



News Analysis (29 Aug, 2019)

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Shagun: Integrated Online Junction for School Education

The Union Human Resource Development Minister has launched **one of the world's largest Integrated Online Junction for School Education 'Shagun'**.

- It is an **online junction of different websites and portals into a single platform** to enhance the accessibility of information relating to schools.
- It will ensure a **holistic approach to transforming the education sector**.

Shagun

- It is an initiative to improve school education system by creating a junction for all online portals and websites relating to various activities of the Department of School Education and Literacy in the Government of India and all States and Union Territories.
- The term 'Shagun' is coined from two different words- **'Shala' meaning Schools and 'Gunvatta' meaning Quality**.
- The portal seeks to provide a very robust feedback mechanism which will increase public participation and will ensure accountability and transparency.
- It also provides vital information relating to the availability of nearby schools, navigable distance vis-a-vis aerial distance between schools.

Integrated National School Education Treasury

- Union Human Resource Development Minister has also announced the setting up of the **Integrated National School Education Treasury (INSET)**.
- It will envisage a fully integrated, accessible and seamless information network for all parameters relating to the students, teachers, and schools in the country.
- The **main focus of INSET** will be on the following areas:
 - Reinforcing and cleaning the data of the Integrated Online Junction through feedback from Stakeholders

- Ensuring full interoperability among the websites, portals and applications which are already hosted in the junction
- Creating high quality e-contents, including quizzes and puzzles to enhance learning and also for teachers in aiding classroom transactions
- Using artificial intelligence and deep machine learning in a variety of ways to enhance the quality of school education including for designing evidence based inventions.

Source:PIB

Study to Check Antibiotic Resistance in Ganga

The government has commissioned a study to **assess the microbial diversity across the entire 2,500 km stretch of river Ganga**, & test for the presence of microbes that may promote antibiotic resistance.

- The project is to be undertaken by scientists at the **Motilal Nehru Institute of Technology (Allahabad), the National Environmental Engineering Research Institute (Nagpur), Sardar Patel Institute of S&T (Gorakhpur)**.
Two genome sequencing start-ups are also working on this project for performing the mapping of the genomes of the sampled microbes.
- According to the **National Mission for Clean Ganga**, the **aim** of the project is,
 - To indicate the **type of contamination**- sewage or industrial,
 - The **threat to human Health**- case of antibiotic resistance,
 - **Identify the source** of bacteria Escherichia Coli (bacteria that lives in the guts of humans and animals).
- The project is expected to last for 2 years.

Related Studies in the Past

- Earlier in April 2019, a study was commissioned by the Union Water Resources Ministry to probe the **“unique properties”** of the river Ganga.
It found that the Ganges contains a **significantly higher proportion** of organisms with **antibacterial properties**.
- **Several** studies were conducted on microbial diversity in the past, but none of them covered the entire stretch of Ganga.
- Researchers from **IIT-Delhi** in collaboration with **Newcastle University, the UK** in 2014 reported that during the pilgrimage months of May & June the levels of **resistance genes that lead to ‘superbugs’** are 60 times greater than at any other time of the year.
Superbug is a strain of bacteria that has become resistant to antibiotic drugs.

Way Forward

- According to **a recent study, rivers around the world are contaminated** with dangerous levels of antibiotics. Antibiotics in rivers cause bacteria to develop resistance meaning they can no longer be used in medicines for humans.
- According to **UN estimates**, the rise in **antibiotic resistance could kill 10 million people by 2050**.
- Considering the fact that India has among the highest antimicrobial resistance rates, this study may further provide new opportunities for researches and studies that can help in reducing antimicrobial resistance.

Source: TH

India Security Summit

The **12th India Security Summit** with the theme **“Towards New National Cyber Security Strategy”** was held on the 28th of August, 2019 in New Delhi.

- During the conference, many issues were discussed such as protection of critical national infrastructure, emerging cyber threats: incidents, challenges and responses.
- It was also highlighted that in a digital world, security is one of the challenging areas and new tools and technologies must be developed at a faster rate for **cybersecurity**.

