



RAJRAS

Rajasthan Current Affairs  
*of*  
August - November 2018

*Index*

PERSON in NEWS.....	1
Places in NEWS.....	7
Current Affairs .....	10
Policies, Bills & Schemes.....	19
Science & Technology.....	22
Important Days .....	31

PERSON in NEWS

## Persons on Important Posts: Rajasthan

S.No	Post (Rajasthan)	First	Current (2018 Nov)
1	Chief Justice of Rajasthan	Sir Sarat Kumar Ghosh (1949)	Pradeep Nandrajog(32nd)
2	Chief Electoral Officer of Rajasthan		Anand Kumar
3	State Election Commissioner of Rajasthan		Prem Singh Mehra
4	Chief Information Commissioner (CIC)		Suresh Chaudhary
5	RPSC Chairman	Sir DR. S K GHOSH	Deepak Upreti
6	Financial Commssion Chairman		Dr. Jyoti Kiran (5th)
7	Advocate General of Rajasthan	G.C. Kasliwal	NARPAT MAL LODHA
8	Lokayukta of Rajasthan	ID Dua (1973)	S S Kothari
9	Rajasthan State Human Rights Commission	<a href="#">Kanta Kumari Bhatnagar</a>	Justice Prakash Chandra Tatia
10	Chief Secretary Rajasthan		D B Gupta
11	Speaker Vidhan Sabha	Narottam Lal Joshi	Kailash Chandra Meghwal
12	Governor of Rajasthan	Maharaj Man Singh II (1949) Reorganised 1956 - Gurumukh Nihal Singh	Kalyan Singh
13	Deputy Chairman - Chief Ministers Advisory Council		C S Rajan
14	Chairperson State Commission for Women		Suman Sharma
15	DGP Rajasthan Police		OP Galhotra

## Persons on Important Posts: National

S.No	Post - India	First	Current (2018 July)
1	Comptroller and Auditor General of India (CAG)	V. Narahari Rao	Rajiv Mehrishi
2	Chief Justice of India	H. J. Kania	Ranjan Gogoi (46th)
3	Chief Election Commissioner (CEC)	Sukumar Sen	Om Prakash Rawat
4	Chief Information Commissioner (CIC)	Wajahat Habibullah	Radhakrishna Mathur
5	Chief Vigilance Commissioner (CVC)	Nittoor Srinivasa Rau	K V Chowdary
6	UPSC Chairman		Arvind Saxena
7	Financial Commission Chairman	K. C. Neogy	Nand Kishor Singh(15th)(2020-2025) Dr. Y. V Reddy (14th )
8	Law Commission Chairman		Balbir Singh Chauhan (21st)
9	National Commission for SC		Ram Shankar Katheria
10	National Commission for ST		Nand Kumar Sai
11	Chairman - National Commission for Minorities		Syed Ghayorul Hasan Rizvi
12	Chairperson, National commission for backward classes		V Eshwaraiah
13	National Human Rights Commission - Chairperson		Justice H.L.Dattu
14	Chairperson, National Commission for Women		Rekha Sharma
15	Cabinet Secretary	N. R. Pillai, ICS	Pradeep Kumar Sinha
16	National Security Adviser		Ajit Kumar Doval
17	Attorney General of India		K.K Venugopal
18	Speaker Lok Sabha	G. V. Mavalankar	Sumitra Mahajan

19	Chairman, Atomic Energy Commission		Kamlesh Nilkanth Vyas (Sept 2018)
20	Chairman, ISRO		Kailasavadivoo Sivan
21	Principal Scientific Adviser		<a href="#">K. VijayRaghavan</a>
22	Chairman, University Grants Commission		D.P.Singh
23	Chairman, Central Water Commission of India		Narendra Kumar
24	Chairman, Securities and Exchange Board of India(SEBI)		Ajay Tyagi
25	Chairman, Insurance Regulatory and Development Authority of India		Subhash Chandra Khuntia
26	Chairman, 7th Pay Commission		Ashok Kumar Mathur
27	Chairman, SIDBI		Muhammad Mustafa
28	Chairman, NABARD		Dr. Harsh Kumar Bhanwala
29	Chairperson, State Bank of India		Rajnish Kumar
30	Chairman, IDBI		Rakesh Sharma
31	Chief of Army Staff		General Bipin Rawat
32	Chief of Air Staff (also Chairman of Staff Committee)		Air Chief Marshal Birender Singh Dhanoa
33	Chief of Naval Staff		Sunil Lanba
34	Chief of Integrated Defence Staff		Lieutenant General P S Rajeshwar (Nov 1)

### Rajasthan Sahitya Academy Awards 2018-19 Announced

- Highest Meera Award was given to Sawai Singh Shekhawat for his work – “नजि कवधितु बचाई मैने”.
- Janardan Rai Nagar Award was given to Balvir Singh Karun.
- Sudhendra Award for Poetry – to Ramnarayan Meena for the work “अभी उम्मीद बाकी है”.
- Devilal Samar Award for Drama – to Umesh Kumar Chaurasiya for “शौर्य प्रधान नाटक”
- Kanhiyalal Sahal Award for Vividh to – Kamlanath for ‘साहित्य का ध्वनितत्व’ उर्फ ‘साहित्यिकि बगि बैंग’
- Shambhu Dayal Saxena Award for Children Literature to Asha Sharma for “अंकल प्याज”
- Rangheya Raghav Award for Story-Novel to - Haridas Vyas for “एक था पेड”
- Devraj Upadhyaya Award for Criticism Category to Moolchand Bohra for “दो फलांग आगे”

While Meera Award consists of 75,000 Rupees, rest all awards include 31,000 rupees.

- FYI: Rajasthan Sahitya Academy Awards 2017-18 were Announced in March 2018. (See Rajasthan Current Affairs PDF: March April 2018)

### Maharana Pratap Sports Awards

The Rajasthan State Sports Council has released a list of eligible candidates who got the Maharana Pratap Sports Awards for the year 2016-17 and 2017-18. This year, a total of 7 players from the state will receive this award in different categories.

