

UPSC CURRENT AFFAIRS NOTES 22-09-2023

Government comes out with a new set of National Awards in the field of Science, Technology and Innovation known as “Rashtriya Vigyan Puraskar”

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The Government of India has come out with a new set of National Awards in the field of Science, Technology and Innovation known as “Rashtriya Vigyan Puraskar”.

The objective of the Rashtriya Vigyan Puraskar (RVP) is to recognize the notable and inspiring contribution made by the scientists, technologists, and innovators individually or in teams in various fields of science, technology and technology led innovation.

The Rashtriya Vigyan Puraskar shall be one of the highest recognitions in the field of science, technology, and innovation in India. Scientists/ technologists/innovators working in government, private sector organizations or any individual working outside any organization, who have made distinguished contributions in terms of path-breaking research or innovation or discovery in any field of science, technology, or technology- led innovation shall be eligible for the awards. People of Indian Origin staying abroad with exceptional contributions benefiting the Indian communities or society shall also be eligible for the awards. The awards shall be given in following four categories:-

Vigyan Ratna (VR) award will recognize lifetime achievements & contributions made in any field of science and technology.

Vigyan Shri (VS) award will recognize distinguished contributions in any field of science and technology.

Vigyan Yuva-Shanti Swarup Bhatnagar (VY-SSB) award will recognize & encourage young scientists up to the age of 45 years who made an exceptional contribution in any field of science and technology.



Vigyan Team (VT) award to be given to a team comprising of three or more scientists/researchers/innovators who have made an exceptional contribution working in a team in any field of science and technology.

Scientists, technologists, and innovators working in any field of science in government or private organizations who have contributed or carried out a path breaking research, technology led innovation or discovery in any field of science or development of innovative technologies/products having significant societal impact shall be eligible for the award.

Scientists, technologists, and innovators of Indian origin abroad with exceptional contributions benefitting the Indian communities or society at large shall also be eligible.

The Rashtriya Vigyan Puraskar shall be given in the 13 domains, namely Physics, Chemistry, Biological Sciences, Mathematics & Computer Science, Earth Science, Medicine, Engineering Sciences, Agricultural Science, Environmental Science, Technology & Innovation, Atomic Energy, Space Science and Technology, and Others. The representation from each domain/field, including gender parity will be ensured.

All nominations received for the Rashtriya Vigyan Puraskar awards shall be placed before the Rashtriya Vigyan Puraskar Committee (RVPC) to be headed by the Principal Scientific Adviser (PSA) to Government of India and comprising Secretaries of Science Departments, members of Science and Engineering Academies and some distinguished scientists and technologists from different fields of science and technology.

The nominations for this bouquet of awards will be invited every year on 14th January which would remain open till 28th February (National Science Day) every year. These awards shall be announced on 11th May (National Technology Day) every year. The Award Ceremony for all categories of awards will be held on 23rd August (National Space Day). All Awards will have a Sanad & a medal.

These new National Awards is a transformative step in recognizing achievements of Scientific community at the highest level by the Government of India. With transparency and fairness in the entire selection process, work done by all sections of Scientific Innovators and Technologists will be awarded providing at par status with other National Awards

Nasha Mukta Bharat Abhiyaan-Signing of MoU between Department of Social Justice & XEmpowerment and Gayatri Parivar

Substance use disorder is an issue which is adversely affecting the social fabric of the country. Dependence to any substance not only affects the individual's health but also disrupts their families and the whole society. Regular consumption of various psychoactive substances leads to dependence of the individual. Some substance compounds may lead to neuro-psychiatric disorders, cardiovascular diseases, as well as accidents, suicides and violence. Therefore, substance use and dependence needs to be viewed as a psycho-social-medical problem.



As per report of first comprehensive national Survey on extent and pattern of substance use in India conducted by department of social justice & empowerment through national drug dependence treatment centre (nddtc), AIIMS, New Delhi, alcohol is the most common psychoactive substance used by Indians followed by cannabis and opioids.

To curb the menace of drug demand, the ministry of social justice and empowerment (mosje), government of India has been implementing national action plan for drug demand reduction (napddr) which is an umbrella scheme under which financial assistance is provided to state Governments/ union territory (ut) administrations for preventive education and awareness generation, capacity building, skill development, vocational training and livelihood support of ex-drug addicts, programmes for drug demand reduction by states/uts etc. And ngos/vos for running and maintenance of integrated rehabilitation centers for addicts (Ircas), community based peer led intervention (cpli) for early drug use prevention among adolescents and outreach and drop in centers (odic) and district de-addiction centers (ddacs) in the identified districts and addiction treatment facilities (atfs) in government hospitals'.

