

समाचार पत्रों से चयित अंश Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा

A Daily Current Awareness Service



रक्षा विज्ञान पुस्तकालय
Defence Science Library
रक्षा वैज्ञानिक सूचना एवं प्रलेखन केन्द्र
Defence Scientific Information & Documentation Centre
मेटकॉफ हाऊस, दिल्ली 110054
Metcalf House, Delhi-110054

Modified Indian combat jet to test-fire supersonic cruise missile next year

By Anjali Ojha

They are both of Russian origin and are made in India. Some time next year, a modified combat jet will test-fire a supersonic cruise missile in what will amount to a quantum leap in the firepower of the Indian Air Force (IAF). This will also make the BrahMos nuclear-capable short-range missile, a joint project between India's Defence Research and Development Organization (DRDO) and Russia's Federal State Unitary Enterprise NPO Mashinostroyeniya (NPOM), capable of being operated from land, the sea and the air. India will be only the second Asian country, after China, capable of delivering a cruise missile from the air. According to a defence ministry official, one frontline Sukhoi Su-30MKI combat jet, the most potent in the IAF's inventory, has already been upgraded for being armed with the BrahMos missile, which has a range of around 300 km and flies at a speed of Mach 2.8 - almost thrice the speed of sound. Another aircraft is also being upgraded and is likely to be delivered in the first quarter of 2016, the official, who spoke on strict condition of anonymity, told IANS. The fighter's aerodynamic configuration increases its effectiveness and allows high angle of attack manoeuvres. The integral aerodynamic configuration, combined with thrust vectoring, gives it practically unlimited manoeuvrability and unique taking off and landing characteristics. According to sources, the modification to the fighter includes hardened electronic circuitry to shield this from the electromagnetic pulse of a nuclear blast. Along with the aircraft, the missile - whose airframe is built of titanium and high-strength aluminium alloys, giving it a high-speed terrain-following profile - was also modified with a reduced booster and fins for stability. It can be released from a height of 14,000 metres to 500 metres. After release, the missile free-falls for 100-150 metres, then goes into a cruise phase and finally the terminal phase at 15 metres from the target. The airborne version of the missile is also lighter than its sea and land counterparts. An official said a decision on arming other IAF jets with the BrahMos will be taken after the Su-30 tests are done with. However, there is some talk of developing a smaller version of the BrahMos for the Rafale, 36 of which are being bought from France, and the Indian Navy's carrier-borne MiG-29s. The proposal for arming the Su-30s was approved by the Cabinet Committee on Security in October 2012 and the IAF is to get over 200 air-launched versions of the BrahMos. In November, the Indian Army successfully test-fired the BrahMos land-attack cruise missile and in the same month, the sea version of the missile was test-launched from the Indian Navy's newest stealth destroyer, INS Kochi, and successfully homed in on its target, a decommissioned vessel. BrahMos is an amalgam of the Brahmaputra and Moskova rivers.

The Hindu

15 December 2015

HAL should work with private sector: Parrikar

K. C. Deepika

Defence Minister Manohar Parrikar said on Monday that India would need 4,000 to 6,000 helicopter engines in the next 15 to 20 years. "If you make it in the time frame allotted, it will be a big achievement," he said. Mr. Parrikar was speaking after launching the maiden run of the core of 25 kN indigenous Aero Engine (Hindustan Turbo Fan Engine - HTFE 25) developed by the Hindustan Aeronautics Ltd. To be used in military trainer aircraft, small regional jets and unmanned applications, the engine's launch coincided with HAL's 75 year of existence. The design of the Hindustan Turbo Shaft Engine (HTSE-1200) was also launched during the occasion. Though the Defence Minister commended India's progress in aeronautical engineering, he said, "But we haven't been able to pass that threshold required to go into the higher sector of aeronautical engineering." He stressed on the need for companies like HAL to work with the private sector on a "competition-cooperation" basis, as well as for completion of projects on time, as the HAL had "almost" done. This would facilitate exports, with the Indian Air Force already having placed an initial order of 72 trainers. With exports from the country having grown six times, Mr. Parrikar said defence equipment could be a big item of export if procedures were cleared faster, especially to countries which could not afford top-notch equipment available.

Defence trade - As for the Defence Trade and Technology Initiative (DTTI), the Minister said the programme was in the final stages. Mr. Parrikar recently visited the U.S. "India, in the next five to 10 years, can be a global hub for aeronautical development," he said, adding that Bengaluru would be an important part of it.

Parrikar for export of Defence products

Kestur Vasuki

Propelling the "Make in India" concept, Defence Minister Manohar Parrikar stressed the need for India to develop and export big defence products to other countries. He said with quick clearance procedures in place and with the development of products required by many countries across the globe who cannot afford the top-notch equipment available, India should export big defence products. He was addressing a function at Hindustan Aeronautics Limited in Bengaluru on Monday. He said "...possibly in the earlier years the space occupied by the aeronautical requirement of the country was very small. LCA was being developed for thirty two years. Trainer aircraft was being developed for so many years, and I'm pleased to see the progress on the first stage trainer where I congratulate HAL that they are almost maintaining the schedules of commitment made to me," Parrikar said. "I'm saying almost because couple of weeks delay can be understood, but otherwise I think they are doing quite well on the schedule of the trainer aircraft which they are developing." Indian Air force has already told them that initial order of 72, but if they do it properly "may be our number will increase and we can export also," he added. Clearing apprehension that he has plans to shift the helicopter unit to Goa, Parrikar said helicopter unit is coming within sixty kilometer of Bengaluru. "We are waiting for the schedule of the Prime Minister to lay the foundation stone," he said. Stressing that there is higher scope, Parrikar said there is need to expand capability, take quick decision and be part of Make in India project. Noting that India has done quite a bit in aeronautical engineering, he said "but I see that ultimately we have not been able to pass that barrier, a threshold barrier which requires you to be into the higher section of the aeronautical environment." He said "I hope in coming years with the experience of HAL as also involvement of private sector- HAL should not see private sector as an competitor in a sense trying to occupy same space, but it should be more of a competition; cooperation and competition both coming together." Parrikar was here to witness the inaugural run of the core of 25 kN indigenous Aero Engine (Hindustan Turbo Fan Engine - HTFE 25), and developed by HAL's Engine Division in Bengaluru. He also launched the design and development project of Hindustan Turbo Shaft Engine (HTSE-1200) which can be used for helicopters. Parrikar also mentioned the on-going HTT-40 trainer program of HAL and said the company is almost there with final activities going on in full swing at its hangars in Bengaluru.

