ways to teach computers not just to transcribe the acoustic signals that come out of people’s mouths, but instead to understand the words they are saying.

“The next frontier is to move from recognition to understanding,” Mr. Zweig said.

India offers solar plant in Trincomalee
A month after Sri Lanka decided to scrap a coal power project involving the NTPC, in Trincomalee, India has offered to build a solar power plant in the port town.

Prime Minister Narendra Modi brought up the matter in his recent meeting with President Maithripala Sirisena in Goa, on the sidelines of the BRICS summit, highly-placed Indian government sources said.

In September, Sri Lanka’s Ministry of Power and Energy told the country’s Supreme Court that it had decided to drop the plan to build a coal power plant in Sampur, Trincomalee, due to “serious environmental concerns”.

The Sri Lankan government said it was instead considering options such as Liquefed Natural Gas (LNG), solar and wind power.

Last month, President Sirisena unveiled Soorya Bala Sangramaya (Battle for Solar Energy), an initiative aimed at adding 220 MW of solar power to the island’s energy grid by 2020. The President said he hoped that the project would add 1,000 MW by 2025.

Renewables shift
Following Sri Lanka’s shift towards renewable sources, India has offered to build a solar power plant in Trincomalee.

The 900 MW, Chinese-built power plant in Norocholai, 140 km north of Colombo, helps the island meet its power demands. Following a recent breakdown in the facility, the government had imposed island-wide power cuts for a few days.

The island has a total installed power generation capacity of 4,050 MW.

Transport Dept. to take control of emission testing software
It will no longer be possible for operators of emission testing centres to fleece customers or print falsified Pollution under Control (PUC) certificates. The Transport Department has decided to take control of the software which deals with recording emissions and approving the certificates.

The move comes after several complaints from motorists regarding flaws in the software that allowed PUC centre operators to hand out certificates without really testing vehicles. In some cases, it is even possible, with a small hack, to issue certificates without the vehicle being present. This software patch, which tricks the original software into thinking that the pollution levels have been recorded and are within limits, is freely available in the market, sources said.

“There are two ways in which this kind of fraud happens. The first is where a photo of the vehicle’s licence plate is held in front of the camera and false readings are fed into
Researchers from the Department of Biochemistry at the Institute of Medical Sciences, Banaras Hindu University (BHU) are a step closer to preventing Alzheimer’s disease. An effective antidote against amyloid beta peptide that causes Alzheimer’s disease and cerebral amyloid angiopathy has been found.

A team of researchers led by Prof. Debabrata Dash has demonstrated for the first time that when fibrinogen binds to amyloid beta it effectively prevents the peptide from causing any cytotoxic effects. Fibrinogen brings about this by preventing amyloid beta from interacting with cells. The results were published in the journal *Molecular Medicine*.

There is growing evidence that amyloid beta plays a pivotal role in synaptic loss and neuronal death resulting in cognitive decline and thus Alzheimer’s.

Like neuronal cells, platelets too carry an amyloid precursor protein and release them as amyloid beta through the action of an enzyme. “Since platelets are easily accessible unlike neuronal cells and platelets are quite sensitive like neurons and carry many neurotransmitters, platelets are considered as a peripheral model of neurons. So we used platelets to study how fibrinogen prevented amyloid beta from stimulating the platelets,” says Prof. Dash, corresponding author of the paper.

Platelets isolated from blood and suspended in a buffer were strongly activated when amyloid beta was added. But amyloid beta was ineffective in stimulating the platelets when the researchers suspended the platelets in plasma. “So we knew that some component in the plasma was preventing the action of amyloid beta on platelets,” he says. “We finally found that fibrinogen present in platelets was preventing the action of amyloid beta on platelets.”

A battery of platelet functions was studied in the presence of amyloid beta. In each case, the amyloid beta was found to stimulate the platelets to carry out the functions. “But when we added fibrinogen all the amyloid beta-induced functions of the platelets were prevented,” Prof. Dash says.

They also studied the protective effect of fibrinogen on neuronal cells. The presence of fibrinogen significantly impaired the association of amyloid beta protein with neurons. Fibrinogen even reversed the drop in neuronal cell viability in the presence of amyloid beta.

