

PRESERVE TREES WHILE BUILDING HOUSES

Vigorous developments are taking place all around us these days. We see new building constructions everywhere. Are you aware that in every house construction at least one full grown tree is cut down? When building a new house, make sure to give some thoughts to the preservation of trees.

Trees provide oxygen and absorb carbon dioxide, which is good for the environment in uncountable ways. It could work as a cooling agent in our house which will help us save lots of money. Trees help in reducing ozone depletion as it absorbs pollutants from air and land. Its root keeps the soil in place which reduces landslides, prevents soil erosion and runoff. Assuming that these are enough reasons to convince you to save and preserve trees, I will move on to ways to save them when building a new house.

There are many ways for development and saving trees to go hand in hand. You may have to give some effort, time and money but it won't matter so much if you truly care for the environment, climate change and the future generation. We need to build a habit that is more mindful of nature.

Prefer building a house around full grown trees instead of cutting them off. Have you ever seen trees growing out in the middle of the house or a perforate made for trees in the balcony or roof? I used to live in a PG where a coconut tree grows in the middle of a balcony. The best thing about those kinds of houses is the shade it gets and the temperature during hot summer. The ancestors in that place also called the coconut tree as Kalpavriksha, which means it is considered holy as everything in the tree is utilized. So, that was another reason for them to preserve the tree. According to the advice given by Design Everest, trees are great for saving money in the long run. In the summer, trees located in the east and west can provide shade for your home, which lowers cooling costs. In the winter, trees become wind-breaks which can help you save on your heating bill. Trees in neighborhood consistently increase the sale prices of houses as well.

Here are some general guidelines which should be followed:

Healthy trees should be your top priority for preservation. Younger trees are much more resilient than older ones. They may also be transplanted without ill effects. If a large tree is located within five feet of a new structure, it will likely not survive. Save a variety of trees in a group, which will help ensure their survival and decrease the chances of disease and stress.

Determine what your local planning department's regulations are concerning trees and tree protection. This includes their list of protected trees, to what extent the tree must be protected, and guidelines to follow in your endeavour to protect the tree. In general, the less damage to the tree, the better. You must also consider trees in neighborhood when designing your project.

Plan the construction around trees very carefully. You must protect the roots around the trees you want to preserve, so no construction or storage of materials should happen in those areas. Putting fences with clear signs around these trees is the easiest way to ensure no harm will come to them. It will also help to make sure the workers understand that the trees are to be preserved, to lower the chance that they will accidentally damage the tree.

This process of transplanting or replacement of trees might cost you more and you will need an expert's advice to do this. But the effort given will be worth it as it will help the environment and also the future generation. Plus, you may spend some extra bucks now but in the long run, it will be saving you more than you know. In Bangalore City, trees on MG road were grafted carefully and transported to another place. Trees were carefully planted and grown. We could do this in our home as well.

The location for relocating trees should ideally be selected, keeping in mind the amount of space and sunlight meeting the tree's requirements. Also, your knowledge about the species plays a significant role for the tree to adapt in the new site. You can begin by moistening the soil around the tree thoroughly about three to four days before the move with the help of a hose or watering. Following which, the tree's roots have to be identified. It is important to keep in mind that you retain as much of the root system in place as possible. The digging has to be carried out carefully. The trench has to be approximately 1.5 to 2 feet deep. While digging the tree out, you need to leave the roots and the surrounding clump of soil intact, which together is known as 'root ball'.

Ideally, the width of the trench should be double the width of the root ball. Next, pull the tree out of the hole and shape the bottom of the root ball using the spade like a ball. If the need arises, you can cut some of the roots beneath. By tipping the tree and root ball to one side, tightly wrap the root ball with a piece of burlap that can cover the clump entirely. The burlap piece has to be secured to the tree trunk with a thick cord. The tree is now ready to be carried to the transplant spot and must be particularly lifted and carried by the root ball. Pay heed that the new trench is at least two to three times the size of the root ball, while the depth remains approximately an inch lesser than the root ball's length such that the burlap is visible even after placement of the tree in the trench. Next couple of weeks are crucial, and you will have to keep monitoring the tree closely at least for a month or so. Don't forget to water the tree every 10 to 14 days, in case it has not rained in the meantime.

OFF 'D' CUFF 4 types of actions

Yajna and the fruit of yajna, both are actions. What is the origin of action? Where is the unmanifested potentiality of action? The doer of an act is the mind. Before an action, a person thinks of it and the thought gets manifested as corresponding vibrations or sensations in his mind. Those mental vibrations are then transformed into actions in the external world. That is, after thinking about an act, when the hands and feet begin to move, then the action being done is called a kriya, an act. Vibration exists in the mind or sublime level and an act exists both in the crude and sublime levels, because all vibrations are not necessarily transformed into acts. Whenever there is an act, then the exis-

tence of a precedent thought is a certainty. That is why karma or yajna is called psycho-physical.