Deccan Herald

15 December 2015

HAL unveils aero engine

The Hindustan Aeronautics Limited (HAL) put the indigenously-built 25 kilonewton aero engine, the Hindustan Turbo Fan Engine (HTFE-25), on its inaugural run in the presence of Defence Minister Manohar Parrikar here on Monday. HAL also announced the launch of a design and development project of an helicopter engine, the Hindustan Turbo Shaft Engine (HTSE-1200). While congratulating HAL, Parrikar stressed on the need to prevent delays in projects and to "clear procedures fast" so as to meet requirements of a rapidly growing aeronautical and defence sector and make it capable of even exporting such products. Referring to the HTSE-1200 project, Parrikar said: "In the next 15 to 20 years, India may need anywhere between 4,000 to 6,000 helicopter engines. If we can make within the allotted time, it will be a big achievement. India has done quite a bit in aeronautical engineering, however, ultimately, we have not been able to pass that barrier, a threshold barrier to reach the higher section of aeronautical environment." Further highlighting the changing scenario in the aeronautical sector, Parrikar said that the space that was occupied by aeronautical requirements in earlier years was very small, unlike the present times. "The Light Combat Aircraft programme is being developed for 32 years, trainer aircrafts were also being developed for many years. I am pleased to see the progress of first stage trainer and also congratulated the HAL for almost maintaining the schedules of commitment made to me. I am saying almost because a couple of weeks delay can be understood but otherwise I think they are doing quite well," the minister said. "The Air Force has already said that they would require 72 engines, however, if they (HAL) do it properly, it may be increased and they could also be exported," the minister added. Talking about the rise in exports, he said that the overall exports of the country has increased six times. Parrikar spoke about the importance of the private sector. "HAL should not view private sector as a competition in a sense of trying to occupy the same space.



Army aviation needs integral attack helicopters

Anil Bhat

The Indian Air Force (IAF) acquired MI (Mikhail)-25 and MI 35 attack helicopters (AH) in 1983 primarily for providing intimate fire support to the Army's Strike Corps. On November 1, 1986, the Army Aviation Corps (AAC) was created and the AH squadron placed under the command and control of the Army. As the AAC was in a nascent stage, an interim functional arrangement of dual control by the IAF and the Army was decided upon. This was but polite terminology, which was not really workable as the IAF considered itself as the holder of all military aircraft and was loath to share or surrender any of its "turf" to the Army. It took two and a half



decades for this again, to put it politely, "sub optimal" arrangement to be reviewed and after detailed deliberation in the defence ministry and it was decided on October 10, 2012 that due to major operational considerations of AHs needing to be an integral element of the "ground manoeuvre force", they should also be with the Army. While IAF is in the final stages of procuring 22 Apache AHs to raise third strike corps and to replace the ageing fleet in the existing units, for the Army, also granted "in principle approval" for raising three AHs Squadrons with 39 Apache AHs, there is no progress. The Indian Air Force Doctrine 2012 has listed eight tasks of AHs. The first is to provide suppressive fire to the ground troops where artillery or the ground attack effort is either not available or is likely to be less effective. On account of the helicopters' variable speed and hover capabilities, engagement of surface targets in various situations would be highly effective. The second is to provide flank protection to mechanised formations. Next is the task to interdict targets in the close vicinity of the tactical battle area. A fourth task is to neutralise bridges used by the enemy for breaking out. Another task is to provide route cover and suppressive fire to heliborne assaults to create a favourable ground situation. The AHs are further tasked with providing air defence cover against enemy armed or attack helicopters, engaging enemy helicopters involved in troop carriage, reconnaissance and communication duties and neutralising radar sites located close to the border. The IAF doctrine quite clearly categorises the first four tasks for support of ground forces, so it should be not have any objection to the Army holding its own fleet of AHs. AHs have been extensively used as the air manoeuvre arm of the ground force in armies world over, especially for supporting mechanised battle. The Apache helicopter first saw combat during the 1989 invasion of Panama codenamed Operation Just Cause. Since then, Apaches have proven their worth in Bosnia and Kosovo in mid 1990, the First Gulf War in 1991 and in Iraq and Afghanistan. AHs have been used in all kinds of operations including low intensity and unconventional operations. Israel made ingenious use of Apaches in a counter terrorist action called Operation Cast Lead against Hamas in 2008. More recently, US forces have employed them, against ISIS in Operation Inherent Resolve near Falluja in Iraq. The US doctrine mentions the "Big Five" essentials of victory in a ground campaign, in which Black Hawk helicopters are placed alongside the Bradley and Patriot missile systems. Therefore it can be deduced that while AHs may not impact significantly in Air or Naval operations, but they definitely form the cutting edge of the ground forces. In March 2015, it was reported that within the span of a week, Pakistan acquired the Bell AH-1Z Viper AHs from the US and the CAIG Z-10 from China. These are Pakistan's Army and the air force continue battling militants in Waziristan after high-profile terrorist attacks in 2014 in Karachi and Peshawar. Although the armed forces' firepower is considerable, its capability gaps and large inventories of ageing weapon systems are apparent. Pakistan's Army Air Corps first received a small batch of Cobra attack helicopters between 1983-84. Pakistan has a long history of importing US arms and the arrival of Cobras coincided with its long-term support against the Soviets in Afghanistan. From 2007 to 2010 an additional 24 Cobra gunships were delivered to Pakistan for the specific purpose of targeting those terrorists/groups, which the Pakistan Army has classified as

Contd...

part-2

Army aviation needs integral attack helicopters

Contd...

"bad". On April 6, 2015, the US defence security cooperation agency announced "a determination approving possible foreign military sale" for 15 AH-1Z Vipers together with munitions and spare parts worth \$952 million. The AH-1Z is the most modern variant of the original AH-1 gunship that first saw action during the Vietnam War. The AH-1Z, which is flown by the US Marine Corps, is a twin-engine AH with modern avionics and six hard points for mounting weapons. The Cobra is distinct for its nose-mounted three-barrel 20 mm cannon and its landing skids. The AH-1Z is built with the same parts of the UH-1Y Huey - they even share similar tail sections and engine compartments. The DSCA and Bell Helicopter are providing the entire AH-1Z system together with spares. By 2016 Pakistan's total number of Cobra/Viper AHs/gunships could reach up to 60 or more. Both Prime Minister Narendra Modi and defence minister Manohar Parrikar have accorded priority to acquisition of military aircraft. The AAC is India's largest helicopter holding organisation. Not only should it get its required share of AHs, much of its utility helicopter units need replacements and new acquisitions, because their present operational commitments in peace areas and insurgency/terrorism affected regions itself are plenty. God forbid, if any of India's two inimical neighbours decide to wage even a limited war, like the Pakistan Army did in Kargil in 1999, we must not be caught with crucial helicopter deficiencies. Hence equipping AAC must also be treated as urgent and it must also be provided as early as possible along with sanctions, if any required, for the material wherewithal to maintain them.

The Hindu**15 December 2015**

Cautious cooperation with Japan

Japan has long been a significant investor in India's infrastructure sector. Of late, there have been consistent efforts by both New Delhi and Tokyo to transform this economic momentum into a "special strategic and global partnership". Japanese Prime Minister Shinzo Abe's three-day visit to India this month, during which both sides agreed to major deals, including the introduction of Japan's bullet train technology in India and an agreement on nuclear partnership, clearly sets the stage for elevated bilateral ties in the future. The potential of Indo-Japanese economic partnership is huge. Despite India being one of the world's largest economies, it accounts for only about 1 per cent of Japan's imports, exports and direct investments abroad. The proposed bullet train link between Mumbai and Ahmedabad, which will have access to a soft Japanese loan of \$12-15 billion at a concessional interest rate of 0.1 per cent, will cement economic cooperation further. Besides, this suits well Prime Minister Narendra Modi's agenda of building quality infrastructure in the country. The civil nuclear cooperation deal, after five years of talks, marks a complete reversal of the policy Japan adopted towards India after the Pokhran nuclear tests in May 1998. Tokyo, which considers itself a champion of non-proliferation, had suspended much of its aid after India's nuclear test. The deal, however, can be seen as a Japanese seal of approval to India's status as a nuclear-armed state. To be sure, enhanced economic and energy cooperation will benefit both countries. Japan has capital and skill whereas India has huge untapped potential. What they need is a clear road map, which, as the recent official exchanges show, is in the works. But at the same time, India should be wary of the great game going on in Asia. It may not be a coincidence that Japan is shedding its historical pacifist foreign policy, which helped its rise as an economic giant in Asia, at a time when its tensions with China are on the rise and the United States has been "pivoting" towards Asia. The American strategy appears to be to build an alliance in Asia to contain the rise of China. Japan, Washington's strongest ally in Asia, is obviously one of the pillars of this "pivot" strategy. It is hardly a secret that both the American and Japanese establishments want India to "swing" towards their alliance. Mr. Abe had earlier written about the strategic need to forge a "democratic security diamond" with the U.S., Australia and India. This is the challenge India's policymakers would face while deepening the country's partnership with Japan further. New Delhi should get its economic and strategic priorities right and state them clearly. To script its own rise, India should build strong ties with each power, instead of aligning with any particular bloc. The country will gain more from everybody's rise rather than joining some geopolitical alliance that is not in its primary interest.