“We have identified the sequence on fibrinogen that interacts with amyloid beta,” says Dr. Paresh P. Kulkarni from the Department of Biochemistry at BHU and one of the authors of the paper.
Fossil study reveals long-necked dinosaur

Scientists unveiled fossils from a new species of giant, long-necked dinosaur unearthed in northeast Australia, speculating that its ancestors had trekked across Antarctica some 105 million years ago. At least 14 metres from head-to-tail, Savannasaurus elliptorius was a plant-chomping, barrel-chested member of the sauropod group, which includes the largest land animals to ever have roamed the planet.

Wade and Matilda

The discovery, along with a specimen of another sauropod called Diamantinasaurus matildae, was detailed in the Nature journal Scientific Reports. Palaeontologists nicknamed the two dinos Wade and Matilda. Both species are thought to be unique to Australia.

How and when these and other dinosaurs made it Down Under is a source of ongoing debate, and the new find is sure to add fuel to the fire.

Some experts say they arrived far earlier than the Cretaceous period, which ended with a cataclysmic bang some 66 million years ago. But the new find points to another scenario, said Stephen Poropat, a scientist at Uppsala University in Sweden and lead author of the study.

“We suggest that our sauropods evolved from South American ancestors,” he said. These would have crossed a land bridge onto Antarctica, skirted its edge, and then crossed another bridge to Australia.

During most of the Cretaceous period, Mr. Poropat said, the polar continent would have been too cold for these lumbering herbivores to have survived the trip.

But a window opened about 105 million years ago, earlier research has shown, warming the region enough to make a southern passage possible.

“Antarctica was not frozen over, as far as we know, at any time” from 251 to 66 million years ago, he said.

India’s dissent over capping aviation emissions baffles IATA

Global airline body International Air Transport Association (IATA) has expressed disappointment over India’s opposition to a global pact for curbing aviation emissions proposed by the United Nations’ International Civil Aviation Organisation (ICAO) in Montreal recently.

“We expressed our disappointment (to the government) that India didn’t come to the table as an early adaptor of the carbon offset and reduction scheme for the aviation sector,” IATA Director General and Chief Executive Officer Alexandre de Juniac told reporters here. Mr. de Juniac met top government officials and airline chief executives in what was his first visit to India after taking over charge as the IATA chief.

“We are disappointed because other developing nations like China, Indonesia, Zambia and Kenya have signed,” he added.

Although 65 countries signed the pact committing to cap emissions at 2020 levels, India and Brazil were among countries that opted out as it felt the deal would be unfair for developing countries where the civil aviation market is not mature and the airlines are limited compared to the developed economies.

Climate accord

India ratified the COP21 accord on climate change in the same week and Mr. de Juniac was “hopeful that the spirit of climate leadership would extend to aviation emissions.”

“We have seen India at the front edge of environment defence policies signing the Paris accord and the Kigali Agreement. So we were expecting India in the front row of environment protection regulation for aviation,” Mr. de Juniac said.

He also pointed out to certain misinterpretations of the climate deal. “It doesn’t apply to domestic traffic and only to the international flights. It is not a punitive tax. It offsets emissions by investing in projects that produce carbon. Like a tax, it attempts to facilitate growth. It’s a license to grow,” the IATA chief pointed out.

According to IATA, India is set to become the third largest aviation market by displacing the UK in 2026. Minister of State Civil Aviation Jayant Sinha said earlier this month that the government is examining ways to offset higher emissions from rising aviation traffic.

Scientists find oldest known planetary disc

Astronomers believe they have found the oldest known planet-forming disk — a 45-million-year-old ring of gas and dust that orbits around a young star. Circumstellar discs around red dwarfs like this one are rare to begin with, but this star, called AWI0005x3s, appears to have sustained its disc for an exceptionally long time, according to the study published in The Astrophysical Journal Letters.

“Most discs of this kind fade away in less than 30 million years,” said lead researcher Steven Silverberg from Uni-
versity of Oklahoma in the US. “This particular red dwarf is a candidate member of the Carina stellar association, which would make it around 45 million years old (like the rest of the stars in that group). It’s the oldest red dwarf system with a disc we’ve seen in one of these associations,” Silverberg noted. The discovery relied on citizen scientists from Disk Detective, a project led by NASA’s Goddard Space Flight Center’s Marc Kuchner that is designed to find new circumstellar disks.

