

AVOID ACCIDENTS

There is a famous saying which has been cited on various occasions in J&K that the people who lost their lives in road mishaps is much more than those who got killed in terrorist activities. This is for sure due to people taking the traffic rules for granted as otherwise such colossal loss of precious lives on roads was not possible. Adherence to traffic rules was imperative to prevent accidents. The fatality rate has seen a surge due to modernization of roads especially in the wake of four-laning of the highways around the cities in the UT of J&K. The rising accident rate has become a matter of concern as people are losing lives due to over-speeding and taking the rules lightly. Over-speeding was found to be common in the recently four-laned highway stretches with many spots identified by commuters to be accident prone because the people are incited to accelerate their vehicles. Most of the accidents were caused by the failure of drivers to adhere to traffic rules. The issue can be well gauged by the fact that compliance to the helmet rule was very poor in UT of J&K despite the fact that it is the main cause of deaths on roads. The order for pillion riders to wear helmets in J&K is a distant dream because except cities no one adheres to these norms. It is for sure that if the commuters start adhering to traffic rules the number of fatal accidents can be avoided to a large extent but the ignorance over the issue is so much so that people prefer to die on roads but they show reluctance in following rules, while on wheels. If the percentage of people wearing helmets is calculated the value will be less than 20 percent except places where traffic cops are stationed on a daily basis. This is a small example but the scenario for other rules is also akin and needs to be rectified as soon as possible to save lives on roads. Traffic awareness campaigns in colleges and schools, besides, special orientation programmes for drivers of vans, cars and other public transport vehicles with the help of the Regional Transport Office can be of great help to avoid accidents.



OFF 'D' CUFF

Lessons from India's spiritual traditions

India has produced some of the greatest spiritual thought of mankind. The ancient spiritual thought was very scientific in nature and based on deep inquiry of truth. The Upanishads, Patanjali Yoga Sutras, Bhagwad Gita, etc., are part of that great tradition.

The ritualistic tradition of Hindu religion came later on when the spirit of inquiry degenerated. This degeneration of thought however provided an impetus for rejuvenation of India by creation of new thinking in the form of Buddhism, Jainism, Sikhism, etc. It was as if the old spiritual thought was washed and made clean by these new developments.

The degeneration of great thought took place when rulers started controlling people. Spiritual thought got converted into religion which allowed the rulers to control people and resources and the rituals and associated systems of the religion helped to increase this control.

Rituals help to create fear which makes it easy to control a person. For example the rituals like, you have to pray so many times; have to give so much prasad to the temple; wear this ring or the bracelet; give so much material to a pundit are all part of the mechanism to control the person. Fear is put in the minds of people that if you do not perform the rituals then major calamity will fall on you. Fear is a powerful mechanism to control people.

Throughout the history of mankind all "isms" are used to control population, whether it is religious or a system of governance. The authors of new thoughts did not control. It was their followers who used their ideas to create isms for control. They put fear either by physical or mental means. In the present scenario the fear of pandemic also came in very handy to a lot of dictators and rulers to control the population. This fear creation (either real or fake) by rulers throughout history helps them to divide and rule.

By nature a very powerful brain will always seek the truth. The ultimate truth is beyond caste, creed, color, country, etc. Old rishis who developed India's great spiritual thoughts were people endowed with very powerful brains who lived in a rich and beautiful country like India. Once their basic needs were satisfied their minds soared to understand the universal truths. Thus Patanjali, authors of Upanishads, Gita, etc. were seekers of truth.

The ancient Indian spiritual thought always encouraged spirit of enquiry. The guru helped the disciple by pointing and guiding him/her to the goal; the disciple then followed it based on his degree of application. There was no control exercised, just the

Why farmers continuing strike?