- Sapna Poonia - Athletics
- Khetaram - Athletics
- Sarvesh Parik - Archery
- Suman Dhaka - Para Athlete
- Manoharlal - cycling
- Sundar Singh Gurjar - Para Athlete
- Abhilekh Parashar – Gymnastics

Apart from Maharana Pratap Sports Awards, two coaches were rewarded with *Guru Vashishth Puraskar*. They are:

- Mahesh Kumar Ranga - Cycling
- Ramesh Singh - Rollball

Additionally, Rajasthan Sports Council also honored the players who won medals in the Asian Games held in Jakarta with *The award of excellence*. They are:

- Om Prakash for rowing - 30 Lacs
- Rajat Chauhan for Archery - 20 Lacs
- Shalini Pathak & Manpreet Kaur for Kabaddi - 20 Lacs each
- Jitendra Singh for Equestrian (Horse Riding) - 20 Lacs
- Apoorvi Chandela - Shooting - 10 Lacs
- Rajulal Chaudhary & Deepak Hooda for Kabaddi - 10 Lacs each

### Gajanand Sharma:

- Gajanand Sharma, native of village Mahar Kalan near Chomu town, Jaipur returned to home town after having spent 36 years in Lakhpat Kot jail located at Lahore, Pakistan.

### Colonel Ravi Rathore

- President Ram Nath Kovind conferred the prestigious Arjuna Award to national *Polo player Colonel Ravi Rathore* at the National Sports and Adventure Award 2018 function at Rashtrapati Bhawan.

### SI Menu

- Sub Inspector in Rajasthan Police Menu won Silver medal in 10000m race in Senior Open National Champions held in Bhuvneshwar, Odisha.

### Ram Khiladi Meena

- Shri Ram Khiladi Meena has been made the chairman of State Environment Impact Assessment Authority Rajasthan (SEIAA).

**Gaurav Goyal**

- Kota's Collector Gaurav Goyal was honored at national level for doing outstanding work in NREGA while being a Collector in [Ajmer](#).
- Apart from him, [Jhalawar](#) Collector Jitendra Soni was also honored.

**Dr. Bhagwati Prasad**

- Collector of [Banswara](#), Dr. Bhagwati Prasad was honored at the same function for excellent work in the Prime Minister's Housing Scheme.

**Vijay Shankar Vyas**

On 12th September 2018, Padma Bhushan awardee and agricultural economist Vijay Shankar Vyas died following a short-term illness, in Jaipur, Rajasthan.

**Justice S Jhaveri**

Justice Kalpesh Satyendra Jhaveri, who was the Rajasthan High Court judge, was sworn in as the 30th Chief Justice of Orissa High Court.



## Places in NEWS

### Ramsara village

- Ramsara village in [Churu district](#) has a distinction of being the first village in the state that has all its children fully vaccinated against the listed diseases in national immunization programme.

### Rajasthan's first Lion Safari Park

- Rajasthan's first lion safari was inaugurated at Nahargarh Biological Park, Jaipur. The park is located on Delhi-Jaipur National Highway in the foothills of Aravallis.

### First ISRO 'Space Academy Centre'

- Jaipur is one of the six cities where ISRO has setup a Regional Space Academy Centre. The other cities are Patna, Guwahati, Banaras, Kurukshetra and Kanyakumari. The cost of the project in Jaipur is around Rs 2 crore.

### AICTE Training and Learning (ATAL) Academy

All India Council for Technical Education (AICTE) will establish country's first AICTE Training and Learning (ATAL) Academy in [Jaipur](#). Additionally, three more ATAL academies will come at Thiruvananthapuram (Kerala), Guwahati (Assam) and Baroda (Gujarat) by next year.

### Government sanctions 5 new battalions of Rapid Action Force (RAF)

Five new battalions of Rapid Action Force (RAF) were sanctioned by the central government in January 2018 and their new bases have been sanctioned now.

The 5 new Rapid Action Force (RAF) battalions will be based in:

- Nuh in Haryana
- Jaipur in Rajasthan
- Varanasi in Uttar Pradesh
- Hajipur in Bihar
- Mangalore in Karnataka

### Evidence of Dinosaurs in Rajasthan

For the first time in Rajasthan, there has been strong evidence of the presence of dinosaurs. Archaeologists have discovered a dialectical sculpture of Dinosaurs, built in an ancient style that is more than 75 thousand years old, in **Shreepura village near Rawatbhata**.

### India's first private Unmanned Air Vehicles (UAV) and Light Bullet Proof Vehicles (LBPV) manufacturing factory to be set up in in Kota

India's first private sector unit for manufacturing Unmanned Air Vehicles (UAV) and Light Bullet Proof Vehicles (LBPV) will be set up by DCM Shriram Industries Group on the campus of Shriram Rayons in Kota.

- Defence and para-military forces in India would use these UAVs and LBPVs.
- UAVs will help in surveillance and LBPV will protect defence and para-military forces from light automatic weapon fire, IED blasts and small grenade attack.
- The UAVs would fly to a height of 500 to 2000 km.
- LBPVs can function in tough terrains. It will also have off-road abilities.
- The new defence unit of Shriram Rayons in Kota is established under 'Make in India' program.

### Jaipur Literature Festival held in Houston

On 14th and 15th September 2018, Jaipur Literature Festival (JLF) was held in **Houston, Texas, United States**. Since 2006, JLF is held in Jaipur every year. This is the first time it was held in Houston. At Houston, JLF was conducted in partnership of Teamwork Arts, Asia Society Texas Center, Inprint, and the Consulate General of India.

### Indian Peacock (Peafowl) survey in Rajasthan

As per high court direction, forest department conducted recently conducted a survey on numbers of peacock/peafowl in Rajasthan. The survey revealed that there are total 6,700,360 peafowls in the state. Highest number of peafowls are found in Jodhpur followed by Barmer and Jalore. On the other hand, Chittorgarh, Tonk, Kota and and Sawai Madhopur (least) have lowest population.

Environmentalist Babulal Jaju who moved a PIL in high court after indiscriminate poaching of peacocks expressed surprise over the survey results as high population has been found in districts which are extremely hot and dry but on the contrary peafowl population in districts, which have forest cover have way less numbers.

### Jamdoli, Jaipur

69th State level Van Mahotsav was celebrated in Jamdoli Beed Rawli, Jaipur.

### Rajasthan Digifest: Fourth Edition

- The fourth edition of 'Rajasthan Digest' was conducted in Bikaner.

### Cow Sanctuary in Bikaner

- Rajasthan is all set to have its first ever 'cow sanctuary', a shelter for 10,000 bovines in Bikaner district.
- The [state government](#) has inked a MoU with Mohanlal Buladevi Ojha Gaushala, a private trust, to develop the cow sanctuary spread over an area of more than 250 hectares of land in Napasar in [Bikaner district](#).

