Vana Premi Wishes a Very Happy, Prosperous and Healthy Christmas.

VANA PREMI

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Vol. 20 DECEMBER - 2019 No. 12

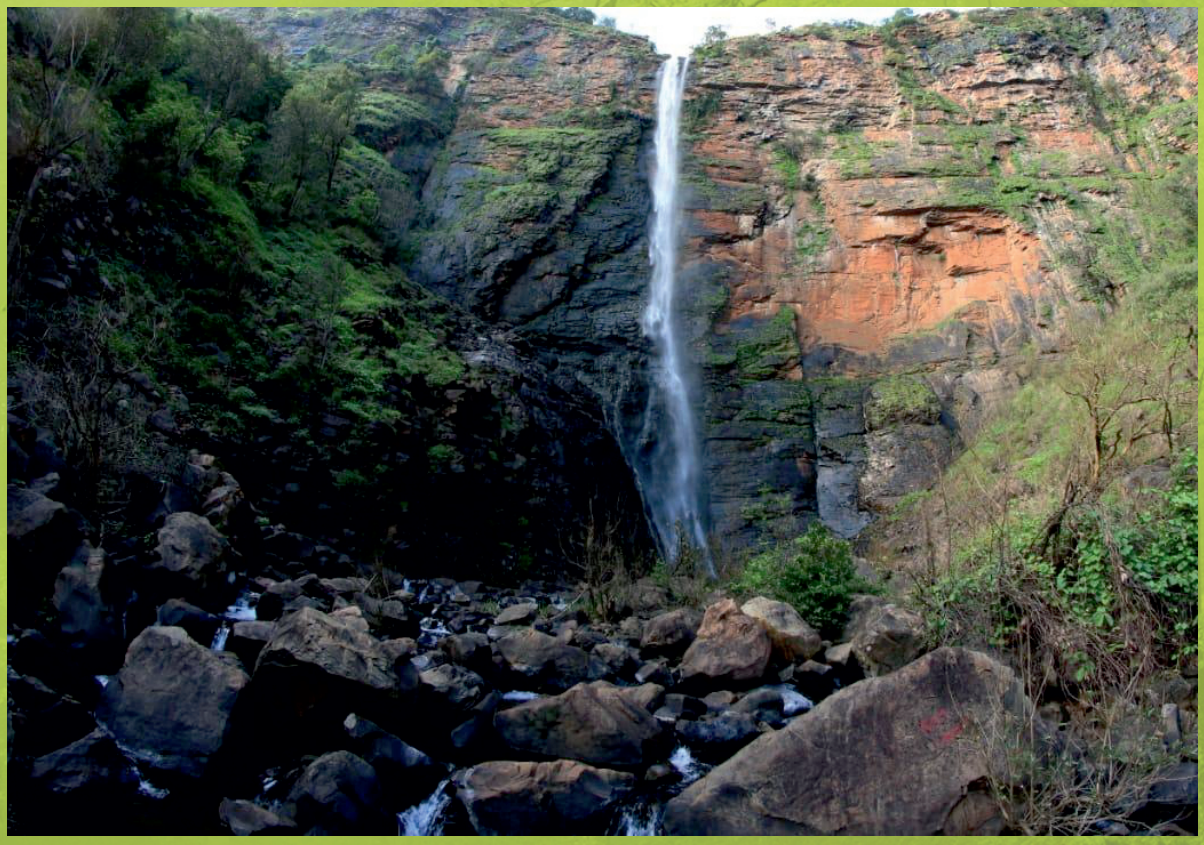

Photo by Sri Mohd. Sajeed

Muthyamdhara or Gaddalasari Water fall in Mulugu District of Telangana State.

JOURNAL OF THE ASSOCIATION OF RETIRED FOREST OFFICERS, TELANGANA & ANDHRA PRADESH
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TELANGANA STATE FOREST DEVELOPMENT CORPORATION LTD.

- A fully owned, financially well managed State Government Company. Raising massive plantations to cater to the needs of the wood based industries.
- Watershed approach adopted for raising plantations, to make them ecologically sustainable, socially acceptable and commercially viable, with the long term goal to improve the site quality of plantation areas.
- Large grower of about 25,166.11 Ha of Eucalyptus clonal plantations. Bamboo also grown as an important crop over 8,065.94 Ha.

- The TSFDC has also taken up the challenging task of Eco-Tourism development in the State. Already open to public – Hyderabad Botanical Garden, Pala Pitta Cycling Park near Hi-Tech City, Madhapur, Mahavir Nischal Van Eco-Tourism Centre, Vanasthalipuram, JLTC Shamirpet Deer Park and Mrugavani National Park at Chilkur attracting increasing number of visitors.
- Two Eco-Tourism Projects in the back water of Nagarjunasagar and near Kawal Tiger Reserve are in the pipe line.
- TSFDC is also developing Urban Parks in Lalgadi Malakpet RF Block, Thumukunta & Shamirpet RF Cluster and Gowdelli RF, PC Kalan & PC Khurd Cluster

Vice Chairman & Managing Director
T.S. Forest Development Corporation Ltd.,
3rd Floor, UNI Building, A.C. Guards, Hyderabad - 500004.
Telephone Nos. 040-23395750/23392652 Fax: 040-23326420
Email: vcmd.tsfdcl@gmail.com, www.tsfdc.telangana.gov.in

VANA PREMI

Vol : 20 December - 2019 No. 12

Editor : Qamar Mohd. Khan Associate Editor : D. Nagabhushanam, I.F.S. (Retd.)

Contents

Date of Publication: 26-11-2019 */Total Pages 64*

EDITOTIAL

World Energy Conservation Day; World Energy Conservation Day is celebrated on every 14th December globally since 1991, to highlight the importance of energy consumption and its use in our day-to-day life, its scarcity and its impact on sustainability of global eco systems. It is celebrated to sensitize people about the importance of energy as well as conserving or saving the more energy by lesser wastage. In order to make energy conservation plan more effective, every person should include energy conservation in their daily life to protect this planet. Fossil fuels, Crude oil, Coal, natural gas and other fuels, generate energy for the use in daily life but increasing the demands of it, day by day creates the fear of reducing or diminishing the natural resources. The only way in replacing the non-renewable resources of energy with the renewable energy is energy conservation. Non-renewable energy comes from sources that will run out or will not be replenished in our lifetimes—or even in many, many lifetimes. Some of the non-renewable energy sources are fossil fuels, coal, petroleum, and natural gas and example of renewable energy sources are solar, and wind energy. The actual meaning of energy conservation is to avoid unnecessary use of energy and to use, least and minimum energy so that energy sources can be saved for future uses. If we don't use energy judiciously, carefully and, waste it today, this today's energy wastage will be tomorrow's energy shortage in near future. Excess energy consumption, wastage of resources, hiking power bills are a year-round issue and so, it is necessary to bring awareness and promote the conservation of energy. It is very crucial and essential for everybody living on this planet to conserve energy for the sustainability of natural resources.

Energy affects all facets of activities related to modern life. Per capita energy consumption is often considered as an important indicator of development, but it is to be used within the limits. Conventional sources of commercial energy comprising of petroleum products, coal, and nuclear energy are available only in limited quantities. Oil reserves is expected to last around 45 years, gas around 65 years, coal around 200 years. Hence, we have to use these reserves very carefully. Some people may say that after petroleum products we can use electric vehicles. But they should understand that batteries need energy to recharge after certain distance is covered.

A total of 1.6 billion people in the world lack access to electricity and this shows that we can survive even without electricity. Energy conservation can significantly reduce the need for fresh investment in energy supply systems in coming years. Energy conservation is an objective to which all the citizen in the country can

contribute. Whether a household or a factory, a small shop or a large commercial building, a farmer or an office worker, every user and producer of energy can and must make this effort for his own benefit, as well as that of the nation. He can also reduce pollution.

The Energy Conservation Act 2001, was passed by the Indian Parliament in September 2001.This Act requires large energy consumers to adhere to energy consumption norms and appliances to meet energy performance standards and to display energy consumption labels. Energy consumption labels are labels that provide information about an appliance's energy consumption. The Energy Conservation Act in India is enforced by the Bureau of Energy Efficiency (BEE). The Bureau of Energy Efficiency is a constitutional body which comes under Government of India and helps in the development of policies and strategies in order to reduce the energy use. The star rating is a measure of energy efficiency of an appliance, it is a five points scale where higher the rating lower is the energy consumption and hence better savings. The Act empowers the Central Government and, in some instances, State Governments to specify energy consumption standards for notified equipment and appliances. Prohibit manufacture, sale, purchase and import of appliances which are not conforming to energy consumption standards. Energy-efficient appliances not only help the greater cause of going green for the planet, but also reduce those exorbitant electricity bills.

Another organization known as Petroleum Conservation Research Association was established by the Indian government in our country in the year 1977 to promote energy efficiency and conservation in every walk of life. Petroleum Conservation Research Association aims at making oil conservation a national movement. As part of its mandate, Petroleum Conservation Research Association is entrusted with the task of creating awareness amongst the masses about the importance, methods and benefits of conserving petroleum products & emission reduction. Over the years, Petroleum Conservation Research Association has developed a number of films, TV spots and radio jingles in various languages for promoting oil conservation. Petroleum Conservation Research Association also publishes quarterly a journal and a newsletter. This is a big step taken by the government of India for energy conservation to a great level. We should also use petroleum products very carefully, judiciously and save it to the maximum to use this product for a longer time, to save money on products of petroleum bills and to reduce the pollution in our country.

Odisha State Energy Conservation Award 2018 was given to Kalinga Institute of Social Science (KISS)in Bhubaneshwar, for best educational institution for energy conservation by the Odisha government. Kalinga Institute

of Social Sciences (KISS), the largest tribal institute of the world, provides food, accommodation, health care and all the basic necessities of life absolutely free to 30,000 poorest of the poor tribal children to pursue their studies here from KG to PG by Dr. Achyuta Samanta founder, had always nurtured vision of a world free from hunger, poverty, illiteracy and ignorance because he himself had to go through all these stages in his childhood. Untimely demise of his father in a train accident, when he was only four years old plunged the whole family comprising 7 siblings and widow mother into the mire of abject poverty and deprivation. On 15th November of this year in Koun Banega Crorepati programme, Dr Achyuta Samanta was invited by Sony T.V. to play a game Koun Banega Crorepati, and he played the game with famous film actor Amitabh Bachan under Karamaveer programme. The aim of KISS is to break the vicious cycle of poverty and social isolation and to restore hope for a better future. KISS believe that every person has the right to access resources and opportunities in order to live and develop with dignity and to become an active and contributing member of our society.

If we put a single Bacterium in a glass, if that Bacterium doubles every 24 hours and half of the glass is full in 30 days, in how many days the glass will be full of Bacteria? Yes, you are right only 24 hours are required, only one day is required. There is no time left for us. This is the present condition of our planet. We are already late and immediately we have to take action to save our mother earth to continue the life of all living organisms on this planet. Mother Earth is crying because her planet is dying. We're not just killing our planet but we're killing ourselves and all of humanity. Show that we care for our planet, the earth is our home, we need to care for it more then and only then will mother earth not cry anymore. We are producing energy by burning the Coal mined from our mother earth, we are pumping water and oil (Petroleum products) from our mother earth. We are polluting the mother earth by unnecessary wasting energy and thereby fuels used for producing of energy. Readers know the present polluted condition of Delhi's environment. We are throwing plastic in oceans, rivers, tanks and everywhere. The real impact of plastic litter is felt on wildlife both in the marine environment and in rural areas and on cattle. Plastic bags, once ingested, cannot be digested or passed by an animal so it stays in the gut. Plastic in an animal's gut can prevent food digestion and can lead to a very slow and painful death. This has to be stopped.

Vana Premi wishes that all citizens of our country understand the importance of conservation of energy and different fuels to produce energy and take active part in its conservation not only to cut monthly bills, but also to preserve the resources for longer use, reduce pollution, and save our environment. **QMK**

LETTERS TO THE EDITOR

Sir,

I introduce myself as the grandson of Mr. K.B.R. Reddy, living in Michigan State of USA. My sister and I address him as Tiger Taata, as we were told that he raised a tiger and had an encounter with a leopard during early part of his career.

The tiger cub was given away to the zoo and the leopard was killed by his Boss. Impressed by his article-Tiger vs. Lion- published in Vana Premi of Oct 2019, I am writing this letter to you to elaborate on the article.

I found it quite interesting the use of the Telegu words, “Pedda” and “Chiruta” to describe the two distinct mega-fauna feline species of the jungle, the Tiger and the Panther respectively. Of course, the Panther is much more agile, though smaller, able to climb trees with ease compared to the larger Tiger typically does not. However, in some quick online-research, I discovered a Siberian Tiger (a variety of the Panthera tigris tigris subspecies) coaxed into climbing a tree to catch a chicken at the Hengdaohezi Siberian Tiger Park in the North eastern Chinese Province of Heilongjiang. Here is the link: https://youtu.be/4e-XmkqartQ

The Lion has many symbolic presentations in the Western world as well; here in Michigan, our American Football team is the Detroit Lions. In addition, the Tiger plays a significant role in representing our wonderful state, as our representative baseball team is known as the Detroit Tigers. Michigan seems to have much respect for these Kings of the Jungle.

I had not realized that Lions inhabit merely one area of India, in the Gir Forests of Gujarat. I wonder if the supposed relocation of Lion-populations to the Forests of Madhya Pradesh was able to sustain themselves and what ecological implications arose from the translocation of this species. Here in The States, I do believe that the re-introduction of extinct species to a region is discouraged, to maintain a natural evolution of ecological succession, even if the initial result was caused by detrimental, human-influenced factors. Similarly, the re-introduction of wolves has been discouraged here in Michigan, even though the populations had been completely eradicated by 1935 in the Lower Peninsula of Michigan by human-led initiatives.

After reading the conclusion part of the article determining the true king of the forest, whether it is the Lion or the Tiger, I have concluded that my grandpa is _ truly the King of the Forest, protecting and forever serving the land which cannot protect itself. Though, if humanity were to revert away from industrialization and discontinue its expansive growth, invading into natural environments, the Forest would resurrect and take over the Earth once again.

As Valmik Thapar, the Indian Wildlife Expert, said, the Tiger is the king of the jungle. After all, my grandpa“Tiger Taata” is no less.

I look forward to reading this month’s issue of Vana Premi (November 2019).

Vidhay K. Reddy, Kalamazoo MI USA

PAROTHI

By
Ramesh Kalaghatgi.

(Continued from last month)

Chapter 8:

Rajarao calls for a meeting of Shankaragudem and nearby villages over whom he has developed control and influence of late to try and convince them about the advantages of mining on large scale and consequent economic benefits.

Everybody in the tribe including Shivaih and Parothi attend the meeting. Rajarao feels happy and begins his speech.

'I have a duty towards you as an advanced man of the tribe. Now there comes a life-time opportunity for us. I advise you to grab it and utilize it to make your lives fuller and richer. You can live in posh houses and send your children abroad for higher education'.

He pauses for the reaction of the tribe.

Shivayya and Parothi are apprehensive about quarrying. They are scared that the blasts of mines may silence the Damaru of Shankara.

Rajarao answers in a pretended friendly tone.

'The whole tribe will be involved in the activity. We manage the project. If this project comes into being you will not find a single unemployed in our tribe. Men and women all get jobs with decent salaries. All these years my main worry has been about the future of tribal youth. My worry is over. This project is coming up for their sake. If you fight and protest, you get brickbats. If you cooperate, you can get jobs with good salaries. You can live a decent life like the men of planes.'

Parothi asks, 'How can we believe the company and activity that have potential to destroy the landscape and the abode of Shankara? How can one be so sure of employment?'

Rajarao answers somewhat in a mocking tone.

'Sister, don't doubt the company. The company has also filled your path with roses. Your sons went abroad because I made company sponsor them. Your sons will be earning such lucrative salaries because the company. Don't you like other tribal educated boys prosper like your sons'?

Parothi is taken a back. She was ignorant of this reality. She gets offended. She doesn't hide her anger.

'I am the last person in the world to be a block on our tribal boys' way to progress and prosperity'.

Shivaih remains a silent and mute spectator.