Indo-US Malabar naval drills

China fumes over Japan's inclusion

Reacting sharply to India's move of including Japan in the Indo-US Malabar naval exercises, China today said, "It is hopeful Tokyo will not provoke confrontation and heighten tensions in the region." "Our position is clear. It is hoped that the relevant country will not provoke confrontation and heighten tensions in the region," Chinese Foreign Ministry Spokesman Hong Lei told a media briefing while replying to a question on Japan's inclusion in the Malabar drills. During Japanese Prime Minister Shinzo Abe's visit to India last week, it was announced that Japan would be a partner in Malabar Naval Exercises, taking it from a bilateral naval exercise between India and the US to a trilateral level on a permanent basis. Hong reacted mildly to references to the disputed South China Sea (SCS) in the talks between Abe and Prime Minister Narendra Modi as well as the agreement between the two countries to further civil nuclear cooperation. "China respects freedom of navigation enjoyed by all countries in the SCS according to the international law," he said. He, however, defended China's construction of artificial islands with military facilities. "Construction undertaken by China in the reefs and islands of the SCS is within China sovereignty. There is no impact on freedom of navigation and over flight," he said reacting to SCS references in the joint statement issued after Modi-Abe talks. "We hope that countries outside the region will respect efforts being made by the countries in the region to maintain security and stability of the SCS rather than the other way around," he said. Territorial disputes in the South China Sea involve both island and maritime claims among several states within the region like China, Brunei, Malaysia, the Philippines and Vietnam. Participation of Japan in the Malabar naval exercises has riled China in the past as well.



Mail Today

15 December 2015

Japan not welcome to Malabar

Ananth Krishnan

China on Monday warned India and Japan against "provoking confrontation" and "creating tension" in the region, reacting to Saturday's decision by the two countries to include Japan in the annual India-United States Malabar naval exercises on a regular basis. During Prime Minister Shinzo Abe's visit to India, both countries signed a range of agreements to widen defence and security ties, from formalising Japan's presence in the India-US Exercise Malabar "on a regular basis" to signing a landmark deal on civilian nuclear energy. While China had in October played down Japan's presence in the naval drills saying Beijing was "not that fragile" and had "sound relations" with both India and the US, the Chinese Foreign Ministry struck a different tone on Monday, warning "relevant countries" to not "provoke confrontation". "As for Japan's participation in the relevant military exercises, China's position is very clear," Foreign Ministry spokesperson Hong Lei said at a daily press briefing, in response to a question on Abe's visit. "Relevant countries should not provoke confrontation and create tension in the region," Hong said. On the nuclear agreement, he said China wasn't opposed to peaceful use of energy as long as countries fulfilled non-proliferation commitments. Beijing "always believes that under the premise of honoring international nuclear non-proliferation obligations, all countries are entitled to make peaceful use of nuclear energy and conduct relevant international cooperation in a way that uphold the authority and effectiveness of the international nuclear non-proliferation regime." On Saturday, India and Japan in a joint statement also for the first time directly expressed concern over the South China Sea, calling upon "all states to avoid unilateral actions that could lead to tensions". Asked for a response, Hong said China hoped countries in the region "would respect the efforts of regional countries in maintaining peace and stability of the South China Sea, instead of doing the opposite." "I would like to point out that China respects the navigation and overflight freedom in the South China Sea that all countries are entitled to in accordance with international law," he said. "The construction activities that China undertakes on the stationed islands and reefs in the South China Sea fall completely within China's sovereignty. They are justified, reasonable and lawful, targeting no country and impeding in no way the freedom of navigation and overflight in the South China Sea."

Service chiefs to meet Parrikar on pay award

The three service chiefs are soon expected to meet defence minister Manohar Parrikar to express the forces' concerns over "shortcomings" in the recommendations of the 7th Pay Commission. The armed forces are of the view that if the Pay Commission is implemented in its present form, it will position them much below their civilian counterparts in terms of salaries, facilities and status. One of the main grudges that the armed forces have is with regard to the risk-hardship matrix. The officers say that a soldier posted in Siachen Glacier, the highest battlefield in the world which poses great risk and hardship, will get an allowance of Rs 31,500 per month. In contrast, a civilian bureaucrat from the All-India Services draws 30 per cent of his salary as "hardship allowance" when posted anywhere outside the "comfort zone". A total of 869 Indian soldiers have died in Siachen since 1984 due to various factors, including the hostile conditions there. Navy Chief Admiral R.K. Dhowan was the first among the three service chiefs to officially comment on the pay panel report. "Whatever we feel are the shortcomings are being taken up by the three services with the MoD to see that whatever we feel is necessary for our men," he had said.



The Times of India

15 December 2015

Nuclear power an article of faith for India

If the Modi government has its way, India could produce 14,500 mw of nuclear power by 2024, almost a three-fold jump from the current level of 5,700 mw. That is a far cry from the government's stated intent to reach 63,000 mw by 2032 but, nevertheless, underlines India's commitment to nuclear energy as a way of reducing its reliance on fossil fuel. Simultaneously, the government has sought to focus on renewables with the Union Cabinet earlier this year clearing a proposal for a five-fold jump in solar power by increasing its capacity to 100,000 mw by 2022. PM Narendra Modi, much like his predecessor Manmohan Singh, sees an essential role for nuclear power in India's energy mix. After decades of discrimination and international technology denial regimes, India finally managed to turn the tables in 2008 when it managed to get a waiver from the Nuclear Suppliers Group to trade in nuclear equipment. Countries like the US, Russia and France -- all with major stakes in India's nuclear energy market worth billions of dollars -- helped India, a non-NPT signatory, get that waiver despite opposition from China. India continues to be the only country in the world to be able to carry out nuclear commerce despite not having signed the NPT. India believes it is an acknowledgement of its impeccable non-proliferation track record. One reason why India got the waiver was a statement at the NSG by then foreign minister Pranab Mukherjee that the country would abide by its commitment to unilateral and voluntary moratorium on nuclear testing. Mukherjee had said the waiver to India to conduct nuclear commerce would also have positive impact on global energy security. Apart from the US, Russia and France, India now has entered into cooperation for peaceful uses of nuclear energy with at least seven other countries. These include South Korea, Namibia, Canada, Australia and Kazakhstan. India also signed an MoU for the same with Japan last week. This is significant also because it will allow major US vendors to source equipment from their Japanese partners. Japanese PM Shinzo Abe finally clinched the agreement with India after he expressed satisfaction with India's unilateral and voluntary moratorium on nuclear testing, as expressed before the NSG in 2008. The agreement with Canada and Australia are also particularly significant for India as these countries are the main exporters of uranium to the world. To facilitate the deal with India, former Canadian PM Stephen Harper made an exception when his government agreed to go by IAEA assurances alone over any possible misuse of uranium supplies to India. In November, Australia too announced that it had completed negotiations with India for administrative arrangements required to bring into force its civil nuclear cooperation agreement with New Delhi. This again was an acknowledgement of India's non-proliferation credentials as Australia had long vacillated over whether or not it wanted to supply uranium to a country which had no intention of signing the NPT.