Further, the ministry has initiated ambitious Nasha mukt bharat abhiyaan (NMBA) currently operational across the country with an aim to create awareness about ill effects of substance abuse among the youth, with special focus on higher education institutes, university campuses, schools and reaching out into the community and garnering community involvement and ownership of the abhiyaan.

Meanwhile NMBA is playing crucial role to overcome form this addiction. Till now Nasha Mukta Bharat Abhiyaan (NMBA) through the various activities undertaken on-ground 10.61+ crore people reached out so far. 8,000 master volunteers have been selected and trained to lead the abhiyaan activities in identified districts. More than 3.36+ crore youth have actively participated in the activities of the abhiyaan and spreading on-ground the message against substance use. Around 4,000+ yuva mandals, nyks & nss volunteers, youth clubs have also been associated with the abhiyaan. The contribution of 2.24+ crore women have also been vital in reaching out to a larger community through the anganwadi & asha workers, anms, mahila mandals & women SHGs.

Technology and social media have been effectively utilized to spread the message of the abhiyaan online by creating handles on facebook, twitter & instagram and sharing daily updates



on them. An android based mobile application has been developed to capture the data of activities happening on ground on a real- time basis by the districts and master volunteers. This app has been placed on the Google play store. All the de-addiction facilities have been geo-tagged for ease of access by the public.

A special initiative under the NMBA is association of religious/spiritual Organizations for carrying out various activities under NMBA and to spread the message of NMBA under their banner. Taking a step in this direction, department of social justice & empowerment is entering into an MoU with the Gayatri parivar for spreading the message of NMBA among the youth, women, students etc. The ceremony will be held in Dr. Ambedkar International Centre, 15 Janpath, New Delhi on 22nd September, 2023 at 09:00am in the Presence of Dr. Virendra kumar, Union Minister of Social Justice & Empowerment, Senior Officers of the department and senior members of the Gayatri parivar management.

With the signing of this MoU, department of social justice & empowerment feels that implementation of NMBA will get a boost towards achieving drug sensitized India. All-India Consumer Price Index Numbers for Agricultural and Rural Labourers – August, 2023

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The All-India Consumer Price Index Number for Agricultural Labourers and Rural Labourers (Base: 1986-87=100) for the month of August, 2023 increased by 9 points and 8 points respectively to stand at 1224 (One thousand two hundred and twenty four) and 1234 (One thousand two hundred and thirty four) points respectively. The major contribution towards the rise in general index of Agricultural Labourers and Rural Labourers came from food group to the extent of 8.38 and 7.69 points respectively mainly due to increase in prices of rice, wheat, pulses, milk, meat-goat, sugar, gur, chillies-dry, turmeric, garlic, onion, mixed spices, etc.

The rise in index varied from State to State. In case of Agricultural Labourers, it recorded an increase of 2 to 19 points in 20 States. Tamilnadu with 1423 points topped the index table whereas Himachal pradesh with 942 points stood at the bottom.

In case of Rural Labourers, it recorded an increase of 2 to 18 points in 20 States. Andhra Pradesh with 1412 points topped the index table whereas Himachal pradesh with 1003 points stood at the bottom.

Amongst states, the maximum increase in the Consumer Price Index Numbers for Agricultural Labourers was experienced by Meghalaya (19 points) and for Rural Labourers by Gujarat and Meghalaya (18 points each) mainly due to rise in the prices of rice, pulses, beef, groundnut oil, onion, chillies green/dry, firewood, bus fare, etc.

Point to point rate of inflation based on the CPI-AL and CPI-RL stood at 7.37% and 7.12% in August, 2023 compared to 7.43% and 7.26% respectively in July, 2023 and 6.94% & 7.26% respectively during the corresponding month of the previous year. Similarly, Food inflation stood at 8.89% and 8.64% in August, 2023 compared to 8.88% and 8.63% respectively in July, 2023 A

A Thane's youth take the centre stage to create Garbage Free City Over 22,000 students actively participates in competition to make Ganpati idols using eco-friendly materials

The season of swachhata never ends because the vision of garbage free cities under Swachh Bharat Mission cannot afford to pause at any point. The passion for urban sanitation is everlasting and hence has engulfed every nook and corner of the country with the commencement of Swachhata Pakhwada. Jan andolan for swachhata continues. Maharashtra is one of the key States when it comes to leading the nation's sanitation drive. The Ganesh festival is one of the major festivals of Maharashtra. However, in the past, voices of concern have been raised over Ganesh idol immersion and for making it as eco-friendly as possible. Hence, young kids stepped up to make that happen.