Some Measures Taken to Counter Cyber Threats

- **Indian Cyber Crime Coordination Centre (I4C)**: This scheme has been rolled out by the **Ministry of Home Affairs (MHA)** for the period **2018-2020**, to combat cybercrime in the country, in a coordinated and effective manner.
- **Cyber Swachhta Kendra**: The "Cyber Swachhta Kendra" (Botnet Cleaning and Malware Analysis Centre) is a **part of the Government of India's Digital India initiative** under the **Ministry of Electronics and Information Technology (MeitY)**.
 - It intends to create a secure cyberspace by detecting botnet infections in India and to notify, enable cleaning and securing systems of end users so as to prevent further infections.
 - It has been set up **in accordance** with the objectives of the **National Cyber Security Policy**, which envisages creating a secure cyber ecosystem in the country.
 - This centre is being **operated by the Indian Computer Emergency Response Team (CERT-In)** under the provisions of Section 70B of the Information Technology Act, 2000.
- Further, the Central Government has taken steps to spread awareness on cybercrime, issue cyber-related alerts/ advisories, capacity building/ training of law enforcement

officers/ judges/ prosecutors, improving cyber forensics facilities etc. to prevent cybercrime and expedite investigations.

Source: PIB

World's First Facial Biometric Seafarer Identity Document

India has become the first country in the world to issue **Biometric Seafarer Identity Document (BSID)**, capturing the facial biometric data of seafarers.

- The project has been launched by the **Ministry of Shipping**.
- The new card is in confirmation of the **Convention No. 185 of the International Labour Organisation on BSID**.
- India ratified the Convention in October 2015.

Background

- Development of BSID is very significant against the backdrop of the increase in seafaring activities.
- BSID will provide a foolproof identification to seafarers which will facilitate:
 - Seafarer's movement,
 - Ease of getting jobs,
 - Identification of seafarers from any location in the world.
- The shipping sector is seeing major developments in the areas of coastal shipping, inland waterways and other maritime activities.
- These major developments will increase the number of Indian seafarers in the international shipping industry.
- The total number of Indian seafarers who were employed on Indian or foreign flag vessels increased by 35% from 2017 to 2019.

Biometric Seafarer Identity Document

- It will have a biometric chip embedded in it.
- The card has two optical security features:
 - **Micro prints/micro texts**
 - **Unique Guilloche pattern**.
- A software has been developed for capturing the facial biometrics and its authentication through the **public key infrastructure**.
- A record of each Seafarer Identity Document (SID) issued will be maintained in a **national database and its related information will be internationally accessible**.

Convention No. 185 of the International Labour Organisation on BSID.

The convention promotes:

- Security against potential threats of **International Terrorism**.
- Introduces **modern security features** of the BSID.
- Requiring a record of each BSID issued to be maintained in a national database, with the related information to be internationally accessible.
- Ensures the **reliability** of the identification of the holder of the BSID, while protecting the holder's **dignity and privacy**.

Source: PIB

Revised FDI Norms

Recently, the Union Cabinet has approved the proposal for the review of Foreign Direct Investment in various sectors.

This will result in making India a **more attractive FDI destination**, leading to benefits of increased investments, employment and growth.

As of now (March 2019), **Singapore remains India's top FDI source**, twice that from Mauritius.

Revised Norms

- **100% FDI under automatic route** is permitted for **sale of coal, for coal mining activities including associated processing infrastructure**.
- The government has allowed **100% FDI through the automatic route for contract manufacturing**.
- It will **augment the Make in India initiative** and will attract global companies in India looking to establish alternative manufacturing hubs

Contract manufacturing

- The business model in which a firm hires a contract manufacturer to produce components or final products based on the hiring firm's design. **Companies outsource their production to other companies.**
- Contract manufacturing offers a number of benefits:
 - **Cost Savings:** Companies save on their capital costs and labour costs because they do not have to pay for a facility and the equipment needed for production. Some companies may look to contract manufacture in low-cost countries, such as India, to benefit from the low cost of labour.
 - **Advanced Skills:** Companies can take advantage of skills that they may not possess, but the contract manufacturer does.
 - **Focus:** Companies can focus on their core competencies better if they can hand

- off base production to an outside company.
 - **Economies of Scale:** Contract Manufacturers have multiple customers that they produce, it may lead to reduced costs in acquiring raw materials by benefiting from economies of scale.
- **Easing norms for FDI in Single Brand Retail Trading (SBRT):** Retail trading through **online trade** by SBRT, can also be undertaken **prior to the opening of brick and mortar stores** (it should be opened within 2 years from the date of start of online retail).
 - Online sales will lead to the creation of jobs in logistics, digital payments, customer care, training and product skilling.
- It has been decided to **permit 26% FDI under government route for uploading/streaming of News & Current Affairs through Digital Media**, on the lines of print media.
- In India, FDI policy provisions have been progressively liberalized across various sectors in recent years to make India an attractive investment destination.
 - Some of the sectors include Defence, Construction Development, Trading, Pharmaceuticals, Power Exchanges, Insurance, Pension, Other Financial Services, Asset reconstruction Companies, Broadcasting and Civil Aviation.
 - **Due to these measures, a total FDI into India from 2014-15 to 2018-19 has been \$ 286 billion.**
 - Despite the dim global picture (**UNCTAD's World Investment Report 2019**), India continues to remain a preferred and attractive destination for global FDI flows.
 - India seeks to use this potential to attract far more foreign investment which can be achieved inter-alia by further liberalizing and simplifying the FDI policy regime.