Some of the tribals especially the youth glance at Shivaih and Parothi suspiciously. Rajarao feels a malicious joy because he has succeeded in isolating them, from the tribal youth.

On being asked by the tribal youth about the project Rajarao says;

'The project is a harmless mining. We mine minerals from hills other than the Shankarakonda and export them. Only a few acres of the forest around the hill will be denuded. We can afforest it soon. With the income we get from the project, we can renovate Lord Shankara's temple that is in dilapidation. We can do many things. We can change the face of Shankaragudem. Won't you be proud when our place and our tribe become known in far off countries?'

Shivaih leaves the place dejected and helpless. The elders look at Parothi. The young tribals crowd around Rajarao. Rajarao takes them away. Finally, a few elderly people and Parothi are left. The elders have sensed the mood of the young. They sigh in disgust and plod away. Parothi alone sits there feeling as though Koneru was sleeping on her lap. Tears roll down her cheeks.

Chapter 9: Mining is done with heavy machines. Many among the village youth find employment. Some as drivers of vehicles, some as supervisors and many as casual labourers. For a community, that leads a homogenous life and shared whatever resources and booty they could lay their hands-on equal terms hitherto, differential payment of remuneration for different jobs, is new and quite strange. Slow murmurs creep in. Added to that, their wages are not as decent as promised by Rajarao.

The villagers of Shankaragudem gradually realise that the development is not really for them. They realise the adverse effects of their socalled development. They also come to know that Rajarao has a stake in the Company. But they cannot question Rajarao. He has grown so big that he cannot be questioned. Apart from it, the villagers depend on Rajarao for their financial needs. Rajarao goes scot-free. He becomes bold. He feels that he can conquer everything that he surveys. Thus, a new lord with degraded values emerges. Along with him a few in Shankaragudem become reasonably rich and hobnob with him.

The dust emanating from mines engulfs Shankaragudem and virtually covers up Koneru. The catchment of Koneru slowly degrades and due to erosion and incessant rains and gushing waters, the river bed and lotus pond silt up. Water flow recedes and the waterfall is more like human tears. Plastic makes entry surreptitiously through increased human activity and brings alongwith it many ills. The river is polluted. The fish die. Safe drinking water becomes a scarcity. The foul smell and dust all around suffocate people. The effects of un sustained development stamp their mark everywhere. Shankaragudem now a bulging town loses its serenity. It becomes one of the towns that is notorious for its pollution.

This neo richness brings out changes in the lifestyle of Shankaragudem. The youth discard dhoties and switch over to cheap jeans and tea shirts. They sip tea and smoke. Some of them have learnt from their new masters from the city that one can relax with a bottle of beer or a peg of whisky after a day's hard work. They have even picked up a few English words from the elite city people. Thus, a new generation with changed and different values give both amusement and a little surprise to Ramana and Narsiah during their visits to the village. In fact, they feel happy because their sleepy village has woken up and is walking in long strides towards modernization.

The modern look of village pleases them. Shankaragudem in its new incarnation transforms into a town that is dotted with garbage, dirt and filth raises a few eye brows. The first are those of Shiviah and Parothi. A few of the villagers especially women share their view. They take the nasty change to their heart and long for the return of the old days where things were clean and calm and were invigorated by beautiful forest, river, pond and above all the presiding deity Lord Shankara.

The Pelicans from North are confused to see alien landscape and inhospitable environs. They virtually have stop coming. The atmosphere which was once echoed with their clangs is now echoing with the sounds of lorries and trucks which ply in and out of Shankaragudem raising thick clouds of dust.

Mynarao grows thirsty. Sadhu gives him water. Faces of all the people listening to the story have paled. The narration touches Sridhara's heart. He and his friends are crest fallen. After sipping water, Sadhu and Mynarao continue their narration.

Chapter 10: Since the lotus pond had virtually dried up, Rajarao gets a borewell drilled. Shankara's puja has to be done with water fetched from this borewell. Even flowers have to be brought from forests near Kamalapur. Without pond water and fresh flowers Lord Shankara's Puja loses its age-old sanctity, purity and even religious fervour. Sivaratri loses its simplicity and piousness. Pomp replaces it. The holy hymns are drowned by the noise of megaphones. The devotees increase in number. The income to the temple grows. The jatra is now a commercial event. Pelicans are nowhere to be seen.

Shiviah's becomes more of an introvert weighed down heavily by changing environment, degradation of social values, and financial problems. His attitude gives Parothi mental agony. She tries to convince her husband. She says retreat from adverse situation amounts to cowardice. A man must be bold and fight against it till the last breath instead of crouching down in a helpless state. She tries to bring him around by narrating the episode of Sati Devi. Lord Shankara was ablaze with anger when he came to know that Daksha was responsible for the self-immolation of Sati Devi. Shankara performs a terrible death dance that wobbles the three worlds. His divine anger does not subside until Daksha's head rolls in the dust. This terrible revenge of the lord would not move Shiviah an inch from his dispirited state. At last he raises his head, sighs in total despondency and speaks to her in sign-language that he is waiting for the call of God. With the sweeping changes brought about by the modernization, Shankaragudem bustles with an activity that is both detrimental to man and nature.

Parothi takes Shivaiah to a doctor in Dhanwada. Shivaiah is suspected to be suffering from Tuberculosis but is reluctant to undergo treatment. Shivaiah is admitted in a sanatorium in Dhanwada. The Doctor says he cannot do anything unless the patient co-operates. Shiviah doesn't respond to the treatment.

One night, Shivaiah has a dream. It is a beautiful pond full of lotuses. The waterfall is divinely musical. The white majestic Pelicans flutter their wings. The air is filled with the swishing sound made by their wings. They take off and start flying round the temple with blaring clangs.

To be continued....

INVITATION

The Association of Retired Forest Officers Telangana and & Andhra Pradesh, congratulates and cordially invite Sri Kanwarjit Singh, IFS Chairman, Bio-diversity Board, Telangana State Hyderabad who retired on attaining the age of superannuation to join the Association, to keep in touch with old colleagues and to keep him occupied. We wish him a happy, healthy and peaceful retired life. Secretary

Agenda for 94th General Body Meeting

1.Welcome address by Secretary - 11.am

2.Action taken Report by Secretary - 11.05am.

3.Talk and presentation by Sri P. Upender Reddy on Hydroponics 11.10am

4.Felicitatons. 11.50am.

a. Chief- Guest- Dr Karthikeyan Vasudevan Prl. Scientist & I/c Director-CCMB LACONS. Hyd.

b. Dr Manjula Reddy D/O Sri. K. Mohan Reddy IFS(Retd), for International recognition-Infosys award for the year 2019 in the area of life Sciences.

c. Veterans of the Association.

i. Sri Bhoomarajam, IFS (Retd). (D.O.B-07-12-1920) 90Yrs.

ii. Sri. K. Mohan Reddy. IFS (Retd), (D.O.B.16-01-1934) 85 Yrs.

III. Sri Satish Chandra IFS (Retd), (D.O.B.06-12-1939) 80Yrs.

4. Placing Statutory Audit Report of Accounts-2018-19-12.05pm

5.Talk by Chief- Guest. Dr Karthikeyan Vasudevan on "Conservation Breeding and Population Management of Critically Endangered Wild Life Species.12.10am

6.Address by Vice- President.01.00pm

7.Addres by President.01.10pm

8.Vote of Thanks by Jt. Secretary.1.20pm

9.Break for Lunch.01.30pm. (Agenda and timings are tentative subject to change by chair on the day of meeting) Secretary.

FOREST LOSS IN INDIA

By
Dr. UMA SHANKER SINGH

DEFORESTATION: Deforestation is the clearing or thinning of forests by humans. Deforestation represents one of the largest issues in global land use. Estimates of deforestation traditionally are based on the area of forest cleared for human use, including removal of the trees for wood products and for croplands and grazing lands. In the practice of clear-cutting, all the trees are removed from the land, which completely destroys the forest. In some cases, however, even partial logging and accidental fires thin out the trees enough to change the forest structure dramatically. Forest degradation, in terms of land mass, is an even bigger problem than deforestation: about 6.5 million square miles of forest are at high risk of degradation in the next 10 years. There are a few main drivers of forest degradation. But the main cause of forest degradation is unsustainable and illegal logging. Seventy per cent of the world's forests are at the risk of degradation due to continuing net forest loss, (United Nations Convention to Combat Desertification's, Global Land Outlook report). This has been found that many tropical forests that were undergoing deforestation a few decades ago, have now virtually disappeared. It says that tropical forests declined at a rate of 5.5 million hectares (mha) annually from 2010 to 2015. The report also listed 11 'deforestation fronts' areas where the largest permanent forest loss or severe damage are projected between 2015 and 2030. The Amazon tops that list, with a projected forest loss of 23-48 million hectares by 2030. Borneo and the Greater Mekong regions are the next in line, with 21.5 million mha and 15 -30 million mha projected to be lost by 2030. Therefore, with the current trends in production, urbanization, and environmental degradation, the world is losing and wasting too much land. Deforestation is a major cause of the loss of Soil Organic Carbon (SOC), which plays an important role in combating desertification and land degradation. The report further says that with the rate of deforestation higher in the tropics, the SOC loss is also higher in this region. Interestingly, the report found that while 40-55 per cent of the temperate and boreal forests in Russia, Canada and parts of the United States were undisturbed by humans in the last 200 years, European countries had less than one per cent of such undisturbed forests. This made European temperate forests one among the mostly highly endangered ecosystems in the world. To prevent deforestation and forest degradation an approach which combines facets of protection creating protected areas, both communities governed and otherwise; sustainable management involving judicious and sustainable use of resources and restoration are important tools to be implemented.

COUNTRIES WHICH ARE LOSING PRIMARY FORESTS AT A MUCH FASTER PACE: In 2002, just two countries Brazil and Indonesia made up 71 percent of tropical primary forest loss. More recent data shows that the frontiers of primary forest loss are starting to shift. Brazil and Indonesia only accounted for 46 percent of primary rainforest loss in 2018, while countries like Colombia, Côte d'Ivoire, Ghana and Democratic Republic of the Congo saw loss rates considerably high.

INDONESIA CONTAINED PRIMARY FOREST LOSS: Primary forest loss in Indonesia dropped to its lowest rate since 2003 last year, continuing a hopeful decline that started in 2017. Primary forest loss was 40

percent lower in 2018 than the average annual rate of loss from 2002-2016.The country saw an even more dramatic decline in forest loss in protected forests, suggesting that recent government policies are working. On peat lands deeper than 3 meters, which have been legally protected from development since 2016, forest loss dropped 80 percent from the 2002-2016 average. And in areas under Indonesia's forest moratorium, primary forest loss dropped 45 percent in 2018 compared to 2002-2016. The country is already seeing financial benefits from this decline. In February, Norway announced it will compensate Indonesia for reducing its deforestation-related emissions as part of a climate and forest partnership the two countries signed in 2010.Climate change plays its own role in the destruction of primary forest because the fight against deforestation does not look far from over. The last two years were relatively wet in the country, preventing a strong fire season like the one that burned 2.6 million hectares in 2015. This year is another El Nino year (albeit weaker than 2015-2016), which generally leads to dry conditions and a prolonged fire season in Indonesia. The province of Riau has already seen more than 1,000 hectares burned in 2019 due to a heat wave, and the government is expecting for more. The forest fire protection measures are not in place.

DEFORESTATION AT GLOBAL LEVEL: The tropics lost 12 million hectares of tree cover in 2018, the fourth-highest annual loss since recordkeeping began in 2001. Of greatest concern is the disappearance of 3.6 million hectares of primary rainforest, an area the size of Belgium (Global Forest Watch Report 2019) Old growth, or "primary" tropical rainforests, are a crucially important forest ecosystem, containing trees that can be hundreds or even thousands of years old. They store more carbon than other forests and are irreplaceable when it comes to sustaining biodiversity. Primary rainforests provide habitat for animals ranging from orangutans and mountain gorillas to jaguars and tigers. Once these forests are cut down, they may never return to their original state. For the first time, new data on the location of primary forests can help distinguish loss of these important forests from other tree cover loss. The data reveals that despite a growing number of zero-deforestation commitments from governments and companies, primary rainforest loss hit record highs in 2016 and 2017 due to fires and remained above historical levels in 2018.The loss of primary rainforests looks different across regions including what's driving it, where it's happening and its impact. I will like to tell some of the trends of in the countries where forest losses are rampant.

THE PRESENT BRAZILIAN GOVERNMENT IS RESPONSIBLE FOR THE LOSS OF PRIMARY FOREST IN AMAZON: Brazil's primary forest loss in 2018 was lower than its 2016-2017 fire-related spikes, but still more than it was from 2007-2015, when the country had reduced its deforestation rate by 70 percent. PRODES, Brazil's official monitoring system for the Amazon has similarly showed an upward trend in deforestation since 2012.Deforestation of the Brazilian Amazon surged last month to the highest May 2019 level since the current monitoring method began; prompting concerns that president is giving a free pass to illegal logging, farming and mining. The world's greatest rain forest, which is a vital provider of oxygen and carbon sequestration lost 739sq km during the 31 days, equivalent to two football pitches every minute, according to data obtained from the government's satellite monitoring agency. The month of May is considered an important guide because it marks the start of the dry season, which is when most burning and other forms

of forest clearance are carried out. Since the far-right President Bolsonaro came to power in January, he has weakened the environment ministry, loosened controls on economic exploitation of the Amazon, halted demarcation of indigenous land and encouraged mining and farming interests to expand in the region. Since the president criticized the government's main monitoring agency as a "fines industry", it has issued a fewer penalties than at any time in 11 years and the number of inspection operations is down 70% from last year. His environment minister, Ricardo Salles, who was convicted for environmental fraud and had never visited the Amazon region before this year, has further undermined morale by failing to appoint regional chiefs and by firing veteran inspectors. He has also vexed donors Norway and Germany by proposing to weaken the voice of civil in deciding how the $1.3bn Amazon Fund is spent. In congress, the dominant agricultural lobby is pushing for further relaxations, including the breakup of protected areas. Bolsonaro's oldest son, Flavio, who is a senator, recently proposed a reform of the forest code that would remove the obligation of farmers in the Amazon to maintain forest cover on 50-80% of their property. This measure would open up an area larger than Iran for extractive industries. A growing wave of speculative land claims are being registered inside reserves, which is putting more pressure on the boundaries. The spike in deforestation is depressing, but hardly surprising: we have a government in Brazil who is dismantling nearly every environmental policy put in place since 1992 and who is harassing federal environmental agents, thus empowering environmental criminals. Other factors might have contributed to the increase. The first few months of this year were cloudy and rainy, which made satellite monitoring more difficult, so some areas might have been missed by earlier sweeps. The bad weather could also have prompted loggers and farmers to delay land clearance until May. The economy, which is often a driver of deforestation during period of high beef and soy prices, has also been in the doldrums because unsustainable deforestation leads to decline in economy. Another factor is an expansion of infrastructure projects, including roads and hydroelectric plants. The Brazilian state that suffered the greatest deforestation last month was Pará, which is home to the BR163 road through the Amazon and the Belo Monte dam.

DECLINE IN COLUMBIAN AND BOLIVIAN FOREST: In Colombia, primary forest loss increased 9 percent between 2017 and 2018, continuing a dramatic upward trend since 2016. Ironically, this loss was related to the peace process, as areas in the Amazon previously occupied by the Armed Revolutionary Forces of Colombia (FARC) have opened up to development. Tinigua National Park has been an unfortunate casualty of the rampant forest clearing, losing around 12,000 hectares of forest in 2018, 6 percent of its total forest area. In Bolivia, most forest loss was related to conversion of forests to large-scale agriculture and pasture, particularly in the Chaco. Forest loss in Peru, on the other hand, was generally for small scale agriculture, including some illegal coca production. Peru also saw a proliferation of new logging roads in remote areas of the Amazon in 2018, as well as continued clearing for illegal gold mining in the south of the country.