At the stroke of Swachhata Pakhwada- Swachhata Hi Seva 2023, an inter school competition for Eco-Friendly Ganpati Idol Making and Best made out of Waste competition was organised between 493 schools of Thane city. A total of 22,177 students actively participated and made Ganpati idols using eco-friendly materials and spread awareness on sustainability. The students thoroughly enjoyed the activity. Also, the city corporation organised a Mangroves cleanliness activity under Indian Swachhata League 2.0, where over 2,200 people came together and took a pledge to protect Mangroves and keep their surroundings clean. The local SafaiMitras along with authorities took part in the Mangroves cleanliness drive.

Thane witnessed widespread public participation in various other sanitation activities. City's sanitation workers along with authorities undertook a massive Red Spot Cleanliness drive at the Thane Railway Station aimed at sensitising the people to not spit in the open and deface public property. More than 1,000 Thanekars participated in the initiative. The Thane Municipal Corporation also organised a Parsik Hill Cleanliness Drive. More than 2,000 citizens, school kids, young girls and boys, men and women joined forces. This cleanliness drive was a huge success as it beautified the Parsik hill and created awareness among the local community. On the eve of the Indian Swachhata League, a novel concept "Ek Minute Thane Sathi" was initiated by Thane. A huge crowd gathered at the Dadoji Konddev Stadium, including 25,000 school students, and took a pledge to dedicate one minute everyday to make Thane swachh.

This Jan Andolan is transforming the face of urban sanitation and galvanizing the spirit of swachhata. People across genders, communities, beliefs, cultures and spheres of life are indulging and celebrating the mass movement of sanitation like a grand festival.

CLIMATE ACTION SUMMIT 2023

THE Climate ACTION SUMMIT

Transportation Helping Our Environment

The absence of China, the United States, and India at the Climate Ambition Summit (CAS) held as part of the United Nations General Assembly is notable due to the significant role these countries play in global greenhouse gas emissions.

Global Emissions Significance: China, the U.S., and India are among the top three emitters of greenhouse gases globally, collectively responsible for approximately 42% of global emissions. Their actions and commitments are crucial in the efforts to combat climate change.

Purpose of the Summit:

The CAS was organized by the United Nations to showcase leaders who have credible actions, policies, and plans to address climate change and to uphold the goal of limiting global warming to 1.5 degrees Celsius as outlined in the Paris Agreement.

Limited Participation: Despite the summit's importance, only representatives from 34 states and seven institutions were given speaking slots on the day of the event. Notably, India's neighboring countries like Sri Lanka, Nepal, and Pakistan were included as speakers, along with other emerging economies.

Criteria for Participation: Countries seeking speaking slots at the summit were expected to present updated pre-2030 Nationally Determined Contributions (NDCs), net-zero targets, energy transition plans, fossil fuel phase-out plans, renewable energy targets, Green Climate Fund pledges, and adaptation and resilience plans. This indicates a high bar for participation.

Future Commitments: All main emitters, including the G-20 nations, were encouraged to commit to presenting more ambitious economy-wide NDCs with absolute emissions cuts and covering all greenhouse gases by 2025.

India's Climate Pledges: India updated its climate pledges in 2022, aiming to reduce emissions intensity by 45% from 2005 levels by 2030. The government also committed to sourcing 50% of its electric power from renewable, non-fossil fuel sources and increasing carbon sinks through afforestation.

About the Summit

The Climate Ambition Summit held at the United Nations Headquarters in New York on 20 September 2023 aimed to address the urgent need for climate action in response to the latest scientific assessment by the Intergovernmental Panel on Climate Change (IPCC).

Urgency of Climate Action

The IPCC's latest scientific assessment emphasized the pressing need for immediate and substantial reductions in greenhouse gas emissions.

The climate crisis has already caused extensive damage, and emissions remain at record levels.

To limit global warming to 1.5°C above pre-industrial levels and prevent the worst impacts, rapid and ambitious action is required.