VVIP Helicopter Deal Scam

Interpol issues Red Corner notices

Interpol has issued Red Corner Notices (RCNs) against two Italian nationals, alleged to be the middlemen in the Rs 3,600-crore VVIP chopper deal from AgustaWestland, on charges of money laundering pressed by the ED. Officials said the global warrant for arrest has been issued against Carlo Gerosa and Guido Ralph Haschke after a special court here had issued nonbailable warrants (NBWs) against them on the plea of the Enforcement Directorate some time back. An RCN, according to Interpol, is issued "to seek the location and arrest of wanted persons with a view to extradition or similar lawful action" in a criminal case probe. The latest notice against the duo states the foreign nationals are "wanted by the judicial authorities of India for prosecution/to serve a sentence" under various sections of the Prevention of Money Laundering Act (PMLA). Another accused of the ED in the same case, British national Christian Michel James, has already been notified for arrest by the Interpol earlier this month on the request of the CBI which is also parallelly probing the case. Sources privy to the case said while ED had also obtained an NBW and requested for an RCN against James, the Interpol warrant issued on the behest of the CBI "may well serve their purpose as well." "Charges under PMLA may be inserted in the already published Interpol notice against Michel. With these two RCNs coming, the agencies have obtained global warrants against whom they wanted in their respective probes till now," they said. While making a plea for the world-wide warrant, the ED had told the court that the Italians were required to be interrogated on many aspects of the case after its probe established their role in the case. ED had earlier claimed in the court that AgustaWestland had allegedly paid a "kickback" of around 70 million Euros, out of which around 30 million Euros was paid to James and his firm Global Services FZE, Dubai, while Gerosa and Haschke had cornered the rest. ED, in July 2014, had lodged a separate case under PMLA against several persons after taking cognisance of a CBI FIR registered earlier. Late last year, the central probe agency filed a charge sheet in the case against businessman Gautam Khaitan and others, including Gerosa and Haschke for alleged offences committed under various PMLA sections. CBI had named a number of persons in its FIR in the case including former IAF chief Tyagi. CBI has alleged that during his tenure as IAF Chief, Tyagi and "with his approval", the Air Force had "conceded to reduce the service ceiling for VVIP helicopters from 6000 metres to 4500 metres as mandatory" to which it was earlier opposed.

The Tribune

15 December 2015

Coast Guard DIG Loshali sacked

Coast Guard DIG B K Loshali has been sacked after being indicted over his comments that contradicted the government's stand on the sinking of a Pakistan fishing boat last year. "Procedure of General Court Martial Proceedings has been completed. He has being dismissed from service," a senior Coast Guard official said. He was facing court martial proceedings from September after being indicted by a Board of Inquiry. The proceedings were conducted by a panel of senior DIG (Deputy Inspector General) rank officers. On the eve of New Year last year, a Pakistani fishing boat said to be carrying explosives was intercepted by the Indian Coast Guard off the Gujarat coast, but the vessel exploded and caught fire before sinking along with four occupants. Defence Minister Manohar Parrikar had said the "circumstantial evidence" indicated that the Pakistani boat had suspected terror links. Dismissing claims that the occupants of boat were smugglers, the Minister had said he would classify them as "suspected or possible terrorists" since they had committed suicide after being intercepted and added that they were in touch with Pakistani maritime officials, "army and international contacts". While the government has claimed that the Pakistani boat had been set on fire by its crew, Loshali told an audience of Coast Guard and Larsen & Toubro officials on February 15 that he had ordered to blow off the boat, which was a major embarrassment for the government. On "31st December night. I was there at Gandhinagar, and I told at night, blow the boat off. We don't want to serve them biryani," Loshali had said. Following this, the government had removed Loshali from the position of Chief of Staff, North West and attached him to the force's Gandhinagar-based regional headquarters. A Board of Inquiry at Mumbai was also constituted to look into the matter, which probed the matter for over three months and court martialled him.



DIG BK Loshali

India, Japan chart Asia's peaceful rise

All signals point to a new level of partnership between Asia's two great democracies, imparting new self-confidence to both nations at a particularly critical moment in Asia's emerging power structure

Sanjaya Baru

When the purohit at Kashi's Dashashwamedh Ghat applied sandalwood paste and vermilion on Japanese Prime Minister Shinzo Abe's forehead, that red dot on white paste looked like Japan's national flag. The Sanskrit chanting that accompanied the Ganga aarti after sunset symbolised a new beginning to an old friendship between India and the Land of the Rising Sun. Standing next to him on the banks of the Ganga, Prime Minister Narendra Modi could well have recalled the words of Gurudev Rabindranath Tagore, uttered a hundred years ago in July 1916, to an audience of young students in Tokyo: "I offer, as did my ancestor rishis, my salutation to that sunrise of the East, which is destined once again to illumine the whole world."

Old bonds, new zeal - More than two decades before Tagore paid his tribute to Japan's cultural and civilisational attributes, an Indian engineer, Mokshagundam Visvesvaraya, visited Japan and wrote eloquently about its technological progress and the lessons Japan's industrial development and economic rise have for India. India's national leaders drew inspiration not just from Tagore's poetic tributes and Visvesvaraya's practical lessons, but equally from Japan's victory over Russia at the beginning of the 20th century - the first Asian nation to vanquish a Western power. India was among the few countries that stood by Japan as it expressed remorse, nursed its wounds, and sought to rebuild after the Second World War. Despite this bond between these two Asian nations, it has taken more than a decade of concerted effort to finally get both governments to commit themselves to a transformation of a "Special Strategic and Global Partnership... into a deep, broad-based and action-oriented partnership, which reflects a broad convergence of their long-term political, economic and strategic goals". The Joint Statement issued by both Prime Ministers clears many cobwebs out of the bilateral equation, especially on contentious issues such as cooperation in the development of nuclear energy and defence capability. If United States President George Bush had to overrule what strategic affairs guru K. Subrahmanyam famously dubbed as "the Ayatollahs of nuclear non-proliferation" in Washington, D.C., to extend to India full cooperation in the field of nuclear energy, Prime Minister Abe had to battle many post-Hiroshima ghosts and Japan's own anti-nuclear fundamentalists (ensconced within the safety of the U.S. nuclear umbrella) to be able to extend to India a hand of cooperation in the nuclear and defence field. Seventeen Decembers ago, and six months after India declared itself a nuclear weapon state (Pokhran-II), inviting Japanese economic sanctions, Prime Minister Atal Bihari Vajpayee deputed a team of security analysts and retired officials to reach out to counterparts in Japan, explain India's strategic compulsions to Japanese opinion-makers, and secure an end to sanctions. In December 1998, K. Subrahmanyam led a delegation that included defence analyst Jasjit Singh, former Defence Secretary N.N. Vohra (now Governor of Jammu and Kashmir) and Ambassador Arjun Asrani, a Japanese-speaking diplomat. Realising the need to draw Japanese attention to India's economic and business potential, and not just explain her security concerns, Mr. Subrahmanyam invited me, at the time the editor of a financial daily, to join this distinguished group. Our challenge in using the carrot of business opportunity in India against the stick of Japanese economic sanctions was made worse by the fact that Japanese business was not only unenthusiastic about India but was in thrall of the lucrative business opportunity in China. Through the 1990s, China was the biggest recipient of both Japanese aid and investment while Japanese teams would visit India only to submit long lists of demands and complaints about how inhospitable India was to foreign investors.

