

SIGNIFICANCE OF MAHASHIVRATRI

We have heard many popular stories of Mahashivratri and have found it in many of the texts like Shiva Purana and associated Puranas. Shiva temples on 11th March will be reverberated with the chants of 'Om Namah Shivaya' and vedic hymns on the occasion of Mahashivratri.

Mahashivratri is celebrated to commemorate the wedding of Lord Shiva and Parvati, the most beautiful couple. Hindus all over India and abroad are celebrating Mahashivratri today. Mahashivratri, literally translating to the 'Great night of Shiva' is celebrated with great fervour by the Hindu community. It is said that Lord Shiva is pleased with those who keep awake and pray to him with full devotion without asking anything in return. Mahashivratri dedicated to Lord Shiva and his wife Goddess Parvati. It is said that on this day, Lord Shiva saved the world from a pot of poison that emerged from the ocean during Samudra Manthan.

The great festival of Mahashivratri is celebrated every year on the fourteenth fortnight of waning moon during the month of Phalgun. This is because this day is very dear to Lord Shiva, who manifested as Shiva Linga on this day for the first time. Lord Shiva had married to Goddess Parvati on this auspicious day. There are few more reasons for this day being celebrated as Shivratri.

Mahashivratri is not only one of the magnificent festivals in India but also in Nepal and other regions where Lord Shiva is worshipped. Among the various popular shrines, Amarnath temple pilgrimage or Mount Amarnath (about 140 Km from Srinagar, Jammu and Kashmir) is believed to be the holiest in Hinduism. The festival is celebrated to receive the grace of Lord Shiva. Shiva has the divinity of all the Gods, he is the giver of all the wisdom and is the father of the entire universe.

On Shivratri, various offerings are made to the Shivalingam. As part of Mahashivratri's Abhishekam, the Shiva linga, a signifier of Shiva's abundant power is given a ritualistic bath. According to Shiva Purana, on the eve of Mahashivratri, the devotees bathe linga with milk, honey, ghee, curd, and sandalwood paste while chanting 'Om Namaha Shivay'. Traditionally, Bael leaves, which have to be a stalk with three leaves, are kept on top of the linga. Ber or jujube fruit is also presented as a special offering to the God on this day.

It is said that on the day of Mahashivratri, one gets the fruits of worshipping the whole Shiva family along with the worship of Lord Shiva. One gets rid of the bad Karma and enriches his life with joy and prosperity. The devotees definitely achieve their desired goals. One receives the blessings as progeny, health, longevity, fortunes, wisdom, and freedom from hindrances. Though there are numerous texts related to lord Shiva, there are endless names of Shiva too. But as per major scriptures, to receive the grace of Lord Shiva, the most appropriate mantra is the Panchakshari mantra 'Om Namah Shivaya'. This mantra is considered very pure and potent of all. This Maha-mantra has to be chanted as much as possible during the Mahashivratri vrata (fast). It blesses the devotees with the desired results.

On Mahashivratri, many devotees observe fast and chant 'Shivjiki Jai' in Hindi and 'Om Namah Shivaya' in Sanskrit. They later celebrate Mahashivratri by drinking Thandai, which is made up of Bhang (cannabis), almonds and milk. It is said that Lord Shiva liked this drink and devotees take it in the form of Prasad along with sweets. The appearance of Lord Shiva is very wonderful and special. He is eternal, indestructible, self-manifest, unborn and is completely free from aging, death and birth.

He is the ultimate shelter of all beings. He provides the quiescence to everyone and dissolves the whole creation back to the origin by opening his third-eye during the Pralaya. He is the beginning and end of the world. Wearing a garland made from rudraksha and applying turmeric vermilion or holy ash on forehead symbolises a holy ritual on this religious festival.

Vinod Chandrashekhar Dixit

Aquatic ecosystem of J&K calling for rehabilitation

■ PROF.(DR). R.D. GUPTA

Aquatic ecosystems comprise of fresh-water and marine habitats. The major examples of fresh water habitats are streams, rivers, springs, lakes, marshes and ponds. These days, however, fresh water ecosystems are very much threatened by their depletion and pollution. Moreover, many of the waterbodies or aquatic ecosystems of Jammu & Kashmir Union Territory are shrinking and degrading due to heavy siltation and lot of inflow of inorganic wastes and garbage into these aquatic ecosystems. As such these aquatic ecosystems call for their rehabilitation.