## Current Affairs

### Robots developed by Rajasthan Government

- [Rajasthan Government](#) has developed two new robots named "Teji" and "Budhia".
- The robots will not only speak in 20 languages including Hindi-English, but will reply in the same style, in the same way that the question is asked.
- These robots are also capable of giving information on 20 Government schemes.
- The robots are built on the lines of the world's first human robot Sofia. Sofia talks like humans. She has also given citizenship to Dubai. This was the first case of giving citizenship to the robot.

### India's Largest Business Incubator "Bhamashah Techno Hub" launched in Jaipur

Chief Minister of Rajasthan launched India's largest Business Incubator "Bhamashah Techno Hub" In Jaipur. It will provide free space, easier funding avenues and mentorship to startups.

The Rajasthan government also announced setting up of a Rs 500-crore startup fund – Bhamashah Techno Fund. Out of the total amount, Rs 50 crore has been earmarked for green startups and Rs 100 crore for women startups.

### Star ratings to Government Schools

- A total of 2,267 government schools in Rajasthan have been given '5 star' ranking.
- The star ranking to government schools are being given for motivation and was based on 12 parameters including results in Class 8, 10 and 12 along with cleanliness, educational performance, enrolment and overall activities.

### 2018: 3.39% deficit rainfall deficit in State

- The state has received 3.39% lesser rainfall in 2018 as compared to last year.

### Rajasthan State Archives Bikaner

- Rajasthan State Archives Bikaner is coming up with country's first document museum to showcase the importance of rare documents from the Mughal period to the formation of Rajasthan.
- The museum will have four galleries featuring- Mughal rulers Farman, Mewar rulers copper plates, cryptography or Maps of Rajputana rulers from 18th century and interview or profiles of 250 freedom fighters.

### Two railway stations declared cleanest

- North Western Railway (NWR) whose two railway stations were two railway stations were among top 2 in the A1 category of railway stations and 6 were in top 10 in the A category of railway stations in the 3rd cleanliness survey.
- Jodhpur secured first rank whereas Jaipur secured second.
- Quality Council of India (QCI) had conducted a survey at 407 bigger stations across the country which included 75 A1 class stations and 332 A class stations.
- In the same survey of A category of stations, 6 stations of Rajasthan are figured in the top 10 list. "Marwar Junction has topped the list, followed by Phulera on number 2, Udaipur bagged 4th position, Jaisalmer 5th, Barmer 7th, and Bhilwara has got 10th position.

### Liveability Index: for Smart Cities

- The Union Ministry of Housing and Urban Affairs came out with first ever Liveability Index across 111 cities in the country.
- The Liveability Index included 100 smart cities, capitals & and those with more than one million population. But Howrah, New Town and Durgapur in West Bengal did not participate in the survey. Moreover, Naya Raipur in Chhattisgarh and Amravati in Maharashtra did not fit into the parameters, as these are greenfield cities.
- The assessment was based on four "pillars" — institutional, social, economic and physical. These were further expanded into 15 core categories and 78 indicators.
- Each city was given a score between 0 to 100. Of the 100 marks, while institutional parameters carried 25 marks, it was 25 marks for social, 5 marks for economic and 45 marks for physical parameters.

- Pune and Navi Mumbai stood first and second respectively. Rajasthan's cities ranking - [Jaipur](#) (30), [Ajmer](#) (51), [Jodhpur](#) (53), [Udaipur](#) (54), [Kota](#) (59).

### Microsoft & Rajasthan govt sign MOU for digital training

Microsoft has signed MoU with the Rajasthan government to provide free digital training to 9,500 college students for one year. The company will run MS office specialist training programme in 50 government colleges from August, which will benefit 9,500 students.

### Health Department Report on Family Planning

- Health department's recently released stated that Dausa, Kota, Jaipur-II, Pratapgarh, Bundi, Jhalawar, Alwar and Tonk have performed worst collectively in male sterilization, IUD and Antara injection (injectable contraceptives).
- Ganganagar, Jaisalmer and Sikar are at the top of best performing districts in family planning in [Rajasthan](#).
- For population stabilisation, the health department has identified 20 districts which have highest total fertility rate (TFR) in the state. In these districts, intensified campaigns have been launched for encouraging population stabilisation.

### Review of Antara Injection

- Antara, the new injectable contraceptive, was launched on July 11, 2017.
- One dose of the injection prevents pregnancy for three months. In a year, four injections are administered.
- It is a new form of contraceptive, which is an intramuscular injection.
- The major concern of the health department is the rate of drop out of women using Antara injections. According to health department's figures, till May 2018, over 26,400 women had received the first dose of Antara. But, half of them did not take the second dose.

### Rajasthan targets Zero Case of Malaria by 2022

- [Rajasthan](#) targets to achieve zero indigenous case of Malaria by 2022.
- For the past two years, no death due to malaria has reported from the state. Last death due to malaria was reported in 2016. In 2015, three persons died of malaria, while the toll was four in 2014.
- Additionally, the number of persons diagnosed with malaria is also declining. While more than 3,000 cases of malaria have reported till date this year. In 2017, there were 10,607 persons that were tested positive for malaria. In 2016, there were 12,741 cases of malaria. In 2014, the total number of malaria cases was 15,118.
- To prevent the spread of malaria, the health department has declared it as a notifiable disease in May. Under notifiable disease, diagnostic centres and doctors have to report each malaria positive case to health department.
- India is targeting to eliminate malaria (zero indigenous cases) throughout the entire country by 2030. Rajasthan is among the 26 low and moderate transmission states/union territories (UTs) and it has been assigned to eliminate malaria by 2022.

### Vajra Prahar

Indo-US Joint Special Forces Exercise 2018 named Vajra Pahar, commenced at Mahajan Field Firing Range in Bikaner Rajasthan. The joint exercise aims to train forces to deal with operations for counter-terrorism.

### Regional Meeting of World Customs Organisation

Regional meeting of World Customs Organisation (WCO) was held recently in Jaipur, capital city of Rajasthan. The meeting was attended by representatives of 33 member countries of Asia. It was jointly chaired by WCO Deputy Secretary General Ricardo Travino and Central Board of Indirect Taxes and Customs Chairman S Ramesh.