The China factor - Two things made Japan wake up to the India opportunity. First, the fact that countries like South Korea began to overtake Japan in the Indian market. Second, the emergence of China as the

Contd...

part-2

India, Japan chart Asia's peaceful rise

Contd...

world's second-biggest economy, overtaking Japan. However, more than the change in the business environment in India, it is the growing challenge posed by China's rise that has finally forced Japan to invest in India's rise. Over the past decade, successive Indian and Japanese leaders have been paying greater attention to the bilateral relationship, but due credit should be given to Prime Ministers Abe and Modi for taking the relationship to an altogether higher level of long-term strategic, economic and cultural engagement. The India-Japan Vision 2025 statement jointly issued by both leaders in New Delhi last week is the most comprehensive statement of long-term bilateral engagement defined by shared interests and values. By crossing long-standing red lines in a couple of important areas, the joint statement has cut through some Gordian knots. First, the agreement on peaceful uses of nuclear energy ends years of painstaking negotiations, delayed both by the Fukushima nuclear tragedy in Japan and India's own confused legislation of a nuclear liability law. Second, India's decision to agree to "tied aid", enabling Japanese funds to finance Japanese investment, especially in infrastructure and high-speed railway projects. Third, India's willingness to promote Japanese industrial townships aimed at making India a more hospitable destination for Japanese business.

Shared strategic concerns - The 44-paragraph Joint Statement sets out a detailed framework for a privileged bilateral partnership that seeks to address a range of Japanese concerns about the security, viability and profitability of Japanese investments in India. This detailing has now been made possible because both Japan and India have come to understand the strategic importance for themselves of their bilateral partnership in a world in which China looms larger and the United States and Europe remain preoccupied with their own problems. While Japan is a member of the U.S.-led Trans-Pacific Partnership (TPP) and India is not, both countries are engaged in creating a Regional Comprehensive Economic Partnership (RCEP) and Japan has agreed to support India's case for membership of Asia-Pacific Economic Cooperation (APEC), even as the U.S. continues to drag its feet over this. The Joint Statement repeatedly refers to the Indo-Pacific as the shared region of strategic engagement for both powers. There are several interesting new initiatives that Mr. Abe and Mr. Modi have signed on for. One of them is an agreement for Japanese funding of India's own "belt-and-road" connectivity projects across Asia. While committing itself to investing in infrastructure within India to improve road and rail connectivity, Japan has also agreed to promote India's "Act East" policy by developing and strengthening "reliable, sustainable and resilient infrastructures that augment connectivity within India and between India and other countries in the region" aimed at advancing Asian industrial networks and regional value chains with open, fair and transparent business environment in the region. Japan and India can build road and rail connectivity across the Eurasian landmass, running parallel to China's own "One Belt, One Road" project. All this signals a new level of partnership between Asia's two great democracies, imparting new self-confidence to both nations at a particularly critical moment in Asia's emerging power structure. In 1916, Gurudev Tagore ended his Tokyo speech with these words: "When Japan is in imminent peril of neglecting to realise where she is great, it is the duty of a foreigner like myself to remind her, that she has given rise to a civilisation which is perfect in its form, and has evolved a sense of sight which clearly sees truth in beauty and beauty in truth. She has achieved something which is positive and complete... Such a civilisation has the gift of immortality; for it does not offend against the laws of creation and is not assailed by all the forces of nature. I feel it is an impiety to be indifferent to its protection from the incursion of vulgarity of power." In 1916 Tagore had the vulgarity of European power in mind. Today, Japan and India are mindful of new centres of assertive power and have reminded each other of the immortality of their own civilisation and the potential of their partnership in ensuring Asia's peaceful rise.

Lockheed wins \$1.09 billion contract for Patriot PAC-3 missiles

Lockheed Martin Corp has won a U.S. Army contract worth \$1.09 billion to build PAC-3 missiles for the U.S. Army, South Korea, Qatar and Saudi Arabia for use in Raytheon Co's Patriot missile defense system, the Pentagon said Monday. The contract runs through June 30, 2019, the U.S. Defense Department said in its daily digest of major arms contracts. Lockheed, the Pentagon's No. 1 supplier, said the contract includes Patriot Advanced Capability-3 (PAC-3) missiles and PAC-3 Missile Segment Enhancement (MSE) missiles for the U.S. Army, as well as PAC-3 missiles for the other countries. Lockheed won a similar contract valued at \$1.5 billion in July. The Pentagon's Defense Security Cooperation Agency announced the possible sale of up to \$1.75 billion in PAC-3 missiles and associated equipment to Saudi Arabia last October, followed by another deal valued at up to \$5.4 billion for more missiles in July. The U.S. government approved PAC-3 missile sales worth up to \$1.41 billion with South Korea in November 2014, and the sale to Qatar of PAC-3 missiles in November 2012. Other countries that have ordered the Lockheed missile include the United States, the Netherlands, Germany, Japan, the United Arab Emirates, Taiwan and Kuwait. Scott Arnold, Lockheed's vice president of PAC-3 programs, welcomed the news and said the company's missile defense interceptors utilized advanced technology that enabled "better accuracy, enhanced safety and improved reliability when it matters most." The PAC-3 Missile is a high-velocity interceptor that defends against incoming threats including tactical ballistic missiles, cruise missiles and aircraft. Lockheed said the PAC-3 MSE missile uses a two-pulse solid rocket motor that increases altitude and range to meet evolving threats.

The Pioneer

15 December 2015

A promise to our planet

Paris climate pact not ideal, but it's a good start

Given how the previous Conference of Parties under the UN Framework Convention on Climate Change had failed to produce a common minimum agreement on an issue which impacts every country on the planet, the very fact that a deal has been produced in Paris deserves to be welcomed. As many as 195 countries adopted the Paris agreement on Saturday - a milestone in the world's fight against climate change - agreeing to restrict average global warming to two degree Celsius above pre-industrial levels, and if possible, limit it further to 1.5 degree Celsius. What the world leaders couldn't agree upon was how they shall achieve this target. Understandably, any agreement that brings together so many stakeholders, each with its own disparate set of interests and aspirations, is bound to have compromises and, in this context, the Paris deal is no different: It has guidelines and recommendations for saving the planet but no legally binding requirements. However, before tearing apart the agreement for its many shortcomings, let us acknowledge the significance of this moment when every single country on the planet commits itself to a common cause. That said, the Paris agreement could have been more meaningful, if not fairer to developing countries, had the developed countries made a more sincere effort. There is no denying that, while climate change is a global threat that can only be contained by the combined efforts of all countries, developed countries have a historical responsibility to clean up the mess that they made on their way to 'development'. As Union Minister for Environment Prakash Javadekar, who led India's delegation at Paris, said: "The Paris Agreement does not put us on the path to prevent temperature rise below two degrees Celsius, and the actions of developed countries are far below their historical responsibilities and fair share." Developed countries should have agreed to legally binding emission cuts and made stronger commitments to providing financial assistance to developing countries as the latter switch from dirty but cheap fossil fuels to clean but still prohibitively expensive renewable energy sources. The Paris agreement not only gives developed countries an easy pass; it, in fact, almost lets them off the hook by surreptitiously eroding the principle of common but differentiated responsibility that has been the bedrock of climate change negotiations all these years. This is most evident in the call to developing countries - not just developed countries, as was the case with the 1997 Kyoto Protocol - to publicly commit themselves to emission reduction actions. Similarly, another global call to make "finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development" is sure to hit developing countries (particularly India), which are still growing on the back of fossil fuels but now may find it difficult to raise foreign funds for their immediate energy needs.