The most serious threat to the waterbodies is posed by the deforestation i.e., cutting or felling of forest trees illegally and vehemently, which as a result causes soil erosion. The excessive run-off the rain water along with denuded slope reduces its percolation into soil and sub-soil strata which as a consequence reduces recharging of main water aquifers. It is the main cause or reason why a number of water springs/baulies of Jammu region, especially lying on National Highway from Jammu to Srinagar and those of Kashmir valley have now totally dried up. The displacement of top soil due to soil erosion causes siltation not only in wetlands or wetland ecosystems but also causes premature siltation of the water reservation.

Shallowing of Dal and Wular Lakes: Continuous process of siltation aggravated by denudation of catchment area has rendered Dal Lake shallower day by day. The main catchment areas of Dal lake are Dachiga and Telbal, and entire catchment of the Kashmir valley upto Sopore is of the Wular Lakes. Denudation of hills/mountain due to whole-sale deforestation has increased silt flow into the lakes through different tributaries. It has not only reduced size and depth of the lakes but has also eased encroachment by bringing more and more areas a round Wular lake periphery under cultivation.

Overgrazing of the catchment is another factor which has caused severe erosion of top soil. Thus, the denudation of hill slopes, hardening of soil by overgrazing of the pastures/grasslands and destruction of vegetative cover are responsible for causing excessive runoff and bringing down of the sediments including silt in Dal, Wular and the other lakes.

Rehabilitation of Aquatic Ecosystem

1. Erosion Control: Intensive anti-erosion control measures in catchment areas are required to be initiated to stop soil erosion and siltation of water bodies. These measures include small engineering works like gully plugging,

check damming, terracing, contour bunding, contour trenching, etc. Besides, biological measures such as vegetative spurs, stabilisation of slips, reforestation, afforestation, grazing and forest fires control, ban on felling of existing forest trees etc., are required to take up. 2. Pollution Control: All biotic interferences in the catchment of various water bodies like cattle tresspassers which spread cow dung in areas and causes pollutions, must be stopped at any cost. Carcasses of dead animals in the catchment areas are positive source of water pollution. To prevent this, the cattle rearers are fully warned to carry carcasses of the animals immediately for throwing them an appropriate place.

Discharge of human and cattle wastes (solids and liquids) into lakes should be totally banned by law. The municipal bodies should make suitable arrangement to dispose these wastes elsewhere and put up effluent treatment plants. Dal Lake, the Wular and other lakes, and the entire course of the river Jhelum need immediate and constant attention. Effluents of the house boats in Kashmir valley require disposal elsewhere. It is probably the biggest source of pollution.

To save our famous lakes of Kashmir valley from further degradation a 'Master Plan of Sanitation' for the entire Kashmir valley situated along the lakes and the river must be drawn-up at the earliest and executed vigorously. Experiences from similar situations from the world over be gathered and expertise available there should be utilised. No piecemeal treat or isolated approaches will help matter. Cities like Srinagar, Sopore and Anantnag are dead cities and routine services of existing in capacitated municipal organisations are of no use. Big catastrophic epidemics in Kashmir valley are imminent and all efforts be made to avert them. Pollution is one single factor which is bound to end up all tourism in Kashmir valley.

Encroachment Control: The water bodies of Kashmir valley particularly are under tremendous pressure of human population and the lakes are being encroached in broad day-light without any hindrance. The situation is out of control. There is no reverence for law. Commercial and residential buildings are coming up freely all along banks of the Dal lake and other lakes. Consequently, the area of the lakes is shrinking and level of pollution is rising.

Along the banks of the Wular lake, cultivations are being extended into the lake as Siltation is accelerated from the soil erosion of its catchment area and fresh land is formed. The Wular lake is, thus, threatened out of existence.

The so-called floating gardens of Dal lake are further encroaching the lake and caus-

ing pollution. Infact the Dal lake is stinking horribly and no longer hospitable and habitable by house boats.

