



Date - 28 Feb 2022

Maharishi Dayanand Saraswati

- In the year 2022, Maharishi Dayanand Saraswati is being celebrated on 26 February.
- According to the traditional Hindu calendar, Dayanand Saraswati was born on the tenth day of Krishna Paksha in the month of Falgun.

Today Current Affairs

Maharishi Dayanand Saraswati:

- Swami Dayanand Saraswati was born on February 12, 1824 in a Brahmin family in Tankara, Gujarat. His parents Yashodha Bai and Lalji Tiwari were orthodox Brahmins.
- He was earlier named Mool Shankar Tiwari as he was born during Mool Nakshatra.
- He wandered as an ascetic for fifteen years (1845-60) in search of truth.
- Dayanand's thoughts were published in his famous work Satyarth Prakash.

Contribution to society: The Hindu Analysis

- He was an Indian philosopher, social leader and founder of Arya Samaj.
- Arya Samaj is a reform movement of Vedic religion and he was the first to call for Swaraj in the year 1876 as "India for the Indians".
- He was a self-enlightened person and great leader of India who left a huge impact on Indian society.

- The first unit of Arya Samaj was formally established by him in 1875 in Mumbai (then Bombay) and later its headquarters was established in Lahore.
- His vision of a united India included a classless and casteless society (at religious, social and national level) and an India free from foreign rule, in which Arya Dharma was the common religion of all.
- He took inspiration from the Vedas and considered them as the 'rock of the age of India', the 'infallible and true root seed of Hinduism'. He gave the slogan "return to the Vedas".
- He introduced the Vedic concept of Chaturvarna system in which a person was not born in any caste but was identified as Brahmin, Kshatriya, Vaishya or Shudra according to the occupation followed by him.

Contribution to the education system: The Hindu

Analysis

- He ushered in a complete change in the education system and is considered one of the visionaries of modern India.
- The DAV (Dayanand Anglo Vedic) school came into existence in the year 1886 to realize the vision of Swami Dayanand Saraswati.
- The first DAV school was established in Lahore and Mahatma Hansraj was its headmaster.

About Arya Samaj: The Hindu Analysis

- Arya Samaj aims to re-establish the Vedas (the oldest Hindu scripture) as truth. He rejected the later additions to the Vedas and included other Vedic ideas in his interpretation.
- In the 1920s and early 1930s tensions on many issues increased. Muslims were angry with the "music before the mosque", the cow protection movement and the Arya Samaj's purification movement.
- The influence of Arya Samaj has been more in western and northern India.
- Arya Samaj opposes idol worship, animal sacrifice, Shradh (ancestral rituals), caste based on birth and not merit, untouchability, child marriage, pilgrimage, priesthood and worship of temple offerings is opposed.
- It upholds the infallibility of the Vedas, the effectiveness of karma theory (accumulated effects of past karmas) and samsara (the process of death and rebirth), the purity of the cow, the importance of samskaras (individual rites). And

confirms the effectiveness of Vedic sacrifices for Agni and programs of social reform.

- Work was done by Arya Samaj in the direction of promoting women's education as well as promoting inter-caste marriage. Missions for widows, construction of orphanages and homes, a network of schools and colleges were established, and famine relief and medical works were carried out.

‘Quantum Key Distribution’ (QKD): DRDO & IIT Delhi

- Recently, a joint team of scientists from Defense Research and Development Organization (DRDO) and Indian Institute of Technology (IIT) Delhi has successfully completed ‘Quantum Key Distribution’ (QKD) link between distances of more than 100 kms for the first time in the country.

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Importance:

- With this success, the country has demonstrated indigenous technology for ‘Secure Key Transfer’ for ‘Bootstrapping Military-Grade Communication Security Key Hierarchy’.
- This technology will enable security agencies to plan a suitable ‘Quantum Communication Network’ with indigenous technology base.

What is ‘Quantum Key Distribution’?

- Quantum Key Distribution (QKD) provides ‘secure communication’ using various components of quantum mechanics.
- This technology enables two parties to generate a ‘Shared Random Secret Key’ known only to them, which is used to encrypt and decrypt messages. In this way both parties can communicate with each other very securely.

