

NATIONAL**'Mission Raksha Gyan Shakti' to boost IPR culture in indigenous defence industry**

Instituted by the Ministry of Defence, the program showcased salient inventions and innovations achieved by Defence Research and Development Organisation (DRDO), Defence Public Sector Undertakings (DPSUs), and Ordnance Factories (OFs) which have resulted in successful filing of Intellectual Property Rights (IPR) applications. The Directorate General of Quality Assurance (DGQA) had been entrusted with the responsibility of coordinating and implementing the programme.

Objective: As part of the ongoing initiatives to enhance self-reliance in defence, the Mission Raksha Gyan Shakti aims to provide a boost to the IPR culture in indigenous defence industry.

Intellectual Property Rights: According to the World Trade Organization (WTO), IPRs are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time. IPR has emerged as key ingredient of an ecosystem which stimulates innovation and ingenuity.

IP Facilitation Cell: It was established in April this year to achieve ambitious targets of training 10,000 personnel of Ordnance Factories (OFs) and Defence Public Sector Undertakings (DPSUs) on IPR and to facilitate filing of at least 1,000 new IPR applications.

River Ganga and its conservation

The Central Water Commission should be disbanded, experts and activists said at India River Week (IRW)-2018. This will be one of the many demands in the *Citizens Report from IRW-2018 for rejuvenation of the Ganga*.

Why disband CWC ?

The experts have pointed out the inability of the CWC saying that *the panel has too much on its plate and it needs to go for better regulatory framework*. It is a body which is doing multiple jobs—collecting data, making policies, giving technical and financial approvals to various projects, monitoring and what not. It is not capable of doing all this.

Experts' suggestion to save Ganga :

- For restoring the e-flows, all proposed projects in the Ganga River Basin should be cancelled. The construction of all projects in the headstreams of the river should also be cancelled.
- Among medium-term measures, old dams should be decommissioned. The inland waterways and riverfront development projects should be withdrawn as they are harming the Ganga.
- An autonomous institute for the Ganga should be established rather than a one controlled only by the government.
- On policy front, a national river policy and a separate national urban water policy to govern the urban use of water resources should be put in place.
- No use of machinery to extract sand and other boulders from the riverbed should be proposed.
- To improve the base flows, improve upon crop pattern and better irrigation methods.

Central Water Commission : CWC is a premier Technical Organization of India in the field of Water Resources and is presently functioning as an **attached office of the Ministry of Water Resources, River Development and Ganga Rejuvenation**, Government of India. The Commission is entrusted with the general responsibilities of initiating, coordinating and furthering in consultation of the State Governments concerned, schemes for control, conservation and utilization of water resources throughout the country, for purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development. It also undertakes the investigations, construction and execution of any such schemes as required.

High Level Empowered Committee (HLEC) Report:

High Level Empowered Committee (HLEC) set up by Government of India in July 2018 has come out with its report on stranded thermal power projects. Stressed Thermal Power Assets are a cause of concern for the Country. With a view to resolve the stress and revive such assets, the Government had decided to set up a High Level Empowered Committee headed by Cabinet Secretary with representatives from the Ministry of Railways, Ministry of Finance, Ministry of Power, Ministry of Coal and the lenders having major exposure to the power sector.

Key Reasons behind the Crisis:

- *the debt burden of the distribution utilities and the financial stress on banks/financial institutions as well as promoters and bidders.*
- *the erratic coal supply and the uncertainty of coal supplies due to scrapping of mine auctions by the Supreme Court.*

Committee suggestions :

- Coal supply is an inter-ministerial issue, whereby the ministries for coal and railways have been requested to work out mechanisms to address short-term issues of supply, alongside the sale of coal at notified prices without entering bidding in case of short term power purchase agreements.
- Further, linking coal supply to power plant efficiency is a good way to incentivise better, newer and more efficient assets.
- Closing down of old, inefficient thermal power units make for good economics and good environmental sense.
- Several measures related to power markets to address the financial risks have been strongly recommended by the HLEC. These include getting NTPC or any other agency to act as an aggregator for power purchases, which can subsequently be sold to distribution utilities.
- Further, suggestion on payment security mechanism—all PPAs have a support for a letter of credit (LoC) for one month's purchase equivalent to guarantee it. It would rather be prudent to increase the value of the LoC instead of seeking a separate mechanism, and ensure that it can trigger automatically against a payment default or delay.

NPCC is now a Miniratna

National Projects Construction Corporation Limited (NPCC) has been conferred with the status of Miniratna : Category –I by the Government of India. The empowerment of Miniratna Status to NPCC will help the company in taking speedy decisions by enhancing the delegation of powers to the Board.