The First Strict Implementation Test of the Iran Nuclear Deal

By Michael Singh and Simond De Galbert

A recent International Atomic Energy Agency report confirmed what the U.S. and its allies have long maintained: that, contrary to its denials, Iran had an organized nuclear weapons program until 2003 and continued elements of this work through at least 2009. This revelation was not unexpected; Western officials have long accused Iran of seeking nuclear weapons. The Obama administration and its allies intend to move ahead with implementation of the deal on Iran's nuclear program, having pledged in the agreement that Iran did not have to disclose its past nuclear weapons' work or fully cooperate with the IAEA investigation to receive sanctions relief. The allies refrained from demanding that Iran come clean on its nuclear efforts for the same reason that they accepted only partial and temporary constraints on Tehran's current nuclear activities: They hoped that defusing tensions on this issue and focusing on the future, rather than the past, would build confidence in Iran's nuclear intentions so that a more stable and cooperative relationship prevails between Iran and the West as we move toward expiration of the deal in 15 years. But Tehran's grudging cooperation with the IAEA and its repeated flouting of the United Nations' ban on missile test launches are ominous signs that even faithful implementation of the deal by all sides may not succeed in building that confidence. By protecting its nuclear secrets, accepting only temporary constraints on fuel-cycle work, and advancing its missile program, Iran is keeping its nuclear options open for the future. In response, the international community must keep in place the tools to challenge Iran should its pursuit of nuclear weapons resume. The Dec. 15 meeting of the IAEA board of governors provides an opportunity to do just this. The board should endorse the IAEA's finding that Iran had pursued nuclear weapons and underline that Iran's incomplete cooperation with the IAEA's investigation, though perhaps sufficient to satisfy the minimal requirements of the nuclear deal, stymied the agency's work. Rather than closing the investigation as Iran has demanded, the board should direct that it continue. The nuclear deal provides tools for the IAEA to carry out such an investigation above and beyond those provided by the Non-Proliferation Treaty and its additional protocol. These tools are not as strong as they could be, but they nonetheless should be utilized to their fullest. The IAEA needs financial and human capital resources for this work, especially from the United States, Britain, and France, which have expertise on nuclear weapons. Those countries can also work together to provide intelligence and expertise to assist the IAEA. If the IAEA board does not close the investigation Iran may threaten to delay implementation of its obligations under the nuclear agreement. Should that happen, the U.S. and its allies should make clear their readiness to withhold sanctions relief until Iran proceeds with implementation—stressing that continuing the investigation is not inconsistent with the nuclear agreement but in line with Iran having forsworn such activities as part of the deal. If Russia, China, or other members of the IAEA's board of governors object, the U.S., France, Britain and like-minded allies should not hesitate to use their majority on the board to force the matter. Iran has refused to take either of the two steps that could provide real assurance that it has forsaken its desire for nuclear weapons: abandoning uranium enrichment altogether and cooperating with the IAEA's investigation by providing a full disclosure of past nuclear activities and the access required to verify its completeness. Continuing to insist on a complete investigation into Iran's nuclear weapons activities is the first test of international determination to strictly implement the nuclear deal. Failing this test would signal to Tehran that the West will allow it to dictate the terms under which the agreement is implemented in the coming years. It would also undermine the credibility of international non-proliferation mechanisms, encouraging other would-be nuclear powers that they can escape scrutiny. If these mechanisms are to succeed in deterring Iran and others in the future, their integrity must be zealously guarded.

Scientists invent a machine that can 'learn' like a human

Scientists have invented a machine that imitates the way the human brain learns new information, a step forward for artificial intelligence, researchers reported Thursday. The system described in the journal *Science* is a computer model "that captures humans' unique ability to learn new concepts from a single example," the study said. "Though the model is only capable of learning handwritten characters from alphabets, the approach underlying it could be broadened to have applications for other symbol-based systems, like gestures, dance moves, and the words of spoken and signed languages." Joshua Tenenbaum, a professor at the Massachusetts Institute of Technology (MIT), said he wanted to build a machine that could mimic the mental abilities of young children. "Before they get to kindergarten, children learn to recognize new concepts from just a single example, and can even imagine new examples they haven't seen," said Tenenbaum. "We are still far from building machines as smart as a human child, but this is the first time we have had a machine able to learn and use a large class of real-world concepts -- even simple visual concepts such as handwritten characters -- in ways that are hard to tell apart from humans." The system is called a "Bayesian Program Learning" (BPL) framework, where concepts are represented as simple computer programs. Researchers showed that the model could use "knowledge from previous concepts to speed learning on new concepts," such as building on knowledge of the Latin alphabet to learn letters in the Greek alphabet. "The authors applied their model to over 1,600 types of handwritten characters in 50 of the world's writing systems, including Sanskrit, Tibetan, Gujarati, Glagolitic -- and even invented characters such as those from the television series *Futurama*," said the study. Since humans require very little data to learn a new concept, the research could lead to new advances in artificial intelligence, the study authors said. "It has been very difficult to build machines that require as little data as humans when learning a new concept," said Ruslan Salakhutdinov, an assistant professor of computer science at the University of Toronto. "Replicating these abilities is an exciting area of research connecting machine learning, statistics, computer vision, and cognitive science."

The Indian Express

15 December 2015

13,500 MW nuclear power by 2020, safety aspect taken care of: Govt

The govt allayed apprehensions over the safety aspect of this energy source as the Lok Sabha passed a bill that will allow state-run NPCIL to collaborate with other PSUs in the nuclear field.

by Raghvendra Rao

Stating that the country would have 13,500 megawatts of nuclear power "which would become a major source of electricity and energy" by 2020, the government allayed apprehensions over the safety aspect of this energy source as the Lok Sabha passed a bill that will allow state-run NPCIL to collaborate with other PSUs in the nuclear field. "As far as the risk of accident is concerned, a reactor is designed after full technical and cost viability tests. As regards hazard, I think it is more an apprehension of the hazard about which we need to create awareness... rather than the hazard per se," Minister of State Jitendra Singh said during the discussion over the passage of the Atomic Energy (Amendment) Bill 2015. "If it was actually hazardous, you would agree with me that over the last 60 years not a single scientist has been affected by nuclear radiation. Many scientists have spent most of their lifetime inside Bhabha Atomic Research Centre, but nothing happened to them... There have been hardly about 20-odd unnatural deaths and most have happened because of accidents, suicides, poisoning etc, but none of them due to nuclear radiation." Singh said while the 2011 Fukushima disaster in Japan was a dreadful one, "there were certain inherent defects... It was, in the first place, wrongly located in a seismic zone. When the earthquake took place, there was a huge inflow of water... and this water choked everything else, even the outlets." He added that under the leadership of "eminent scientists like Homi Bhabha, Satish Dhawan, and their successors up to this date", India has had "some of the best scientific teams, who have taken care of this part also". "Most of our plants are located or set up after taking care of all these possible risk factors," the minister said. Singh said the first unit of Kudankulam Phase I is under shutdown "for checks and other things, but we are sure by January we will start it... As far as the second unit of Phase II is concerned, that also would be made functional by March or April of 2016."