### Cases pending in Courts in Rajasthan

As per the annual report of 2017 of the Rajasthan High Court:

- Rajasthan High Court had over 2 lakh pending cases by December end last year.
- There are over 16 lakh pending cases in the district and subordinate courts in the state, of which 87,101 cases are more than 10 years old.
- According to the data, the pending cases in high court on January 1, 2017 were 2,54,131 while in the same year, as many as 1,19,086 new cases were filed. The number of disposal has been 1,11,857 cases. By the year end, the number of pending cases had grown to 2,61,360. The data shows the high court was not even able to deal with a number of new cases filed, thus the *backlog over the years has been ever increasing*.
- Out of the 2,61,360 pending cases in the high court, 58,649 cases are over 10 years old.
- The situation in the district and subordinate courts is also quite similar. The pendency as on January 1, 2017 was 15,73,986 while the number of new cases filed was 15,75, 584. The disposal during the year was 15,14,181 and left a backlog of 16,35,389 cases.

#### Reasons for such delay:

- Repeated adjournments: It takes an average of 36 adjournments in deciding a criminal case (sessions court) while the number of average adjournments is 31 in civil suits.
- Lack of judicial apparatus: The number of judges is inadequate (sanctioned strength of 1223 RJS) as per the number of cases. On top of it, these limited posts also have vacancy (Vacancy in state district and subordinate courts is 101).

### Loan agreement World Bank for Electricity Distribution Sector Reforms in Rajasthan

Union Government along with Government of Rajasthan has signed \$250 million Development Policy Loan (DPL) agreement with World Bank for Electricity Distribution Sector Reforms in Rajasthan. The loan will be provided by World Bank's lending arm International Bank for Reconstruction and Development (IBRD). It has maturity of 21 years and 3-year grace period.



### Queue-less Voting

The Election commission is making every possible effort to make voting – scheduled to be held on December 7 in Rajasthan – a hassle-free experience for people. A new ‘queue less voting’ system will be introduced this time at all the 51,796 polling booths in the state. The voters will not have to stand in long queues to vote at polling booths for the upcoming Assembly elections 2018.

The voters will be given a token number on first-come-first-serve basis. Several tents will be put up at polling booths where voters can relax while waiting for their turn based on their token number. The ‘queue less system’ was used in Karnataka in the past. It will be implemented in Rajasthan this time.

### Braille-enabled EVMs

For the first time in Rajasthan, Braille-enabled Electronic Voting Machines (EVMs) will be used for voting during state elections in December 2018 at all polling stations across the state. All the new M3 EVMs machines are enabled with Braille.

#### Facts:

- There are 51,796 polling stations in Rajasthan.
- There are 4,36,125 persons with disabilities (PwD) voters in the state. Out of which, 72,694 are visually impaired voters.

### Selfie Le Le

The Rajasthan election department is coming up with innovative ideas to make people aware of how important it is to vote in the upcoming Rajasthan assembly elections 2018. A contest called ‘Selfie Le Le’ will be launched during the election polls in Rajasthan. People with best selfies taken after casting their votes will be felicitated on the National Voters Day on January 25.

### Rajasthan Tourism gets 3 national tourism awards

Rajasthan bagged three awards in the National Tourism Awards, held recently in Delhi. The awards are:

- National Award for most Innovative Use of Information Technology (Social Media and Website),

- National Award for Best Film Promotion Friendly State
- National Award for Comprehensive Development of Tourism (jointly with Goa).

### 24X7 live monitoring in Sariska Tiger Reserve

Under the Wildlife Surveillance and Anti-Poaching System, Sariska Tiger Reserve in Alwar district of Rajasthan has started 24X7 live monitoring of tigers, wildlife species and hunters and other illegal practices such as grazing and cutting of trees.

This system will provide live streaming through several thermal cameras installed in the forest. Optical and thermal cameras are equipped with night visions and body heat sensors. Thermal cameras will detect body heat in and around their coverage area and will alert a control room of a suspicious activity with green signals. The engineers in the control room will be able to zoom in the live pictures instantly after receiving these alerts.

The Wildlife Surveillance and Anti-poaching System has been rolled out in three tiger reserves and two leopard reserves for the first time in Rajasthan.

Additionally, Drone cameras are also being used to keep a tab on hunters and grazers.

### Lakhwar Multipurpose Project

A memorandum of understanding has been signed for the construction of the 300-MW Lakhwar Multi-Purpose project in the Upper Yamuna Basin of India. Shri Nitin Gadkari, Union Minister for Water Resources, River Development and Ganga Rejuvenation, Shipping and Road Transport & Highways; and the chief ministers of Uttar Pradesh, **Rajasthan**, Uttarakhand, Haryana, Delhi and Himachal Pradesh signed the MOU.

#### **About the Project:**

- The project will be funded 90 per cent by the Centre, with the remaining cost to be borne by the States.
- Lakhwar will consist of a 204-m-high concrete dam near Lohari village in Dehradun district of Uttarakhand.

- It will provide a live storage capacity of 330.66 million cubic meters. This will provide irrigation for 33,780 hectares of land and provide 78.83 million cubic meters of water for domestic, drinking and industrial use.
- In Rajasthan, the water will benefit districts of Jhunjhunu, Churu & Sikar.

### 55 new POSCO courts in Rajasthan

Rajasthan Government approved a proposal to set up 55 courts under the Protection of Children from Sexual Offences (POCSO) Act in the state. Each district would have at least one such court to deal with cases of crime against children, especially rape and to ensure that accused are convicted at the earliest. One such court is already operational in the state capital. Total 660 new posts would be created and filled in these courts.

The POCSO courts would be set up in Bikaner, Balotara, Banswara, Chittorgarh, Churu, Dausa, Dholpur, Dungarpur, Sriganganagar, Hanumangarh, Jaipur, Jalore, Jaisalmer, Jhunjhunu, Karauli, Merta, Pratapgarh, Rajsamand, Swai Madhopur, Sikar, Sirohi, Jodhpur and Tonk.

### Uranium Contamination in Ground Water in Rajasthan

Recent news article published in *the Hindu & Times of India*, highlights a study conducted by researchers at the *Duke University in North Carolina, United States, and the Central Groundwater Board of India*. The report raises concerns over presence of high uranium levels in their groundwater of [State of Rajasthan](#) along with 16 other north-western states including Punjab, Haryana etc.