Eutrophication Control: The process of eutrophication in water bodies is highly accelerated as a direct consequence of increasing pollution from urban wastes. This threat to lakes cannot be resolved in isolation. While the first step should be to stop further pollution, rehabilitation measures like desilting, clearance of weeds etc., should be taken immediately. Eutrophication is converting lakes into marshes and further on towards peat formation and ultimately the obliteration of the lakes. Technologies available from world-over under similar conditions must be studied and applied judiciously in our situations. While a biological control of weeds may be considered on priority and evolved. The use of any weedicide would be a most negative approach and as such has to be guarded against. If a necessity of weedicides is required, neem based biocide is required to be followed. Development of catchment areas as recreational and picnic spots: Instead of allowing catchments to degrade and deteriorate further, plans should be drawn to develop them aesthetically by intensive tree planting measures introducing ornamental trees, flowering shrubs and herbs. It is possible only if areas are protected against grazing and other human interferences. This will definitely promote tourism. The tourists will be delighted to find wild animals and birds. Aquatic ecosystem based tourism has been a bright historic and traditional development.

In the management of our water bodies, much could be learnt from Switzerland and Scandinavian countries. Their technologies, if followed, will be surely helpful to great extent.

While the Nilnag lake is almost obliterated and is more a marsh now, it can still be rehabilitated through those measures:

a) Protecting the vegetation of catchment. The catchment area may be fenced as it is a small area. Fencing will exclude all biotic interferences.

b) Restoring lake to its against size as has been done in Sanasar lake. Deweeding and excavation should be done.

c) Define boundary wall of the lake and construct a boundary-wall of stone or brick masonry providing path all along, for tourist and also resting points at a few places.

d) Creating a beautiful landscape around.

e) Village waste should not be dumped into lake. They should be disposed away from lakes and other water-bodies.

(Former Chief Scientist KVK cum Associated Dean, SKUAST, Jammu)

Challenge of climate change

■HIRANMAY KARLEKAR

The Biden Administration has an ambitious agenda for stepping up action to cope with global warming but there are many hurdles in the way

The Trump Administration, an unmitigated disaster for fight to save the environment, has been defenestrated. Thanking the heavens for that, however, will not be enough. Wise leadership, massive allocation of funds and unflagging political will are needed at the global level to undo the damage done during last four years and step-up action to cope with global warming, which can wipe out humankind.

Two questions arise here. How deep is President Joe Biden's commitment to fight global warming? What kind of hurdles will his administration have to overcome? As to the first, he has declared that climate change poses an 'existential threat to the planet'. He has been called a 'climate change pioneer' who believes that people have a moral and economic imperative to address issue. He has a \$2 trillion clean energy plan, and is on record as stating before assuming his current office that, as the President, he would ensure that US achieved a 100 per cent clean energy economy and net-zero emissions by 2050. As clearly a part of this goal, he wants to make the US power grid carbon neutral by 2035.

His commitment is reflected in his track record. In 1986, he introduced one of first climate Bills in the US Congress. In 1998, he played a critical role in the enactment of the Tropical Forest Conservation Act, which allowed the US to reach agreements with foreign Governments to conserve tropical forests in exchange for debt relief. As chairman of US Senate Foreign Relations Committee (2001-2003 & 2007-2009), he organised several hearings on climate change and garnered support for a number

of non-binding resolutions on the issue.

As the President, he is making climate change the central issue of his administration and the subject of a two-pronged approach to combat it. The first is the establishment of a formidable administrative infrastructure; the second is the conceptualisation of the problem in all its dimensions and appointment of competent and dedicated people to cope with it.

He has already made progress with the second. In November 2020, not long after winning the presidential election, he named John Kerry, who was the Secretary of State in the Obama Administration and a principal architect of Paris Agreement on Climate Change (December 2015), as his special presidential envoy for climate change. He has set-up a White House office of domestic climate change policy to coordinate implementation of his climate agenda. Indeed, as the President, he has gathered the largest team of climate change experts ever assembled at White House. More, on the anvil is a national climate task force comprising 21 Government agency leaders, and an environmental justice inter-agency council to address racial and economic inequities exacerbated by climate change and air and water pollution.