Climate Justice and Equity

The summit acknowledged that populations least responsible for the climate crisis are suffering the most from its impacts.

This issue of climate justice and equity calls for immediate assistance and support from governments and international financial institutions to help vulnerable communities adapt and recover from climate-related loss and damage.

Multisectoral Participation

The summit aimed to accelerate climate action by bringing together governments, businesses, financial institutions, local authorities, and civil society.

It recognized the need for collective global will to transition to a renewable-energy-based, climate-resilient global economy.

Three Acceleration Tracks

The summit operated on three interrelated acceleration tracks: Ambition, Credibility, and Implementation.

Ambition:

Government leaders, especially major emitters, were expected to present updated pre-2030 Nationally Determined Contributions (NDCs) and net-zero targets.

They were also encouraged to commit to energy transition plans with no new coal, oil, and gas projects, phase-out plans for fossil fuels, and more ambitious renewable energy targets.

The Green Climate Fund pledges and economy-wide plans on adaptation and resilience were part of the agenda.

Importantly, all main emitters and G20 governments were urged to commit to presenting more ambitious economy wide NDCs with absolute emissions cuts by 2025.

Credibility:

Leaders of businesses, cities, regions, and financial institutions were expected to align their transition plans with a UN-backed credibility standard outlined in the "Integrity Matters" report.

This standard called for net-zero pledges that are fully aligned with the 1.5°C target.

It included specific requirements such as 2025 and 2030 targets, addressing scope 3 emissions, phasing out fossil fuels, achieving real emissions cuts without offsets, and advocating for science-based climate action.

Implementation:

Leaders from various sectors were tasked with presenting existing or emerging implementation partnerships focused on decarbonizing high-emitting sectors like energy, shipping, aviation, steel, and cement.

Additionally, partnerships addressing climate justice issues, such as reforming the international financial system and improving early warning systems for adaptation and loss and damage, were discussed.

STEPS

India's solar mission, Aditya L1, has embarked on a journey to Lagrange point 1 (L1) and has begun its study of energetic particles in the solar wind from space.

Aditya L1, India's solar mission, aims to study the Sun and its various aspects, including the solar wind, which consists of charged particles emitted by the Sun.



Instrumentation

The study of the solar wind is facilitated by a device called the Supra Thermal & Energetic Particle Spectrometer (STEPS), which is part of the Aditya Solar wind Particle EXperiment (ASPEX) payload.

Operation from Space

STEPS began functioning from space within the Earth's magnetic field since September 10, 2023, when Aditya L1 was approximately 52,000 kilometers above Earth.

Development

STEPS was developed by the Physical Research Laboratory (PRL) with support from the Space Application Centre (SAC) in Ahmedabad, India.

Understanding Space Weather

The primary goal of STEPS is to study the environment of energetic particles from the spacecraft's vantage point at L1. Additionally, the data collected by STEPS will contribute to a better understanding of how space weather changes over time.

Sensor Configuration

STEPS is equipped with six sensors, each observing in different directions and measuring supra-thermal and energetic ions.

This data is crucial for analyzing the behavior of particles surrounding Earth, especially in the presence of the planet's magnetic field.

L1 Destination

Aditya-L1 was launched by the Indian Space Research Organisation (ISRO) on September 2. It is heading toward the First Lagrangian point (L1), located about 1.5 million kilometers from Earth. L1 is a crucial vantage point for solar observations.

On September 18, ISRO successfully performed the Trans-Lagrangean Point 1 Insertion (TL1I) maneuver, which placed Aditya-L1 on a trajectory that will take it to the Sun-Earth L1 point.

Cauvery Water Sharing Dispute

The Supreme Court on Thursday refused to intervene either in favour of Karnataka or Tamil Nadu in the Cauvery water dispute.



Instated it banked on the combined expertise of the Cauvery Water Regulation Committee (CWRC) and the Cauvery Water Management Authority (CWMA) to manage the water sharing between the two neighbouring states.

Cauvery River

Cauvery (or Kaveri) is the state's largest river, flowing from Talakaveri in the Brahmagiri hills of Karnataka's Western Ghats.

It is known as the Dakshina Ganga (the Ganges of the South) and is regarded as one of India's holiest rivers.

The source of the Kaveri River is a popular pilgrimage and tourism destination in Coorg, located in the Brahmagiri Hills near Madikeri.