■ OMKAR DATTATRAY

The farmers have unashamedly decided to continue with their agitation even after the decision of the Prime Minister Narendra Modi of scrapping of the three controversial Farm laws. There is no point and locus stand in continuance of the agitation by the farmers. The fact of the matter is that the farmers' agitation has been hijacked by the politicians and it stands politicized as the politicians of the opposition parties are using the platform provided by the farmers for spreading their political agendas. Hence, it should be understood by the seasoned citizens of the country that the farmers' agitation has no longer remained a pure farmers' movement but it has political overtures. The farmers' leaders should have decided to wound up their stir as no less a person than the Prime Minister Narendra Modi himself had announced his decision to repeal the three controversial farm laws in the interest of the country. How sad and queer it is that earlier the farmers' leaders were asking and demanding the repeal of the three farm laws as they were considering these laws against the farmers' interests and welfare. The farmers' leaders were calling these laws as black laws while the fact was otherwise as the NDA Government considered these farm laws in the interest of the farming community. Now that the Prime Minister had announced the decision to repeal these laws the farmers should withdraw their agitation and return to their normal and routine work otherwise the people of the country will come to the conclusion that the farmers' agitation is politically motivated. The countrymen will not forgive the farmers for hijacking the nation ostensibly in the interest of the farm community. Since the politicians of various political parties are furthering their political agendas in the name of the farmers' agitation and the farmers' stir has not remained a pure farmers' movement but has become through and through a political agitation and this is the reason that the farmers are continuing their strike. Otherwise there is no rationale in the continuance of the agitation. It is the opportune time that the farmers should withdraw their one year long stir but thanks to the motives behind the agitation it is being continued. There are political motives to the agitation and as such the farmers were constrained to continue the stir even after the decision of the Prime Minister to scrap the farm laws. The Prime Minister has sincerely announced the

decision of the cabinet to scrap the farm laws and now it is the turn of the agitating farmers to return to their homes and farms as their demand for the cancellation of the three farm laws has been accepted by the government. The Prime Minister has also made it clear that the three farm laws will be tabled before the parliament for their repeal and in accordance with his word the farm laws in question have been placed before the parliament for repeal. The bill to repeal the three farm laws has been passed in the Lok Sabha and Raj Sabha without any debate and discussion and has been sent to president for his assent. However the opposition parties demanded the debate on the bill to repeal the farm laws but it was not accepted by the chair because the bill to repeal does not require the debate and discussion as the original bill for the farm laws was earlier passed without any debate. But unfortunately the repeal of the farm laws has created a pandemonium as now there is the demand to repeal the triple talaq law and the Citizenship amendment law and also the demand for the revival and restoration of the controversial article 370 of the constitution. The farmers and the opposition parties have been emboldened by the decision of the repeal of the three farm laws and now they are making demands for the scrapping of the triple talaq law and the CAA and the like. Unfortunately the farmers are also putting new and new demands and are thus continuing their strike. The farmers are not ashamed of their behavior and have made the impractical decision of continuing their strike. The farmers are now demanding the law on the guarantee of the minimum support price for the farm produce and also are demanding compensation to the next of kin of the farmers died during the one year long agitation. They are also demanding that the cases framed against the farmers should be cancelled and there should be subsidy on the electricity to the farmers. In fact the farmers are putting new and impractical demands and are thus lowering their prestige before the countrymen. It shows how shamelessly the farmers are putting new and ever new demands before the government which are impractical and un-pragmatic and it is eroding the credibility of the farm community. Not only the credibility of the farmers is eroded because the political overtures and overtures of the farmers have become crystal clear and the farmers have been exposed and in this lies the defeat of the farmers. Thus the

