

## SPACE SCIENCE

Today India has become one of the most developed nation in the world. In the world today India is not lagging behind in the competition in the field of space science. The progress of India's space scientists is worth seeing.

There was good news on Thursday for India's Chandrayaan-3 mission. According to the plan, the lander and propulsion module of Chandrayaan-3 are traveling separately to the moon by breaking into two pieces. With this, the lander of Chandrayaan-3 has now reached closer to the moon. It will make a soft landing on the Moon on 23 August.

Chandrayaan-3 mission includes Lander, Rover and Propulsion Module. The Lander and Rover will land on the south pole of the moon and conduct experiments for 14 days. On the other hand, the propulsion module will study the radiations coming from the surface of the moon by staying in the orbit of the moon. Through this mission, ISRO will detect water on the lunar surface and will also know how earthquakes occur on the lunar surface.

## Three evils of Indian politics in Modian sense

■ OMKAR DATTATRAY

In the 77th independence Day speech PM Narendra Modi has spoken of great things and has said that there are three main evils of our democratic politics which are making India shallow and hollow. As per Modi these three mal-adies are corruption, appeasement and familyism/nepotism and these are eating vitals our nation and therefore we should save the country from the affliction of these vices .These three enemies of the nation have hindered our democratic and developmental journey and we have not reached to the desired level .The nation has to fight these three vices to be successful in the long run. Modi said corruption is the biggest and number one enemy and it has eaten the country like a terminate and we have declared zero tolerance towards corruption and it is the responsibility of all the people to fight corruption to finish so that it will not impact us at all.PM Modi while addressing the nation for the 10th consecutive term from the ramparts of the red forte has listed the three main enemies of the nation and called corruption ,appeasement and nepotism to be the big enemies of the country and exhorted the countrymen to get rid the country from these three vices .So prime minister Narendra Modi has called on the nation to rid itself of corruption ,nepotism and appeasement .Speaking at India's 77th independence Day celebrations ,he cited corruption as having had a particularly significant impact on the country's capabilities and emphasized that fighting corruption in every sector was a lifelong commitment .Decrying corruption ,nepotism and appeasement as the three evils that have harmed the country immensely ,PM Modi said it is a collective responsibility to promote "Suchtia ( probity),pardarshita (transparency) and nishpakshita (impartiality) to make India developed .Addressing the 77th independence Day celebrations from the ramparts of the Red Forte ,Modi said that corruption has badly impacted India's capabilities and the country has to resolve to not tolerate it in any form .He further said, "If the dreams have to be fulfilled ,then it is the need of the hour to fight the three evils decisively at all levels .The three evils are corruption ,nepotism and appeasement .He said corruption is at the root of all problems in the country .Modi stressed that India would become a developed country by 2047 when country completes 100 years of its independence .He said the need of the hour was to fight three evils -corruption, dynasty/familyism and appeasement.. "I firmly believe that when the country will celebrate 100 year of independence in 2047 ,the country would be a developed India .I say this on the basis of capability of my country and available resources .But the need is to fight three evils -corruption, dynasty and appeasement .During his independence day speech ,PM Narendra Modi spoke of India's potential in the trifecta of demography ,democracy and diversity .He stressed the need to fight the three evils of corruption ,nepotism and appeasement ,which he stated are the root cause of all the problems facing the country .Modi also committed to continuing to fight against corruption and ending dynastic politics in the country .He guaranteed that India will be among the top three world economies in the coming five years and emphasized the importance of liberating the nation from nepotism to strengthen its democracy .From the trifecta of demography ,democracy and diversity to the three ills of corruption ,nepotism and appeasement ,PM Modi in his independence day speech used several catchy phrases to drive home his government's achievements ,his vision for future and criticism of the opposition. The three assets of demography ,democracy and diversity has the potential of to fulfill every dream of india .Our demography is a big asset because it is a great pride as today India has the highest population under the age of 30.This is what we have in my country ,the youth below 30 ,my country has crores of hands ,crores of brains ,crores of dreams ,crores of resolutions !So my brothers and sisters ,my family members ,we can get the desired results .The PM touched on a range of issues .From appealing for peace in Manipur and his governance to plans for the future ,a sharp attack on opposition and a change in his salutation to the people .The PM also took a swipe at opposition parties while emphasizing the evils the country is facing and has to fight out to get rid of corruption ,nepotism and appeasement.PM Modi took a jibe at opposition parties and attacked the dynasty politics .He said that country needs to fight three sins -corruption ,nepotism (Dynasty politics)and appeasement .Modi also said, "Today parivarvaad and appeasement have destroyed our country .How can a political party have only one family in charge ?For them ,their life mantra is part of the family ,by the family and for the family." Thus Modi said that India will be one of the three top economies in next five years and India will be a developed country by 2047 when India will be celebrating 100th independence day .But the only condition is that the country will have to join hands to fight the three evils afflicting the nation such as corruption ,familyism and appeasement .India has the three assets of demography ,democracy and diversity and these three assets will definitely transform India into a developed nation by 2047 and it will once again become a vishwa Guru in 2047 and this will be the big a development .Modi listed the achievements of his five years of rule and he attacked the opposition parties and thus he speech was mere political one with an eye on 2024 general polls and it liked to be the speech of a particular political leader and as if it was not the PM of the country who was speaking.PM belongs to 140 crore people and once the leader of the majority party becomes PM ,he should rise above party politics but it is very unfortunate that in Indian politics it is not so and the PM speaks on political lines only and his speech is a political address .Coming back to the title of this write up ,it is obvious that the country is facing the three main evils of corruption ,nepotism/dynasty and appeasement and we should jointly fight these vices of our democracy and get country rid of these evils and march ahead to attain a developed country status by 2047.Modi guarantees the people that by 2047 India will be a developed country with the capabilities ,resources and cooperation of the 140 crore countrymen.