#### **The Problem:**

Uranium levels in 75 out of 226 wells in Rajasthan and five out of 98 wells tested in Gujarat exceeded the WHO provisional health guidelines. According to WHO the safe drinking water standards are 30 micrograms of uranium per litre. As mentioned in the study India extracts more than a third of world wide groundwater resources and more than 90% of this is being used for irrigation. Long term exposure to uranium in drinking water can cause **kidney deceases**.

**Causes of Uranium Contamination:**

The main source of uranium contamination was “natural,” but human factors such as declining ground water table and rising nitrate pollution contributes significantly to the rise in contamination.

It is demonstrated in the paper that the combination of different factors, like aquifer rocks containing uranium (granitic rocks or sediments derived from weathering of granitic rocks), oxidizing conditions that leach out uranium from the rocks and make it soluble, and the groundwater chemistry with high bicarbonate in which uranium is attached and thus become mobile, all contribute to the high uranium in groundwater in India.

**Possible solution to Uranium Contamination:**

- The first step towards solution could be first monitoring, than avoiding (using other water source) or treatment (RO desalination).
- Including uranium in the list of contaminants monitored under the Bureau of Indian Standards’ Drinking Water Specifications.

**What is State Government doing ?**

Rajat Mishra, principal secretary of PHED Rajasthan said that no such contamination has been found as of yet in the drinking water of the state but they are keeping an eye on the issue and samples have been sent to their lab in Hyderabad and if something comes up they will take action.

## Policies, Bills & Schemes

### Rajasthan became first State to implement biofuel policy

Rajasthan became first state in the country to implement National Policy on Biofuels unveiled by Union Government in May 2018. The state Government will soon release the Biofuel Rules, 2018.

#### **Highlights of the Biofuel National Policy:**

- The State Government will be putting emphasis on increasing production of oilseeds.
- Further, the State Government is promoting research in the fields of alternative fuels and energy resources.
- Expanded the scope of raw material for ethanol production by allowing use of sugarcane juice, sugar containing materials, starch containing materials and damaged foodgrains like wheat, broken rice and rotten potatoes for ethanol production.
- State Government will establish a Centre for Excellence in Udaipur to promote research in the fields of alternative fuels and energy resources.
- Biodiesel plant with a capacity of 8 tonnes per day has already been installed in the state
- The State government would promote marketing of biofuels and generate awareness about them
- The policy seeks to help farmers dispose of their surplus stock in an economic manner and reduce the country's oil import dependence.
- State Rural Livelihood Development Council will encourage Women's self-help groups (SHGs) explore the scope for additional income through the supply of biodiesel.

## Two recent initiatives for doubling farmer income by state government:

### 1. Quinoa processing units to be established in Udaipur & Tonk

State Agriculture department in Rajasthan has entered into an agreement with a private company, according to which, two quinoa processing units will be set up in the state ([Udaipur](#) & [Tonk](#)) and quinoa will be bought back from farmers. As per official data, quinoa is being cultivated on 3,300 hectares in 11 districts of agriculture divisions including Bikaner, Bhilwara, Jalore and Udaipur by 10,000 farmers. Its production is 60,000 quintals. Quinoa is cultivated in Peru, Bolivia, Ecuador, Australia, China, Canada, England and many other countries.

It can be grown on alkaline and barren lands and it can sustain drought and ground frost. It comes with the added incentive of being insect-resistant. Quinoa is suitable to climatic conditions of Rajasthan. Quinoa is also called as a super food and mother grain due to its nutritious values. Quinoa, being gluten-free will prove to be a boon for those who suffering from celiac disease. "Around 10,000 children in Rajasthan have gluten allergy. Quinoa is a better option for people with this allergy who cannot consume gluten, one of the proteins found in wheat, barley and rye.

### 2. Introduction of Nanotechnology based Pesticides in farming sector in Rajasthan

Rajasthan agriculture department is planning to introduce nanotechnology based products in farming. Using nanotechnology based products will help to reduce expenditure on pesticides and fertilizers, maintaining soil health and will improve quality of agriculture products as well. A private company has offered nanotechnology based products to make crops pest free and to increase production by reducing the use of fertilizers. The agriculture university has been asked to use these products in farms at agriculture research centres and centres of excellence on an experimental basis to know the results.

Nanotechnology based pesticide is made from the extract of coconut, potato, corn, soy, sugarcane, and vegetables. This product is environmental friendly and pure. The most important thing about this is that it will kill only the enemy pests and not friendly insects.

Nanotechnology based fertilizer are made of nano-sized nitrogen molecules coated in a polymer coating that protects the fertilizer from the elements. This coating contains nano-sized 'biosensors' made up of a very specific chemical compound that allow the fertilizer to be released into the soil when the plant needs it. The product is made from the extract of vegetables and cereals, and it will bring down the consumption of fertilizers by 40 per cent.

### Rajasthan Assembly passes Panchayati Raj amendment bill, 2018

On September 8, 2018, the Rajasthan Assembly passed the Rajasthan Panchayati Raj (Amendment) Bill, 2018. This bill amends the provisions of the Section 19 of the Rajasthan Panchayati Raj Act, 1994.

#### **Amendments include:**

- Relaxation of the “two-child” provision for those aspiring to contest panchayat elections provided one of the children is differently-abled
- Allowing people suffering from leprosy to contest panchayat elections.

### Free Electricity for farmers up to INR 10,000 in Rajasthan

Rajasthan Chief Minister announced that from November 2018 more than 12 lakh farmers of the state would receive free electricity up to INR 10,000 for a year on their agricultural electricity connection. This benefit will be available in the form of grants through Direct Benefit transfer (DBT), confirmed officials of the Rajasthan Energy Department. The farmers will have to pay the bill first, after which a maximum amount of Rs. 833 per month shall be deposited in their bank accounts.

#### **Ujala Scheme Update:**

- Under the Ujala scheme, the people are being given better quality LED bulb at low cost by the government.
- Till now, more than 1.54 crore LED bulbs have been distributed in the state, saving about 20.04 lakh megawatts of electricity per annum.

## Science & Technology

### **ISRO launches communication satellite GSAT-29**

Communication satellite GSAT-29 was launched successfully by the second developmental flight of Geosynchronous Satellite Launch Vehicle Mark III (GSLV MKIII-D2) from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.

### **Gaganyaan**

Indian Space Research Organisation (ISRO) and Russia's federal space agency Roscosmos State Corporation for Space Activities (ROSCOSMOS) have agreed to work together for first manned space mission Gaganyaan. In this regard, both space agencies have signed MoU at end of delegation level talks between Prime Minister Narendra Modi and Russian President Vladimir Putin in New Delhi.