Paris Agreement is a capstone and a stepping-stone in the battle against climate change

Arunabh Ghosh

In 2009 the failed Copenhagen climate summit had made three things clear. First, climate negotiations wrangled over legal text but were creating no concrete basis for cooperation over technology, finance, or economic opportunities. Secondly, India would become the swing player. Despite low per capita emissions, massive energy and income poverty and high vulnerability to climate change impacts, India was also caught in a shifting world, in which China would outgrow everyone else, and capture even more carbon space than the U.S. and Europe in future. China would leave it by the wayside and India would be on the mat. The China-U.S. climate deal in November 2014 was just one manifestation. Thirdly, the structure of the world economy was changing, in terms of the underlying drivers of economic growth. Hundreds of billions of dollars in fiscal stimulus packages were being directed at new sectors (clean energy, sustainable transportation, resource efficiency, advanced technologies). India's success or failure at the Paris climate summit (COP21) has to be, therefore, measured against these shifts, not just the final language of the Paris Agreement. On overall global ambition, governments agreed to limit warming to well below 2°C and pursue efforts to limit it to 1.5°C. Countries will also aim to peak global emissions as soon as possible, recognising that it will take longer for developing countries. This objective of getting to "net zero emissions" will put pressure on India sooner than later to announce a peaking year. But it also sends a strong market signal for technology development. CEEW's research has consistently highlighted the shrinking global carbon space and the need for negative emissions technologies; some of that investment must now flow to India. Differentiation has become diluted vis-à-vis country pledges. The Agreement now recognises the nationally determined contributions but they are not legally binding. The Agreement provides for "progression" in each successive contribution with developing countries urged to move over time towards economy-wide emission reduction. But thanks to a last minute change, the Agreement also lets developed countries off the hook, stating they "should" (rather than "shall") undertake economy-wide absolute emission reduction targets. This dilution allows Obama to avoid Congressional approval. But it also exposes that the so-called "high ambition coalition" was holding up a red herring. Minister Javadekar had seen through it last week itself, stating that India was happy to stop temperature rise now; why even wait until 1.5°C? If countries were really so serious about higher ambition, should they not bind themselves into stricter targets? India's targets are already disproportionately more ambitious than other major emitters. Our actions speak louder than their rhetoric. The new transparency framework applies to all countries with provisions for regular reporting, which will be subjected to a technical review. The US got its demand of avoiding double counting of emissions reductions. The deal also establishes a Capacity-building Initiative for Transparency to help developing countries meet their transparency obligations. This was a nod to developing countries' concerns about onerous reporting requirements. In fact, detailed technical reviews should be welcomed, if the process helped to build India's internal capacity to monitor emissions. In 2018 Parties will take stock of their collective efforts against the effort needed to limit temperature rise. But the first stocktake "under the Agreement" will be in 2023, and thereafter every five years. Although India will not be expected to raise ambitions in 2018, it is likely that global pressure on India will keep rising. Finance was a major issue throughout the negotiations. The Decision text (not the Agreement) establishes a "floor of \$100 billion", from which additional contributions would be added beyond 2025. But those contributions would also come from developing countries (India managed to ensure that this would be on a voluntary basis). Money for adaptation is also expected to increase but it will surely fall short of the needs. As per the pioneering India Adaptation Gap Report (published by CEEW, IIM Ahmedabad and IIT Gandhinagar), the gap for India alone is \$1 trillion until 2030. The deal is at its weakest on the issue of loss and damage. It establishes a mechanism to address financial losses from climate impacts. But claims of liability or compensation are not permissible. CEEW's research finds that India lost \$30 billion from extreme weather events in the last five years. While a lot of the commentary at Paris was around damages to the poorest countries, the implications hold for climate impacts in India as well. In short, the deal in Paris is significant not for what it says but for what it means. It is a capstone for two decades of efforts to build a framework for genuine collective action on climate change. It is also a stepping-stone for new kinds of partnerships. Much of the western media will not portray it in this way, but it is a changed India (not an unrepentant US nor a mercantilist China) that has swung the vote. This changed India now has the confidence to look at climate change beyond negotiating texts, to build a differently structured economy and energy system, and to even reach out to 120 countries to build an International Solar Alliance. If the Paris deal unlocked hundreds of billions of dollars of institutional funds for clean tech investments, then India would be one of the natural destinations. India learned the lessons of Copenhagen, played a positive and future-oriented role, and emerged a climate leader in Paris.

At Paris, something for everyone

The Agreement is about restricting temperature rise to 2 °C, but current pledges to reduce emissions may increase average global temperature by about 3 °C.

Sujatha Byravan & Sudhir Chella Rajan

Representatives from 195 countries at the Conference of the Parties (COP-21) meeting in Paris have soldiered on in marathon sessions, working for close to two weeks, and prepared an international agreement that lays the foundation for future action by all countries to contain and respond to the planetary threat of climate change. The Paris Agreement is widely recognised as launching one of the most significant transformations in human interaction, technology and landscape. India played a significant role in the process, especially in safeguarding differentiation between rich and developing countries. Environment Minister Prakash Javadekar has expressed his satisfaction that India's main concerns in all areas have been addressed in the Paris Pact. The preparation of the text of the pact, itself an iterative process with bracketed words in interim drafts indicating language that still needed agreement, resulted in three versions of the document with each new one edging closer towards the last. Every country was required to approve the final text and the deal would have crashed even if a single Party disagreed. The final text seems to contain something for everyone, though not nearly enough to satisfy anyone fully.

Contentious issues - The main issues of contention have been differentiation, financial support, mitigation action and loss and damage. These terms have been interpreted in the following way: maintaining the difference between rich and developing countries through the expression of Article 3 of the Convention, common but differentiated responsibilities (CBDR); providing support for developing countries through finance, technology and capacity-building so they can reduce emissions and adapt to climate change impacts; determining whether all major emitters, rich and developing countries, should announce a date when their greenhouse gas emissions would peak; and supporting poor countries that experience loss and damage as a result of warming and deciding whether the language of 'liability and compensation' should be preserved. One issue that was previously contentious and was mostly resolved in an interim draft concerns the average temperature rise that would be agreed upon as the target for the Convention. The demand of many vulnerable countries is that greenhouse gas emissions need to be reduced to restrict warming to under 1.5 degrees Celsius. Article 2 of the Paris Agreement says that it is the objective of the Convention to limit increase in global average temperatures to "well below 2 degrees C above pre-industrial levels and to pursue efforts to limit the increase to 1.5 degrees C, recognising that this would significantly reduce risks and impacts of climate change". Various estimates, however, indicate that current pledges and policies in the nationally determined contributions to reduce emissions are likely to increase the average global temperature by about 3 degrees Celsius as opposed to a business-as-usual rise of about 5 degrees by the end of the century. The final text is divided into two main parts: the Agreement itself, which is seen as a durable set of overall commitments, and the Decision, which has many sections covering commitments across several themes and the institutional arrangements needed for implementation. Since both parts of the text have been signed in Paris, it is understood that the whole document will have legal force, although there is some expectation that elements of the Decision could be changed especially during the five-year reviews that are built in. On the overall question of whether the Agreement maintains differentiation between developed and developing countries, several experts seem to provide a qualified answer in the affirmative. Many elements of differentiation are embedded in various parts of the agreement even if the language in the preamble itself is not as strong as was hoped for by many developing countries. The language on differentiation (CBDR) has been expanded to include the term "in the light of different national circumstances", which is likely to indicate that a previously strict firewall between developed and developing