“It is surprising to see a circumstellar disc around a star that may be 45 million years old, because we normally expect these discs to dissipate within a few million years,” one of the researchers Jonathan Gagne from Carnegie Institution for Science said.

IISER Kolkata makes breakthrough in targeted cancer drug delivery

Targeted delivery of anticancer drugs exclusively to cancer cells and controlled release of the drugs in a sustained manner inside cancer cells has been achieved by a group of researchers from the Indian Institute of Science Education and Research (IISER) Kolkata. Porous carbon nanospheres about 150 nm in diameter and packed with drugs inside the pores has been designed in such a way that they cannot get inside normal cells and kill them. The results were published in the journal Carbon.

A team led by Dr. Sayan Bhattacharyya from the Department of Chemical Sciences, IISER Kolkata, used the commonly available lemon grass to synthesise the porous carbon nanospheres, which act as drug carriers. “It’s a very simple and cheap process to produce carbon nanospheres from lemon grass. Also, it is possible to scale up the production,” Dr. Bhattacharyya says.

The anticancer drug doxorubicin is covalently bound both inside the 3.6-3.8 nm diameter pores and also on the surface of the nanospheres. “Since the nanospheres contain numerous pores, the surface area increases, and a greater quantity of drug can be loaded inside the nanocarriers. Unlike when drugs are physically adsorbed on the surface of a nanocarrier, there is a possibility of premature release of the drug into blood.

Compared with freely available anticancer drug, the researchers found that the quantity of drug carried by nanospheres was 10 times more inside cancerous cells. Though nanocarriers cannot enter the nucleus, higher doses of the drug ended up inside the nucleus after 15 hours.

“So nanocarriers can effectively deliver drug in a con-
Green panel slams Uttar Pradesh for not dismantling contaminated water pumps

The National Green Tribunal has slammed the Uttar Pradesh government for not dismantling six hand pumps providing contaminated water in the western part of the State.

After receiving several petitions of contaminated water being provided by hand pumps in six districts of western U.P., last year the environmental watchdog ordered the State government to completely seal and dismantle them.

In its order, the NGT gave the State government five days to file compliance report. These hand pumps are in Ghaziabad, Shamli, Saharanpur, Meerut, Baghat and Muzaffarnagar districts.

The NGT order came in response to a petition filed by an NGO, Doaba Paryavaran Samiti (DPS), which took several water samples from these hand pumps and got them tested.

The tests revealed presence of toxic metals way beyond permissible limits in the drinking water.

Dr. C.V. Singh of the DPS told The Hindu that the scientific tests of the water samples revealed an “extremely disturbing picture of drinking water contamination.”

“In 2014, we had highlighted how several people living in villages located along the banks of Krishna, Kali and Hindon, are suffering from grave diseases like cancer. There is no life in the water of these rivers, thanks to the heavily toxic materials illegally released in them by the paper industry and slaughter houses. The water has been contaminated to the extent that it has become poisonous. And now through the seepage, the drinking water level of all these villages has been contaminated by the poisonous and toxic water of the three rivers,” said Dr. Singh.

Gaurav Bansal, the lawyer who filed the petition, told The Hindu that after he had approached the NGT, it formed a panel of all stakeholders like the Central and the State Pollution Control Boards and the State Jal Nigam.

“The local administration was asked to provide drinking water to these villages. But the situation on the ground has not changed much. You can understand it by the fact that simple things like dismantling of the water pumps has also not been done,” said Mr. Bansal.

Two new freshwater fish species found in Kerala

Underlining the importance of the State as a biodiversity hotspot for freshwater fishes, two new species have been reported from Central and North Kerala.

Both the species belonging to the family Cyprinidae have been reported by Mathews Plamoottil, Assistant Professor in Zoology, Government College, Chavara.

The first one, Systomus laticeps, was spotted in a small freshwater streamlined by dense vegetation at Thiruvalla in Pathanamthitta district. The name laticeps was drawn from a Latin epithet referring to the wide head of the fish. The finding has been published in The International Journal of Fauna and Biological Studies.