(The author is a columnist, social and KP activist)

# India's Independence and her national symbols

■ CAPT PURUSHOTTAM SHARMA (RETD)

"I do not want to see fallen and prostrate India. I want a free and enlightened India so that she may be of help to the other countries of the world and she may if need arises, die so that other people may live/" -Gandhi Ji

Centuries of slavery of MOTHER INDIA caused its people horrible sufferings from oppression, diseases and hunger. To quote an example, the 1857 Revolt was ruthlessly crushed by the British killing millions of Indian soldiers and civilians. Around 28 million Indians had died of starvation between 1854 and 1901.

Our Independence on 15th of August, 1947 was a victory accomplished after a protracted war lasting many many years wherein millions of heroes sacrificed their lives and underwent untold sufferings.

Therefore, August 15th is the Golden Day and the most unique event to celebrate, rejoice and resolve to keep climbing up unitedly.

Gandhi Ji's noble statement is being fully realized when India is liberally helping other countries of the world in difficult situations and calamities. See how people of Indian origin are being held in high esteem for their admirable merits. Some of them are exceptionally genius. Shri Rishi Sunak, Britain's Prime Minister is of Indian origin. We may have similar achievements in USA and other countries in future.

Many thousands of patriots embraced martyrdom for the sake of freedom of Mother India. They are the embodiment of heroism and source of inspiration to the succeeding generations. Every living being in the lap of Mother India who breathes the air of this sacred land, drinks the holy waters, consumes her produces and enjoys freedom is supposed to be loyal, prepared to lay any sacrifice and prove an absolute asset exhibiting robust nationalism and be worth the salt.

It is an occasion to repeat and to remind of the Revolutionary slogans of the Patriots who faced gallows with smiles and singing hearts for the sake of dear Freedom. Few of these are-

"Sarfroshi Ki Tamanna Abb Hamare Oil Mein Hai, Dekhana Hai Zor Kitna Bajue Kaat11 Mein Hai"

"Shaheedon Ki Chitaoen Par Lagen Ge Har Bars Mele, Watan Pe Marne Walow Ka Yehi Baaki Nishan Hoga."

"Inquilaab Zindabaad." Bharat Maata Ki Jai."

"Dushman Ki Goliyon Ka Hum Samna Karenge, Azad Hee Rahein Hain, Azad Hi Rahenge." -Chandra Shekhar Azad

How can our memory escape the supreme sacrifice of Bhagat Singh,



Sukhdev and Rajguru who embraced the gaiiows at the Central Jail, Lahore, in the evening of March 23,1931, on charges of assassination of British Police Inspector Saunders who had made a 'Laathi' charge on Lala Lajpat Rai, a great leader and Freedom Fighter, causing his death.