Contd...

part-2

At Paris, something for everyone

Contd...

countries has been broken down. Also lost in the maelstrom is explicit acknowledgement of the historical responsibility of developed countries. Nevertheless, the text also contains several provisions specifically indicating developed country obligations. For instance, Article 9 of the Agreement is quite explicit in calling for financial support from developed countries that is significantly derived from public funds, which "should represent a progression beyond previous efforts". It is expected that this will result in at least \$100 billion per year to address needs and priorities of developing countries for mitigation and adaptation. Furthermore, developed countries are required to provide transparent information on support to developing countries and biennially communicate their plans for mobilisation of additional finance.

On mitigation action, developed countries are required to take the lead in setting absolute emission reduction targets, but developing countries are "encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances". Under "enhanced transparency framework", all countries are required to provide updates on their nationally determined contributions every five years starting in 2020. There is no mention of a peaking year for developing countries, apart from the explicit recognition that it may take them much longer to start reducing their emissions in absolute terms. The text calls for a comprehensive periodic review or "global stocktake" of the implementation of the Paris Agreement, covering all areas in a "facilitative manner" and "in the light of equity and the best available science". Several commentators feel that this provision is important for reviewing progress in emissions reductions, technology transfer and finance, while also opening up the possibility for monitoring differentiation. The importance of loss and damage has been recognised clearly in the text but there is also a clear demarcation in the Decision (though not in the Agreement) that this cannot be tied to liability and compensation. Without liability and compensation there will be no scope for victims of climate change to file legal claims, which implies that there is no guarantee that losses and damage associated with severe weather events directly as a consequence of climate change will receive monetary or non-monetary relief from entities that are identified as defendants.

Implications for India - Going forward, India will have to make considerable efforts to implement the new contours of the Agreement, especially the progressive review of goals, monitoring frameworks, and the revised wording of CBDR to consider national circumstances in the Paris Agreement. In particular, the way in which India's "national circumstances" will be interpreted for financial flows, technology transfer, or capacity-building are not clear since India is a large country with high GDP and millions live in poverty. There are also harsh implications in terms of vulnerability and adaptation because of the severe impacts of climate change that we could expect if global average temperatures rise by 2 degrees or more. Then, there is the issue of the sharing of remaining carbon space. If adequate mechanisms to ensure equitable sharing of the remaining development space are not introduced during the reviews, there could well be a race to the bottom where developed countries continue to swallow up the remaining carbon budget. In such circumstances, India would have to prepare itself to lift millions out of poverty while also claiming its rightful share of development space. India will also need to be concerned about providing human services in a sustainable manner to its vast underserved population. But most of all it will require a domestic social and economic transformation of a scale and scope that has never been attempted before. While this is a challenge, it is also a tremendous opportunity for the country to demonstrate an alternative model of sustainable development: one in which development is delinked from total dependence on fossil fuels. If it succeeds, India could set an example for other developing countries.

As economy slows, China urges G20 to focus on domestic reforms

G20 leaders had met at Antalya last month and resolved to persist with collective action

Vikas Dhoot

China, the host for the 2016 G20 meet and holder of the rotating presidency, urged member countries to pursue structural reforms to spur global economic growth even as the Asian giant's economy slows. Macro-economic expansionary policies such as monetary easing remain a 'temporary response' to the global financial crisis of 2008, it said. India's Finance Ministry has initiated consultations on the priorities identified by China for the G20 summit in September 2016, which include constructing a new structural reform index to assess progress by member nations on their target to add two per cent growth to the global economy by 2018 through domestic reforms. "The Department of Economic Affairs is examining the summit agenda set by China and has sought urgent inputs from different ministries on the priorities that have been proposed for the summit in Hangzhou," a senior government official told The Hindu. G20 leaders had met at Antalya last month and resolved to persist with collective action to lift actual and potential growth of their economies and boost job creation. The G20 summit mechanism for economic co-operation had evolved in the aftermath of the 2008 financial crisis. "Many countries are suffering from a series of unfavourable factors, including anaemic global growth, decline in potential output, increasing volatility in financial markets, weakening global trade and investment, high levels of unemployment and inequalities," the Chinese government noted, laying out the theme for the next summit. "Due to growing divergence in economic performance and policy priorities among major economies, we are seeing increasing difficulties in macro-economic policy co-ordination. The world economy calls for a new impetus," it said, adding that the G20 has managed 'mainly short term risks' through co-operation so far.

Protectionist measures - Raising concerns about persistent decline in global trade growth 'to levels below the global growth rate in the past three years,' China has questioned the significant rise in protectionist measures adopted by countries in trade and investment and the lack of movement on the World Trade Organisation's (WTO) Doha Development round of talks. G20 nations account for 80 per cent of global trade volumes. "Worldwide, regional trade agreements and bilateral investment agreements have flourished...it also results in 'fragmentation in global trade and investment governance regimes, to which G20 needs to respond," it noted, urging the G20 to instead to focus on the multilateral trading system based on the outcomes at the WTO ministerial summit in Nairobi that kicks off on Tuesday. In a separate document drafted by China's finance ministry proposing a new G20 Structural Reform Index reviewed by The Hindu, it has noted that efforts to maintain financial stability and support economic recovery, since 2008, have helped achieve certain results but structural deficiencies persist that can hold back growth in the long run. "The expansionary macroeconomic policies mainly focus on managing aggregate demand as the temporary response to the financial crisis. Without solving the deep structural problems, these policies could not reverse the prevailing trends of slow growth in potential output and productivity, and therefore could barely deliver sustainable economic growth," according to the document. China has proposed a new assessment system that focuses on aggregate impacts of the structural reform measures undertaken by G20 countries instead of focusing on the progress of implementation. This, it has argued, would provide a more objective and effective evaluation of reforms. In a message after taking over the G20 presidency on December 1, Chinese president Xi Jinping asked: "Can we strengthen the foundation for global recovery and growth and leave the crisis behind us?" "We should strive to build an innovative, invigorated, interconnected and inclusive global economy and explore new ways to drive development and structural reform, injecting impetus into the growth of individual countries and energising the global economy," Mr. Jinping said. China has also said that the prolonged delay in the implementation of reforms in the quota and governance structure at the International Monetary Fund and review of World Bank voting shares 'jeopardises the credibility of the G20' and must be pushed. Officials stressed the need to firm up India's strategy soon ahead of meetings between G20 sherpas (the term used to describe the chosen national interlocutors), finance ministers, central bank governors and top officials to arrive at a consensus communiqué for the G20 leaders when they gather in Hangzhou next September.