NPCC: NPCC, a schedule 'B' CPSE under the administrative control of Ministry of Water Resources RD & GR, has also been awarded ISO 9001:2015 Certification. The Corporation, incorporated in 1957, is a premier construction company having mandate with creation of infrastructure to provide impetus for economic development of the country. The Corporation is making continuous profit since 2009-10, having positive networth for the last six years and has ambitious business plan with enhanced order book position of Rs. 11833 crore.

Status of PSEs: Department of Public Enterprises under Ministry of Heavy Industries & Public Enterprises grants status of Maharatna, Navratna, and Miniratna to Public Sector Undertakings (PSUs) and Central Public Sector Enterprises (CPSEs) based upon profit made by these enterprises. These statuses give financial and administrative power to the companies to a certain extent. At present there are total 8 Maharatna, 16 Navratna, 60 Miniratna Category-I and 15 Miniratna Category-II CPSEs

Eligibility Criteria for Miniratna Status of CPSEs.

- The CPSEs which have made profits in the last three years continuously and have positive net worth are eligible to be considered for grant of Miniratna status.
- The Miniratnas are divided in two categories – I and II.
 1. Category I: Miniratnas that have made profits for the last three years continuously or earned a net profit of Rs 30 crores or more in one of these three years. There are 60 such companies.
 2. Category II: Miniratnas that have made profits continuously for the last three years and must have a positive net worth. There are 15 such companies in this category.

INTERNATIONAL AND BILATERAL**Inclusive Wealth Report 2018**

Inclusive wealth index, as part of the Inclusive Wealth Report 2018 has been released by the UN Environment and partners.

Inclusive Wealth Report (IWR): It is a biennial effort led by the UN Environment to evaluate the capacities and performance of the nations around the world to measure sustainability of economy and wellbeing of their people.

Inclusive Wealth Index (IWI): The IWI is a more holistic measure which considers full range of assets such as manufactured, human and natural capital, which shows a country's actual wealth and sustainability. The Inclusive Wealth Index (IWI) seeks to measure the social value of capital assets of nations beyond manufactured capital. The index is inclusive in the sense that it accounts for other key assets as important components of the productive base of the economy, such as natural capital and human capital.

Performance of India:

It had revealed that India's economic growth took a toll on its natural assets like forests, food and clean air. It had added that when the average growth rate of gross state domestic product (GSDP) during 2005-15 for almost all the states was around 7-8%, 11 states registered a decline in their natural capital. For India, the

finding is not as alarming as for the world. For 1992-2014, the per capita natural capital is on decline but not as sharp as for the global average

Sustainable Blue Economy Conference

First 3-day Sustainable Blue Economy Conference concluded at Kenyatta International Convention Center, KICC, in Nairobi, Kenya, which began on November 26, 2018. The theme of this conference was ‘The Blue Economy and the 2030 Agenda for Sustainable Development’. Kenya and its co-hosts Canada and Japan had invited the world to Nairobi for the first global conference on the sustainable blue economy to know how to

- Harnesses the potential of our oceans, seas, lakes and rivers to improve the lives of all, particularly people in developing states, women, youth and Indigenous peoples
- Leverages the latest innovations, scientific advances and best practices to build prosperity while conserving our waters for future generations

From India Union Minister for Shipping, Road Transport & Highways, Water Resources, River Development and Ganga Rejuvenation Nitin Gadkari participated. The Conference was built on the momentum of the UN’s 2030 Agenda for Sustainable Development, the 2015 Climate Change Conference in Paris and the UN Ocean Conference 2017 ‘Call to Action.’ Other important players attending the conference were: The World Wildlife Fund (WWF), International Maritime Organization(IMO), International Seabed Authority(ISA), the World Bank, AFRIEXIMBANK, Ocean Foundation etc.

Blue Economy and India:

The Blue Economy is envisaged as the integration of Ocean Economy development with the principles of social inclusion, environmental sustainability and innovative, dynamic business models. It is founded upon a systems approach, wherein renewable and organic inputs are fed into sustainably designed systems to fuel “blue growth”. Such “blue growth” addresses the problems of resource scarcity and waste disposal, while delivering sustainable development that enhances human welfare in a holistic manner.

The Indian Ocean region needs a sustainable and inclusive framework for international partnerships. Countries in the region need to not only coordinate and manage the growing security challenges in the region but also realize the substantial economic potential the Indian Ocean area presents. India’s commitment to strengthen its cooperation with the regional partners and build a sustainable ocean economy aligns well with its domestic mega-modernization projects that will enable the nation to harness the full potential of the Ocean based Blue Economy .