The second new species named Puntius euspilurus is an edible freshwater fish found in the Mananthavady river in Wayanad. The epithet euspilurus is a Greek word referring to the distinct black spot on the caudal fin. The slender bodied fish prefers fast flowing, shallow and clear waters and occurs only in unpolluted areas. It appears in great numbers in paddy fields during the onset of the Southwest monsoon.
Colombia’s Santos wins Peace Nobel for deal with FARC

Colombian President Juan Manuel Santos won the Nobel Peace Prize for his “resolute” efforts to end more than five decades of war in his country, despite voters’ shock rejection of a historic peace deal.

The award was unexpected after voters rejected the terms of the landmark accord Mr. Santos clinched last month with the Revolutionary Armed Forces of Colombia (FARC) leader Rodrigo Londono, alias Timoleon ‘Timo-chenko’ Jimenez, and some observers expressed surprise that the rebel chief did not jointly receive the prize.

The Norwegian Nobel committee rewarded Mr. Santos for his “resolute efforts to bring the country’s more than 50-year-long civil war to an end,” announced chairwoman Kaci Kullmann Five. The deal, signed on September 26 after nearly four years of talks, was supposed to be ratified following an October 2 referendum but voters shot down the agreement, leaving the country teetering between war and peace.

Unexpected choice

The result caught most Nobel watchers off-guard, with most experts predicting the referendum would scupper Colombia’s chances.

But the committee said the aim was to encourage peace efforts in the war-torn country, which are now in “real danger” of collapse.

“We hope that it will encourage all good initiatives and all the parties who could make a difference in the peace process and give Colombia — finally — a peace after decades of war,” Ms. Kullman Five said.

The Colombia conflict has claimed more than 260,000 lives and left 45,000 missing over five decades, drawing in several Leftist guerilla groups, right-wing paramilitaries and drug gangs.

Nobel watchers had initially tipped Mr. Santos and Timochenko as likely winners of the prestigious prize but quickly revised their predictions after the referendum, saying such an award would be perceived as flying in the face of the will of the Colombian people.

Not jointly awarded

As asked why the prize had not been jointly awarded to the FARC leader, Ms. Kullman Five declined to answer, saying: “We will never comment on other candidates and other possibilities.”

The Nobel committee has, however, in the past honoured former enemies for peace processes at fragile stages, including those in Northern Ireland and West Asia.

Hyderabad woman selected for Antarctic expedition

A mother of a baby who is just a few months older than a year and with a husband who is a corporate lawyer, this woman is an adventurer.

With over a dozen treks to her credit, including a Mount Everest Base Camp trek, she is all set to go down to the South Pole, to Antarctica next March.

That is the story of Thammala Sandhya, a woman who has been in the travel industry for the past six years and has a one-year-old start-up here.

A wanderer

“I have always been a fitness freak and a wanderer of sorts. The past year and a half have been tough for me with my baby, but I have loads of support from my hus- band,” she says.

The latest feather in her cap is the invitation to be a part of the International Antarctic Expedition 2017. The fort-night-long trip includes a ‘Leadership on the Edge’ pro-grame where she would learn from global experts on climate change, sustainability and energy use.

Inspiring youth

Led by Robert Swan, Founder ofwww.2041.com, the purpose of this expedition is to engage and inspire the next generation of leaders to handle and take up the responsibility of building resilient communities to be sustainable and realise that now is the time to act on policy development, through recycling, renewable energy and sustain-ability.

Making a connect

As asked how the adventure bug bit her, Ms. Sandhya says she has always wanted to explore the world.

“Finding myself in the travel industry has only spurred my desires. Going forward, I would like to set up an organi-sation that would exclusively help the adventurous lot of people out there to connect with like-minded people,” she says.

Thammala Sandhya has been part of a dozen treks, including a Mount Everest Base Camp expedition
Not licensed to heal: ‘Foreign doctors’ flunk qualifying test

A foreign medical degree may sound like a passport to a successful practice in India. But in reality, only a woefully small percentage of doctors with foreign degrees equivalent to the MBBS get to practice in the country — at least legally.