President Biden has already taken certain important steps. On his first day in office, the paperwork for the US' return to Paris Agreement on Climate Change was completed. He revoked the permission granted to the TC Energy Corporation to construct the Keystone XL Oil pipeline for brining oil from Alberta, Canada, to refineries in the Gulf of Mexico. The Obama Administration had denied permission to it in 2015 for the severe damage it would cause to the environment but the Trump dispensation had allowed it to pro-

ceed. Also, according to a White House statement, Biden was directing Department of Interior to pause all oil and gas drilling leases on federal land and water and, as far as possible, launch a review of the existing energy leases. Besides these and other measures related to his domestic climate agenda in the works, his administration is giving a hard look at environmentally harmful measures taken by the US Environment Protection Agency during Trump's tenure. Many of them will be up for scrapping.

In a reversal of the Trump Administration's policy of turning away from the world on the climate change issue, a White House statement has said that the US should 'exercise global leadership' in advancing the Paris Agreements objectives. Clearly, combating climate change is a mission with President Biden, which is encouraging given enormous power and resources the US commands. Nevertheless, tall hurdles remain in the way. The fossil fuel industry lobby will fiercely oppose his policies restricting drilling and oil use conducive to global warming, and will seek to mobilise senators and representatives to derail his plans.

Second, his steps have been taken through executive orders. These can be revised by a future President just as he is doing in respect of Trump's measures. For permanence, he needs legislation, which will require careful navigation through Senate and House of Representatives where Democrats have a thin majority. Finally, he has to successfully counter the criticism that measures to protect environment will mean job loss. He has doubtless emphasised the potential for jobs in new industries producing clean energy and research organisations supporting the latter. But then employment must actually follow.

Motivational activities can help students

■ VIJAY GARG

Student life is full of a lot of stress. The pressure of the curriculum and the pressure to perform can drain the strongest of minds. Motivation is the only thing that can keep a student focused and yet not drained. There are so many activities students can do to keep themselves motivated.

These activities are not academic in nature. However, indulging in these will definitely boost the ability to focus on studies.

Sleep: The first advice is to get enough sleep. It may seem ironical to many how sleep features on the top of the list. There are two advantages of sleep.

Our brain is designed to work at optimum level if it gets enough rest. Contrary to what we may think, the brain continues to operate functions of the body. The part of brain that deals with activities while we are awake, gets its rest. The ideal sleep for brain to function at optimum level is 8 hours 15 minutes. It means that when the brain gets this kind of sleep, it functions at the highest efficiency.

The other advantage is we can put the sub-conscious to work at this time. While we sleep, only conscious part of our brain gets rest.

That is the time, when the sub-conscious takes over. Before going to sleep, we can feed the conscious with goals we have set for ourselves. When we are resting, the sub-conscious will be working to give us ideas and plans to achieve these goals.

Exercise: The next important thing is to do enough physical exercise. Physical exercise makes sure that your body is in proper shape. Another advantage for the student is good blood flow.

While we exercise, we breathe more thus ensuring a good amount of oxygen into our bodies. The heart-rate goes up. This means oxygen intake is distributed at a faster rate to the body and more important the brain. Good flow of blood to the brain improves your thinking. Information gets processed faster and more efficiently.

Indulge in some exercise that appeals you. It may be a brisk one hour walk in morning, a game of football, tennis, badminton, squash or any other game, Yoga or even an hour at the gym. The choice is yours but do it on a regular basis. Do it to keep your brain fit.

Meet Friends: A student's schedule is usually a very busy one. But it certainly helps if some time is kept aside for meeting friends. Being with friends will bring joy to mind.

While we are with friends, we share our troubles and burdens with them. Good friends help to keep this burden in check. Good friends also provide solutions to burdens.

While we are with friends, we also share happy moments. Even 15 minutes spent with friends can do wonders to you.

Music: Music is a balm to brain. Listening to good music can soothe our tired bodies and minds. Devote at least one hour to listen to some good music. Avoid music that may make mind restless.

Soft music is the best. It may be instrumental music like the piano, flute or the Santoor. It may be light and soft-paced songs.

Some may like Indian Classical, others may like Western Classical. Again the choice of music depends on individual but the effect it has on the tired mind can be phenomenal.

Puzzles: Do take off some time for solving puzzles. It stimulates brain cells to perform better.

At the same time they are fun and do not add stress. No need to push yourself to solve puzzle.