LOSS OF PRIMARY FOREST INCREASED IN SUB-SAHARAN AFRICA AND MADAGASCAR: New frontiers of loss are emerging in parts of Africa. Ghana and Côte d'Ivoire experienced the highest percent rise in primary forest loss between 2017 and 2018 of any tropical country (60 percent and 26 percent, respectively). Illegal mining

caused some of the loss, and while it is difficult to attribute the exact location and amount of forest loss, expansion of cocoa farms caused loss in both countries. Ghana, Côte d'Ivoire and leading cocoa and chocolate companies pledged in 2017 to end deforestation within cocoa supply chains. While this is a promising first step, the recent rise in primary forest loss especially in protected areas, where 70 percent of the loss occurred is a worrying sign. The cocoa sector needs effective monitoring systems such as Global Forest Watch, set to launch later this year, to help reduce forest loss in future years. In the Democratic Republic of the Congo, primary forest loss was 38 percent higher in 2018 than it was from 2011-2017. Expansion of small-scale forest clearing for agriculture and fuel wood likely caused about three-quarters of this loss. Some loss patterns suggest that new, medium sized agriculture and conflict induced population displacement have also contributed. Finally, Madagascar lost 2 percent of its primary rainforest in 2018, a higher proportion than any tropical country. While most of this loss was caused by slash-and burn-agriculture, some was due to illegal mining for sapphires near the northern part of the Corridor Zahamena Ankeniheny protected area, as well as legal nickel mining in the southern part of the Corridor.

FOREST LOSS IN INDIA: Between 2014 and 2018, the forest loss was 1, 22,748 ha with the maximum loss being reported in the year 2016 (30,936 ha) and 2017 (29,563 ha). In contrast, the casualty in between 2009 and 2013 was 77,963 hectares, while 87,350 ha of tropical forest disappeared in 2004-08(World Resources Institute 2019). Indian forest and tree cover loss was 21,942 ha in 2014, which dropped to 20,997 ha next year before shooting up in 2016 and 2017. Subsequently there was a dip in 2018 when the forest loss figures stood at 19,310 ha. The maximum losses, on the other hand, were reported in 2008 (20,702 ha) followed by 2004 (19,166 ha) and 2012 (18,804 ha). The survey based on satellite images doesn't provide any explanation on the causes behind such mammoth forest loss cumulatively 3,10,625 ha since 2002 particularly for the period after 2016.Going by the existing data-set, mining, logging and shifting cultivation were the major causes of forest loss in India up to 2015. The forest cover loss has led to an increase of carbon dioxide in Indian atmosphere by 101-250% up to 2017 (WRI). Globally however, India is not a major forest-losing nation. India's forests are very important from its ecological services point of view, its tropical climate, soil, landscape, peninsular shape and abundant water bodies that dot and streak across the country, India's biodiversity is varied and dense. A wide variety of trees, plants and wildlife can thrive in India due to the distinct climatic zones that exist in the country. From tropical and dry to subtropical humid to mountain climate, the range in temperatures and elevations allow species of different kinds to survive. Trees in India known for their grandeur and majesty are like the green pearl in the Indian crown. Trees occupy the important place in the history of India. Trees have always been associated with wisdom and immorality in India. India's medicinal trees are no less diverse. Peepal, banyan (Bodhi tree), Arjun, Sal etc are some of the plants that hold special cultural and religious significance in India. Indian Rosewood, Keekar, Aleo Vera, Ashwagandha, Cork, Brahmi, Sal, Khair and Garden Asparagus are some of the popular trees grown in India. Below are a few important trees by their existence in percentages that are native to the Indian sub-continent and are most commonly found in our forests (Table 1): TABLE 1- MOST COMMON TREES IN INDIAN FORESTS

LOCAL NAME	BOTANICAL NAME	PERCENTAGE IN THE FORESTS
SAL	*SHOREA ROBUSTA*	8.9
TEAK	*TECTONA GRANDIS*	7.7
DHAURA	*ANOGEISSUS LATIFOLIA*	3.6
LAUREL	*TERMINALIA CRENULATA*	3.3
CHIR PINE	*PINUS ROXBURGHII*	2.4
BETEL PALM	*ACCACIA CATECHU*	9.8
MANGO	*MANGIFERA INDICA*	8.2
COCONUT	*COCOS NUCIFERA*	6.4
NEEM	*AZADIRACHTA INDICA*	5.4
FLAME OF FOREST	*BUTEA MONOSPERMA*	2.9

SOURCE: ISFR 2017

In the last five years, India cut every day on an average three times the number of trees felled in Aarey Colony (TABLE-2), according to the total number of permissions granted for felling of trees. Global Forest Watch claims that India lost 16,700 sq. km of tree cover from 2000 to 2018, though Indian data disputes this. The platform run by World Resources Institute uses satellite imagery to gather data and differs from official Indian methodology in defining tree cover (TABLE-3).

TABLE 2- EXTENT OF TREE CUTTING

YEAR	NUMBER OF TREE FELLED (IN LAKHS)
2014-15	23.30
2015-16	17.00
2016-17	17.00
2017-18	25.50
2018-19	27.00

SOURCE: REPLY BY BABUL SUPRIYO IN PARLIAMENT, MOS, ENVIRONMENT, FOREST AND CLIMATE CHANGE

TABLE 3- 18 YEARS OF FOREST COVER LOSS

YEAR	LOSS OF ORESTS TREE COVER (IN SQ. KM)
2001	624
2002	530
2003	470
2004	741
2005	625
2006	674
2007	739
2008	860
2009	792

2010	513
2011	885
2012	951
2013	809
2014	1,390
2015	1,160
2016	1,750
2017	1,890
2018	1,320

SOURCE: GLOBAL FOREST WATCH

KEY FINDINGS OF ISFR 2017: The increase in the forest cover has been observed as 6,778 sq km and that of tree cover as 1, 243 Sq. km. The total forest and tree cover are 24.39% of geographical area of the country. 15 states/UTs have above 33% of geographical area under forest cover. About 40% of country's forest cover is present in 9 large contiguous patches of the size of 10, 000 Sq.km, or more. Mizoram, Lakshadweep, Andaman & Nicobar Islands, Arunachal Pradesh, Nagaland, Meghalaya and Manipur have more than 75% forest cover. Eight States/UTs have forest cover between 33% and 75%. Top five states where forest cover has decreased are Mizoram (531 Sq. km), Nagaland (450 Sq. km), Arunachal Pradesh (190 Sq. km), Tripura (164 Sq. km) and Meghalaya (116 Sq. km). These states are in North Eastern region of the country where total forest cover is very high i.e. more than 70% in each state. The main reasons for decrease are shifting cultivation, rotational felling, and other biotic pressures, diversion of forest lands for developmental activities, submergence of forest cover, agriculture expansion and natural disasters (TABLE 4).

TABLE 4- FOREST COVER IN INDIA

STATES	SHARE OF FOREST&TREE COVER IN %
HARYANA	6.8
PUNJAB	6.9
RAJASTHAN	7.3
UTTAR PRADESH	9.2
BIHAR	10.2
GUJARAT	11.6
JAMMU&KASHMIR	14.0
PUDUCHERRY	16.5
ANDHRA PRADESH	19.6
MAHARASHTRA	19.7
DELHI	20.6
TELANGANA	20.6
WEST BENGAL	21.4
KARNATKA	22.6
TAMIL NADU	23.8
DAMAN&DIU	27.5
CHANDIGARH	27.7
MADHYA PRADESH	27.7
HIMACHAL PRADESH	28.6
JHARKHAND	33.2
ODISHA	35.5
ASSAM	37.7
CHATTISGARH	43.9
UTTRAKHAND	46.9

SIKKIM	47.6
DADAR&NAGAR HAVELI	48.3
KERALA	59.9
GOA	68.9
TRIPURA	75.7
NAGALAND	77.6
MANIPUR	78.7
MEGHALAY	79.4
ARUNACHAL PRADESH	80.9
A&N ISLAND	82.2
MIZORAM	88.5
LAKSHDWEEP	97.0

SOURCE: MOS IN REPLY TO LOKSABHA IN JULY 2015

LOSS OF OLD ECOSYSTEMS IN INDIA: India has lost over 1.6 million hectare of tree cover between 2001 and 2018, about four times the geographical area of Goa, according to a new study released by the World Resources Institute (WRI) in 2019. In India, five north-eastern states namely, Nagaland, Tripura, Meghalaya, Mizoram and Manipur were responsible for over 50% of all tree cover loss in the same period (WRI 2019). The loss of tree cover contributed to 172 MT of carbon emissions in India during this period. The main reason for loss of tree cover in the north-eastern states is diversion of forest land; climate change is also impacting the quality of forests. The data analysis shows that large-scale plantations are paradoxically, the main drivers for tree cover loss in India. The other problem India is facing is the loss of forest land in term of forest land transfer to other sectors namely leading industries and other development activities. In the year 2018 Government of India cleared 682 projects out of 687 which come to 99.82%.

WHAT DOES STATE OF FOREST REPORT 2017 SAY? Very dense forest (VDF) has shot up by 1.36 percent as compared to the last assessment. Since VDF absorb maximum carbon dioxide from the atmosphere, the ministry sees the spike as an "encouraging" sign. Open forest (OF) has also seen a rise. On the flip side, the moderately dense forest (MDF) component has shown a downward trend.

DECLINE IN FOREST COVER IN NORTH-EAST AREA: In terms of reduction in forest cover at the national level, the biodiversity-rich northeast region (NER), which accounts for one-fourth of India's forest cover, has taken a major blow. The total forest cover in the NER is 171,306 square km which is 65.34 percent of its geographical area in comparison to the national forest cover of 21.54 percent. The ISFR report 2017 shows an actual decrease of forest cover to the extent of 630 square km in the region. This decline is consistent with the 2015 assessment, which reported a contraction of 628 square km (from 2013 to 2015) in this region. Out of the eight NER states, Assam and Manipur have registered an increase in forest cover. While Assam registered an increase of 567 square km, for

Manipur it was 263 square km. However, the NER is also the location where forest cover has shrunk in some states, thereby the net decline of forest cover. The top five Indian states where forest cover has shrunk belong to the NER. They are Mizoram (531 sq. km), Nagaland (450 sq. km), Arunachal Pradesh (190 sq. km), Tripura (164 sq km) and Meghalaya (116 sq. km). In Mizoram, Nagaland, Tripura and Arunachal Pradesh, the loss is linked to "shifting cultivation and development activities". Increase in forest cover in certain pockets is due to "regeneration of bamboo and other plantations". Northern Western Ghats has experienced decline of 2 percent, central Western Ghats 4.5 to 5 percent and southern Western Ghats about 6 percent in recent years. A study was carried out in 2016 which explained the level of deforestation in Western Ghats Western Ghats are considered as one of the global biodiversity hotspots. There is an information gap on conservation status of the biodiversity hotspots. This study has quantified estimates of deforestation in the Western Ghats over a period of past nine decades. The classified forest covers maps for 1920, 1975, 1985, 1995, 2005 and 2013 indicates 95,446 (73.1%), 63,123 (48.4%), 62,286 (47.7%), 61,551 (47.2%), 61,511 (47.1%) and 61,511 km2 (47.1%) of the forest area, respectively. The rates of deforestation have been analysed in different time phases, i.e., 1920– 1975, 1975–1985, 1985–1995, 1995–2005 and 2005–2013. The grid cells of 1 km2 have been generated for time series analysis and describing spatial changes in forests. The net rate of deforestation was found to be 0.75 during 1920–1975, 0.13 during 1975–1985, 0.12 during 1985–1995 and 0.01 during 1995– 2005. Overall forest loss in Western Ghats was estimated at 33,579 km2 (35.3% of the total forest) from 1920's to 2013. The following table-8 is very interesting because out of 29 states and 7 UTs, there has been a decline of forest cover either in VDF, MDF or OF in the twenty-five states and UTs (C Sudhakar Reddy, C S Jha and V K Dadhwal 2016). In yet another study on the deforestation in India the results indicated that forests covered an area of 869,012 km2 in1930 which has decreased to 625,565 km2 in 2013, a net loss of 243,447 km2 (28 %) in eight decades. The highest annual average forest loss was found to be 4795 km2 during 1930–1975, 1476 km2 during 1975–1985, 767 km2 during 1985–1995, 356 km2 during 1995–2005 and 209 km2 during 2005–2013. Between 1930 and 1975, forest experienced largescale deforestation at gross annual rate of 0.77 % which has declined to 0.29 % and 0.14 % for the 1975–1985 and 1985–1995 periods respectively. Quantification of annual rate of gross deforestation for the recent period indicates 0.07 % during 1995–2005 and 0.05 % during 2005–2013. The lower rates of deforestation during recent period support effectiveness of conservation measures taken at national level. It was found that deforestation rate has decreased in many biogeography zones by 2005, except for Andaman &Nicobar Islands and North East. The major deforestation has mostly occurred due to conversion of forests to agriculture. The construction of reservoirs contributed to 4.1 % of forest loss. The

tropical forests have experienced large scale deforestation followed by subtropical forests (C Sudhakar Reddy etal. 2016). On the basis of canopy density; forests are classified into following types:

1. Very Dense Forest (VDF): When the density of forest is more than 70 %, it is known as very dense forest.

2. Moderately Dense Forest (MDF): When the density of forest is between 40 to 70 %, it is known as moderately dense forest.

3. Open Forest (OF): When the density of forest is between 10 to 40 %, it is known as open forest.

4. Scrub: When the density of forest is less than 10 %, it is known as scrub.

Indian state of Forest Report conducts a biennial survey of Indian forest cover and in its latest survey done till 2017 and published in 2018, it has been found that 261.22 square kilometre, 6,885.7 Sq.km and 940 Sq. Km has been lost in VDF, MDF and OF respectively in the last two years with reference to its last survey done in the year 2015.The maximum loss of VDF has been found in Himachal Pradesh followed by Arunachal Pradesh and MP but loss in MDF is widespread and except the two states namely, HP and Meghalaya. Mizoram and Nagaland have also seen widening in OF to the tune of 588 and 342 Sq.km respectively. Forest degradation means any negative changes taking place in a forest that damage/degrade the quality, density and productivity of forest. The forest showing degradation is known as degraded forest. Forest degradation is different from deforestation as in deforestation the forest (or patch of forest) gets converted totally into new land cover/land use class such as urban area, agriculture etc, while in case of degradation the quality and density of forest decreases. There has been a very strong pace of degradation in the Indian forests which is not visible to many but we are sitting on the explosive due to explode anytime. This has its implications on the carbon stock of the forest also. Plantations can never be a viable option to mitigate carbon emission entirely and if this is desired so then the area of plantation will be so huge that this will engulf half of the farmer's land across the world. Plants suck CO2 out of the atmosphere to build their woody roots, stems and leaves. This is low-tech terrestrial carbon dioxide removal that could be combined with high- tech carbon storage mechanisms, for example underground. If the forests were planted on productive land, then humans would lose the soils urgently needed to nourish a population of 9 billion. If the trees were planted on less productive terrain, the necessary costs in water and nitrogen-based fertilizer would be devastating. Either way, natural ecosystems would be irreparably damaged. And then the trees grown to absorb carbon would have to be stored deep underground, to prevent the carbon returning to the atmosphere to accelerate global warming rather than limit it.

GREEN QUIZ CHAMPIONSHIP- 2019

By
Dr K. Tirupataiah

This quiz competition will be appearing every month. Readers are invited to choose correct answers and send the same to kota_86@rediffmail.com. They should indicate question no and choice i.e a, b, c or d, against that question. Winners will be declared in the succeeding edition of Vana Premi. The Quiz will cover questions relating to Environment, Forests, Wildlife, Biodiversity and General areas.

This time, the questions are on Wildlife.

