

20 Jan 2021: PIB Summary & Analysis

1. Guru Gobind Singh ji

Context:

Sri Guru Gobind Singh Ji's Parkash Purab.

Details:

- The tenth Sikh Guru, Guru Gobind Singh was born in December 1666.
- His birthday falls either in December or January in the Gregorian calendar.
- In 2021, the date falls on January 20th.
- The day is marked as Guru Gobind Singh Jayanti or Parkash Purab.

Read all about Guru Gobind Singh Ji's life and contribution to the Sikh faith in [This Day in History dated October 7](#).

2. MoU between India and Uzbekistan

Context:

Cabinet approves signing of Memorandum of Understanding between India and Uzbekistan for cooperation in the field of Solar Energy.

About the MoU:

- The main area of work under is to identify research/demonstration/pilot projects between the National Institute of Solar Energy (NISE), Ministry of New & Renewable Energy, India and the International Solar Energy Institute (ISEI), Uzbekistan in the following mutually identified areas:
 - Solar Photovoltaic
 - Storage Technologies
 - Transfer of Technology
- Based on mutual agreement, both parties would work for the implementation and deployment of a pilot project in [International Solar Alliance \(ISA\)](#) member countries.

3. Regulatory Compliance Portal by DPIIT

Context:

DPIIT has launched the Regulatory Compliance Portal in January 2021.

Background:

- In order to translate the Atmanirbhar Bharat Abhiyan into a reality, the next generation of reforms relating to minimizing regulatory burden on businesses and citizens are being taken up by Central Ministries and States/UTs on a mission mode.
- The government has declared as its priority making Government to Business and Government to Citizen interfaces online, transparent and time-bound.
- The [DPIIT](#), Commerce & Industry Ministry is the nodal department for coordinating the exercise of minimizing regulatory compliance burden for citizens and businesses.
- The launch of the Regulatory Compliance Portal is a major initiative in this regard.

About the Regulatory Compliance Portal:

- The objective of this portal is to act as a bridge between citizens, industries and the Government in order to minimize burdensome compliances.
- It will also act as a first-of-its-kind central online repository of all Central and State-level compliances.
- All Central Ministries/Departments and States/UTs would examine laws/regulations/rules under their purview and implement an Action Plan to rationalize and simplify all the processes and remove burdensome compliances, decriminalize laws and repeal redundant Acts.
- These details would be captured and tracked on the Regulatory Compliance Portal.
- Industry stakeholders from trade bodies such as CII, FICCI and ASSOCHAM would also be able to submit compliances and proposed recommendations.
- This will be assessed by the Government authorities concerned and suitable action would be undertaken to minimize the regulatory compliance burden.

4. National Conference with States on Logistics

Context:

The National Conference with States on Logistics was organised by the Department of Commerce.

Objective of the Conference:

To initiate a consultative and collaborative framework for the Central and State Governments to work in a coordinated manner in the logistic sector.

Outcome of the Conference:

- The conference reiterated the role states play in improving the logistics performance of the country.
- A comprehensive **18 Point Agenda** was presented to the States to improve logistics.
- Thrust areas for logistics improvements in the States were identified as the following:
 - City logistics
 - Simplification of approvals for warehouses
 - Facilitation for warehousing development
 - Reducing the burden on truck movement
 - Addressing the shortage of truck drivers
- It was decided that the Ministry of Commerce & Industry will work with the Ministry of Housing and Urban Affairs to focus on 50 cities for logistics planning initially.
- A plan for facilitation to reduce enforcement burden on truck drivers will be developed.
- Many States have already appointed senior officers as nodal officers for logistics and others will do the same in a short period of time.
- State Level Coordination Committees on Logistics will be formed.
- Central Ministries looking after the transportation will appoint State Nodal Officers to coordinate with the States.
- It was decided to rank states based on logistics performance.
 - The State ranking will focus on data in addition to perspective on logistics performance.

5. Defence Geo-Informatics Research Establishment (DGRE)

Context:

DRDO inks framework MoU with the Ministry of Road Transport and Highways (MoRTH) for Geo-hazard Management.

MoU Details:

- The MoU aims to strengthen collaboration in the field of technical exchange and cooperation on sustainable geohazard management.
- As per the MoU, DRDO and MoRTH will cooperate in various mutually beneficial areas related to geohazard management.
- The initiative will ensure safety against the adverse effects of landslides and other natural calamities on national highways in the country.
- It has been agreed that the expertise of DRDO (through the DGRE) will be utilized in providing sustainable mitigation measures to damages caused by landslides, avalanche and other natural factors on various National Highways in the Country.