Just indulge it to divert your mind and stimulate it. There are many puzzles available in market, ranging from jigsaw puzzles, Rubie's Cube to puzzle games available as mobile apps. If you have a good partner, you can also play games like chess.

Movies: Once in a while, watch a good motivational movie. A good comedy can also relax our brains. The idea is to relax and motivate. So don't watch just any movie.

The choice of movies to watch has to be carefully made. You may look up the internet to find a list of good motivational and comedy movie.

OFF 'D' CUFF

Shiva's three eyes

We are accustomed to see people with two eyes. So, anyone with an extra eye would attract attention and be termed a freak. However, Shiva, with his three eyes, is beautiful and unique.

The 'Vedasara Shiva Stotram', states that the three eyes of Shiva are the sun, moon, and fire - 'Indu Arka Vahni Trinetram'. It is not easy to digest. What does it imply? When we refer to the sun, moon and fire as the three eyes of Bhagwan, our focus is on the fact that they are all sources of light. He, the three-eyed one, is the illuminator of the whole world.

Even though light is the common factor, each has its own special feature and quality. Fire, with its ability to burn and reduce things to ashes, has twin qualities viz light and heat. The sun is bright and brilliant, but its light does not burn objects, it illumines them. Conversely, the moon's light has a cooling and peaceful quality.

Shiva views the world with his three eyes. When the distressed and sorrowful approach him, he looks at them through his moonlike pleasing and consoling eyes; when he grants knowledge, his eyes become bright.

Comprehension is associated with light; when we understand something, we say, 'I was in the dark; but now it is as clear as daylight.' Similarly, a student with a sharp intellect is a bright student and the teacher who passes on knowledge instantly and clearly, is a brilliant teacher!

Swami Tejomananda

YOUR COLUMN

Mitigate sufferings of 'Safaikaramcharis'

Dear Editor,

Through the columns of your newspaper I would like to highlight the effects of the ongoing strike of 'Safaikaramcharis'. The 'Safaikaramcharis' time and again have been projecting the demands that are very genuine and were required to be acceded by the Government without a second thought. But the lackadaisical approach of the concerned department to mitigate the sufferings of this class has exposed intentions at large that 'Swachhata Abhiyan' is not a serious concern at the appropriate level but is just a photo-show and fund consuming exercise. The garbage heaps that have accumulated in Udhampur are an open invitation to all sorts of diseases and especially during the present crisis of Corona period. The terminology given to this fraternity as of 'Corona Warrior' during period when their services were more required and washing the feet of this fra-

ternity by PM after 'Prayag Raj Kumbh' proved to be a commodity of use and throw. The whole sanitation system and responsibilities to keep cities neat and clean is dependent on this most deserving and valuable segment of the society but it is sorry to say that it is the most neglected and discarded by the concerned authorities. Previously too on many such occasions of strike by 'Safai Karamcharis' many lollipops have been doled out but nothing concrete on ground level has been done to mitigate the sufferings of this segment. The concerned authorities should come out from deep slumber to save the common man from falling victim to diseases because of poor sanitary conditions by acceding to genuine demands of this community.

Mahadeep Singh Jamwal, Udhampur.

Transition to solar vehicles

Dear Editor,

I would like to express my view about the cited subject through the medium of your esteemed daily newspaper for people, government and scientific community of India. During the last few decades there has been a dramatic change all around the world, resulting from major environmental changes. Smoke emitting

vehicles have played a major role in environmental degradation. The transportation contribute more than half of carbon mono-oxide and almost a quarter of hydrocarbons emitted into our air. Expouse to high levels of these pollutants can cause adverse health outcomes. Particulate matter is single-handedly responsible for more deaths each and every passing year. The transition of chemical emitting vehicles to environment-friendly solar vehicles can play a significant role in this regard. If used on large scale, solar powered vehicles can help reducing environment pollution. Solar energy is produced by sun's radiation, a process free of any smoke, gas or other chemicals by products. Across the world particularly in Europe, save Clean-Technology researchers are making enough developments in solar technology. India has some of the highest isolation in the world with eight to nine hours of sunshine per day, the ideal climatic conditions for solar power generation. Our Government and higher authority should consume these natural resources for conservation of the environment and development of our country. Last but not least new automobile industries based on solar technology should be built in India. It will not only help in the development of country but also protect our environment.

Mool Raj Doda.