The tributaries of the Kaveri include:

Harangi, Hemavathi (origin in western Ghats joins the river Kaveri near Krishnarajasagar), Lakshmanatirtha,

Kabini (originates in Kerala and flows eastward and joins the Kaveri at Tirumakudal, Narasipur),

Shimsha, Arkavati, Suvarnavathi or Honnuholé, Bhavani, Lokapavani, Noyyal, Amaravati

Cauvery Water Dispute

About

The issue stems from a long-standing disagreement about the distribution of water from the Cauvery River.

There are three states and one union territory involved: Tamil Nadu, Kerala, Karnataka, and Puducherry.

The disagreement is on how river water should be apportioned among these states for diverse purposes like as agriculture, drinking water, and industrial use.

History of Dispute

This disagreement initially arose in 1892, during the reign of Britishers, between the Presidency of Madras and the Princely State of Mysore.

Mysore and Madras established an agreement in 1924 that would last for 50 years. As a result, it was no longer enforced in 1974.

Without the permission of Tamil Nadu, Karnataka has been diverting water into four newly constructed reservoirs since 1974.

This caused conflict in post-independence India.

The establishment of the Cauvery Water Disputes Tribunal and its final decision

The Cauvery Water Disputes Tribunal (CWDT) was established in June 1990 in compliance with Section 4 of the Inter-State Water Disputes Act, 1956.

The CWDT gave its final award in February 2007, after 17 years, outlining the amount of water that each state should receive at different times of the year.

Given that the total available water in the Cauvery basin throughout the four states is 740 TMC in a normal year, the Tribunal has apportioned the water as follows:

Tamil Nadu: 419 TMC (as opposed to 512 TMC),

Karnataka: 270 TMC (as opposed to 465 TMC),

Kerala has 30 TMCs, and 7 TMCs in Pondicherry

The final award set aside 10 TMC for environmental purposes and 4 TMC for inevitable seawater exits.

The tribunal ordered the formation of a monitoring authority to manage water releases.

However, the final decision did not provide a specific methodology in circumstances where there is a water deficit owing to insufficient precipitation.

It simply stated that in such cases, the assigned shares should be lowered accordingly.

The following development

On the direction of the Supreme Court, the administration took another 6 years and notified the order in 2013.

Later, the Tamil Nadu government petitioned the Supreme Court for a special leave under Article 136.

The Tamil Nadu government had sought the court because the Karnataka government had refused to obey the tribunal's decision.

Article 136 makes the Supreme Court the highest appellate court.

It states that, notwithstanding anything in this Chapter, the Supreme Court may grant special leave to appeal from any judgment, decree, resolution, sentence, or order rendered by any court or tribunal in India's territory.

The Supreme Court issued its decision in 2018. The Supreme Court designated Cauvery a national asset in its decision.

It upheld the CWDT's finalized water-sharing arrangements.

According to the ruling, Karnataka would receive 284.75 TMC, Tamil Nadu 404.25 TMC, Kerala 30 TMC, and Puducherry 7 TMC.

The Centre was also asked to notify the Cauvery Management Scheme.

The 'Cauvery Water Management Scheme' was announced by the central government in June 2018.

To carry out the decision, it established the 'Cauvery Water Management Authority' (CWMA) and the 'Cauvery Water Regulation Committee' (CWRC).

Water sharing procedure

Karnataka, the upper riparian state of the Cauvery basin, has agreed to transfer water to Tamil Nadu every month.

According to the timetable, Karnataka will make a total of 177.25 TMC accessible to Tamil Nadu at Biligundlu in a "normal" water year (June to May).

From this total, 123.14 TMC will be distributed between June and September, which coincides with the southwest monsoon season.

When the monsoon produces less rainfall than expected, the Cauvery issue inevitably flares up during this time.



The reason behind Tamil Nadu's approach towards the Supreme Court

At its meeting on August 11, the CWMA requested that Karnataka manage its releases in such a way that 10,000 cusecs of water were realized at Biligundlu over the next 15 days, beginning August 12.

In other words, Karnataka would have to deliver 0.86 TMC per day for a total of 12.9 TMC over 15 days.

However, what reportedly irritated Tamil Nadu was Karnataka's failure to adhere to the quantity agreed upon at the previous day's CWRC meeting.

Karnataka has claimed that low rainfall in the Cauvery basin, which includes Kerala, has resulted in minimal inflow to its reservoirs.