1.UN General Assembly proclaimed 3rd March as: a) World Fauna Day b) World Wildlife Day c) World Animal Day d) World Wild animals Day	2.The Theme for World Wildlife Day 2019 was: a) It's time to get serious about Wildlife Crime b) Listen to the Young Voices c) Life Below Water: for People & for Planet d)The Future of Wildlife is in Our Hands
3. From biodiversity point, how many "Mega Diverse" countries are there in the World? a)12 b)15 c) 09 d)17	4.Chevrotain is a 'French' word. It means: a) Little Sheep b) Little Deer c) Little Goat d) Little Mouse
5.When was Wildlife Week in India started? a)1948 b)1952 c)1972 d)1976	6.Blue Jay is a State Bird of how many states? a) 4 b) 3 c) 5 d) 2
7.Who is India's first female Wildlife Biologist? a) Lalitha Nath b) Laxmi Nath c) Latika Nath d) Leela Nath	8.Who was the first Founder Director of Wildlife Institute of India? a) H.S. Panwar b) V.B. Saharia c) B.P. Mathur d) G.S.Rawat
9.Which is the first Public Zoo in India? a) Junagadh Zoo b) Mysore Zoo c) Nehru Zoological Park d) Arignar Anna Zoo	10.Which Elephant was used for both Bonalu & Bibi-Ka-Alam processions? a) Ragini b) Rajani c) Hyderi d) Sudha

11.To save what did Late M.Kamal Naidu take bites from a Black Cobra? a) Leopard Cubs, b)Tiger Cubs c) Cheeta Cubs, d)Lion Cubs	12.Nehru Zoological Park was opened to Public from? a)6th Oct 1963 b)4th Oct 1963 c)5th Oct 1963 d)8th Oct 1963
13.Which is the largest Olive Ridley Turtle breeding ground in India? a) Bheetar Kanika b) Gahirmatha c) Gopalpur beach d) Paradeep beach	14.Which festival is held in Nelapattu in AP? a) Saras Crane festival b) Wild Geese festival c) Flamingo festival d) Swan festival
15. Status of wild animals is indicated by: a) CITES b) IUCN c) REDD+, d) IPCCC Report	

Note: Quiz Master is a retired PCCF of Telangana Cadre, won prizes in National level Quiz competitions, conducted Quizzes in various government departments. He is the Winner of the Quiz Competition in the All-India Forest Sports Meet-2019 at Raipur, Chhattisgarh.

STOP PRESS NEWS

"Sri P. Ranga Rao, Retired Conservator of Forests of AP. Cadre, passed away at 10.00 p.m. on 24 th November 2019 at his native village Bethapudi, Repalle Mandal, Guntur district. He belongs to 1949-'51 batch of Madras Forest College, Coimbatore. May his soul rest in peace"

ENVIRONMENT & THE PERILOUS PLASTIC

By
AKSHAYA KUMAR NAYAK

Greta Thunberg (16), a school girl's heart touching cry before the world politicians in a session of UNO Summit for CLIMATE CHANGE stunned all the participants to a great extent. (described later).

Mother's lap for a child is so peaceful, blissful, comfortable and safe that he feels the entire heaven exists in it. Likewise, our beautiful, glamorous, green Mother Earth brings up us in her affectionate lap with all love and comfort, shelter to live in, good food, pure water and clean air for our sustenance. But at present that prevailed situation has changed to a large extent.

The Environmental condition has deteriorated to a large extent. Population growth plays an important role. Human population is steadily and abnormally increasing. Monaco, in the world, is the most densely populated country having a population density of 26,243/Sq. Km. (2019). It is 147/Sq. Km. in China and 325/ Sq. Km. in India. Population of China and India is 142,00,62,022 & 136,87,37,515 respectively. Annual growth rate of China and India is 0.35% and 1.08% respectively. It is expected that India's population will surpass that of China in 2022. At present world population has increased to 769.2 crores from 614.5 crores in 2000 and that of India 136.4 crores from 105.31 in 2000. This sort of explosion of population causes environmental degradation and leads to CLIMATE CHANGE.

GLOBAL WARMING: Increase in global temperature is a natural phenomenon. "The warming of the climate system is unequivocal, as is now evident from increase in global average air and ocean temperatures, wide spread melting of snow and ice and rising of global mean sea level" says a report by IPCC (Inter governmental Panel on Climate Change)

Since 2 million years, world temperature has been increasing. The UN Frame work Convention on Climate Change (UNF CCC) was in 1992. From 1960 continuous direct atmospheric measurement began up to 2005. It was observed that CO_2 radiative forcing increased by 20% during 1995-2005; the largest change for any decade in at-least the last 200 years-points out RK Pachauri, Chairman of the IPCC and DG of The Energy and Resources Institute, New Delhi.

Basing on an analysis of ice cores spanning thousands of years, the report concludes that anthropogenic emissions have resulted in a marked increase in atmospheric concentrations of CO_2, Methane (CH_4) and Nitrous Oxide (N_2O) since 1750 and now far exceed "pre- industrialization values. The increase in CO_2 concentration is primarily for fossil fuel use and land use change increases CH_4 & N_2O concentration only for agriculture. In particular the increase in CO_2 concentration from 280 ppm (parts per million) to 379 ppm in 2005 is far greater than the natural increase (from 180 ppm to 300 pmm) over the last 650,000 years.

DEFORESTATION – ITS EFFECT ON GLOBAL WARMING: Deforestation has an important bearing on Global Climate Change. More than 1.5 billion tons of CO_2 is released to the atmosphere. It is a very serious matter that about half the world's tropical forests have been cleared. An area of the size of a football pitch is cleared from the Amazon Rain Forest every minute. The globe lost 73.4 million Acres of tree cover in 2016. It is estimated that 15% of Green House Gases is due to deforestation.

CLIMATE CHANGE: Various factors are responsible for CLIMATE CHANGE as discussed earlier. Every year the atmosphere is being loaded with enormous quantities of GHG_S and aerosols. Carbon emission of 4 leading countries of the world, (2015) is given below which needs steps to be taken by those countries to reduce the emission.

SL NO	Country	Carbon emission in MMT	Share in Percentage	Per capita CO_2 emission in Metric Ton	
				2015	(2016)
1	China	9040.74	27.21	6.59	6.4
2	USA	4997.50	14.58	15.53	15.0
3	India	2066.01	6.82	1.58	1.6
4	Russia	1468.99	4.68		9.9

On the basis of Model studies, the report projects a warming of $O.2^0$ C a decade for the range of emission scenarios considered. This says that even if the concentrations of all GHG_S and aerosols had been kept constant at the year 2000 levels, a further warming of about $O.I^0$ C a decade would be expected. If CHG emission at or above current rates continues, it would cause further warming and induce many changes in global climate system during 21st century (very likely greater than 90%be larger than those observed during the 20th century)

It is presumed that no nation can afford to be complacent on the issue any more. There is pressure mounting on all countries to act decisively including developed countries.

The IPCC (Intergovernmental Panel on Climate Change) of UNO took a historical decision to keep the 2^0 C increase of average temperature which remained at before the Industrial Revolution (1750).

An interesting news: - China and Germany are the two countries in the world doing business in pencil having many pencil industries which need trees its making. For this huge number trees are required. Keeping in view the sacrifice of trees & to save the Environment a Canadian Company has started marketing of PLANTABLE PENCILS. When a pencil becomes smaller after use instead of throwing, it is dibbled in soil which gives rise to a seedling. Its cost comes to rupees eight to nine. This is a good endeavour for protection of environment.

Greta Thunberg (born on 3.1.2003) a Swedish teen age environment activist on climate change, leaving the school organized a huge revolution /campaign of youths & others in front of the Swedish Parliament demanding justice for Climate Change regularly from 2018 who staged a protest on 23.09.2019 in the UNO Summit before the world politicians of 12 countries present, accusing them that they have failed to face the Climate Change. All members were stunned on her wonderful deliberation: Her heart touching speech moved all who extolled immensely. Her campaigning has gained international recognition.

SOIL POLUTION: - Soil is contaminated to a large extent by the toxic Chemicals, industrial waste like gases, agricultural pesticides, mining landfalls and huge amount of waste water or sewage water generated from the cities of India which is discharged mostly without any treatment into the surface water sources damaging the quality of river water in the nearby cities. This polluted water is used for irrigating which results in the heavy metal build up in soils which are harmful for agricultural products.

In a recent study conducted by CSIR and NEERI reveals that vegetables grown on the Flood plain of the Yamuna River (a dead river

as called by the CPCB- Central Pollution Control Board) contain heaving metals of toxicity like Lead (Pb), Cadmium (Cd), Mercury (Hg) and nickel (Ni). They stated that the metal content exceeded the safe limits of FSSAI - (Food Safety and Standard Authority of India). These toxic metals present in the vegetables could trigger serious human heath diseases including cancer and organ malnutrition [World Food Day issue of Science Reporter, October, 2019].

WATER POLUTION: - Water is a precious gift of Nature for life-sustenance. Water bodies like, reservoirs, rivers, lakes, oceans etc. are getting polluted mostly by human activities. Industries produce huge quantity of waste products like lead, mercury, sulphur, asbestos etc. harmful chemicals; garbage's, sewage water, plastic etc. Contaminate water bodies; as a result, drinking water both for human and wild life becomes harmful. So also, the marine biosphere is affected. About 2 crore people of the world use polluted drinking water-(WHO). Many of them die due to water borne diseases. It is an interesting matter which is worth mentioning here, as to why the river Ganga has been treated so pious and holy since time immemorial and why the Ganga water is sought after for worships and rituals.

A study was commissioned by the "water Resources Ministry" to probe the "unique properties" of the Ganga. To study "Assessment Water qualities and to understand special properties of river Ganga" a team of Nagpur Based NEERI (National Environmental Engineering and Research Institute) was tasked the assessment work in 2016 for radiological, micro-biological and biological parameters. As a part of this assessment 5 pathogenic species of bacteria (Escherichia, Enterobacter, Salmonellae, Shigella and Vibrio) were selected and isolated from the Ganga, the Yamuna and the Narmada and their numbers compared with the bacteriophages present in the river water because bacteriophages are a kind of virus that kill bacteria; they are found in proximity to each other. It was found that the sample drawn from the Ganga contained almost 1100 kinds of bacteriophages and proportionately there were less than 200 species detected in the samples brought from the Yamuna and Narmada. Hoe ever, these antibacterial properties varied widely along the length of the river. (length of the Ganga and the Narmada are 2525 Km and 1312 Km respectively.) But at present the downstream of the Ganga has become more polluted by human agency. At present the Govt. of India has taken steps to clean the Ganga.

PLASTICS: - PLASTIC is a Greek word. In Greek language the meaning of plastic is to build or to shape. Wales H. Carothers, a scientist of Chemistry brought PLASTIC to the knowledge of people. Plastic belongs to the family of Polymers. Polymers having quality of flexibility are called plastic; A Polymer called Polythene was discovered in a Chemical factory in England which was used in 2nd. World War by British soldiers. From these, for use in everyday life, many beautiful and cheaper and light- weight articles are prepared. We developed so much Love for plastic that our love affair with it knew no bounds. Its use in various fields ie, for carrying, transporting solids and liquids, packaging etc. manifold requirements has become inevitable. It has spreading network in our lives. But now it has become a curse to all human and living beings (including wildlife and marine biosphere).

There are seven type of plastic in use. Those are: -

1. Polyethylene Terephthalate [PET OR PETE]

2. High Density Polyethylene [HDPE]

3. Poly Vinyl Chloride [PVC]
4. Low Density Polyethylene [LDPE]
5. Poly Propylene [PP]
6. Poly Styrene [PS]
7. Others

Each is different from the other; some re-usable, the other produces hazardous material after several uses, some are easily recyclable; others need more sophisticated and intricate handling in its recycling process.

Plastic produced 50 Million Metric Tons in 1960 has now reached more than 300 MMT in the world. It is observed that Asia continent is the main breeding place in the world. However, the following is a world-wise short-list of production and consumption of plastic during 2014-2015.

S.L NO	PRODUCTION		CONSUMPTION	
	COUNTRY	In Million. M.T(2014-15)	In Kg/ head	Top Pollutants in the World
1	China	60.0	38	China
2	U.S. A	38.0	109	Indonesia
3	Germany	14.5		Philippines
4	Brazil	12.0	32	Vietnam
5	India	9.49	11	
6	Europe		75	Sri Lanka
	World	300.0	28	

As per Economic Forum Report:

In India- Plastic waste Production/ day =16,000 M.T

In world – plastic Bottles used/ minute=1 million

In world- plastic (SU) Bags thrown/year=5 Trillion

Plastic bottles need about 1000 years for its degradation Sikkim is the first State in India to impose restrictions on plastic. Now restriction has been imposed in 20 states and one union territory.

Plastic/ polythene is not biodegradable. Its waste about 50% is thrown away to roads, and streets forming even heaps. It is estimated that 20% of the world production is recycled, about 39% is covered under soil pits and 15% plastic waste is burnt which generates poisonous gases like Dioxin, Benzene, CO_2 etc. Chlorinated plastic releases harmful chemicals to soil/ earth which permeates into the underground water and contaminates it causing health hazards.

As per WWF (World Wild Life Fund):

Big plastic pieces are broken into small and micro particles due to the atmospheric heat and air which enters in to the Rivers, Nalas, and Ocean etc. Fishes and marine creatures thinking the micro particles to be planktons eat and get health hazards. As per the report, 2000 extremely thin plastic pieces are entering into our body.

Cows and other cattle suffer and even die for eating polythene bags containing left over foodstuffs.

It is reported that from 41 lakh ton plastic waste 127 crore pieces of plastic enter in to the sea. Out of this about 90% plastic pass into sea from 9 main rivers (Biggest river of Asia- Ch yang Xiang has more than 14 lakh tons of plastic waste). Scientists have also traced plastic waste under 36,000 feet below the mean sea Level. Total plastic in the ocean, it is estimated, is 150 million Metric Tonnes. In 2014 there was one Kg of plastic for every five Kg of fishes and by 2050 there will be more plastic pieces than fishes. Some researchers

Estimated- same quantity of plastic will enter the Pacific Ocean as has been deposited from 1950 to 2016, i.e. about 30 crore tones. For this (plastic waste) contamination annually 600 marine species are affected, 10 lakh marine birds and one lakh aquatic mammals die and respiratory system of turtles is affected.

VIENA MEDICAL UNIVERSITY RESEARCHERS VIEW: - 9 varieties of plastics enter in to human body (belly) and gradually it damages the kidney and reduces immunity of the body.

AUSTRALIA NUCLEAR UNIVERSITY RESEARCHERS: - One man eats about 5 Kg of plastic. When plastic burns it produces CO_2 and by 2030 it will be 3 times as produced at present.

As per the statement released by the Ministry of Environment and Forest, Climate Change, the resolutions (on single use plastic and sustainable Nitrogen Management) were adopted at the 4th session of the UNEA (United Nations Environment Assembly) held at Nairobi from March 11th. to 15th 2019 and on innovative solutions for Environment Challenges and sustainable production and consumption. Global N_2 (Nitrogen) proportion in atmosphere is 78%. Its use efficiency is low causing pollution by reacting N_2 which threatens the Eco system Services and human health. This contributes to Climate Change and atmospheric Ozon depletion.

Only a small proportion of plastic produced globally is recycled and most of this damage the environment and aquatic bio-diversity. The resolution engulfing these global challenges were piloted by India in the UNEA were vital issues, - a first step towards addressing these to attract the focus of the global community.

Plastic ban has been implemented by Govt of Odisha from 2nd October, 2019 [especially in 5 Municipal Corporations, 48 Municipalities and 61 NAC_S]. Vendors have been given a month relaxation to get rid of the stock. The Forest and Environment Dept. has directed all district administrations to ensure strict enforcement of the ban on single use plastic. Odisha State Pollution Control Board will ensure close down of industries, importing, storing, carrying, transporting and distributing in all cities of the state [there is also penal provision]

Remedial measures: - Public awareness for indiscriminate use and its hazardous/ harmful impact on environment and health is to be created across the state by news and electronic media, NGOS, and Environment activists.

Alternatives: - To replace plastic polythene bags: - Bags made of cotton, jute, paper and palm leaves are to be adopted and for liquid – glass or metal containers to be used.

Good news: - Japan's scientists have invented a kind of Microbe [DPETASE] which can degrade plastic.