About DGRE:

- The Defence Geo Informatics Research Establishment (DGRE), a DRDO laboratory, is a leading entity in the development of critical technologies for enhancing combat effectiveness with a focus on terrains and avalanches.
- Its role and charter include mapping, forecasting, monitoring, controlling and mitigating landslides and avalanches in the Himalayan terrain.
- Its expertise will be utilized for designing national highways including tunnels.
- Terrain and modelling simulation is an important asset with DGRE, which will play an important role in planning and building robust road infrastructure in difficult terrains.

6. 5th India – Singapore Defence Ministers’ Dialogue

Context:

The 5th Defence Ministers' Dialogue (DMD) between India and Singapore was successfully held.

Background:

- Defence and security engagements between India and Singapore have broadened significantly in scale and scope across all three Services of the Armed Forces as well as in the areas of defence technology and industry.
- Both countries have also found common ground on multilateral fora and engagements.
- In August 2020, the implementing agreement on Humanitarian Assistance and Disaster Relief (HADR) cooperation was signed for the two Armed Forces to have closer operational collaboration in response to disasters and capacity-building activities of mutual interest.
- The cyber agencies of both armed forces have also stepped up engagements.

Military exchanges between India and Singapore:

- Singapore India Maritime Bilateral Exercise (SIMBEX) – annual exercise between the navies. **Read more on [SIMBEX](#) in the linked article.**
- SITMEX - Singapore, India, Thailand Maritime Exercise. **Read more on [SITMEX](#) in the linked article.**

5th DMD Details:

- The Implementing Agreement on Submarine Rescue Support and Cooperation was signed between the navies of India and Singapore.

7. Virtual Expo 2021 for R&D in Processed Food Sector

Context:

- First-ever Virtual Expo 2021 for R&D in the processed food sector inaugurated.

Who is organising the Expo?

- The Ministry of Food Processing Industries.

About the Expo:

- It is an expo for research and development in the processed food sector.
- It will showcase the outcomes of R&D projects supported by the Ministry of premier Food Technology Institutions of India (such as NIFTE, IIFPT, CFTRI, ICAR, IITs).
- The key focus areas would be showcasing R&D projects consisting of categories like Novel Food Products, Innovations in Food Engineering, Food Safety & Quality Evaluations, Food Packaging Solutions & Food Industry Waste Utilization.

8. National Disaster Response Force (NDRF)

Context:

16th Foundation Day of National Disaster Response Force (NDRF).

Read more on the [NDRF](#) in the linked article.

9. Hunar Haat

Context:

The 24th “Hunar Haat” of indigenous products of artisans and craftsmen being organised at Avadh Shilpgram in Lucknow.

Details:

- The 24th Hunar Haat is being organised by the Ministry of Minority Affairs with the theme “Vocal for Local”.
- About 500 artisans and craftsmen from 31 States/UTs of the country are participating.
- Indigenous products are being showcased such as Ajrakh, Applique, Art Metal Ware, Bagh Print, Batik, Banarsi Saree, Bandhej, Bastar Art & Herbal products, Block Print, Brass Metal Bangles, Cane & Bamboo products, Canvas Painting, Chikankari, Copper Bell, Dry Flowers, Handloom Textile, Kalamkari, Mangalgiri, Kota Silk, Lac Bangles, Leather products, Pashmina Shawls, Rampuri Violin, wooden and iron toys, Kantha Embroidery, Brass products, crystal glass items, Sandalwood products, etc
- Apart from products and food items, artists will also perform cultural events.
- **Hunar Haat Significance:**
 - “Hunar Haat” has proved to be immensely beneficial and encouraging for artisans and craftsmen as lakhs of people visit the “Hunar Haat” and purchase indigenous handmade products of artisans on large scale.

Know more about Hunar Haat in [PIB dated Feb 9, 2020](#).

10. Angiogenesis

- Angiogenesis is the physiological process through which new blood vessels form from pre-existing vessels, formed in the earlier stage of vasculogenesis.
- Angiogenesis is a normal and vital process in growth and development, as well as in wound healing and in the formation of granulation tissue.

- However, it is also a fundamental step in the transition of tumours from a benign state to a malignant one.
 - This has led to the use of angiogenesis inhibitors in the treatment of cancer.