It was on August 9, 1942, in the August Kranti Maidan, Mumbai, that a call was given by Gandhi Ji "I want freedom immediately." "Do or Die" for India's Independence. PtJawahar Lal Nehru had said, "The Resolution is in no sense a challenge or a threat to anyone but an offer of cooperation of a free India/" Sardar Patel said "It is the duty of every Indian to do whatever he can to win freedom immediately. This is a test for us. It is the duty of each one of us to show where India stands."

On the same day, all the leaders of India were arrested. That mass arrest transfused patriotic urge in the people which needed own powerful transmitter for large-scale propaganda. It was Usha Mehta and Babubhai Khakhar who established Congress Radio of 42.34 meter- band on August 14, 1942. Another Transmitter was set by Vithalbhai.

One undertook recording work and the other broadcasting work.

The Second World War from 1939 to 1945 had crippled the world at large and the Britain in particular. At last, the Freedom Movement brought its glory and compelled the British to quit India. Independence came with a sad division of the country into two (India and Pakistan), well known as 'partition' which caused mutual hate, communal riots, mass killings, migrations both sides, brutality, sorrows and sufferings. This hate still subsists.

On this special occasion, let us remember and pay tributes to freedom fighters Mahatma Gandhi, Sardar Vallabh Bhai Patel, Babu Rajendra Prasad, Pt Jawahar Lal Nehru, Sh C Rajagopal Acharya, Sh Subhash Chander Bose, Acharya Kriplani, Smt Sucheta Kriplani, Dr C Subramaniam, Sh Lai Bahadur Shashtri, Shri YB Chavan, Sh TS Pai, Sh CR Manohar Lohia, Sh KM Munshi, Sh Achyutrao Patwardhan, Sh KA Abbas, Sh Moinuddin Harris, Sh Kamal Wood, Usha Mehta, Smt Aruna Asif Ali, Sh Sachindranath Sanyal, Sh K Kamaraj, Sh S Satya Murti, Dr Pattabhi Sitaramayya, Sir Asutosh Mookerjee, Sh RVenkataram, Dr Shyama Prasad Mukerjee, Mangal Pandey, Bal Gangadhar Tilak, Rani of Jhansi, VD Savarkar, Sorojini Naidu, Ram Prasad Bismil, Ashfaqualla Khan, Chittaranjan Dass, Annie Basant, Madam Bhikaji Cama, Dadabhai Naoroji, Khudiram Bose, Bipin Chander Pal, Nana Saheb Tanya Tope and many others.

OUR NATIONAL SYMBOLS

National Flag This was originaiiy designed by Shri Pingali Venkayya, a great Freedom Fighter. With some changes, it was finally adopted on July 22, 1947, just a few days ahead of 15th August, 1947.

The length and width of the Flag has to be in the proportion of 2:3 with three strips of identical size horizontally.

The upper strip of dark saffron color stands for courage and sacrifice, the middle strip in white with Ashoka Chakra (Wheel of Dharma) in its center of Navy Blue shade having 24 evenly sized spokes stands for light, the path of truth, and the lower strip of deep green color stands for prosperity and fertility, that is, kinship with the soil.

Flag must be made of special kind of

Khaddar and hand-spun silk. The Flag is manufactured in 9 different sizes. The sole right to manufacture the Indian Tricolor belongs to the Karnataka Khadi Gramodyoga Samyukta Sangha in Hubli (Dharwad). December 7 is celebrated as National Flag Day. The 361 feet high National Flag atop the Red Fort is 8x12 feet.

National Emblem Our State Emblem was adopted on January 26,1950. It is a replica of the Lion Capital of Ashoka at Sarnath. Crest of the Emblem shows three lions mounted on an abacus with wheel of Dharma in the center, a bull on the right side and a horse on the left. The motto Satyameva Jayate is included underneath the crest.

National Anthem 'Jana-Gana-Mana Adhinaayak Jaya Hey, Bhaarat Bhaagya Vidhaataa

Panjab - Sindhu - Gujarat - Maraatha - Draavid - Utkal-Banga,

Vindhya Himaachal Yamuna-Ganga Uchchhal Jaladhi Taranga

Tav Shubh Naamey Jaagey, Tav Shubh Aashish Maange,

Gaahey Tav Jayagaatha

Jana-Gana-Mangal Daayak, Jaya Hey Bhaarat Bhaagya Vidhaataa

Jaya Hey, Jaya Hey, Jaya Hey, Jaya

Jaya Jaya, Jaya Hey.