(The author is a retired DCF from Odisha and Vice Chairman, Utkal Vikash Parishad Odisha. Can be contacted on Mobile number 9437001212)

38% of children below the age of five are stunted

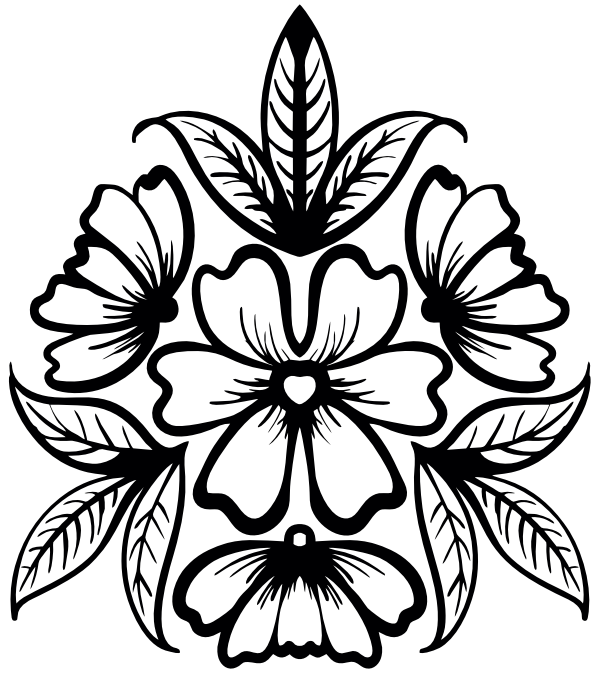
Birthday Greetings

We wish the following born on the dates mentioned

"A very Happy Birth Day"

S. No.	Name of the member	D.O.B.
	Sarva Sri	
1.	Satish chandra	06-12-1939
2.	B.Bhooma Rajan	07-12-1929
3.	B.Naganath	08-12-1949
4.	Ch.Lylaiah	08-12-1949
5.	P.Satyanarayana	10-12-1953
6.	A.V.Govinda Rajulu	11-12-1945
7.	S.D.Mukherji	14-12-1940
8.	T.Shankaraiah	16-12-1931
9.	S.K.Das	17-12-1947
10.	P.Ravinder Reddy	19-12-1947
11.	V.Sathasheela Babu	21-12-1947
12.	G.Krishna Murthy	25-12-1954
13.	G.Ravinder	30-12-1958
14.	G.Raman Goud	01-01-1949
15	B.Janardan	02-01-1950
16	K.S. Moses	02-01-1959
17.	C.Sudhakar Rao	04-01-1947
18.	Y. Nageshwar Rao	04-01-1946
19.	T.Prabhakar Rao	05-01-1947

S. No.	Name of Serving Officers	D.O.B.
1.	Sidhanand Kulreti	19-12-1961
2.	P.V.Raja Rao	20-12-1962
3.	Vipin Choudhary	01-01-1960
4.	Binod Kumar Singh	02-01-1964
5.	G.Ramalingam	05-01-1966
6.	G.Nageshwar Rao	10-12-1960
7.	M.Nagabhushanam	14-12-1964
8.	A.Venkateshwarlu	15-12-1968
9.	Dr.B.Prabhakar	16-12-1966
10.	V.Venkateshwara Rao	01-01-1966
11.	K.Sudharshan Reddy	02-01-1962
12.	V.Tirumala Rao	04-01-1964
13.	Mrs.V.V.L. Subhadra Devi	03-01-1982



Dr. Manjula Reddy, Chief Scientist Centre for Cellular and Molecular Biology (CCMB)

_Rajmata of Baroda Her Highness Shubhanginiraje Gaekwad

Laxmi Vilas Palace Of Vadodara

Participants Of XX,FRC Meet

GreenAP
Mobile App

APG&BC

- With a vision to increase green spaces and to improve the quality of life of the people, **Andhra Pradesh** Government has come up with a unique initiative with the support of APG&BC in launching **GreenAP** mobile application.
- This app helps in bridging the gap between consumers and the vast vendor eco-system across the country who are dealing with green products and services.
- Consumers will now have access to vendors to procure plants of various kinds including indoor, exotic, lawns, roof top gardens, vertical gardens, etc.
- With this mobile app they will have access to the products like pot vendors, aquariums, land-scape designers and many more.

Salient Features

Vendor Directory | News | Enquiries

Forums | Events

Consumers can select vendors who are closer to their city or town for any purchase by browing through the hundreds of profiles available in the **GreenAP** mobile app. Consumers can access vendors via WhatsApp, SMS or Phone.

Download **GreenAP** app today!

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For more information, please contact our help line number: **+91 7997650835**

Sri N.Sridhar, I.A.S., C&MD, SCCL inaugurating Telanganaku Harithaharam in Singareni

- SCCL contributes 10% of country's total coal production. SCCL achieved the highest ever coal dispatches of 64.6 M.T. during 2017-18.
- SCCL planted 3.72 crores of saplings in 10,932 Hectars of land (up to July 2017)

Rehabilitation of RF land (Non mandated)

- SCCL honoured with "Indira Gandhi Vriksha Mitra Award - 2004", "Teri Corporate Environment Award - 2004", "Golden Peacock Environment Management Award-2005" and "Golden Peacock Innovative Product/ service award -2015" and many more for it's Eco & Environmental friendly mining.
- Sri N.Sridhar I.A.S., C&MD SCCL honoured with "Asia Pacific Enterprenuer Ship Award - 2018" and "Outstanding Leadership Award - 2018".

THE SINGARENI COLLIERIES COMPANY LIMITED
(A Government Company)
Telangana State

"NEED FOR EXEMPTION OF TREE SPECIES FROM FELLING PERMISSION & TRANSIT PERMITS AND THE PROCESS FOLLOWED IN SELECT STATES OF INDIA

By

Kaushamby Jha and Dr.K.Tirupataiah

Introduction: - The liberalization of Indian Economy in the 90s resulted in, among other things, increased demand for timber and other forest produce. In the Forest Policy (1952), at Para-31, liaison with industry is mentioned to be strengthened for utilizing timber and forest products. Massive Social Forestry programme was encouraged under the National Forest Policy 1988 (Para 4.2). Also at para 4.2.4 of the said Policy, it is mentioned that appropriate regulations should govern the felling of trees on private holding. Draft National Forest Policy 2018 also states (para 4.1.2) that "Agro-forestry and farm-forestry would be encouraged through commensurate incentives and operational support systems". Relaxation of existing felling and transit regime is also mentioned at para 4.1.2 (V). It is a fact that with the encouragement received through the successive Forest Policies on the one hand and implementation of many social-forestry programmes by states on the other, there is significant biomass produced outside forest areas. This situation has, in fact, resulted in biomass outside forest far exceeding that from forests in some states like Punjab, Haryana and Uttar Pradesh (part).

Need for Exemption-The Issue: While tree cultivation outside forests reached significant levels, the felling and transit permit regime, however, does not appear to have kept pace. The tree growers often ran into hurdles in getting permissions for felling and transport. At times, this regulation regime seems to have acted as a disincentive for people to grow tree species on their lands. Moreover, the National Agro-forestry Policy 2014 promulgated by the Ministry of Agriculture, GoI calls for supportive regulatory framework for felling and transit of trees grown under Agro-forestry and farm-forestry systems. In this back ground, study is made to examine the steps taken by both MoEF&CC as well as States on this issue.

Initiatives by the MoEF, GoI: The Ministry constituted a committee in July 2011 "to study the regulatory regime and transit regulations for tree species grown on non-forest / private lands, to evaluate experiences of various States /Union Territories and to recommend the regulatory regime". The committee headed by Sri A.K. Bansal, Addl. Director General (FC) submitted its report in 2012 which was communicated, in December 2012, to all State/ Union Territories Forest Departments, NGOs, Agro-forests, etc. for comments / suggestions.

Major findings of the committee were: there are wide variations in rules and regulations governing felling of trees and transportation across states. There is a lack of unified approach for agro-forestry species even within a State. Based on the recommendations of the committee mentioned above, the MoEF & CC issued guidelines on felling and transit regulations for tree species grown on non-forest / private lands on 18th November, 2015 [F.No.8-14/2004-FP (vol.2)]. As part of the guidelines, a list of "preferred agro-forestry species" is giv-

en under list-A and list-B. Species in list-A are those exclusively grown on agriculture / farm land and not naturally available in neighbouring forests. It contains (26) tree species and (8) Horticulture species. List-B contains species grown on non-forest-land where they are also found in the neighbouring forests. It has (10) species listed.

Comparison of exempted species:
A comparative study was conducted covering the States of Madhya Pradesh, Chhattisgarh, Telangana, Karnataka, Kerala and Maharashtra. The comparison is limited to List-A species only.

Out of the 26 tree species exempted for felling & transit by MoEF & CC, MP included 15, followed by Kerala-12, Telangana-11, Maharashtra-07 and Karnataka & Chhattisgarh -05 species each. One explanation for this variation could be that the species mentioned in the MoEF&CC List is general and variation is bound to happen across states. The other way of looking at is that states have been more location specific in listing out species that are specific to the states and therefore do not match with the centre's list.

Similar trend is observed in case of Horticulture species also.

Out of 09 Horticulture species exempted by MoEF & CC, Telangana tops with 07, followed by kerala-05, MP-04, Karnataka-03, Maharashtra-02, in that order. No horticulture species is exempted in Chhattisgarh. Though the actual number of species exempted by the states might exceed the number given by the MoEF&CC, the species common in both lists match only to a limited extent.

This is as expected because for such a large country like India a centralized list does not properly indicate the occurrence of species at local level.

Implementation Mechanism: In Kerala, 61 species are exempted from transit permit under Kerala Forest Produce Transit Rules, 1975. The Kerala promotion of tree growth in Non-Forest Areas Act 2007 permits owner to cut & transport any tree other than sandalwood & 10 other species that require permit. Kerala Private Forests (vesting and assignment) Act 1971 & Preservation of Trees Act, 1986 are applicable to Private Forests.

The Maharashtra Felling of Tree (Act 1964), Maharashtra (Urban Area) preservation of Trees Act, 1975, The Maharashtra Land Revenue Code, 1966 govern felling & transit. Felling is cleared by Revenue Officer while Transit permit is issued by forest officer. A Total of 16 species are listed requiring felling & transit permit & 8 species in Sindhudurg district. Only 11 species are exempt from felling & transit.

In MP, as per the MP Transit (Forest Produce) Rules 2000 (Gaz.F30-40-95X.3, 13.12.2000) for 8 species, permit can be issued by GP on recommendation of GP level committee in some districts and by Forest Officer on recommendation of GP level committee within the district. However, beyond the district to adjoining districts & entire state, Forest Department shall issue permits. However, a PIL in the MP High Court lead to issue of orders keeping this process in abeyance.

In Chhattisgarh, the Land Revenue code and Lr.Dt:F.8-31/Revenue/2003, Dt.22.07.2003 & F.8-31/Revenue/2006, Dt.27.02.2006 governs

tree felling on non-forestry lands. Chhattisgarh transit (Forest Produce) Rule 2001, Gazette notification 25.08.2011 & 27.10.2004 regulate transit of forest produce. Tahsildar gives permission for felling in private lands, except for 9 species. Forest Department gives NOC in 15 days. Plantations older than 10 years of species like Eucalyptus, Sins, etc GP issues permission to fell within district. For other species Forest Department issues permission.

In Karnataka, Karnataka preservation of tress Act 76, Tree Rules 1977 apply. Tree Authority & Tree Officer is appointed for this purpose. Compulsory planting for felled trees is insisted. A total of 11 species are exempted.

In Telangana state, a total of 44 species are exempted from felling permission under the Telangana Forest Produce (Transit) Rules, 1970. Felling permissions are given on line. However, felling permission does not give any right to the owner to transport the produce without obtaining the Transit permit from competent authority. A unique thing in Telangana is that under the Water, Land and Trees Act 2002 and the Rules 2004, double the number of trees have to be planted for securing permission to fell trees.

Conclusion: While MoEF & CC issued guidelines and list of species to be exempted from felling & transit permit regime, actual scenario on field is varying across states. In most states lists of species exempted from felling are notified. In some states, permissions are delegated to Gram Panchayat, Revenue department officials or to local forest officers. However, in most states, powers to issue transit permits are still with forest department officials only.

Recommendations:

1. Since growing of trees on private lands is only growing to increase, necessary "institutional mechanism" needs to be put in place to "record" such plantations "online" with immediate effect.

2. All old private plantations to be "recorded" in a time bound manner. Necessary man power should be pooled/ outsourced and appropriate charges could be levied for this work.

3. Gram Panchayats could be empowered to not only plant trees and protect them (as in Telangana) but also in giving clearances for felling.

4. Work load for monitoring, inspection and giving permissions would be quite heavy. "Tree Officer" Concept of Karnataka could be tried in other states also to provide services on time, on collection of service charges.

5. Use of IT&C (online filing, approval, permits, etc.) by forest departments in states needs to be further improved to improve "ease of doing business".

(Kaushamby Jha is a Ranger trainee at the Telangana State Forest Academy, Dulapally, and Dr. K. Tirupataiah is the Retired Prl. CCF of Telangana and Consultant to the Telangana State Forest Academy.)

IN PERSPECTIVE:

WHAT A NOVEL EXERCISE IN 'ECO-FEMINISM'

BY
DR B RAGHOTHAM RAO DESAI

"By living in the moment, we soak in all the experiences that life offers with equanimity".

Prologue: The villagers of Piplantri (in Rajsamand district of Rajasthan, which had to be passed-through a decade ago, while on a tour in connection with the evaluation of Forestry-works carried out under various Centrally Sponsored Schemes in the region, commissioned by the NAEB) regularly plant as many as 111 tall & healthy (around two-year-old) saplings of indigenous fruiting species (from a well-maintained permanent nursery, raised in the vicinity in the community's area, set apart for the purpose) each, whenever a girl-child is born to a family in the village, and maintain them (seeing to it that they survive & grow up to fruition) as the child grows up (for about next twenty years) ---- promising through an affidavit (sworn in the presence of village Sarpanch, before a Notary) to educate the child and restraining the parents not marry her off earlier!

Fact file: To ensure and facilitate all that, the girl's parents (as the child is born) pay just Rs.10,000/ to which the village-community (headed by the Sarpanch) adds Rs. 21,000/ (by contributing collectively) and the amount is invested in a Scheduled Bank for 20 years as a Fixed-Deposit.

The initiative had also helped village's economy, while improving the micro-climate and its water-table---- though situated in such an arid zone. Credit for this breakthrough goes to the Ex Sarpanch Shyamsunder Paliwal---- a moniker who has the badge-of-honour in such troubled circumstances ---- for starting in the memory of his daughter Kiran's tragic demise (when she was still so young). Perhaps, he must have found considerable comfort in his personal calamity, by reaching-out to the village-community and in return, sharing its compassion.

The village-surrounds being termite-prone and as Aloe Vera (Aloe barbadensis - Liliaceae) being a known repellent, millions of the Aloe had been planted as fencing-material to the tree-groves ---- which when marketed after commercially processing the produce in a variety of ways (like gel, juice etc.), sizably boosts the village-economy further.

Summary:

There being no gainsaying that the parents of a girl-child (in several regions of India) are still more sinned-against than purportedly-sinning and in such a country which favours birth of a son even during the present times (as a result of which, value of that family fluctuates, like 'a commodity in an unstable-economy'), pushes the family into diffidence, depression and hopelessness, even paving the way to develop a sort of inferiority-complex.

In such a scenario, this village has not only embraced its daughters, but has created a unique tradition which benefits both the village-community as also the planet: endearing village thus calculatedly making a conscious effort not only to save the girl-children from being considered as a scourge, but contributing to improve the green-cover at the same time!

Though Nobel Laureate (Algerian-born) French Philosopher Albert Camus (1913-1960) is credited for finding hope in 'Autumn' by stating: " Autumn is a second spring, when every leaf is a flower" and providing hope of a colourful autumn, it was the English Romantic poet Percy Bysshe Shelly (1792-1822) who gave an earlier message: "if winter comes, can spring be far away?"! In the context of what the society of this village has shown to our country, the above statements becoming aptly quotable.

Epilogue: Hardly it needs to be emphasized that a life-of-comfort is desired by everyone, but it is an irony that our actions (in the process to create a 'better-world') are resulting in substantial damage at a rapid rate to the flora and fauna, as a chain-reaction: not just in the jungles, but also in surrounding environs of ours----the problem getting aggravated due to the public's & their representatives' lack of empathy & awareness, about need to conserve the biodiversity.

Despite the hostile situation, the township of Piplantri of Thar-desert is doing its bit, to spread the sense of awareness about different life-forms ----- be it plants or animals or insects that are integral part of any biodiversity & ecosystem, which is indeed commendable. May its tribe increase many folds!

Editor's Note: Incidentally on 8th November Sri Shyamsunder Paliwal also played Koun Banega Crorepati with Amitabh Bachan under Karamveer programme and won Rs. 2500000/- which was credited into village account.