In cancer treatment:

- The essential role of angiogenesis in tumour growth was first proposed in 1971 by Judah Folkman.
- Angiogenesis is critical in the growth of cancer because tumours need blood supply to grow. Tumours trigger the growth of blood cells by giving off chemical signals that stimulate angiogenesis.
- Deregulation of angiogenesis is the main reason for tumour growth and progression.
- Inhibition of tumour angiogenesis has become a popular anti-cancer strategy after chemotherapy.
- However, the clinically approved anti-angiogenic drugs are ineffective due to parallel activation of various compensatory mechanisms involving a cascade of molecules, which aids tumour angiogenesis.
- Investigation of these mechanisms is essential for developing anti-angiogenic therapies.

What's in News?

- An INSPIRE faculty from Chennai and his team are working to develop transgenic zebrafish (which have exogenous genes added to their genome) model by the use of the CRISPR/Cas9 gene-editing tool to further study the compensatory angiogenesis mechanism in the tumour microenvironment.
- The transgenic or CRISPR/Cas9 edited Zebrafish platform (TZP) can be used for studying the efficacy of a drug as anti or pro-angiogenesis in the next phase of the project.
- The researcher has already found that nitric oxide (NO) plays a key role in switching off angiogenesis under tumour microenvironment and that the melatonin hormone suppresses tumour angiogenesis.

11. New technology useful in water transportation & self-cleaning

Context:

Scientists develop gold microstructure substrate with tunable wettability useful in water transportation & self-cleaning.

What's in News?

- Scientists have developed a gold microstructure substrate with the ability to repel water as well as bubbles with tunable wettability, which can be used in designing microfluidic devices, biosensors and useful in water transportation and self-cleaning.
- A scientist and his group from the **Centre for Nano and Soft Matter Sciences (CeNS)**, an autonomous institute of the Department of Science and Technology (DST), have developed a substrate exhibiting morphological gradient that helps one to tune the wettability because of surface energy change.
- The morphological gradient in the substrate ranges from domes to elliptical holes.
- These studies would be useful in designing microfluidic devices, biosensors, and water transportation.

What is wettability?

- Wettability, or the ability of a liquid to maintain contact with a solid surface, is an important property in surface and interface science.
- Its influence is seen in many biochemical processes, sensing, microfluidics, water transportation, self-cleaning, industrial processes.
- Tunable wettability results from tunability in surface energy of the substrate, which can be utilized to regulate the direction of flow in water transportation and self-cleaning applications.

12. Report on Faecal Sludge and Septage Management in Urban Areas

Context:

NITI Aayog releases Report on Faecal Sludge and Septage Management in Urban Areas: Service and Business Models.

Details:

- The [NITI Aayog](https://niti.gov.in/) released a book on faecal sludge and septage management in urban areas.
- The book was jointly developed by the NITI Aayog and the National Faecal Sludge and Septage Management (NFSSM) Alliance.
- The book presents 27 case studies across 10 states and various service and business models adopted by Indian cities while implementing faecal sludge and septage management (FSSM) initiatives.
- It provides a repository of FSSM best practices that can be adapted and replicated appropriately across the country.

Background:

- Considering the importance of FSSM solutions, the Ministry of Housing and Urban Affairs came up with the national policy on FSSM in 2017.
- The policy has been rigorously pursued across the country—more than 24 states have adopted it and 12 of them have come up with their own policies.

What the Report says:

- The report mentions that about 60% of urban households rely on onsite sanitation systems, which require dedicated planning for the management of waste collected in these systems' containment structures.
- Accordingly, FSSM planning prioritizes human excreta management, a waste stream with a high potential for spreading diseases.
- The planning strategies entail emptying, transportation, treatment, and safe disposal of waste and possible reuse of output products post-treatment.
- It is a low-cost and easily scalable sanitation solution.
- Many Indian cities have come up with exemplary FSSM planning models, with optimal private-sector participation and greater mechanization of operations.

Significance:

- Safe sanitation is a strong contributor to both public health and environmental sustainability and needs focused attention, especially the safe and complete treatment of all human waste.
 - The models captured in this report will help other states and cities replicate and scale them up to achieve 100% effective management of India's faecal sludge and septage in the next five years.
 - This report is intended for city managers, municipal functionaries, elected representatives, state decision-makers, CSOs and private-sector players to understand the developments in FSSM and the opportunities it presents.
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