Human beings cannot exist even for a moment without performing an act. Salvation means the eternal emancipation from this very karma or yajna. Ordinarily, yajna is of four kinds: Bhuta Yajna, Nri Yajna, Pitr Yajna and Adhyatma Yajna. Of these four yajnas, the first three, namely bhuta, nri, and pitri yajnas, are psycho-physical, that is, both mental and physical, but adhyatma yajna is 100% internal. The origin of bhuta, nri and pitri yajna is in mental vibrations and they take shape in the physical world. The actual origin of karma, however, is in the mind.

Shri Shri Anandamurtiji

If faith in ourselves had been more extensively taught and practiced, I am sure a very large portion of the evils and miseries that we have would have vanished.

-Swami Vivekananda

EDITORIAL

Rabies: Dreadful but preventable disease

■ DR R K BHARDWAJ & DR ANTRIKSH JAWAL

World Rabies Day is observed on September 28 every year for awareness of people about rabies and to enhance prevention and control measures. The day is commemorated on death anniversary of Louis Pasteur, who first developed an effective Anti-rabies vaccine. It was first initiated by Global Alliance for Rabies (GARC) in collaboration with many international human and veterinary health organisations like the World Health Organisation (WHO) and the World Organisation for Animal Health (OIE) in 2007 as an international campaign. The theme of this year's World Rabies Day is 'Rabies: Facts, not Fear'. This year's theme is related with dissemination of correct information and facts regarding rabies and with a target to remove fear due to misinformation and myths amongst the communities. As people have hesitancy with regard to the acceptance of the vaccines in COVID-19 pandemic so there was delayed vaccine rollout in many countries. Similarly, avoidance of prophylactic vaccination of pet and post bite vaccination by humans due to prevalent myths and traditional treatments is a big challenge and hindrance to control rabies. Rabies is one of the neglected tropical disease that afflict people of more than 150 nations and territories worldwide, especially those living in poverty with low- and middle-income nations in the tropics and subtropics, and impose a major economic burden on these countries, according to the World Health Organization (WHO). Rabies is an acute and highly fatal viral encephalomyelitis which affects all warm blooded animals. It is caused by a number of viruses, but the Rabies Lyssavirus is the most significant in terms of public health, since it causes nearly all human and dog rabies infections. The rabies virus is endemic in dogs, wolves, foxes, jackals, mongooses, monkeys etc in India. Spread of infection is caused by bite of an infected animal. Rabies is a vaccine-preventable viral disease, where dogs are responsible for the great majority of human rabies deaths, accounting for up to 99 per cent of all human rabies transmissions. Dog bites account for more than 95 per cent of incidents, owing to the country's estimated 60 million stray/free-ranging canines.

Every year, more than 59,000 people die as a result of a dog bite due to a lack of understanding about the importance of seeking medical attention. The majority (35,712) of these deaths occur in Asia. India is endemic for rabies, accounting for 59.9 percent and 35 percent of Asia and global mortality, respectively. The true burden of rabies is unknown in India, but according to current data from World Health Organization, rabies kills 20,565 people every year. In India, 30-60 percent of reported rabies infections and deaths occur in youngsters under the age of 15 years as a result of bites. But statistics of 2018 is different as Centre Bureau of Health Intelligence (CBHI) reported only 116 deaths due to rabies in India. There is huge gap between estimated and actual reported cases of human rabies. There is need to have a strong surveillance system to report exact data on human rabies which will help to develop strategies as per regional condition to achieve the WHO goal of Zero deaths due to Human Rabies by 2030.

To overcome the under reporting of human rabies cases, Department of Health and Family Welfare, Ministry of Health and Family Welfare, Government of India declared rabies as a notified disease vide DO No.2283429/NRCP/DZDO-NCDS/DGHS, dated 20-09-2021 under Clinical establishment registration and regulation act 2010 or respective state public health act or nursing home act. It has become mandatory for all Government and private health facilities to report all suspected,

probable and confirmed human rabies cases as per guidelines given by National Rabies Control Programme.