'Thou art the ruler of the mind of people, Dispenser of India's destiny, Thyname rouses the hearts of the Panjab, Sind, Gujarat and Maratha, of the Dravid, Orissa and Bengal, it echoes in the hills of the Vindhya and Himalayas, Mingles in the music of the Ganges and Yamuna, And chanted by the waves of the Indian sea.

They pray for thy blessings, And sing thy praise. The saving of ail people waits in Thy hand, Jhou Dispenser of India's destiny.'

Our National Anthem is the first stanza of a Bangla poem 'Bharot Bhagy Bidhata' (Dispenser of India's destiny) by Gurudev Rabindranath Tagore in January 1912 issue of Tattvabodhini Patrika of which he was himself the Editor. He had translated it into English in the year 1919 under the title 'The Morning Song of India.'

It was adopted in its Hindi version by the Constituent Assembly as the National Anthem of India on 24th of January, 1950.

The record of our National Anthem was played before the General Assembly of the United Nations in 1947 in New York.

It received rapturous applause of the large number of representatives of nations present there for patriotic theme of the Anthem and sweet and magnificent tune of the song.

# From Garbage to Gold

■ DR. BANARSI LAL

Sanitation is directly associated with the human health and if it is ignored then it may cause inverse consequences. India is one of the fastest developing economies in the world but when comes to cleanness, it lags behind. With a population of over 1.3 billion country needs to focus on sanitation. Every year India produces a whopping 62 million tonnes of waste out of 45 million tonnes of waste is not treated. In order to meet the goal of clean India, it is urgent to tackle the waste issue. The quantity of solid and liquid wastes is increasing annually and if the waste is disposed off in an uncontrolled manner then it may cause adverse impact on public health and environment. So, there is urgent need to manage the wastes in an efficient and effective way. The major objective of Swachh Bharat Mission (Gramin) is to bring about improvement in the cleanliness, hygiene and the general quality of life in rural areas. Solid and Liquid Waste Management (SLWM) is one of the key components of the programme.

Waste is a severe threat to public health and cleanliness in rural areas and despite the waste generated being predominantly organic, mismanagement in disposal can lead to serious problems including the increase in the water borne diseases such as Diarrhoea, Malaria, Dengue, Cholera, Typhoid etc. It is estimated that people in rural India are generating 0.3 to 0.4 million metric tons of organic solid waste per day and that 88 per cent of the total disease burden is due to a lack of clean water, sanitation and improper solid waste management. One of the important challenges in both rural and urban areas is that of faecal sludge management. Solid and Liquid Waste Management (SLWM) in rural areas is much easier than urban areas,

as the chances of industrial contamination are less in the rural areas. The wastes can be recycled safely and space is not as big a constraint in rural areas as it is in urban areas. Solid and Liquid Waste Management (SLWM) is an important determinant for the improvement in sanitation in any community. The goals of sanitation will not be achieved unless this waste is safely disposed off. In rural areas, this aspect is often ignored due to lack of proper infrastructure and non-availability of sustainable and affordable technologies. The diversity of India extends to its waste generation. The diversity of climate, topography, resource availability, livelihood and culture play a major role in the waste generation. Traditionally, rural communities have been known to use and reuse most resources, leading to zero waste generation but with the passage of time, the situation is changing by growing consumerism, changing food habits, easy availability of plastic bags and non-degradable packaging.

Reduction, reuse, recycle and recover are the four basic principles for waste management. There should be proper planning for the waste collection and its treatment. There is need to segregate household waste into organic and inorganic components at the source. Although lot of efforts are made for the waste management but still there is lot to cover. Waste management should also be taught in the schools and colleges.

Decentralized systems like household composting and biogas plants are needed for Solid and Liquid Waste Management (SLWM). Activities related to maximum reuse of organic solid wastes as manure should be adopted. Such technologies may include vermi-composting, NADEP composting or any other composting method, individual and community biogas plants.

Women's community sanitary complexes, Primary Health Centres or in any other suitable place in the village where collection mechanisms can be taken up. Socially acceptable and environmentally safe technologies should be adopted for Solid and Liquid Waste Management (SLWM). Methods adopted for management of liquid wastes may focus on maximum reuse of such waste for agriculture purposes with least operation and maintenance costs.