Methodology: The Hindu Analysis

- Quantum Key Distribution (QKD), works by transmitting millions of polarized light particles (photons) from one unit to another over a fiber optic cable.
- Each photon has a 'Random Quantum State', and collectively all photons form a 'bit stream' of 'Units and Zeros'.
- When a photon travels through a 'beam splitter' as it approaches its receiver, this 'beam splitter' forces the photon to take a random path in the 'photon collector'.
- The receiver then responds to the original sender with data related to the sequence of photons sent, and the sender then compares this response to the 'emitter' that each photon sent.
- Photons in the wrong 'beam collector' get separated, leaving only a specific sequence of 'bits'. This bit sequence can then be used as a key to 'encrypt the data'.

The reason for the impenetrability of QKD: The Hindu Analysis

- The security of 'Quantum Key Distribution' is enhanced by the ability to detect any unauthorized access during QKD transmission. Because of the unique and debilitating properties of the photon, when any third party (or eavesdropper) tries to read or copy the photon in any way, the state of the photon changes.
- Changes in photon state are detected by the sender and receiver at the communication ends, and are alerted to the key being tampered with and discarded.
- Then, a new key is transmitted. Furthermore, since the newly generated keys are truly random, they are protected from future hacking attempts.

Quantum Key Distribution (QKD) Requirement: The Hindu Analysis

- QKD is essential to overcome the threat posed by rapid advances in 'quantum computing' to protect the data being transported by various important sectors through the current communication network.
- QKD will enable security agencies to plan a suitable quantum communication network with indigenous technology base.

Fair and Remunerative Price (FRP)

- Recently, a government proposal has been issued by the Government of Maharashtra, according to which the sugar mills will be able to pay the basic 'Fair and Remunerative Price' (FRP) in two phases.
- Sugar mill owners have welcomed this move of the government. However, the farmers are not happy with this.

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What is FRP?

- 'Fair and Remunerative Price' (FRP) is the 'price' declared by the government. Sugar mills are legally bound to pay for 'cane' purchased from farmers at this 'price'.
- Payment of FRP across the country is governed by the 'Sugarcane Control Order, 1966'. As per this order, it is mandatory to make payment within 14 days from the date of delivery of sugarcane.

Determination of FRP: The Hindu Analysis

- The 'Fair and Remunerative Price' (FRP) is based on the recovery of sugar from cane. The 'fair and remunerative price' for the 2021-22 sugar season has been fixed at Rs 2,900 per tonne on the basis of a base recovery of 10 per cent.
- Sugar recovery is the ratio between 'crushed sugarcane' and 'sugar produced', expressed as a percentage.
- Higher the recovery, higher will be the FRP and higher will be the production of sugar.

Declaration of FRP: The Hindu Analysis

- The 'Fair and Remunerative Price' is announced by the Central Government. It is determined by the 'Cabinet Committee on Economic Affairs' (CCEA) based on the recommendations of the 'Commission on Agricultural Costs and Prices (CACP)'.
- The CCEA is chaired by the Prime Minister of India.

- 'Fair and Remunerative Price' (FRP) is based on the report of Rangarajan Committee on 'Restructuring of Sugarcane Industry'.

Importance of FRP: The Hindu Analysis

- Assured payment is one of the major reasons for popularizing sugarcane crop among sugarcane farmers.
- Delay in payment to sugarcane farmers can attract interest of up to 15 per cent per annum, and sugar commissioners can recover non-payment FRP as arrears in revenue collection by attaching properties of mills.

Reasons for the farmers' protest in Maharashtra: The Hindu Analysis

- Farmers argue that this method proposed by the government will affect their income. They say that while the FRP will be paid in installments and will depend on unknown variables, they will have to pay bank loans and other expenses as usual.
- Also, farmers mostly require lump sum amount at the beginning of the season (October-November), as their next crop cycle depends on it.

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Sugarcane: The Hindu Analysis

- **Temperature:** Between 21-27 °C with hot and humid climate.
- **Rainfall:** 75-100 cm.
- **Soil Type:** Deep rich loamy soil.
- **Top sugarcane producing states:** Uttar Pradesh > Maharashtra > Karnataka > Tamil Nadu > Bihar.
- After Brazil, India is the second largest producer of sugarcane.

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