Earlier, India and France also signed agreement to collaborate for ISRO's first human space mission Gaganyaan to be launched in 2022. Both countries also announced working group for Gaganyaan.

In this regard, Indian Space Research Organisation (ISRO) is setting up third launch pad at Sriharikota, Andhra Pradesh to undertake Gaganyaan manned space flight programme. ISRO currently has two launch pads which are already full. Third launch pad is being set up for the human space flight.

### **ISRO MoU with CUJ**

Indian Space Research Organisation (ISRO) signed Memorandum of Understanding (MoU) with Central University of Jammu (CUJ) in Jammu today for setting up of Satish Dhawan Center for Space Science in University. It will be first of its kind institute coming up in Jammu and Kashmir.

### **ISRO postpones Chandrayaan-2**

ISRO has postponed Chandrayaan-2, India's second mission to moon to January 2019. This will be second time mission has been postponed. The ambitious mission was earlier planned to be launched in April 2018 and was later fixed for October 2019. With this delay, India may lose fourth position in the



world for soft-landing on the moon to Israel as it too planning to launch moon mission in December 2018.

### **ATAGS Gun Trials**

India's first high capacity indigenous long range 155mm and Dhanush's supplement gun ATAGS (Advanced Towed Artillery Gun System) trials began at Pokhran Field Firing Range in Jaisalmer district.

#### **What is ATAGS**

The Advanced Towed Artillery Gun System (ATAGS) project was started in 2013 by DRDO to replace older guns in service in the Indian Army with a modern 155mm artillery gun. The ATAGS is being developed by the Defence Research & Development Organisation on two parallel tracks – one prototype in partnership with Tata Power (Strategic Engineering Division) and another with Kalyani Group (Bharat Forge). The gun in its last trials in August 18 had fired up to 47.2 KMs.

### **Solar Parker Probe**

NASA's Parker Solar Probe successfully completed flyby of Venus during its first gravity assist from planet. These gravity assists will help spacecraft tighten its orbit closer to Sun over course of the mission. The spacecraft in future will be carrying six Venus gravity assists over the course of the seven-year mission.

### **#PowerOf18**

Twitter India has launched #PowerOf18 campaign aimed at encouraging youth to contribute in public debates and participate in civic engagement for the 2019 general elections.

### **SpiNNaker**

The world's largest supercomputer Spiking Neural Network Architecture (SpiNNaker) machine designed to work in same way as human brain was switched on for the first time.

### **(QR)-enabled fridge magnets for Utility Bill Payments**

New Delhi Municipal Corporation (NDMC) has launched quick response (QR)-enabled fridge magnets for digital payment of bills. The magnets are personalised and each customer will have unique QR Code mapped to their consumer account number. It is powered by SignCatch, an IT and services company. There will be separate magnets provided by the NDMC to its consumers; doorstep for both electricity and water bills. Consumers can stick these magnets on their refrigerators at home and use their smartphones to scan QR Code on magnet to pay their bills instantly.

### **Shakti**

The researchers from Indian Institute of Technology Madras (IIT Madras) have designed India's first indigenous microprocessor called 'Shakti'. It is aimed at developing industrial-grade microprocessors and other components of the microprocessor ecosystem. It will also help to reduce dependency on imported microchips and risk of cyber-attacks.

### **Fusion Energy Conference**

The 27th Fusion Energy Conference (FEC 2018) was held in Gandhinagar, Gujarat. The six-day event is organised by the International Atomic Energy Agency (IAEA) and hosted by Department of Atomic Energy and Gandhinagar-based Institute of Plasma Research. The aim of FEC 2018 was to provide forum for discussion of key physics and technology issues as well as innovative concepts of direct relevance to the use of nuclear fusion (reaction that powers Sun and stars) as a source of energy.

### **Ask Disha**

Indian Railway Catering and Tourism Corporation (IRCTC) has launched Artificial Intelligence (AI) powered chatbot **Ask Disha** ((Digital Interaction to Seek Help Anytime) to help its users answer various queries. The chatbot is special computer programme designed to simulate conversation with users, especially over the internet.

### **Bio-electric Medicine**

Scientists from US claimed that they have developed world's first bioelectronic medicine, which is implantable, biodegradable and wireless device that speeds nerve regeneration and improves healing of damaged nerve. The device has not been tested in humans, but its successful testing on animals (rats) offer promise as future therapeutic option for nerve injury patients.

The bioelectronic medicine device is wireless is powered and controlled wirelessly by transmitter outside body. This bioelectronic medicine device delivers regular pulses of electricity to damaged peripheral nerves after surgical repair process. This results in accelerating regrowth of nerves.

### **Coal-gasification based fertilizer plant**

Prime Minister Narendra Modi launched commencement of work for India's first Coal-gasification based fertilizer plant with pet coke blending will come up in Talcher, Odisha. The coal gasification based fertilizer plant is being developed by Talcher Fertilizers Limited (TFL).

TFL is joint venture company of GAIL (India) Limited (GAIL-29.67% stake), Coal India Limited (CIL-29.67% stake), Rashtriya Chemicals & Fertilizers Limited (RCFL-29.67% stake) and Fertilizer Corporation of India Limited (FCIL-10.99% stake). The plant will be built at an estimated investment of Rs. 13,000 crore and is targeted to be commissioned by 2022

### **Prototype Fast Breeder Reactor (PFBR)**

India's first indigenously developed 500-megawatt (mw) Prototype Fast Breeder Reactor (PFBR) at Kalpakkam in Tamil Nadu is expected to achieve criticality in 2019. PFBR has been designed indigenously by Indira Gandhi Centre for Atomic Research (IGCAR). It is pool-type reactor with 1,750 tonnes of sodium as coolant. It is designed to generate 500 MW of electrical power, with operational life of 40 years. It generates power by burning mixed uranium-plutonium MOX fuel, a mixture of PuO and UO.

### **Bombali: New Ebola Virus Strain**

Researchers working in joint US-West African study funded by USAid have discovered new strain of Ebola virus in bats in northern Bombali region of Sierra Leone. It has been named as Bombali virus

---

strain, after district where it was found. The Bombali virus is overall sixth known virus strain Ebola virus. Others are Zaire, Sudan, Tai Forest, Bundibugyo and Reston.