motives of the farmers are suspect and against this the sincerity of the Prime Minister is before the eyes of the countrymen and his stature in the eyes of the public has got a boost. Therefore if two boxes are kept one for the farmers and another for the Prime Minister and the people are asked to vote, the box of the Prime Minister will be full while the box of the farmers will remain empty and in this lies the sincerity and well intentions of the Prime Minister. In fact the farmers have exposed themselves and the people of the country will no longer take them as sincere in their agitation. The farmers' movement has been hijacked by the cunning politicians for furtherance of their political agendas and political interests and it is no longer the farmers' agitation. It is very unfortunate that Rakesh Tikait the farmers' leaders has declared that the farmers will teach BJP a lesson as the upcoming elections to the five states are round the corner and the BJP has to heavily pay for it in the elections. Therefore the ill intentions and the tricks of the farmers' leaders are before the public gaze and the public is the best judge to decide the right and wrong. The putting of the new and new demands to the government will boomerang and the farmers will not be able to dent the image of the BJP in the elections in 2022 in the five states. The hypocrisy of the farmers' leaders will be exposed and the countrymen will not forgive the farmers any longer. It would have been in the interest of the farmers to have called off their agitation but for their adamant attitude, they as such have been exposed as the farmers' leaders are politicizing the farmers' agitation as it has not remained a pure farmers' stir but is through and through a political movement in the guise of the farmers' agitation. It is very unfortunate that Rakesh Tikait has declared that many more sacrifices will be given by the farmers in the days to come and he is in no mood to cancel the agitation but has declared to continue the stir in the so-called interest of the farmers. He stands exposed before the public for his cunningness and exploitation of the farmers and misleading the farmers and the country for gaining some political points. In brief the shamelessness of the farmers' leaders has been exposed and they will have to pay a heavy price for their cunningness and exploitation of the farmers. The farmers' leaders should see the writing on the wall and call off their strike in the interest of innocent farmers and the nation.

Enhanced focus on coal transportation using Railways

The Government is endeavouring for a cleaner environment has placed great impetus to further develop rail transportation of coal. Fourteen Railway Projects are being undertaken towards increasing the efficiency and further enhancing the capacity of coal evacuation process which will help in reducing the time and cost incurred in the transportation of the coal. These projects will cover the distance of 2,680 Km approximately, which will be spread across the Indian states of Jharkhand, Odisha and Chhattisgarh. The total estimated cost for these projects is expected to be Rs 22,067 crore. Once these projects are commenced, they are expected to augment the coal evacuation capacity to the amounts of 410 MTPA. The transportation of the coal through railway will also provide better connectivity and reach. Transporting coal via road over longer distances poses some of the major pitfalls and is detrimental to the environment and dents the coal miners' pocket with increased cost of transportation. Presently, Coal India Limited (CIL) incurs about Rs. 3,400 crore on transportation charges of coal. Also, large volumes of coal are transported via road, which many times lead to accidents while passing through rural areas because of narrow and poorly maintained road structures. To avert these hindrances, the Government has projected to invest in alternative modes of transport, viz: rail, inland waterways, coastal shipping etc. These modes are aimed towards increasing the efficiency and effectiveness of the transportation of coal.

Coal is the mainstay of Indian energy sector catering to more than 50 per cent of the total energy generation capacity mix. Multiple industries that of power utilities, steel, cement and other end-use industries consume coal in bulk quantities throughout the country while coal production is mostly concentrated in a few states only. Creating transportation infrastructures and efficiently managing the logistics to transport coal from point of origin to consumption centres are major challenges for sustainable development of coal market. Important modes of transport of coal are Rail, Road and the Rail-cum-Sea route and captive modes such as, Merry-Go-Round (MGR) Systems, Conveyor Belts & Ropeways. At present, coal is being transported majorly through railways, followed by road transportation and MGRs. The Government of India is presented with a challenge to reduce the logistics cost from production centre to consumption centre and to counter these they are taking up various projects for First Mile Connectivity. This project will make the transportation of coal from point of production to the point of consumption a hassle-free process. The investment amount to be infused by Coal India for the First Mile Connectivity projects is estimated at Rs. 14,200 crores by FY 2023-24, in two phases for its 49 FMC projects. To further increase the transportation of coal, CIL has placed Rapid Loading System (RLS) in 19 mines of CIL.

CIL is constructing 21 additional railway sidings at an estimated investment of Rs 3,370 crore across four of its subsidiaries. These projects, which include both green field and brown field ones, will be commissioned by FY24. The sidings will add fillip to CIL's first-mile connectivity efforts, acting as effective coal evacuation outlets. The company is aiming to move about 555 MT of coal per year through mechanised means by FY24. The Ministry of Coal is aiming to develop the entire evacuation channel starting right from the mines by investing in development of SILOs, CHPs going up to the last channel and developing the railway sidings and constructing multiple railway lines to facilitate smooth movement of coal across the country.