Somewhere between 70 and 80 per cent of these students fail to clear the mandatory screening examination conducted by the National Board of Examinations (NBE). Since 2002, it has been mandatory for All Foreign Medical Graduates (FMGs) to clear an examination Foreign Medical Graduates Examination (FMGE) to secure a Medical Council of India (MCI) registration, without which they cannot practice in India.

Out of the 29,968 students who have appeared for the last five examinations, only 3,610 (a mere 12 per cent) have passed. Records from the MCI and the NBE reveal that while thousands of FMGs appear for the exam every year, the pass percentage has rarely gone beyond 26 per cent.

In the most recent test, only 600 out of the 5,349 candidates (11.2 per cent) passed despite relaxed examination norms and the opportunity to take the test innumerable times, a policy introduced in 2004. A number of the unsuccessful students have graduated from medical universities in China, Russia and Ukraine, which are a big draw for Indians aspiring to be doctors. These countries offer undergraduate degrees equivalent to the Indian MBBS at a far lower cost and without the tough entrance examinations and admission process.

Illegal practice

So what happens to the majority who fail to clear the FMGE? Several of them begin practising away from the eyes of the law. Bipin Batra, Executive Director, NBE, however, says the picture is not as bleak as it is made out to be. He also rubbishes allegations that the NBE has deliberately kept the FMGE tough to keep out foreign medical graduates. He says the FMGE is like any other licensure exam, fully based on the MCI’s curriculum, with no negative marking.

A law school in a kingdom of Buddhism

Under the gaze of the Buddhist god of wisdom, embodied in the form of a craggy hillside here, an American academic stood in front of 500 teenagers and posed a simple question: “What does a lawyer do?”

As the vice dean of Bhutan’s first law school, the American can, Michael Peil, has been doing a lot of explaining lately.

Draped in the country’s national dress, Peil and a Bhutanese colleague have spent the better part of six weeks traversing this Buddhist kingdom armed with fliers and a PowerPoint presentation.

Permanent campus

For many students here in this western village, it was the first they had heard of plans to open the Jigme Singye Wangchuck School of Law, which will admit its inaugural class of about 25 students next spring for instruction at a temporary campus in Thimphu, the capital. A permanent campus is being built in Paro, to the west.

After each recruiting session, students too shy to voice their concerns aloud have whispered dozens of questions in Peil’s ear.

Will the admissions process discriminate against the poor? What does “justice delayed is justice denied” mean? And most urgently, can students with tattoos apply?

“Yes. Yes, you can,” he said, chuckling. The night before, Peil had mulled a different set of issues.

As Bhutan’s first democratic generation comes of age, there is the challenge of defining law in a nation that has been governed for much of its history in semi-theocracy and by monarchs.

Designing curriculum

And there is the difficulty of designing a curriculum that strikes a balance between educating students in handling disputes in a formal court system and through a village elder — a long-held custom stemming from a belief that justice based on conciliation maintains social harmony.

In a culture where the adversarial nature of Western legal practice is seen by some as opposed to Buddhism, which most here follow, Peil said the stakes were high for training lawyers who could defend Bhutanese values as the demands of modernity came rushing in.

“This is one of the few places and one of the last places on earth where you can watch a democracy, and a peaceful democracy, grow from scratch,” he said.

“If we don’t do a good job, then that’s a threat to the constitution, that’s a threat to democracy, that’s a threat to the rule of law.”

Squished between powerful China and India, Bhutan has long-guarded its small population, now about 750,000, from the outside world. Before 1961, the country had no paved roads.