### **Kadaknath gets GI Tag**

Kadaknath chicken meat from Jhabua district of Madhya Pradesh has received Geographical Indication (GI) tag from Chennai based Geographical Indication Registry and Intellectual Property India. GI tag will ensure that no one else can use name Kadaknath Chicken while selling any other black chicken. It will also enhance its commercial value that will translate into higher prices for producers mainly tribal districts of Jhabua.

### **Blockchain District**

Telangana State Information Technology, Electronics and Communication department (ITE & C) signed Memorandum of Understanding (MoU) with Tech Mahindra to launch India's first Blockchain district. The MoU was signed at International Blockchain Congress 2018 held in Hyderabad.

It will be centre of excellence, incubator and process development for emerging technology with innovative infrastructure and facilities to foster growth of Indian blockchain start-ups and companies. Tech Mahindra as its founding member will provide platform and technology assistance to all incubators in it. It will also empower accelerators to develop and solve market problems across its global customer ecosystem. Telangana (ITE & C) Department will provide regulatory and policy support to enable and promote Blockchain growth both in India and globally.

### **Digital Literacy Library**

Social networking giant Facebook has launched Digital Literacy Library to help young people build skills they need to safely enjoy online technology. The lessons can be found on Facebook's Safety Center as well as on Berkman Klein's Digital Literacy Resource Platform.

### Facial Recognition to increase security

Tokyo 2020 will be first Olympics to use facial recognition technology to increase security around all venues. For this, games organisers have partnered with Japanese telecommunications and information technology giant NEC to develop the first system of this kind to be implemented at an Olympics games.

### Thermal Battery Plant

The world's first-ever thermal battery plant owned by Bharat Energy Storage Technology Private Limited (BEST) was inaugurated in Amravati, Andhra Pradesh. This plant aims to create new energy storage form that is expected to have commercial applications, while also maintain low carbon footprint and less dependent on external factors like weather. The plant will begin its commercial operations from May 2019. BEST is planning to create a battery capacity of 1000MW. This is expected to be upgraded to a 10GW capacity by 2025.

### Aerogel

Scientists have developed Aerogel, a transparent heat-resistant super-insulating gel using beer waste. It may be used to build greenhouse-like habitats for human colonised on extraterrestrial habitats such as Mars or Moon. It could also be used on buildings on Earth to help make huge savings on energy costs.

### Aeolus

European Space Agency (ESA) has successfully launched wind-sensing satellite named Aeolus into orbit on board of Vega rocket from French Guyana. It is world's first wind-sensing satellite dedicated to map Earth's wind on global scale in particular tropical winds which are very poorly mapped because of almost complete absence of direct observations.

### **FabCI**

Indian Institute of Technology-Hyderabad (IIT-H) has launched “Fabless Chip Design Incubator (FabCI)”, an exclusive incubator to boost chip design. It is first of its kind in India that will focus on creating an ecosystem for start-ups in chip design.

### **India’s first Bio-fuel powered Flight**

India’s first first-ever biofuel powered flight between Dehradun and Delhi was propelled by blend of oil from **jatropha seeds** and aviation turbine fuel. The 43-minute flight was operated by SpiceJet’s Bombardier Q-400 aircraft, with 20 officials and five crew members on board.

### **Navlekha**

Google has unveiled Project Navlekha to make online content relevant for more Indian users especially in local languages. India is important market for Google as it is second largest population of internet users in the world. At present, amount of online content in Indian languages is only 1% of what is available in English.

### **Horizon 2020**

Union Government and European Union (EU) have collaborated for research programme named Horizon 2020 to develop Next Generation Influenza Vaccine to protect citizens across the globe.

### **Union Government advices States to ban e-Cigarettes**

Union Ministry of Health and Family Welfare issued advisory to all states and Union Territories to not allow manufacture, sale and advertisement of e-cigarettes and other Electronic Nicotine Delivery Systems (**ENDS**). It also has issued warning that use e-cigarettes and other ENDS devices pose great health risk to public at large, especially to children and pregnant women. Punjab, Karnataka, Kerala, Mizoram, Jammu and Kashmir, Uttar Pradesh and Bihar already have prohibited manufacture, import, sale and distribution of e-cigarettes and ENDS.

ENDS are devices that heat solution to create aerosol, which also frequently contains flavours, usually dissolved into propylene glycol and glycerin. e-cigarettes (electronic cigarettes) are most common prototype of ENDS. These devices do not burn or use tobacco leaves but instead vaporise solution, which user then inhales. The main constituents of solution are nicotine, propylene glycol (with or without glycerol and flavouring agents). According to World Health Organisation (WHO) report on Global Tobacco Epidemic 2017, 30 countries have already banned ENDS.

ENDS including e-cigarettes, heat-not-burn devices, vape, etc. are great health risk to public at large, especially to children, adolescents, pregnant women and women of reproductive age. They contain nicotine, addictive component of tobacco products. In addition they contain metals, including lead, chromium and nickel and chemicals like formaldehyde with concentrations equal to or greater than traditional cigarettes.

### Cyclotron 30

India's biggest cyclotron facility named Cyclone-30 became operational at Kolkata-based Variable Energy Cyclotron Centre (VECC), which comes under Department of Atomic Energy (DAE). Cyclotron is used to produce radioisotopes for diagnostic and therapeutic use for cancer care. Radiations from these isotopes are used to destroy cancer cells.

### World's first hydrogen train

Germany has rolled out world's first hydrogen-powered passenger train. These locomotives named **iLint trains** emit zero emissions, making them eco-friendly. These hydrogen trains are manufactured by French TGV-maker Alstom and are commercially running on 100km route in northern Germany.

### EyeROV TUNA

India's first underwater robotic drone EyeROV TUNA was handed over to Naval Physical and Oceanographic Laboratory (NPOL) of Defence Research and Development Organisation (DRDO). This underwater drone will be used by NPOL for research and development activities which in turn would result in commercial product for defence purposes.

### First indigenous anti-nuclear leakage kit

Institute of Nuclear Medicine and Allied Sciences (INMAS) has developed India's first indigenous medical kit for protection against nuclear warfare or radioactive leakage. The kit will ensure protection from serious injury and aid faster healing of wounds due to nuclear warfare or radioactive leakage.

### Apsara

Bhabha Atomic Research Centre (BARC), Trombay has recommissioned India's oldest nuclear research reactor named Apsara, which was shut down permanently in 2009 for repair. The refurbished version of this reactor has been named as 'Apsara-upgraded' (Apsara-U) and also has double capacity compared to its earlier version. It is located within India's nuclear weapons facility at BARC's Trombay campus (Maharashtra).