Azov sea and Russia-Ukraine sea clash

Russia’s capture of three Ukrainian naval ships and over 20 crew members in the disputed Azov Sea has refocused international attention on the conflict on Europe’s eastern corridors and Azov sea.

About the conflict in the Sea of Azov:

Ukraine and Russia accuse each other of violating international maritime law. They refer to the 1982 UN Convention on the Law of the Sea, which both states joined in the 1990s.

Ukraine insists on freedom of movement in the Kerch Strait and the Sea of Azov in accordance with this agreement, while the Russian side is trying to draw territorial borders. The countries also have a bilateral agreement on the free use of the Kerch Strait and the Sea of Azov, an accord that Russia has never called into question.

Importance of the Kerch Strait

The Kerch Strait is the only connection between the Black Sea and the Sea of Azov, and the only way to reach two important Ukrainian ports, Mariupol and Berdiansk. Russia has controlled the strait since annexing Crimea in 2014, which has made traffic significantly more difficult for Ukrainian ships.

Sea of Azov: It is a sea in Eastern Europe. To the south it is linked by the narrow (about 4 km or 2.5 mi) Strait of Kerch to the Black Sea, and it is sometimes regarded as a northern extension of the Black Sea. The sea is bounded in the north and in the west by Ukraine, in the east by Russia. The Don and Kuban are the major rivers that flow into it. The Sea of Azov is the shallowest sea in the world, with the depth varying between 0.9 and 14 metres.



ECONOMY**RBI launches a survey on Indian startup sector**

The Reserve Bank of India launched a Survey on India's Startup Sector (SISS). Its aim is to capture profiles of these businesses and get firsthand information on their profitability, among other factors. The survey comes amid calls to the RBI to do more for easing access to credit for the country's small and medium enterprises.

Start-up India: The government has already launched PMMY (Pradhan Mantri Mudra Yojana), the MUDRA (Micro Units Development and Refinance Agency) Bank, a new institution set up for development and refinancing activities relating to micro units with a refinance Fund of Rs. 200 billion.

Startup India Programme is a campaign based on the Startup Action Plan by the Government of India, aimed to promote entrepreneurship. The Standup India initiative is also aimed at promoting entrepreneurship, but among SCs/STs, women communities.

SCIENCE AND TECHNOLOGY**HysIS**

HysIS, the country's first hyperspectral imaging satellite for advanced Earth observation, has been launched along with 30 small satellites of foreign customers as co-passengers on the PSLV launcher, numbered C-43.

HysIS and its significance:

- The primary goal of HysIS is to study the Earth's surface in visible, near-infrared and shortwave infrared regions of the electromagnetic spectrum.
- HysIS will be ISRO's first full-scale working satellite with this capability. While the technology has been around, not many space agencies have working satellites with hyperspectral imaging cameras as yet.
- A hyperspectral imaging camera in space can provide well-defined images that can help to identify objects on Earth far more clearly than regular optical or remote sensing cameras.
- The technology will be an added advantage of watching over India from space for a variety of purposes such as defence, agriculture, land use, minerals and so on.

ENVIRONMENT**Hog Deer**

Indian scientists have discovered in India an endangered sub-species of hog deer (*Axis porcinus annamiticus*), earlier believed to be confined to the eastern part of central Thailand. Researchers reported the presence of a small population of hog deer in Keibul Lamjao National Park (KLNP), Manipur

Significance: Since hog deer is losing habitat in other countries, the genetically distinct and evolutionarily significant population found in KLNP— considered a biodiversity hotspot on the India-Myanmar border— is significant for conservation.

Hog Deer : *The hog deer or Pada is an endangered species in the IUCN Red List and is protected under Schedule I of the Indian Wild Life (Protection) Act, 1972.* The species has lost ground in most of its distribution range. A small and isolated population of under 250 was reported from Cambodia. However, it was widely distributed throughout the Southeast Asian countries at the beginning of the 20th century. Two sub-species of hog deer have been reported from its range. The western race is distributed from Pakistan and the terai grasslands (along the Himalayan foothills, from Punjab to Arunachal Pradesh), while the eastern race of hog deer is found in Thailand, Indo-China, Laos, Cambodia, and Vietnam.

NGT to fine thermal plants over fly ash

According to an National Green Tribunal (NGT) order, the "environmental damages" for not meeting the 100% fly ash disposal criterion will have to be deposited with the Central Pollution Control Board in a month, failing which these power plants will have to pay interest of 12% per annum. Based upon this order, The National Green Tribunal (NGT) has imposed penalties of up to ₹5 crore on thermal power plants that have not fully disposed of the fly ash they generated.