For collection of wastewater, low cost drainage/small bore system can be adopted. For treatment of wastewater (a) Waste Stabilization Pond (WSP) Technology (b) Duckweed based wastewater treatment and (c)Phytoroid Technologies can be adopted.(iv) Anaerobic Decentralized Wastewater Treatment can also be followed.

In rural areas, solid waste from most of the households is largely organic with little amount of inorganic waste. Composting is the most suitable, sustainable and environmentally friendly method of recycling and reuse of solid waste. Composting is an organised method of decomposing organic material which can then be used as manure. Various options for composting are available which include the NADEP method, Bangalore method, Indore method, Vermi composting, rotary drum composting and Biogas technology. Liquid waste poses its own set of challenges. Stagnant water is a perfect breeding ground for diseases causing vectors such as mosquitoes, flies etc. Absence of water drains exacerbates the problem. Waste water also is a threat to groundwater especially in high groundwater table areas.

In rural areas and urban slums, toilets are constructed with little after thought about their care, upkeep and maintenance. Over flowing toilets become a

source of stink and a breeding ground for mosquitoes and flies and water leaching, which is a source of serious contamination.

It causes different kinds of ailments to the human beings. In such cases, one of the main purposes for which toilets are constructed and used should be properly known to the people. Peri-urban areas, towns, slums and rural areas can share the same set of solutions as the challenges are common.

In the urban areas, the challenges are of space shortage for defecating and even if the toilets are constructed but where does the waste go? In rural areas, toilets are not fully used by the rural people because (a) People remain unconvinced about the benefits of toilets (b) The construction is faulty (c) Sometimes water is unavailable for cleaning purposes of toilets and (d) Options for pit cleaning are limited. Although septic tanks are provided but these are not regularly cleaned. There is a need to frame guidelines and bye laws for the individual household to use septic tanks both in urban and rural areas. The importance and function of the septic tanks is generally neglected by the people. Septic tanks collect and treat wastewater; separate sewage into three different zones: sludge, scum (floaters) and clear zone in the middle. It allows options for waste water management in rural areas. Rural areas have huge wealth in terms of crop residues, animal excretion and domestic refuse commonly called as waste. A scientific and systematic approach for rural waste management can help to clean the rural areas and also produce sufficient amount of organic manure.

(The writer is Sr. Scientist & Head of KVK, Reasi (Sher-e-Kashmir University of Agricultrual Sciences and Technology-Jammu).

## YOUR COLUMN

### Denial of bail to Godhra Train Burning convicts

Dear Editor,

The Supreme Court has denied bail to three convicts involved in stone-pelting, looting gold ornaments and damaging the Sabarmati Express with iron rods. The train burning incident which had claimed the lives of 59 Hindu Kar Sevaks on February 27, 2002 has left a deep scar on the face of the nation. This ugly incident led for the crowds to go on rampage to kill 2000 people. This unhappy event

brought the then Gujarat Chief Minister Narendra Modi into disrepute. Godhra carnage was politicized. UK and USA denied visa to Modi. Had Modi not become the Prime Minister, the UK and USA would have ostracized him forever. First to lift the ban on entry of Modi was the UK. Later the US followed suit as both the countries foresaw Modi becoming Prime Minister. A bench of Chief Justice of India D.Y. Chandrachud and Justices PS Narasimha and Manoj Misra has viewed very seriously the act of stone-pelting, looting gold ornaments and damaging the Sabarmati Express with iron rods by Saukat Yusuf Ismail, Bilal Abdullah Ismail and Siddik and turned down the plea to enlarge them on bail. The three convicts are reportedly serving jail sentence for life-time. The burners of

Sabarmati Express are responsible for 2000+59 deaths. Capital punishment is awarded in rarest of the rare cases. The train burning case even with the buck stopping at the killing of 59 kar sevaks is undoubtedly rarest of the rarest cases. Godhra carnage would not have taken place had the coaches not been burned to kill the kar sevaks returning from Ayodhya to Gujarat. In 2017, the High Court had reportedly commuted the death sentence to life imprisonment in respect of 11 convicts. The government of Gujarat should have contested the High Court order in Supreme Court. Not even death sentence to the convicts can assuage the hurt feelings of the family members of the killed.

K.V. Seetharamaiah