Satellite television was introduced in 1999. And outsiders still must pay up to $250 a day to enter and stay in the
Times they are a-changin’ — Dylan gets Literature Nobel
Singer and songwriter Bob Dylan was awarded the Nobel Prize in Literature for “having created new poetic expressions within the great American song tradition”, in the words of the Swedish Academy. He is the first American to win the prize since novelist Toni Morrison, in 1993.
Dylan was born on May 24, 1941, in Duluth, Minnesota, and grew up in Hibbing. He played in bands as a teenager, influenced by the folk musician Woody Guthrie, the authors of the Beat Generation and modernist poets. He moved to New York in 1961 and began to perform in clubs and cafes in Greenwich Village. The following year, he signed a contract for his debut album, “Bob Dylan” (1962). His many other albums include “Bringing It All Back Home” and “Highway 61 Revisited” (1965), “Oh Mercy” (1989), and “Modern Times” (2006).
"Dylan has recorded a large number of albums revolving around topics like the social conditions of man, religion, politics and love,” the Swedish Academy said. “The lyrics have continuously been published in new editions, under the title ‘Lyrics.’ As an artist, he is strikingly versatile; he has been active as painter, actor and scriptwriter.”
Dylan joins a number of American Jews who have been awarded the literature Nobel. However, unlike him, they were all born abroad: Saul Bellow, born in Canada, won in 1976; Isaac Bashevis Singer, who was born in Poland and wrote in Yiddish, won in 1978; Joseph Brodsky, born in the Soviet Union, won in 1987. © The New York Times News Service

Nayanjot Lahiri bags prize for book on Ashoka
Nayanjot Lahiri, Professor of History at the Ashoka University, has been awarded the 2016 John F. Richards Prize for her book Ashoka in Ancient India. The book has been critically acclaimed for its riveting account of an emperor who spoke to his people through his edicts; his victories and loss that left a legacy that surpassed him.
The Richards Prize is awarded annually by the American Historical Association (AHA) to the best book in South Asian history. The prize will be awarded at the Association’s 131st Annual Meeting in January, 2017.
Ms. Lahiri said, “I’m delighted that the prize committee, in its citation, has recognised that it is the innovative interface of Emperor Ashoka’s words which invite and enable a biographical narrative, with the archaeological landscapes where they can still be read, which makes my narrative different from anything else written around this great Indian of antiquity.”
The academic also said she was delighted that the committee has specially mentioned the curious case of a sovereign who sees a successful war as a major defeat.
The prize committee said, “Reversing all conventions of kingship, the Emperor Ashoka recorded his greatest military triumph as tragedy, proclaiming an order of non-violence... Lahiri deftly adjudicates between archaeological, textual, and geographical evidence to offer a dazzling interpretation of a remarkable figure of the ancient world and a deep history of ancient society. Her innovative linking of archaeology and biography recasts our understanding of historical methods and ancient worlds alike.”

CBSE to review affiliation by-laws
The Central Board of Secondary Education (CBSE) has set the ball rolling to check the commercialisation of education and is mulling the idea of placing a cap on the maximum fees a school can charge for providing education.
The CBSE has set up a committee to review its affiliation by-laws so as to enable it to combat rampant commercialisation. The committee is expected to make its recommendations within a month.
On its agenda, among other points, is the need to recommend appropriate means to control commercialisation of education.
‘Upper cap on fees’

“There will be discussions on fixing an upper cap on the fees charged by any school affiliated to the CBSE,” said a well-placed source. Over the decades, there have been concerns among parents across the country about hikes in school fees.
The CBSE has been mulling the updating of its by-laws for some time now.
At a workshop on inclusive education organised by the institution late in August, CBSE chairman Rajesh Chaturvedi had told journalists: “We will work to update our by-laws to better tune them to government policies that affect education to ensure better regulation and compliance.”
Officials then had said that while in the past disabled children often had to attend special schools, the CBSE was trying to ensure that schools develop the infrastructure to cater to children with special needs by making its by-laws fully compatible with disability laws.

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Films on Swachh Bharat theme to be shown at IFFI
The 47th International Film Festival of India will showcase a number of short films shot by young and aspiring filmmakers which won awards at the Swachh Bharat Film Festival. The festival was organised by the National Film Development Corporation on October 2 in New Delhi.
Murga, which won the top prize, will be the opening film in this special section. The film was directed by Katyayan Shivpuri from Maharashtra.
Other films that will be screened include Nanha Doot by Sudhanshu Sharma, Chembuku Moodindi by K.V.K. Kumar, Sarkarmi Rati Wadho by Akshay Danavale, Manini by Praveen Vyas, Shelfee by Dr. Suyash Shinde, Tuka mhane by Ashish Sudhir More, Bakari=Shauchalay by Devendra Shukla, Sneeringly lesson by Satish Kumar Verma, and Mawlynnog — The cleanest village in Asia by Upakul Das.