Reporting of rabies and notification are also of value for rapid identification of foci and the implementation of control measures. Since, rabies is highly infectious and fatal disease and affect domestic, wild animals and of public health significance. Notification will help in contact tracing and immediate prophylactic measures to prevent infection in other people exposed to same source. It will also help in prompt identification of emerging rabies foci in animals and measures to curtail the spread of rabies to other animals and humans. The annual number of dog bites is estimated to be at 17.4 million with stray dogs' population of 35-40 millions in India. In 2018, India's pet dog population was estimated to be at 19.5 million which is expected to exceed 31 million by the end of 2023. Most of these dogs fall into category of unrestricted-partially dependent type and free ranging type. Dog bites account for 91.5 percent of all animal bites in India, with 60 percent of strays and 40 percent of pets. Animal bites occur at a rate of 17.4 per 1000 persons. Every 2 seconds, someone is bitten, and every 30 minutes, someone dies from rabies. The yearly number of person-days lost due to animal bites is 38 million, with a cost of \$25 million for post-bite care.

Rabies fatalities in humans are entirely avoidable with proper vaccination and timely medical intervention. In cases of bite of a stray or unvaccinated carnivore or insectivore animal, the wound must be cleaned immediately with a lot of running water and soap solution, as it prevents the establishment of infection. Forty to Fifty per cent alcohol or iodine solution can also be applied on the wound if available. This should be done at early stages with an immediate focus to avail a primary medical treatment at a hospital. As part of India's 12th five-year plan (2012-2017), the Ministry of Health and Family Welfare announced financing for a National Rabies Control Programme in 2014. The National Centre for Disease Control in New Delhi and the Animal Welfare Board of India were working together to reduce human rabies mortality by half by the end of 2017. However, little information on the program's accomplishments is accessible in public domains. The battle to control rabies by brutally killing the stray dogs has not yielded results. Mass vaccination is the only effective solution and vaccinating 70 percent of a dog population in endemic areas creates a barrier of healthy immune dogs which prevent the disease from spreading. According to World organization on Animal Health (OIE), the cost of vaccinating dogs remain minimal compared to the actual cost of emergency post-exposure treatments for the people who have been bitten and only 10 percent of the cost of these treatments would be sufficient to considerably reduce or even eliminate canine rabies. Control of rabies in stray dogs by Animal birth control programme and oral vaccination can be effective procedures to control rabies. Control of rabies in wild animals is also of great importance which can only be feasible by oral anti-rabies bait vaccines. So, let us take oath on this day to vaccinate our pets on regular basis and adopt stray dogs while vaccinating them against Rabies and controlling their population in addition to educating the people about facts regarding rabies, only then only we can control this disease. Notification of rabies is also important to prevent its spread. Holding local or national events is a great way to share the message of rabies prevention, whatever the size of the audience. Every time someone is educated about rabies there is the possibility of saving a life.

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India marches on to deliver-PM Modi's vision of 'Universal & Affordable Health for All'

■ MANSUKH MANDAVIYA

Last week, India achieved two major milestones under World's Largest Vaccination Drive-by administering 2.5 crore COVID-19 vaccine doses in a single day on 17th September, the highest in a day, globally, and by crossing cumulative coverage of more than 80 crore doses. India surpassed these seemingly insurmountable benchmarks to become the country with the highest number of people in the world with the first dose of COVID-19 vaccination. These landmarks could be achieved due to the tireless efforts of our frontline health workers, teams of committed officials across States/UTs and MoHFW, the private sector, and the partner organizations, under the visionary leadership of our Prime Minister Narendra Modi, who had right from the start of the COVID-19 outbreak pressed upon with great urgency to protect every Indian from the perils of this pandemic by scaling the vaccination program. In line with the conviction that a healthy nation leads to an increase in the country's productivity, creating a cascading effect to lead to better overall socio-economic outcomes, the Union Government has allocated Rs. 2.23 lakh crore for health in the budget for 2021-22, a significant 137 per cent increase over the previous year's budget. This reaffirms Modi Government's commitment to deliver quality healthcare to every Indian and to bring about a transformation in India's public healthcare sector. Ever since 2014, we have made the health of our people the topmost priority of the government. Accordingly, we initiated the ambitious Mission Indradhanush, launched in Dec 2014, resulting in more than 90 per cent immunization coverage in India. This Mission was further intensified in 2019-20, to reach vulnerable and high-risk groups, despite the challenges posed by the COVID-19 pandemic, and to leave no one behind. We are proud that since its launch, 3.86 crore children and nearly 97 lakh pregnant women have been vaccinated under Mission Indradhanush. We announced National Health Policy (NHP) as an expression of a broad overarching reform agenda in 2017, with the commitment of universal health coverage. Constantly guided by PM Modi's vision for providing affordable healthcare to the disadvantaged, the Ayushman Bharat program was rolled out with two components - Health and Wellness Centres (AB-HWCs) which aims to deliver health and wellbeing through comprehensive preventive, promotive, curative, rehabilitative, and palliative primary healthcare services that are universal and free to communities in rural and urban areas. The changes in demography and disease burdens have led to designing new programs such as Eat Right India & Fit India, with a focus on AYUSH including promoting Yoga. It is a matter of great pride that more than 77,000 AB-HWCs are functional in the country, and we are on track to achieve the target for operationalizing 150,000 AB-HWCs by December 2022. The second pillar of Ayushman Bharat, i.e. the Pradhan Mantri Jan Arogya Yojana (PM-JAY), was also launched in 2018, to provide affordable quality healthcare to 50 crore Indian citizens including 10 crore underprivileged families with insurance cover of Rs 5 lakhs per family per year; for providing social protection against catastrophic health expenditure on account of hospitalization. PM-JAY is one of the largest health insurance schemes in the world. Till date, over 16 crore Ayushman cards, 2 crore hospital admissions, and treatment worth Rs 26,000 crore has been provided under PM-JAY to the underprivileged.