To the soil, let's be loyal

■ DR PARVEEN KUMAR

To the Soil, Let us be loyal. Soil means 'Life'. Soil constitutes a critical component of the natural system and is a vital contributor to the human commonwealth through its contribution to food, water and energy security and as a mitigator of biodiversity loss and climate change. Soil is a living resource, home to more than 25 per cent of our planet's biodiversity. It is estimated that only 1 per cent of soil microorganism species are currently known compared to 80 per cent of plant species. Up to 90 per cent of living organisms live or spend part of their lifecycle in soils. Soil organisms can break down certain contaminants. Soil is the foundation of every terrestrial (land-based) food chain on Earth.

Soil Salinization: Soil salinization is a major process of land degradation that decreases soil fertility and is a significant component of desertification processes in the world's dry land. The World Bank states that soil salinization caused by inappropriate irrigation practices affects about 60 million ha or 24 per cent of all irrigated land worldwide. The accumulation of soluble salts in soil occurs when evaporation exceeds precipitation and salts are not leached but remain in the upper soil layers in low-lying areas. Natural soil salinization, referred to as 'primary salinization,' occurs in arid and semi-arid climatic zones.

'Secondary salinization' is the term used to describe soil salinized as a consequence of direct human activities. It is estimated that by 2050, around 50 per cent of the soil will be affected due to salinity without any fruitful mitigation techniques to overcome the situation. Salinity can affect the plant in different ways as:

(i) low water potential in root leads to water stress in crop plants, (ii) imbalance in Na+ and K+ homeostasis, (iii) nutrient imbalance (decreased uptake and distribution in upper parts of the plant), (iv) osmotic imbalance in plant cell and (v) regeneration of reactive oxygen species (ROS).

World Soil Day: Considering the importance

of Soil, the International Union of Soil Sciences in 2002 adopted a resolution proposing that December 5 be celebrated as the World Soil Day to recognize the importance of Soil as a critical component of the natural system and as a vital contribution to human well-being. As a consequence to the resolution of the IUSS, the Food and Agricultural Organization (FAO) of the United Nations in June 2013 at its 68th General Assembly unanimously declared Dec 5 to be celebrated as World Soil Day every year. The date of 5 December was chosen because it corresponds with the official birthday of the late H M King Bhumibol Adulyadej, King of Thailand, who was one of the main proponents of this initiative.

Theme of WSD 2021: Salinity is estimated to affect about one third of the earth's arable land. Soil salinization adversely affects crop metabolism and erosion usually follows. This year the theme of World Soil Day is 'Halt Soil Salinization, Boost Soil Productivity.'

Extent of Loss: Besides reducing net cultivable area, soil salinization hits hard the productivity and quality of agricultural produce, quality of water, the choice of cultivable crops, the biodiversity and ultimately the livelihood security of the people. For all important crops, average yields in salt stressed environments are only a fraction, somewhere between 20 and 50 per cent of record yields. Estimates suggest global economic losses due to soil salinization around US \$ 27.3 billion per year. Growing trend in the salt-affected soils in India is also becoming a threat to national food security and economic development. Soil salinization may occur through both natural and anthropogenic reasons. Out of 932.2 million ha salt-affected soils worldwide, the extent of human-induced salinization is 76.6 million ha. Arid and semi-arid regions, where evaporation rates are high and fresh waters are scanty to flush out the excess salts from soil, favor the formation of such soils.

Case of India: It is estimated that to feed

the burgeoning population, the country would require about 311 million tons of food grains (cereals and pulses) by 2030 and this requirement would further increase to 350 million tons by 2050 when India's population would be around 1.8 billion. The amount of land is limited and thus ensuring food security for all will definitely be a challenge. The food security has to be attained despite shrinking and fragmentation of lands, climatic adversities, land degradation and many other related factors. Restoration of degraded lands therefore provides an opportunity to cater to the food grains requirements of the ever-increasing population. In the country, nearly 147 million ha of land is subjected to soil degradation including 94 million ha from water erosion, 23 million ha from salinity/alkalinity/acidification, 14 million ha from waterlogging/flooding/

ing, 9 million ha from wind erosion and 7 million ha from a combination of factors due to different forces. The Government of India has also fixed a target of restoring 26 million ha of degraded lands, including salt-affected soils, by the year 2030 to ensure food security for the people. Estimates suggest that every year nearly 10 per cent additional area is getting salinized, and by 2050, around 50 per cent of the arable land would be salt-affected.