### Dataset

Google has launched Dataset Search, a new search engine for scientific community that will help them make sense of millions of datasets present online. It will also help scientists, data journalists and geeks to find data required for their work and their stories or simply to satisfy their intellectual curiosity.

### Space Elevators

Japanese researchers from Shizuoka University will conduct world's first experiment to test small prototype of space elevator in space by using two mini satellites. The test equipment will be launched by Japan's space agency on board of H-2B rocket from southern island of Tanegashima.



## Important Days

### **November 18: Naturopathy Day**

Union Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH) Ministry celebrated first Naturopathy Day on November 18 with aim of promoting drug-less system of medicine to prevent diseases by altering diet and lifestyle.

Other related important days:

- January 4: Siddha Day
- February 11: Unani Day
- April 10: Homeopathy Day
- June 21: Yoga Day
- November 5 : Ayurveda Day

### **November 16: National Press Day**

The National Press Day (NPD) is celebrated every year on November 16 as symbolic of free and responsible press in India. This was the day on which Press Council of India (PCI) started functioning as moral watchdog.

### **November 12: Public Broadcasting Day**

Public Service Broadcasting Day is observed every year across India on November 12 year to commemorate first and last visit of Mahatma Gandhi (Father of the Nation) of All India Radio Studio (AIR), New Delhi in 1947. On this occasion, artistes of Akashvani Bhawan, Delhi performed Vaishnav Jan Toh and other bhajans and school children performed Rabindra sangeet.

**November 12: World Pneumonia Day**

World Pneumonia Day is observed globally every year on November 12 to generate awareness about 'pneumonia' disease.

**November 11: National Education Day**

National Education Day of India is celebrated every year on 11 November to commemorate the birth anniversary of Maulana Abul Kalam Azad, the first education minister of independent India.

**November 9: National Legal Services Day**

National Legal Services Day (NLSD) is observed every year in India on 9th November to spread awareness for ensuring reasonable fair and justice procedure for all citizens.

**November 5: World Tsunami Day**

The World Tsunami Awareness Day is observed every year across the world on 5 November to spread awareness among people across the world about Tsunami.

**October 24: United Nations Day**

The United Nations Day is observed every year on 24th October to mark anniversary of entry into force of UN Charter in 1945. With ratification of this founding document by majority of its members, including five permanent members of UN Security Council, United Nations officially came into existence. Since then, 24th October is celebrated as UN Day.

**October 24: World Polio Day**

The World Polio Day is observed annually across world on 24 October to create awareness about hazards of the crippling Polio disease. The day was instituted by Rotary International to commemorate

birth of Jonas Salk who had led first team of researchers which had developed vaccine against poliomyelitis (polio virus).

### **October 21: The Police Commemoration Day**

The Police Commemoration Day is observed every year on October 21st to pay homage to police martyrs. The day commemorates supreme sacrifices of ten policemen while defending borders with China in 1959.

### **October 15: The International Day of Rural Women**

The International Day of Rural Women is observed every year on October 15 to recognize the crucial role and contribution of rural women. The 2018 theme of the day was “Sustainable infrastructure, services and social protection for gender equality and the empowerment of rural women and girls”

### **October 13: International Day for Disaster Reduction**

International Day for Disaster Reduction (IDDR) is observed every year on October 13 to promote a global culture of risk-awareness and disaster reduction. The observance of day seeks to encourage citizens and governments to take part in building more disaster resilient communities and nations. It also celebrates how people and communities around world are reducing their exposure to disasters and raising awareness about the importance of reining in risks that they face. It also seeks to spread awareness about reining risks of disasters around world and also reduce exposure of people and communities to disasters.

The theme of 2018 International Day for Disaster Reduction was ‘Reducing Disaster Economic Losses’. It focuses on Target C of Sendai Framework, which aims at ‘reducing disaster economic losses in relation to global GDP by 2030’.

**October 11: World Obesity Day**

The World Obesity Day is observed globally every year on 11 October to promote practical solutions to end the global obesity crisis. It also aims to lead and drive global efforts to reduce, prevent and treat obesity.

**October 11: International Day of Girl Child**

The International Day of the Girl Child is observed every year across world on October 11 to recognize girls' rights and unique challenges faced by girls around the world.

**October 2: International Day of Non-Violence**

The International Day of Non-violence is celebrated every year on 2 October throughout world on birth anniversary of Mahatma Gandhi

**October 1: World Habitat Day**

The World Habitat Day was observed every year on first Monday in October all over the world. This year it was observed on 1 October 2018 with theme Municipal Solid Waste Management.

**September 28: World Rabies Day**

The World Rabies Day is observed every year on 28 September across the world to raise awareness about rabies disease and its preventable measures. The 2018 theme was "Rabies: Share the message. Save a life."

**September 27: World Tourism Day**

The World Tourism Day (WTD) is being observed every year on 27th September to raise awareness about importance of tourism. Observance of day aims to foster awareness among international community of importance of tourism and its social, cultural, political and economic value.

**September 25: Antyodaya Diwas**

25th September was observed as Antyodaya Diwas across the country to mark the birth anniversary of Pandit Deendayal Upadhyaya, a noted philosopher, historian and political activist.

**September 16: International Day for Prevention of the Ozone Layer**

The International Day for Preservation of Ozone Layer (or World Ozone Day) is observed every year on September 16 for the preservation of the Ozone Layer.

**August 21: World Senior Citizens Day**

The World Senior Citizens Day is celebrated every year on 21 August across the world raise awareness of the condition of elder people and support them through the process of senescence.

**August 20: World Mosquito Day**

The World Mosquito Day is observed every year on August 20 to raise awareness about the causes of malaria. The observance of the day seeks to created awareness to prevent and also to fundraise for research into the cure of malaria.

**August 10: World Biofuel Day**

World Bio-fuel Day (The International Biodiesel Day) is observed every year on August 10 to create awareness about the importance of non-fossil fuels i.e. Green Fuels or Bio-fuels an alternative to

conventional fossil fuels. Bio-fuels are renewable, bio-degradable, sustainable and environment friendly fuel.

On this day in 1893, Sir Rudolph Diesel (inventor of the diesel engine) for the first time successfully ran mechanical engine with Peanut Oil.