We firmly believe that healthy mothers and children are the bedrock of any society. In the last five years, because of accelerated implementation

of various programs and benefits targeted towards women and children, including Pradhan Mantri Suraksha Yojana, Surakshit Matritva Aashwasan (SUMAN), Laqshya, Mission Parivar Vikas, India's maternal and child mortality rates have continued to decline at a much faster pace than the rates of decline globally. The Maternal Mortality Ratio has declined from 167 in 2011-13 to 113 in 2016-18 (as per the Sample Registration Survey) and the Under 5 Mortality Rate has declined from 52 in 2012 to 36 in 2018. With these efforts, we have put our country to achieve the SDGs of maternal and child health, well ahead of the SDG timeline. Delivering universal health care requires a well-equipped health workforce in sufficient numbers and equipped with the skills and competencies needed to provide high-quality, people-centered health care. The move to replace the Medical Council of India (MCI) with the National Medical Commission (NMC) will create a viable and sustainable medical education system in India. The newly constituted body is envisioned to ramp up the capacity of existing teaching and training institutes significantly. Further, The National Commission for Allied and Healthcare Professions Act, 2020 which was passed by the Parliament recently will provide for a much-needed regulation and maintenance of standards of education and services by allied and healthcare professionals. Many other bills such as the Dental Commission Bill; the Nursing and Midwifery Commission Bill when approved will further transform the healthcare sector in India. Several reforms have been undertaken in the direction of increasing the annual intake in medical education institutions. Between 2014 and 2020, there has been a 48 per cent increase in the number of medical colleges in the country. The number of MBBS seats has increased by 57 per cent, and the number of medical PG seats has also significantly increased by nearly 80 per cent. Under Pradhan Mantri Swasthya Suraksha Yojana, we are setting up 16 new All India Institutes of Medical Sciences (AIIMS) and supporting states in upgrading the existing government medical colleges to include dedicated Trauma Centers and Super Specialty Blocks. We have also undertaken reforms and measures such as Diplomatic National Board (DNB) courses and the District Residency Program to further improve the availability of doctors. We aspire to leverage India's prowess in information and technology to bring digital transformation through the use of cutting-edge technologies such as artificial intelligence, machine learning, and online tools such as e-Sanjeevani for teleconsultations, which have been scaled up and has delivered more than 1.2 crore tele-consultations. The recent example of Co-WIN, wherein we have been able to provide digital and verifiable QR-coded vaccination certificates to more than 2.50 crore people on a single day, gives me the confidence to deliver the Prime Minister's vision of a healthy India. Today, under the leadership of PM Modi, India maintains the lowest positivity and mortality rate and the highest COVID recovery rates in the world. We followed the motto of Sabka Prayag-combined efforts of the governments, scientists, healthcare workers, and people of India through a 'Whole of Government' and 'Whole of Society' approach for COVID management. It is his vision that a Samruddh Bharat is delivered through a Swastha Bharat, and we remain committed to delivering the promise made by the Prime Minister to provide quality and affordable healthcare to 1.3 billion people of this country.

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to many different reasons.

One of the frequent reasons is the curiosity to see what happens. The peer pressure makes you do things just to see how they work, and before you know you are hooked up. The effects of drugs on the body and mind like the sudden boost of energy or the relaxed calmness is also why drugs are popular. Drugs are known to disguise realities and this helps them cope up with certain situations. Of course, this is just a way of running away from one's self but people who are prone to drugs would never understand that. At last, there comes a stage when a person who takes drugs becomes dependent on them and has to keep on taking them due to avoid the pain of withdrawal symptoms. The effects of drugs can vary in numerous situations as well. First and foremost being the mental well-being. A person, to cope up with situations tries drugs and due to the addicting effects doesn't recognize reality. Drugs completely change the way they think and behave. This, in turn, affects whatever relationships they have in their life and the impact is mostly always negative. So stay away from drugs.