Fly Ash: Fly Ash is one of the coal combustion products, composed of the fine particles that are driven out of the boiler with the fuel gases. Ash that falls in the bottom of the boiler is called bottom ash. The recycling of fly ash has become an increasing concern in recent years due to increasing landfill costs and current interest in sustainable development.

Fly ash uses include:

- Concrete production, as a substitute material for Portland cement and sand
- Embankments and other structural fills (usually for road construction)

- Grout and Flowable fill production
- Waste stabilization and solidification
- Cement clinkers production - (as a substitute material for clay)
- Mine reclamation
- Stabilization of soft soils
- Road sub base construction
- As Aggregate substitute material (e.g. for brick production)
- Mineral filler in asphaltic concrete
- Agricultural uses: soil amendment, fertilizer, cattle feeders, soil stabilization in stock feed yards, and agricultural stakes
- Loose application on rivers to melt ice

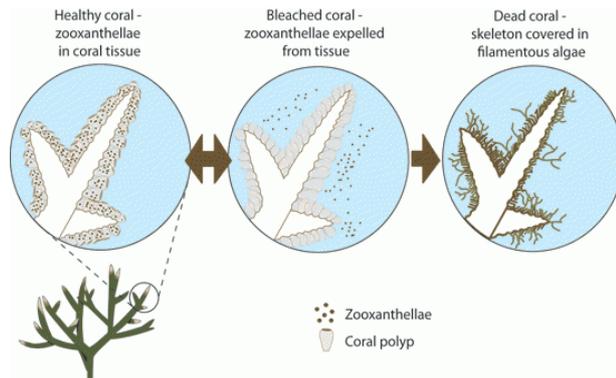
Largest coral reef projects launched on the Great Barrier Reef

Researchers have launched the biggest attempt to regenerate coral on the threatened Great Barrier Reef by harvesting millions of creatures of eggs and sperm during their annual spawning. The plan is to grow coral larvae from the harvested eggs and return these to areas of the reef which have been badly damaged by climate-related coral bleaching.

Coral Bleaching: When corals face stress by changes in conditions such as temperature, light, or nutrients, they expel the symbiotic algae zooxanthellae living in their tissues, causing them to turn completely white. This phenomenon is called coral bleaching. The pale white colour is of the translucent tissues of calcium carbonate which are visible due to the loss of pigment producing zooxanthellae. Coral bleaching has occurred in the Caribbean, Indian, and Pacific oceans on a regular basis. Many different hypotheses exist as to the cause behind coral bleaching.

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The Great barrier reef: *The Great Barrier Reef is the world's largest coral reef system composed of over 2,900 individual reefs and 900 islands stretching for over 2,300 kilometres over an area of approximately 344,400 square kilometres. The reef is located in the Coral Sea, off the coast of Queensland, Australia. It can be seen from outer space and is the world's biggest single structure made by living organisms. This reef structure is composed of and built by billions of tiny organisms, known as coral polyps. It was selected as a World Heritage Site in 1981.*



MISCELLANEOUS

The Indian Owl Festival, the country's first owl fest, is being held at Pingori village in Purandar taluka of Pune. The two-day festival, organised by Ela Foundation, an NGO working towards nature education and conservation, will give information on owl conservation. It is a first-of-its-kind festival in the country that is being organised with the intention of creating awareness about owl as a bird and debunking numerous superstitions associated with it.

National Commission for Scheduled Tribes : A team of the National Commission for Scheduled Tribes (NCST) will visit the Andaman and Nicobar Islands to look into the issue of killing of a US national by a protected and reclusive tribe in the North Sentinel Island

Wipro Chairman Azim Premji conferred with highest French Civilian Honour: Chairman of IT major Wipro and philanthropist Azim Premji was bestowed with highest French civilian distinction Chevalier de la Legion d'Honneur (Knight of the Legion of Honour). He was awarded for his outstanding contribution to developing information technology industry in India, his economic outreach in France and his contribution to society as philanthropist through the Azim Premji Foundation and Azim Premji University.

Arvind Saxena appointed as Chairman of Union Public Service Commission: Ram Nath Kovind has appointed Arvind Saxena as Chairman of Union Public Service Commission (UPSC), which conducts examination to select bureaucrats, diplomats and police officers. He will have tenure till August 7, 2020, when he attains the age of 65 years. Prior to this appointment, he was working as director of the Aviation Research Centre (ARC).