IS IT A MATCH-FIXING ON FOREST ACT LEGISLATION?

By
J V Sharma

According to a report appearing in 'The Hindu' (Hyderabad Edition) dated 16th November 2019, the Central Government in Ministry of Environment, Forest and Climate Change has withdrawn a draft amendment that proposed updates to the Indian Forest Act 1927. It is also reported that activist groups and some State Governments had protested against the proposed law after it was mooted in March 2019. It is said that Mr. Prakash Javadekar, Hon Minister for EFCC told a press conference that the draft is withdrawn. Surprisingly, the Minister was quick to deny the hand of his Ministry in preparation of draft proposals and to quote him "Let me clarify that this wasn't a government draft as such. We had consolidated views from various states with a significant forest cover. Over a few months, we 've learnt that this has led to wrong interpretations. So, we are withdrawing the zero draft."

The news report further conveys that Mr. Arjun Munda, Union Minister for Tribal Welfare, who was also present at the press Conference welcomed the withdrawal of the proposal. The importance of the presence of Mr. Munda, a former Chief Minister of Jharkhand State which is going to polls shortly, on the occasion, should not be lost. Similarly, the withdrawal was also hailed by the Environment Minister of Manipur. It is said that the amendments to existing Forest Act were envisaged as an attempt to address contemporary challenges to the forests of the country. The draft was sent to key forest officers in the States for comments and objections. It is said to have invited criticism from tribal welfare organizations, political parties, civil society organizations and even officials. But the Director General of Forests is quoted as saying "We will revise it and look at it with fresh eyes. But we will definitely have an amended Act and have wider discussions." Looking at the pieces of information together, one can conclude that some amendments to existing Forest Act are warranted in the light of challenges the forests are facing and it was perhaps to make it more stringent.

Now that draft proposals stand withdrawn, the nature of changes contemplated is no longer a substantial issue. It will be like trying to know the sex of a still-born child. But what should baffle any informed citizen is the keenness of Union Minister of EFCC to not only withdraw the draft proposals but to hastily distance himself and his Ministry from the drafting of proposals. He sounded as if he had seen a red herring. He was also not correct on facts in that the Ministry was very much in the know of events in as much as a PDF file running into 226 pages and super scribed as 'Secret' on the proposed amendments to Indian Forest Act placed by

Forest Policy Division of the MoEF website by the Ministry on 07.03.2019 is available for everybody to see. Thus, the Minister's statement that it is not government's draft is false. That it appeared on behalf of government is good enough to conclude that the Government accepted and adopted the material and it bestows an undeniable ownership and responsibility on it.

I find it relevant to inform the readers that it is not the first time that attempts are made to update the Forest Act 1927 to meet the challenges of changing times. Situation was different when the law was made in Colonial Rule when administration was run in the name of Crown. People had fear for law and public sentiment was not a factor to influence the compliance of law. The subject 'Forest" was in the domain of the Centre and States in British India followed the dictates of the Centre. Provinces had State specific legislations but within the contours of Indian Forest Act 1927. The Princely States, because of British Paramountcy, generally followed the same policy that was in vogue in British India. After Independence, when Constitution was made, the Drafting Committee placed the 'Forest' in State list. It is apparent that not much of thought was given to environment and to its protection and the role of forests as major environmental asset and the need to ensure its protection. Consequences were catastrophic. 43 Million hectares of forest land was lost for one reason or the other by the time Ms. Indira Gandhi as Prime Minister took stock of the situation and thought that enough is enough. It was under these circumstances the Forest Conservation Act came into existence. She was the Prime Minister who had genuine concerns for environment and forests. Forests, marginalized in the Constitution in 1950, found its entry in Concurrent List and the word environment came to be mentioned in effective manner in 42nd Amendment to the Constitution. As far as forest and environment are concerned it was a land mark twist for the good. It made it possible for Forest Conservation Act which is standing as an obstacle for diversion of forests for non-forest purposes. Evidently, the vested interests are sore with these developments and are hell-bent to dilute it. There is reason to believe that the present withdrawal of proposed forest law to make it more effective, is a part of machinations by the vested interests.

In fact, amendment to IFA 1927 has been pending since long and is over-due. Mrs. Gandhi considered it necessary and a serious exercise was undertaken. A draft was prepared and was circulated among States for their views. Given Mrs. Gandhi's stature in Indian polity during contemporary period, the dissent was not vocal and it was at best confined to muted murmurs. Unfortunately for forests, she did live to bring in the amended forest law. She was assassinated and her son who succeeded her did not have the comprehension or the commitment his mother had despite winning unprecedented mandate in the Lok Sabha. The draft must be lying in some obscure corner of

the Ministry gathering dust. I have a feeling the present draft is different which had come about taking proposals from the Forest Departments. The present generation may not even be in the know of the events of Indira Gandhi-Rajiv Gandhi era.

The 'yes' and 'no' syndrome on part of Ministry is not understandable. Similar volte face was also witnessed about review and revision of Forest Policy. The difference is; While this is to prevent an effective legislation in the instant case, the other was to change the policy to accommodate the vested interests. It is clear from the statement of the Minister that views from various States having significant forest cover were consolidated to form the draft proposals and the withdrawal is prompted by some wrong interpretations. Reason given is not convincing in as much as if the Ministry is convinced of the justification to bring in an amended law, it is only proper that the same is pursued notwithstanding the dissent even if there is any. As for misinterpretations cited, they should better be allayed than become basis for giving up the very exercise. Now it is evident that the Ministry appreciated the exigency to amend the forest law in all good faith as custodian of forests but has now decided to backtrack on account of criticism in some quarters. The Minister is evidently trying to please another constituency other than forests. It certainly is not in the best interests of the responsibility he is invested with.

Dissent and criticism against draft proposals is cited from the Minister for Tribal Welfare. There is conflict of interest in his case as elections to Assembly are slated shortly in his native State of Jharkhand. The forest minister of Manipur also expressed his dissatisfaction. It needs to be remembered that the draft proposals are said to have been made on the basis of views obtained from States having significant forest cover. If the interests of forests as a whole are to be secured, that which is beneficial to the largest section should be the objective.

As for the criticism from civil society organizations, tribal bodies, political parties and some officials, they have never been kind and sympathetic to the cause of forests. We do not have fond memories of their role in implementation of Forest Rights Act in the recent past. In the instant case the Hon Minister for EFCC appears to have obliged the vested interests lobby. Can we call it 'match fixing'?

The chronic malnutrition in India reduced only by 1% in the last decade, slowest among emerging countries.

XX All India Forest Ranger's Colleges Alumni Meet at Vadodara

By
Qamar Mohammad Khan

XX All India Forest Rangers Colleges Alumni meet was conducted from 5th of November to 7th of November 2019 at Vadodara and author has attended this meet. Vadodara city is on the banks of Vishvamitra river. Vadodara city is very well developed from tourist point of view. This city is also having a Lake known as Sur Sagar Lake which is artificially made. Vadodara city is non metro small city having a population of about 18 lakhs, which hosted International Marathon Race during 2009, and was awarded gold medal. I am giving the brief description of this meet. Alumni from Forest Ranger's colleges of the states of Haryana, Punjab, Utter Pradesh, Madhya Pradesh, Jharkhand, Chhattisgarh, Maharashtra, Odisha, Rajasthan, Goa, Telangana, Andhra Pradesh, Tamilnadu, Karnataka and Kerala participated in this meet. Totally two hundred officers from the above states attended the meet and about hundred were with their spouses making the total number around 296. Some of the members cancelled their trip owing to ill health at the last moment. The members were accommodated at four places namely Orbit 99, Hotel comfort inn, Hotel Banyan and Om Health Resort. Participants started reaching Vadodara from 4th onwards by trains and flights. Gujarat state hosted this meet and the organizing committee made arrangements to pick up the participants from Railway stations and Air ports in cars and buses. The maximum participants reached on 5th morning. After breakfast at Orbit 99 the programme started.

5-11-2019- day I: After registration the participants assembled in the hall and ice breaking among participants was carried out by playing a modified musical chair game. Lunch was arranged at this place and after lunch proceeded to Attapi Wonderland theme Park Ajwa. After tea a laser show was conducted in which detailed description of Vadodara city was given. "Vad" in Gujarati means Banyan tree, and in this area where Vadodara city has developed had large number of Banyan trees. Hence the name Vadodara.

6-11-2019 day II: Today morning we started for Kevadiya. After reaching there we saw the "Statue of Sardar Vallabh Bhai Pate which is named as "Statue of Unity". Total height of the statue is182 meters. After seeing the statue from out-side we went inside up to chest level by Lifts (Elevator) and observed all round the Dam constructed on Narmada river. There are two Lifts which can take 25 persons in each lift. It is the world's tallest statue. It is located on Narmada River facing the Sardar Sarovar

Dam in Kevadiya colony, 100 kilometres southeast of the city of Vadodara.

Sardar Vallabhbhai Jhaverbhai Patel popularly known as Sardar Patel, was born on 31 October 1875. He served as the first Deputy Prime Minister of our country. He was an Indian barrister, a senior leader of the Indian National Congress and a founding father of the Republic of India who played a leading role in the country›s struggle for independence and guided its integration into a united, independent nation. In India and elsewhere, he was often called Sardar, meaning "chief" in Hindi, Urdu, and Persian. He was India's Home Minister during the political integration of the country.

Our lunch was delayed and after lunch we witnessed a tribal dance and after dinner, we all returned very tired to our camping places at Vadodara.

7-11-2019 day III: Due to rain and influence of cyclone we were forced to deviate from our programme and all proceeded to Vadodara city and visited Lakshmi Vilas palace which was constructed by the Gaekwad family, a prominent Maratha family, who ruled the Baroda State. Major Charles Mant was credited to be the main architect of the palace. The construction of Palace started in the year 1878 and was completed in the year 1890.

Lakshmi Vilas Palace was styled on the Indo-Saracenic Revival architecture, built by Maharaja Sayajirao Gaekwad III in 1890 at a cost of ₹27,00,000. A striking feature of the palace is its Darbar Hall, which often serves as the venue of music concerts and other cultural events. Characteristic of a Venetian mosaic floor, Belgium stained glass windows and walls decorate with mosaic, this hall opens into an Italianate courtyard of water fountains. It is reputed to have been the largest private dwelling built till date and four times the size of Buckingham Palace. At the time of construction, it boasted the most modern amenities such as elevators and the interior are reminiscent of a large European country house. It remains the residence of the royal family, who continue to be held in high esteem by the residents of Baroda.

The Palace compound is of over 700 acres and houses a number of buildings, particularly the LVP Banquets & Conventions, Moti Bagh Palace and the Maharaja Fateh Singh Museum building. In the 1930s Maharaja Pratapsinh created a golf course for use by his European guests. In the 1990s, Pratapsinh's grandson Samarjitsinh, a former Ranji trophy cricket player, renovated the course and opened it to the public. After visiting this Palace, we visited the Museum and then proceeded to Shroff Trust Paldi where lunch was arranged for us. After our lunch we met the tribal children who come from tribal areas and get trained in various trades and after training get absorbed in Industries throughout the nation.

In the evening returned back to Orbit 99 for valedictory function.

Assembled in the hall and technical session started. After technical session valedictory session started and Rajmata of Baroda Her Highness Shubhangini raje Gaekwad was the chief guest, Atul Shroff and Shruti shroff were the guest of honour who are managing trustees of Shroff Trust. The unsung heroes of Gujarat Forest Department were awarded the mementos and citations. Mr. R. K. Sama IFS president of Organizing Committee, guest of honour Shruti Shroff and Chief guest Rajmata of Baroda Her Highness Shubhangini raje Gaekwad spoke on the occasion and vote of thanks was proposed by the Secretary and programme came to an end. We took our dinner and some of the delegates started for their states.

8-11-2019 Day IV: After breakfast delegates were dropped to railway station or air ports through buses and cars. Thus, the XX FRC alumni meet came to an end with a hope of meeting our old friends once again in the XXI meet in one of the states of our country.

Rajmata of Baroda Her Highness Shubhangini Raje Gaekwad: Rajmata of Baroda Her Highness Shubhaginiraje Gaekwad was born on 24th February 1945 and married to Shrimant Maharaja Ranjitsingh Gaekwad of Baroda, mother of two daughters and a son. She was graduated with Honours in History, English Literature and Economics, from Lucknow University in 1964. She is a senator of the Maharaja Sayajirao University of Baroda since 2012.

She has been engaged with social service organizations, specially connected with women welfare and their social and economic empowerment. She was the President of Mahila Sahakari Bank (1986-1998) and Co-Chairperson of Family Planning & Social Welfare Committee, Federation of Indian Chamber of Commerce & Industry (1999-2001). She is Trustee of Sir Sayajirao Diamond Jubilee & Memorial Trust, President and Trustee of Maharani Shantadevi Hospital (winner of National Award for 'Child-Friendly Hospital'), Maharani Chimnabai Stree Udyogalaya, President, Maharaja Fatesingh Museum Trust, Bal Bhavan Society Trust, Swar Vilas (an oldest organization in Gujarat for promotion of Hindustani Classical Music) among other appointments.

Rajmata turned her attention to environmental problems in and around Baroda and actively interested in sustainable development of which environment protection and improvement is an integral necessity. She is the President and Chairperson of Greenery Promotion Committee of Society for Clean Environment (SOCLEEN), Member, World Wide Fund for Nature-India.

She has visited many overseas countries, including USA, Canada, UK, Other European Countries, Middle East Countries and Far East Countries.

MOTTO FOR MOTIVATION

By
K.B.R. Reddy

"Motto" in common parlance means a short sentence or phrase that expresses aims and beliefs of institution and is used as a rule of behaviour. The meaning itself indicates that the expression has a motivating force. In Hindi it is called 'Siddhanth' or 'Aadarsh vakya'; In Telugu, it is called 'Ninaadam' or 'Deeksha Vakyam'. In Urdu it is called, 'Naara'.

The word, 'motto' is derived from Latin expression, 'muttire' or 'muttum' meaning murmur and it is said to be a rule of conduct. One of the oldest, most popular and meaningful mottos in Latin is, "Mens Sana in Corpore Sano"- a sound mind in a sound body. These words in the motto are attributed to Latin satirist and poet, Juvenal. This was adopted as a motto of the Indian Forest College and other Forest Colleges in India. The motto of the Indira Gandhi National Forest Academy at Dehra Dun has "Aranyah te Prudhvi syanonamasthu"-The forest is the earth's delight.

The Lion Capital of Ashoka at Sarnath near Varanasi, erected around 250 BCE, was adopted as National Symbol of India and beneath the symbol is inscribed in Devanagari script the National Motto – Satyameva Jayate (Satyam+eva+Jayate – Truth alone triumphs). This stanza is borrowed from the canto in Mundaka Upanishad (Atharva Veda). The full text of the canto is as follows:

satyameva jayate nantram
satyena pantha vitata devayah
yenaramantyor sayoptkama
yatratat satyasya paramamnidhanam

Truth alone triumphs; not falsehood.
Through truth the divine path is spread out
by which the sages whose desires have been completely fulfilled reach to where is that supreme treasure of truth.

The translation of the mantra into Latin reads: "Veritan Vincit". The motto in Sanskrit was adopted for the country on 26 January 1950. Inspired by the national motto, Smt. Indira Gandhi gave a slogan, Shrama eva Juyate, meaning hard work alone succeeds. The next important motto is that of Supreme Court of India: "Yato dharma stato jaya – where there is dharma (righteousness), there is victory. This motto seems to have been borrowed from Maha Bharat.

Coming to the logo of our own Association, it was designed by Sri K. Subba Rao, C.F. Social Forestry (as he then was) and it was approved by President Sri C. Sarvotham Rao; the motto – Sarve Bhavantu Sukhinaha (May all be happy) - was suggested by a professor of Sanskrit. It is a part of Shanti Mantra and a universal prayer. The prayer is not for one but for all – everything, person, animal, trees, forests, rivers, etc. etc. It is a prayer for the universe with no exception to anyone. What a thoughtful message the motto gives us!

Let us see the full text of the mantra with its meaning.