Romi Mahejan,
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Redistribution, but not at cost of growth

■ AMITABH KANT

In the years since Independence, redistribution of wealth took priority over economic growth in India. However, the redistribution policies failed to make a serious dent in poverty levels, and kept economic growth subdued. While the liberalization efforts of the early 90s led to an explosion in wealth creation and a substantial reduction in poverty, the reform agenda lost steam in the coming decades. Building on the impressive growth brought on as a result of reforms and increases in infrastructure spending, large scale redistributive policies were launched in India in the late-2000s. However, as the economy slowed down in aftermath of the Global Financial Crisis, the scale Government spending became unsustainable.

This is not to say redistribution should not be pursued. However, the means through which redistribution is undertaken is crucial. Cash transfers, progressive taxation and investments in human capital are the key instruments through which redistribution is undertaken, according to an IMF paper. There are of course, limits through which the first and second instruments can be utilised. For instance, take the early 1970s, where the highest personal income tax bracket was in excess of 95 per cent. In a progressive taxation system, efforts must be made to increase government revenues through a widening tax base, and not through increasing marginal tax rates. Similarly, cash transfers, while important, must be accompanied by efforts to increase access to government benefits & services. Investment in human capital must also be regularly monitored and evaluated, not in terms of inputs alone, but also in outputs and outcomes.

Large scale redistribution programmes come with a fiscal cost. Government revenues can either come from tax revenues or non-tax revenues. Tax revenues form a lion's share of revenues in India. Tax revenues, in turn are crucially linked to the overall health of the economy. The logic is simple, as people earn more, more taxes are collected. Important also is the tax collection mechanism, which should encourage voluntary compliance. Deficit financing is employed when government expenditures are greater than revenues. This means that the government is borrowing money from markets to fund their expenditures. This is what has been termed as the fiscal deficit.

Now that we have established that the state of the economy is crucial in determining tax collections, we can infer that to increase tax collections, boosting the economy, i.e., increasing the size of the economic pie is crucial. Consider the case of the Nordic Countries. These have been consistently cited as the best places to live. Yet, their economies are amongst the most dynamic as well. These countries have consistently ranked high on the Economic Freedom Index, which measures the degree of economic freedom in a nation. New Zealand, which has been ranked at the top, both in the Economic Freedom and Ease of Doing Business Indices, has been lauded for its strong social security nets. Therefore, key to running sustainable and transformative redistribution policies is a robust & dynamic economy.

Crucial structural reforms, governance reforms and regulatory reforms have been undertaken by the current government to formalise Indian economy and unlock long standing inefficiencies. A new tax regime has been rolled out, both in direct and indirect taxes. The new system promotes voluntary compliance and trust, compared to the adversarial regime that had built up in India's taxation system. Faceless assessment and appeals, reduction in corporate & personal income tax rates, a resolution mechanism for pending disputes, GST with input tax credit are testament to the fact that a rules based, voluntary compliance system of taxation is being ushered in.

In India, we have seen all three instruments of redistribution policies at play now and in the past as well. However, access remained a key hurdle. The money being spent by the government was not reaching its intended beneficiaries. I remember in my early days as an officer, where the then Prime Minister said that for every Rupee spent by the government, 85p was leaked. There has been a paradigm change since then, primarily over the past few years. A key differentiator over the past few years has been a focus on service delivery, accountability and transparency, enabled through technology. Addressing issues of access are of immense importance in combating inequality. Access to healthcare, sanitation, drinking water, electricity, cooking gas, internet, houses and finance are just some areas in which giant leaps have been taken. The record speaks for itself. By addressing issues of access, a huge impediment towards greater wealth and income equality has been overcome. This has been achieved without any substantial increase in marginal taxation. Large scale cash transfers are also taking place, through the PM-KISAN scheme and through direct benefit transfers (DBTs). Human capital has also been receiving due attention. The world's largest health insurance scheme is run in India. The focus has shifted towards measuring quality of education, achieved access to education. A new National Education Policy has been launched, the first in over three decades.

Much has been done in India to battle inequality over the past years, with the emphasis being on improving access to government benefits and services. This has been achieved not through any substantially larger increase in expenditure alone, but through a combination of many factors. First, budgetary were increased. However, this was accompanied by governance reforms that promoted accountability and transparency. Technology played a crucial role as an enabler of robust monitoring and evaluation systems. The result was efficient delivery of services to the bottom of the pyramid. At the same time, efforts have been