Foreign direct investment (FDI)

- It is an **investment from a party in one country into a business or corporation in another country with the intention of establishing a lasting interest.**
- Lasting interest **differentiates FDI from foreign portfolio investments**, where investors passively hold securities from a foreign country.
- Foreign direct investment can be made by expanding one's business into a foreign country or by becoming the owner of a company in another country.

Source: PIB

International Coalition for Disaster Resilient Infrastructure

The Union Cabinet has given retrospective approval for the establishment of an International **Coalition for Disaster Resilient Infrastructure (CDRI)** in New Delhi.

- The CDRI is **proposed to be launched at the UN Climate Action Summit** in New York, USA on 23rd September 2019.
Being organized by the UN Secretary-General, the summit will bring together the largest number of Heads of States to generate commitments for combating the effects of climate change and resulting disasters and will provide the high-level visibility required for the CDRI.
- The **charter** for the coalition **will be finalized after taking inputs from potential member countries by the National Disaster Management Authority (NDMA)** in consultation with the Ministry of External Affairs.
- Focus on disaster resilient infrastructure would simultaneously address the loss reduction targets under the **Sendai Framework**, address a number of **Sustainable Development Goals (SDGs)** and also contribute to climate change adaptation.

Expected Role

- To serve as a platform where knowledge is generated and exchanged on different aspects of disaster and climate resilience of infrastructure.
- It will create a **mechanism to assist countries to upgrade their capacities and practices**, with regard to infrastructure development in accordance with their risk context and economic needs.
- It would address concerns that are common to developing and developed countries, small and large economies, countries at early and advanced stages of infrastructure development, and countries that have moderate or high disaster risk.

Source: PIB

Higher Protection to Star Tortoise and Otters

India's **proposal to upgrade the protection status** of Star Tortoise, the Smooth-coated Otter & Small-clawed Otter has been approved in the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**.

- The species are now listed under Appendix I of the CITES & enjoy highest degree of protection.
- Henceforth, complete International ban will be enforced on their trade, as an effort to boost their numbers.
- The upgradation was approved at **Conference of Parties (COP18)** held at Geneva.
- According to Deputy Director, **Wildlife Crime Control Bureau**, "90% of the trade of **Star Tortoise** occurs as part of the International pet market."

If their exploitation had continued at a similar pace or had expanded, a decline of greater than 30% was predicted by 2025.

Source: TH

Pollution Worsens Drought

Recently, a study done by **Indian Institute of Tropical Meteorology (IITM), Pune** has revealed that, during **El Nino** years, pollutants from south Asian countries can amplify the effect of the climate cycle on the monsoon, increasing the severity of droughts in India.

- The study held that pollutants loading in the **Asian Tropopause Aerosol Layer** (a high altitude layer of pollutants), reduced the amount of solar radiation in the Indian subcontinent region.
- The enhanced aerosol loading leads to **abnormal cooling over north India and Tibetan plateau**, which **weakens the low-pressure system**.
- This leads to **weakening the monsoon circulation** and thereby **aggravates the severity of the drought**.
- This phenomenon has led to a **decrease in rainfall is around 17% over central India**.
- Since aerosol pollution loading over South Asia is still expected to remain until the end of the 2040s. **Therefore, more extreme El Nino events can be expected**.
- The study also held that the future increases in industrial emissions from both east and south Asia would lead to a wider and thicker pollutant aerosol layer in the upper troposphere, potentially amplifying the severity of droughts over India.

Source: TOI

Coprolite

The scientists have found the oldest parasite DNA (Deoxyribonucleic Acid) in the Coprolite of a prehistoric Puma in Argentina.

- Coprolites are **fossilised faeces belonging to animals** that lived millions of years ago.
- Scientists can analyse and study the shape and size of coprolites and depending on the location they were found in, scientists can figure out the animal from which they came as well as uncover what those animals ate.
- For instance, if there are bone fragments in the faeces, it tells scientists that the animal might have been a carnivore. Tooth marks can reveal how the animal ate.

Source: IE