Sarve Bhavantu Sukhinah

May all be happy

Sarve Santu Nir-amaya

May all be free from ill-health

Sarve Bhadrani Pashyantu

May all see what is goodness and auspicious

Sarve Kaschid-Duhkh Bhagbhavet

May no one suffer

Om Shantih Shantih Shantih

Om Peace Peace Peace

The Indian Armed Forces are the military forces of the Republic India. They consist of three professional uniformed services: The Indian Army, Indian Navy and Indian Air Force. Their main function is to protect the nation against external aggression and help the civil administration to maintain internal security. The Indian Army consists of many wings like, Infantry, Armoured Corps, Engineers, Medical, E.M.E, Signals, Ordnance etc. etc. Some of their mottoes are selectively recorded below for the information of readers.

1. Swadharme Nidhanam Shreyah
(It is glory to die doing one's own duty)

2. Veer Bhogya Vasundhara
(The brave shall inherit the earth)

3. Saravatra Vijaya
(Victory everywhere)

4. Kartavyam anvatma
(Duty before death)

5. Sarvada Shaktishali
(Always strong)

6. Yudhaya Krit Nischa
(Fight with determination)

7. Parakrama Vijayate
(Valour triumphs)

8. Karam hi Dharam
(Work is worship)

9. Balidanam Vir Lakshanam
(Sacrifice is a characteristic of brave)

After the Indian Army, the Indian Navy and the Indian Air Force have major roll to defend the nation. Their mottoes:

10. Sham No Varunah

(May the Lord of the water be auspicious unto us)

11. Nabha Spursham Deeptam

(Touch the sky with glory).

Apart from military forces, there are other similar organizations which are endowed with the duty of protection, safety of territory, persons and their property. Indo Tibetan Border Police. Border Security Force whose mottoes are:

12. Shourya Dhridata Karma Nishtha

(Valour-Detemination-Devotion to Duty)

13. Jeevan Paryant Kartavya

(Duty unto death)

14.. Industry, Impartiality Integrity …

15. Jagrutham Aharnisham

(Alert during day and night)

16. Dharmo Rakshati Rakshitah

(Law protects when it is protected)

17. Duty, Honour Compassion …

18. Sadrakshanay Khalanigrahanaya

(Protect and destroy evil)

19. Service Before Self …

20. Sheelam Param Bhushanam

(Character is the highest virtue)

There are educational institutions, Training centres, other organizations which impart knowledge and skills at the commencement of the career of the prospective and aspiring professionals and they have their own mottoes, some of which are mentioned below:

In a meditative rumination, I thought each motto in a society/institution has a great value. Every motto would have been designed keeping in view the concept behind it. Some of the mottoes culled from different sources are reproduced above; they are not exhaustive and there may be a few more, interesting and meaningful ones. Most of the words and expressions used in mottoes reflect and emphasize morals like Satyam (Truth), Dharmam (Righteousness), Vijayam (Victory), Kartavyam (Duty), Karma (Action), Nishta (Devotion), Seva (Service), Sheelam (Character), Shanti (Peace), Vidya (Knowledge), Jnanam (Wisdom) etc. etc.

As I recall the reason for this essay is our own motto – Sarve Bhavantu Sukhinaha; and ofcourse the national motto – Satyameva Jayate. Each motto I am sure will have salutary impact on the minds of the people. Our esteemed journal Vana Premi, in addition to the motto has a message in Hindi – Nav Say Navvay sall Tak Ke Bachon Ka Sathi. Some readers may not have paid much attention to the thoughtful slogan, which on translation into English would mean: A companion of children aged from nine to ninety years. A ninety-year-old reader is also a child before Vana Premi, because Vana Premi itself is a child gifted to us by Goddess Saraswati (Vana Vasini – Forest Dweller). Therefore, every reader of the journal irrespective of the age is a child before Vana Vasini, the Goddess of Learning. Long live Vana Premi! Vana Premi Zindabad!

CONSERVATION OF BIODIVERSITY- A RITUAL?

By
V. V. HARIPRASAD

Biodiversity is the variety and variability of life on Earth. Biodiversity is typically a measure of variation at the genetic, species, and ecosystem level. Terrestrial biodiversity is usually greater near the equator, which is the result of the warm climate and high primary productivity. Biodiversity is not distributed evenly on Earth, and is richest in the tropics. These tropical forest ecosystems cover less than 10 percent of earth's surface, and contain about 90 percent of the world's species. Marine biodiversity is usually the highest along coasts in the Western Pacific, where sea surface temperature is the highest, and in the mid-latitudinal band in all oceans. There are latitudinal gradients in species diversity. Biodiversity generally tends to cluster in hotspots, and has been increasing through time, but will be likely to slow in the future.

Rapid environmental changes typically cause mass extinctions. More than 99.9 percent of all species that ever lived on Earth, amounting to over five billion species, are estimated to be extinct. Estimates on the number of Earth's current species range from 10 million to 14 million, of which about 1.2 million have been documented and over 86 percent have not yet been described. During May 2016, scientists reported that 1 trillion species are estimated to be on Earth currently with only one-thousandth of one percent described. The total amount of related DNA base pairs on Earth is estimated at 5.0 x 1037 and weighs 50 billion tones. In comparison, the total mass of the biosphere has been estimated to be as much as 4 TtC (trillion tons of carbon). In July 2016, scientists reported identifying a set of 355 genes from the Last Universal Common Ancestor (LUCA) of all organisms living on Earth.

The age of the Earth is about 4.54 billion years. The earliest undisputed evidence of life on Earth dates at least from 3.5 billion years ago, during the Eoarchean Era after a geological crust started to solidify following the earlier molten Haden Eon. There are microbial mat fossils found in 3.48 billion-year-old sand stone discovered in Western Australia. Other early physical evidence of a bio genic substance is graphite in 3.7 billion-year-old meta-sedimentary rocks discovered in Western Greenland. More recently, in 2015, "remains of biotic life" were found in 4.1 billion-year-old rocks in Western Australia. According to one of the researchers, "If life arose relatively quickly on Earth. then it could be common in the universe."

Since life began on Earth, five major mass extinctions and several minor events have led to

large and sudden drops in biodiversity. The Phanerozoic eon (the last 540 million years) marked a rapid growth in biodiversity via the Cambrian explosion—a period during which the majority of multi cellular phyla first appeared. The next 400 million years included repeated, massive biodiversity losses classified as mass extinction events. In the Carboniferous, rainforest collapse led to a great loss of plant and animal life. The Permian–Triassic extinction event, 251 million years ago, was the worst; vertebrate recovery took 30 million years. The most recent, the Cretaceous–Paleocene extinction event, occurred 65 million years ago and has often attracted more attention than others because it resulted in the extinction of the non-avian dinosaurs.

The period since the emergence of humans has displayed an ongoing biodiversity reduction and an accompanying loss of genetic diversity. Named the Holocene extinction, the reduction is caused primarily by human impacts, particularly habitat destruction. Conversely, biodiversity positively impacts human health in a number of ways, although a few negative effects are studied.

The United Nations designated 2011–2020 as the United Nations Decade on Biodiversity and 2021-2030 as the United Nations Decade on Ecosystem Restoration. According to a 2019 Global Assessment Report on Biodiversity and Ecosystem Services by IPBES, 25% of plant and animal species are threatened with extinction as the result of human activity.

Keeping the importance of biodiversity in view The Biological diversity Act 2002 was passed by the Indian parliament and State biodiversity Boards were constituted under section 22 of Biological diversity Act with the objectives of conservation of biodiversity, its sustainable management and equitable distribution of the same.

In this connection the writer of this article has obtained information from the State biodiversity boards of Andhra Pradesh, Assam, Gujarat, Kerala, Maharashtra and Telangana with an aim of assessing the seriousness of implementation of the act in the country under Right to information Act and the information furnished by them is as follows

NOTICE

94th General Body Meeting of "Retd Forest Officers of Telangana &Andhra Pradesh"will be held on 15th December 2019 -11am (Sunday)at Meeting Hall of Aranya Bhavan,Hyderabad.

Members are requested to attend with Spouses. - ***Secretary.***

State	Andhra Pradesh	Assam	Gujarat	Kerala	Maharash-tra	Telangana
Details sought for						
How many persons and companies sought and obtained permission for commercial utilization of bio diversity under section7	43	NIL	128 Full details of the companies furnished	191 companies registered. Nil applications received for commercial utilization	193	Not furnished
Names of the expert members of the board appointed under section 22(4)C including the particulars of their expertise	Furnished	Furnished	Furnished	Furnished	Furnished	Furnished
Under section 32 of the BD Act any state biodiversity fund was constituted for the year 2018=19and if so what are the respective sources of the fund	Information not furnished	Not furnished	Not furnished	25-00 lakhs in 2018-19	ABS	NIL
Under section 33 of the BD act annual report of the Board for 2017-18 and 2018-19 were laid before the state legislature or not	Annual report of 2017-18 was tabled and 2018-19 report is under proces	Not furnished	Annual report of 2017-18 was tabled and of 2018-19 is under process	Annual report of 2017-18 was submitted to Govt. and of 2018-19 is under process	Annual report of 2017-18 was tabled and of 2018-19 is under process	Not tabled
Under section 35 of the Biological diversity Act annual report of the board for the year 2017-18 abd 2018-19 were laid before the state legislature or not	Annual report of 2017-18 was tabled and of 2018-19 is under process	2018-19 report is under process	Annual report of 2017-18 was tabled and of 2018-19 is under process	Annual report of 2017-18 was tabled and of 2018-19 is under process	Annual report of 2017-18 was tabled and of 2018-19 is under process	Audit report of 2017-18 was prepared not tabled 2018-19 audit report not prepared

Under section 37 of the Biological diversity Act whether any biodiversity heritage sites were notified or proposed to be notified and whether rules were framed and approved for the management and conservation of such sites	Guidelines for identification and notification of BHS are notified vide G.O Ms no.96 dated 15-12-2017 and 31-07-2019 Proposals were submitted for Veerapuram and Thimmamma marri manu as Biological heritage sites and not yet approved	Majuli Biodiversity heritage site declared and notified	No rules were framed and notified so far . No BHS are notified so far . The proposed sites for notification are Inland mangrove Guneri,natural mango forest Chinchalidangs .They are under the consideration of the state Govt.	No rules were framed and notified so far.Kollam Asramam Mangrove forest area was declared as biodiversity heritage site on 5th June 2019	Presently only one site namely "Glory of Allapalli was notified as BHS in the state and the sites proposed are as follows !.Ganesh khand garden pune 2.waddham fossil park Sironcha,Landorkhori, Jalgaon	Framing of rules under process. Ameenpur lake was declared as BHS
Under section 38 of the BD Act whether any species were declared as threatened species through notification by the Central govt.and any proposals were sent to the Govt.in this regard.	Identified Not approved so far by the Central Govt. It is under process	7 animal and 7 plant species were notified as threatened species	16 species of flora and 8 species of fauna were sent to NBA .No notification from Central Govt. so far.	13 animal and 26 plant species were notified as threatened species by Central Govt. (MOEF)Vide notification no.S.O. no.997(E) 15th April 2009	No The committee has been constituted for the review of the threatened species and the proposal is under process.	25 plant species were reported to be threatened .23 animal species and 27 bird species,9 reptiles, one amphibia,12 fish species were reportedly threatened, Not got notified by the Central govt.so far

Under section 41 of the BD ACt how many BMCs were constituted during 2018-19	Total constituted 7011 Yet to be constituted 6714	Total 229 BMCs were constituted	Total 7665 BMC s were constituted	Total 1034 including 941 gram panchayats 87 municipalities and 6 corporations	Total 25431(till march 2019)	Total 3179 Bmcs were constituted
Under section 46 of the BD Act how many accounts of the BMCs audited so far for the year 2017-18 and 2018-19	25 BMCs accounts were audited. Chairpersons names not available.	Accounts are being audited regularly. Accounts of 2018-19 are to be audited	Under process	Reports of BMCs are not submitted so far	Number not furnished	10 accounts of the BMCs were audited
Under section 47 of the BD ACT how many annual reports of the BMCs were submitted so far for the year 2017-18 an 2018-19	Annual reports of 2017-18 were submitted Number not furnished. Audit reports of 2018-19 are under process	Annual reports of BMCs are not submitted so far.	Annual reports of BMCs are not submitted so far	49 BMC shave submitted their annual reports for 2017-18 only. Mobile numbers of 10 chair persons furnished.	Number not furnished	Not furnished
Please furnish the information with regard to the release of funds released from the state govt.NBA and other sources if any for the year 2018-19 head of account wise or component wise	State grant 150 lakhs NBA grant 98.66 lakhs GEF grant 68.82 lakhs	Not furnished	State grants :604.36 lakhs NBA 1.45 Lakhs	NBA--13.81 lakhs, Spent:8.92 lakhs UNDP:Fund allotted:23.99 lakhs Spent :0.60 Lakhs NMPB project:12.50 lakhs Spent:1.87 lakhs. State govt. funds:Non plan salaries of permanent staff 67.27 lakhs, Office exp:18.07 lakhs State plan exp :444.63 lakhs	Constitution of 2917 BMCs 537.20 lakhs preparation of 231 PBRs 50.60 lakhs	Audited statement furnished NBA 1.88 ores(17-18)

Please furnish the names of Chair person and Member seccretary along with their official mobile numbers and land numbers	Sri.SBL MISRA IFS(retd) Completed his tenure as chairman in Nov 2019 Sri-.A.K.Mourya IFS PCCF , Member Secretary	Requested to refer to the web portal	Requested to refer to the web portal	Dr.S.C.Joshi IFS (retd) Mobile 8078020272 Dr.V.Balakrishnan Mobile: 9447963036	Dr.Vilas Bardekar chair person 9673330059 Jeet Singh IFS 9422271814	Member secretary Sri.kalicharans Khartade IAS

The information furnished by the public information officers of different state biodiversity Boards can be analyzed and summarized as follows.

- Maximum number of 193 companies/ individuals applied for commercial utilization of biological resources in Maharashtra and Telangana Biodiversity Board declined to furnish the information. In case of Kerala 191 companies registered and nil applications were received for commercial utilization and the purpose of obtaining the biological resources was not indicated.
- The annual reports of Assam and Telangana state bio diversity boards (2017-18,2018-19) have been so far not tabled before the respective legislatures so far.
- Guidelines for identification and notification of BHS are notified only in Andhra Pradesh
- Assam Kerala and Maharashtra are the three states where Biodiversity heritage sites were notified and in Telangana one site was declared as BHS.
- Assam and Kerala are the only two states where threatened species of flora and fauna were declared by the Central Govt through notification under section 38 of the Act.
- Gujarat state govt. has allotted maximum number of funds of 604.36 lakhs followed by Kerala state govt. with 537.20 lakhs to the respective boards where as some of the state's Biodiversity boards appear to have been given least importance and were allocated with paltry sums of budget allocations.
- Highest number of 25431 Bmcs were constituted in Maharashtra.
- Some of the Boards are not tabling the annual reports and audit reports before the respective legislatures which

appear to be having least concern about the same

Conclusion: India is one of the 17 mega diverse countries of the world as identified by Conservation international (American nonprofit environmental organization) in 1998. With only 2.4% of the land area India accounts for 7.31% of the globally recorded species. EARTH SUMMIT was conducted at Rio de Janeiro, Brazil. Biodiversity convention a multi-lateral treaty which was concluded then was opened for signatures on 5th June 1992 and entered into force on 29th December 1993 Out of 194 parties attended 168 were the signatories and India is one of the signatories. Consequently, Biological diversity act was approved by the president of India in the year 2003 on 5th of Feb. In spite of the fact that number of state Biodiversity Boards were constituted about a decade back under section 22 of the Act, even the threatened species of flora and fauna of number of states were not got notified by the central Govt so for the same being the fundamental component of the Act. In number of states Biological diversity heritage sites have not been declared so far. It is quite evident that the nation is not showing required concern towards conservation of biodiversity either due to absence of political will or prevalence of bureaucratic red tape in the country leading to the snail's pace in the conservation of biodiversity in India. The environmentalists and all those who are having lot of concern for conservation of biodiversity due to its beneficial impact on human living conditions and climate change must be lamenting that "The concept of conservation of biodiversity and the implementation of the act have become ritualistic in India with no serious concern by all those who are at the helm of the affairs be at political level or bureaucratic level either due to ignorance or arrogance.