Anthropogenic Reasons: The anthropogenic reasons of soil salinization include change of land use from natural forest vegetation to annual food crops, decreases evapo-transpiration and increases leaching. Incorrect irrigation with use of brackish and saline irrigation water, poor drainage conditions, rising water tables, etc., also lead to secondary salinization of land and water resources. Over extraction of groundwater brings salts to soil surface where they get precipitated when water evaporates. Canal water seepage also leads to rise in water table and salinity development along the banks of canals. Over-use of agro-chemicals: Over-use of chemical fertilizers and soil amendments (lime and gypsum) may also

lead to soil salinization. Salt-affected soils in India are spread in four major agriculturally important ecological regions in 15 states across the country and Andaman & Nicobar Islands. These are semi-arid Indo-Gangetic alluvial tract of Punjab, Haryana, UP, Delhi, parts of Bihar and West Bengal; Arid and semi-arid tracts of Gujarat, Rajasthan, Madhya Pradesh, and Maharashtra; Peninsular regions of Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, and Orissa; Coastal-alluvial region of Andhra Pradesh, Orissa, Tamil Nadu, Kerala, Karnataka, Maharashtra, Gujarat, and Island of Andaman & Nicobar.

Restoring Saline Soils: The sub-surface drainage technology has been successfully adopted in Haryana, Rajasthan, Gujarat, Punjab, Andhra Pradesh, Maharashtra, Madhya Pradesh, and Karnataka. Restoring many ha waterlogged saline soils. The adoption of sub-surface drainage technology in saline soils resulted in 3-fold increase in farmers' income. Different chemical amendments (e.g., gypsum, calcium chloride, and phospho-gypsum) and acids or acid formers (e.g., elemental sulfur, sulphuric acid, sulfates of iron and aluminum, pyrites and lime sulfur) can be used for the reclamation of soils. Farmyard manure and other organic amendments are capable of alleviating problems associated with excessive salts or sodium without supplemental irrigation. Use of humic acids may prevent excess salinization, especially given excessive irrigation. Humic acids can fix both anions and cations and eliminate them from root zones. Phyto-remediation is another intervention for reclamation of such soils. It refers to the processes of removing excess salts from soil by growing different types of plants. Growing of salt-tolerant trees, shrubs, and grasses like Sesbania aculeata, Sorghum bicolor is a cost-effective and environmental-friendly way of restoring salt-affected soils. Planting species that can tolerate saline conditions also lower water tables and thus reduce the rate of capillary and evaporative enrichment of surface salts.

(The author is a Scientist at KVK-Leh.)

-Jawaharlal Nehru

EDITORIAL

-Jawaharlal Nehru

courses especially till secondary education and even after that are extremely outdated and need to be revised at all most all levels. It is based on things that are either condemned right now or are too primitive. They are not idea inspiring, research based and don't require critical thinking. No one talk about ideas related to green engineering or other needs of the hour technologies. Lack of policy making and implementation is a huge cause of it. We lack the quality teachers as well. There is no such criterion for the selection of them especially at lower levels of education. These days our education system is very miserable due to which students are not getting quality education. Majority of the universities don't

award admissions on the basis of board results alone. I can't help but wonder why board exams are necessary in their present state. The same syllabus needs to be restudied for the tests conduct by various institutes and universities charge a lot of money to teach them in that way which feels compulsory to study because we haven't been taught that way throughout the course of education. If you don't trust your examination system, why not improve it? Last but not least I request the authorities to kindly work for our education system as well as the examination system if we want to have a change in the world.

Mool Raj

YOUR COLUMN
Outdated education & examination system

Dear Editor,

Through the columns of your esteemed daily newspaper, I want to highlight that our education and examination system are extremely outdated and outpaced. Our education system is considered one of the most underdeveloped systems. Our