(The writer is a retired DCF, a practicing advocate, having worked for three years in A.P. State Biodiversity Board, he delivers lectures on Biodiversity, Biodiversity Act and Cyber laws in the Central university of Hyderabad and other reputed institutes of Telangana and Andhra Pradesh).

4500 children under the age of 5 die every year because of hunger and malnutrition

REJUVENATION OF THE GODAVARI AND KRISHNA RIVERS THROUGH FORESTRY INTERVENTIONS IN TELANGANA STATE

By

Dr. G.R.S. Reddy

Water pollution is a major environmental issue in India. The largest source of water pollution in India is untreated sewage. Other sources of pollution include agricultural runoff and unregulated small scale industry. Most rivers, lakes and surface water in India are polluted due to industries, untreated sewage and solid wastes.

Untreated Sewage: 2007 study found that the discharge of untreated sewage is the single most important source of pollution of surface and groundwater in India. There is a large gap between the generation and treatment of domestic wastewater in India. The problem is not only that India lacks sufficient treatment capacity but also that the sewage treatment plants that exist do not operate and are not maintained. [Citation needed]

Source of Pollution in India: Sewage discharged from cities, towns and some villages are the predominant cause of water pollution in India. Investment is needed to bridge the gap between sewage India generates and its treatment capacity of sewage per day. Major cities of India produce 38,354 million liters per day (MLD) of sewage, but the urban sewage treatment capacity is only 11,786 MLD. Large numbers of Indian rivers are severely polluted as a result of discharge of domestic sewage.

The Central Pollution Control Board, a Ministry of Environment & Forests Government of India entity, has established a National Water Quality Monitoring Network comprising 1429 monitoring stations in 28 states and 6 in Union Territories on various rivers and water bodies across the country. This effort monitors water quality year-round. The monitoring network covers 293 rivers, 94 lakes, 9 tanks, 41 ponds, 8 creeks, 23 canals, 18 drains, and 411 wells distributed across India. Water samples are routinely analyzed for 28 parameters including dissolved oxygen, bacteriological and other internationally established parameters for water quality. Additionally, 9 trace metals parameters and 28 pesticide residues are analyzed. Bio monitoring is also carried out in specific locations.

The majority of the government-owned sewage treatment plants remain closed most of the time due to improper design or poor maintenance or lack of reliable electricity supply to operate the plants, together with absentee employees and poor management. The wastewater generated in these areas normally percolates into the soil or evaporates. The uncollected waste accumulates in the urban areas causing unhygienic conditions and releasing pollutants that leach into surface and groundwater. The following are the polluted river stretches in Telangana.

"POLLUTED RIVER STRETCHES IN TELANGANA"

Sl. No	River Name	Stretch Identified	Approx. length of the stretch (in Km)	BOD Range/ Max. value	Priority Class	Source/ Towns
1	Godavari	Kamalapur to Burgampahad	100	3.6-26	II	Basar, Mancherial, Manthan, Kamalapur, Burgampahad
2	Krishna	Thangadigi to Wadapally	80	6.0-2.4	II	Thangadigi, Guntur, Vijayawada
3	Manjeera	Gowdicharla to Nakkavagu	110	3.2-4.6	V	Gowdicharla
4	Musi	Hyderabad to Suryapet	150	8.6-165	I	Hyderabad, Rangareddy, Nalgonda
5	Nakkavagu	Patancheruvu to Gowdicharla	50	64	I	Medak, Bachugudam
6	Sabari	Palanchu to Burgampahad	50	3.7	I	Khammam
7	Manner	Warangal to Somnapalli	150	25-27	II	Warangal, Karimnagar

The stakeholders' consultation meeting for the Preparation of Detailed Project Report (DPR) for rejuvenation of Godavari & Krishna Rivers through Forestry Interventions for Telangana State was jointly organized by Institute of Forest Biodiversity (IFB) and Institute of Wood Science & Technology (IWST) in collaboration with the Telangana State Forest Department on 06th November, 2019 at Hyderabad.

The MoEF&CC, Govt. of India has awarded the work of preparing Detailed Project Report (DPR) for rejuvenation of nine major river systems of the country through forestry interventions to the Indian Council of Forestry Research and Education (ICFRE), Dehradun. Institute of Forest Biodiversity, Hyderabad, which is one of the nine Institutes under ICFRE, has been entrusted with the DPR preparation for rejuvenation of river Godavari having a catchment area of 3,12,812 sq.km., in the states of Telangana, six other states and the Union territory of Pondicherry. Similarly, IWST, Bangalore has been entrusted with the task of DPR preparation for Krishna respectively.

The workshop was conducted IFB Govt. of India (ICFRE) in collaboration with the Telangana forest department which was attended by Dr. Rajeshwar Tiwari, IAS, Special Chief Secretary Environment Forests Science and Technology, Department of Telangana and Smt R. Sobha, IFS, Prl. Chief Conservator of Forests & HoFF (FAC), Telangana, Shri D. Jayaprasad, IFS, Director, IFB and other dignitaries.

In the workshop Smt R. Sobha, IFS, Prl. Chief Conservator of Forests & HoFF (FAC) has made an earnest appeal to all the participants to follow the proceedings keenly and to make suggestions as and when required in improvising the preparation of DPR. She dealt with the concept of "Anantadhara, Aviraldhara and Nirmaldhara" in detail. She advised all the participants for taking part in fruitful discussions to be held in the workshop.

- This was followed by the delivery of the address by the Chief Guest Dr. Rajeshwar Tiwari, IAS, Special Chief Secretary Environment Forests Science and Technology, Government of Telangana. He said that it was essential to rejuvenate two mighty rivers Godavari and Krishna which are passing through the number of states of the country and that they would contribute a lot to the wellbeing of human beings. He added that rejuvenation would mean feeling younger and better and those two rivers must be brought to a better stage. He insisted that they should be transformed into top rivers of the country and as such rich forest should be developed in the catchment area through appropriate forestry interventions so that soil erosion would be restricted to the least possible extent. He made it clear that stakeholders constituted not only the different departments of the Govt. but also the people at large and that awareness should be created in their minds. He also stressed upon the necessity of ensuring of Anantadhara, and Nirmaldhara by rejuvenating both the rivers. He informed that the quality of the river water depended upon hydrology and affirmed that Aviraldhara was essential. He narrated his experience as a District collector as to when it became an imperative need for them to get water released from Tungabhadra during the days of Pushkarams to the Godavari during which period they engaged hundreds of boats to pick up the solid waste in the waters of river Godavari. He expressed that nature gave sufficient to meet the needs of human beings but not their greed. He wished that the rejuvenation would be able to bring back the past glory of both the rivers of Godavari and Krishna in connection with ecology, hydrology, and biodiversity.

Technical Session-I

The First technical session on proposed approach for the preparation of DPR on rejuvenation of Godavari and Krishna rivers through forestry interventions was conducted under the Chairmanship of Shri Munindra, IFS, Principal Chief conservator of forests (Admin) with Shri MP Singh, IFS, Director, IWST, Bangalore as co-chairman.

The following officials made presentations in connection with the related technical aspects

Dr. Pattnaik, Scientist-F & Nodal officer, IFB,

Hyderabad, Dr. Nagaraj, Consultant, IWST, Krishna river, Sri M. Raghuram, Superintendent Engineer, Central Water Commission (CWC), Sri Pushkar Singh Kutiyal, IES, Member, Godavari River Management Board, Dr. Mohammed Osman, Principal Scientist, CRIDA, Sri N. Murali Mohan, JSO, Pollution Control Board

Technical session II:

The second technical session was conducted under the Chairmanship of Shri Lokesh Jayaswal, Addl. PCCF (CAMPA) and State Nodal Officer for Telangana and assisted by Sri. Siddhanand Kukrety, IFS, Additional Principal Chief Conservator of Forests as Vice-chairman on Natural landscape interventions inside the forest area.

The following officials made presentations in connection with the related technical and forestry aspects

Sri P. Srinivasa Rao DCF (IT) GIS cell, TS Forest department, Sri Vinay Kumar, IFS, CCF/CF, Nizamabad

Sri Sidhanand Kukrety, IFS, APCCF/CF, Rangareddy, Sri C.P. Vinod Kumar, IFS, CF

Technical session III:

This session was conducted under the Chairmanship of Sri Swargam Sreenivas, IFS with the assistance rendered by Dr. G. C. S Reddy, IFS in connection with natural landscape interventions outside the forest area.

The following official made presentations in connection with the related technical and forestry aspects

Dr. S. J. Asha, IFS, Spl. Commissioner, PR & RD, Dr. L. V. Reddy, Director, Horticulture department, Sri Vijay Kumar, Addl. Director of agriculture, Sri V. Krishna, Joint commissioner MA&UD

The third technical session was followed by the Panel discussion conducted under the Chairmanship of Smt R. Sobha, IFS, Prl. Chief Conservator of Forests & HoFF (FAC), Telangana, the panel members being Shri Munindra, IFS, PCCF (Admin), Shri Lokesh Jayaswal, Addl. PCCF (CAMPA) and State Nodal Officer for Telangana, Shri MP Singh, Director, IWST, Bangalore, Sri. M. Raghuram, Superintendent Engineer, CWC and Shri D. Jayaprasad, IFS Director, IFB.

To begin with Sri Munindra IFS initiated the discussion.

Sri Lokesh Jaiswal IFS has suggested coordination between different departments at field level, to define the involvement of different departments, for causing a letter to be addressed by the Chief Secretary in this regard to all the concerned, to promote the concept at the district level by laying emphasis on the training to be imparted to all the concerned especially at the cutting edge level.

Shri M. Raghuram, SE, CWC has insisted upon the need to see that the field level plan should be implementable while ensuring that the data available with CWC would be shared with all the line departments.

Dr. C. S. Reddy, IFS has suggested that village plans should be got chalked out by involving villagers by integrating the network of water users' associations and also by ensuring the

water management component as part of the envisaged plans.

Shri Saravanan, IFS, Conservator of forests has suggested that a team with the officials of line departments should be constituted and resource mapping and plan of action should be chalked out.

DFO Asifabad has suggested that the development of grasslands and SMC operations should be taken up in the wildlife areas.

DFO Mahaboobabad has expressed that the number of riverbank areas were encroached upon and their restoration component should be included in the DPR.

DFO Warangal has suggested exploring the possibility of relocating the encroachers and getting the areas planted on a massive scale by incorporating the same in the DPR.

Dr. Nagaraj consultant while asserting that geopolitical boundaries do not match with village boundaries has suggested that on both sides of the rivers even beyond 5 KM treatment should be taken up on a watershed basis by saturating the watershed areas. He asked as to how the works would be taken up in Telangana outside RF areas in the absence of SF department unlike in Karnataka where riparian reserves were declared. He suggested for declaration of riparian reserves for protecting wildlife areas while taking up in-situ conservation.

The HOFF and PCCF Smt. Sobha, IFS has suggested that multi-disciplinary teams should be constituted and development should be taken up on a watershed basis in a holistic manner and area-specific treatment should be envisaged in the DPR. She added that in Telangana in spite of the absence of SF wing plans have been prepared at the village level under PALLE PRAGATI PROGRAMMES. She insisted that green plans /village level plans should be incorporated in the DPR and a provision should be provided in the DPR with regard to multi-disciplinary teams at each district level. She also suggested that the provision must be made in the DPR in the context of quantifying and measuring the outputs achieved.

Dr C.S. Reddy, IFS has expressed that there was a dire necessity of Innovative functioning, action-oriented research, evaluation of the impact of the structures taken up, mid-course correction provision, and rehabilitation of the encroachers by restoring the areas encroached upon.

Shri Vinodkumar, IFS, Conservator of Forests has stressed upon the necessity of providing technical personnel at the forest range office and division office level. He felt that the number of riparian zones had been under encroachments and a regulatory mechanism should be evolved for restoring the same and to take up planting activity where ever possible.

DFO/GIS has suggested that the ecosystem services in connection with the yields in the prevention of water pollution should be quantified by the installation of observatory points for which SE CWC responded positively.

In this context Dr. MP Singh, IFS, Director, IWST while reposing confidence in all the

concerned in the preparation DPR part I desired that all the DFOs at the district level should extend their support in connection with the capacity building. He also suggested that the relevant information could be obtained through interaction with village Panchayat/ watershed committees. He also hoped that Sri Lokesh Jaiswal, IFS the nodal officer would be approaching the Chief Secretary of Telangana for issuing necessary orders in the preparation of DPR and also in its implementation.

Shri Jayaprasad, IFS, Director, IFB while appreciating the participants that suggestions were put forth by them has asserted that there was a lot of scope for the activities to be taken up outside the forest, area. He has stated categorically that in spite of the fact that there would be lot of scope for the activities to be taken up outside forest areas the District/Divisional forest officers would have to play a major and responsible role in connection with the coordination with the officials of line departments and also in the preparation and implementation of the DPR in rejuvenating Godavari and Krishna rivers in the state of Telangana. He also urged with all the stakeholders to ensure that the project should be implementable and added that PR and RD departments should be clubbed at the district level and the activities should be planned accordingly. He also has reiterated that District/ Divisional forest officers should think beyond the forestry sector.

The stakeholder's meeting was concluded with vote of thanks by Dr. G.R.S. Reddy, Scientist-G, DPR-Telangana State Coordinator from IFB, Hyderabad. He thanked all the dignitaries and participants (120 members) by indicating the names of all those who were instrumental in making the program a grand success. He also once again thanked all the stakeholders for their valuable inputs and assured that all the suggestions will be looked into while preparing the DPRs.

19 Crore people in the country sleep on an empty stomach every night.

***

Over 25 lakh persons (including children) die of hunger annually.

FOREST OFFICER MR. K. MOHAN REDDY'S DAUGHTER DR. MANJULA GETS INFOSYS AWARD

BY
K.B.REDDY

Dr. Manjula Reddy, Chief Scientist at the Centre for Cellular and Molecular Biology (CCMB) has been awarded the prestigious Infosys award for Life Sciences for her work on structure and synthesis of the bacterial cell walls. She joined CCMB in 1990 as a Junior Scientist. She did a short Post - Doctoral Stint in Fred Hutchinson Cancer Research Centre, Seattle in 2004. She became an independent investigator and started her own laboratory in 2007. Since then, she has been studying how bacterial cell walls grow and divide. The Infosys award carries a gold medal, a citation and cash prize of US Dollars 100,000. Understanding fundamental steps of bacterial growth and division is critical for the development of new antibiotics.

The discoveries of Dr Manjula Reddy have changed the arc of microbiology and raised the hope of new classes of antibiotics to counter microbes that are antibiotic resistant. She and her colleagues elucidated key steps how bacterial cells physically grow. A single cell of bacterial pathogen can grow in a food-filled environment and at human body temperature in as little as 20 minutes by re modelling its membrane and cell wall. Despite over 100 years of research in bacteria, how a simple cell achieves this rapid body – re modelling is not fully understood. Dr. Manjula Reddy's work has provided critical new insights

Dr Manjula Reddy took the bold step of pursuing a different target, namely the first step to cell growth involving cleavage of the existing peptide-peptide bond. Because, bacterial cells are surrounded by a continuous meshwork of cell wall, their growth and division is intimately tied to the expansion and splitting of the wall matrix. It was appreciated early on the bonds in the meshwork would need to be broken in order to make space for the insertion of new material to grow the wall. This realization predicted that for bacterial growth. Dr Manjula Reddy was the first to identify the using an elegant continuation of biochemistry and genetics.

She went on to discover that one of the 'space maker' enzymes is regulated by a protease and an adapter targets the enzyme to the protease, which is likely the first example of broadly utilized mechanism for regulating enzymes at the surface. The race between antimicrobial compounds and bacterial resistance is dialectic perhaps as old as the first communities of cells. Antibiotic usage leads to death of vulnerable bacteria and other microorganisms, leaving resultant organisms to multiply. By examining long-standing problem with a novel and even orthogonal perspective,

Dr Manjula Reddy and her colleagues have revealed fundamental aspects of bacterial growth and identified new targets - the protection and

reaction steps - for new classes of antibiotics.

The Infosys prize is awarded annually to honour outstanding achievements of contemporary researchers and scientists across six categories viz. Engineering and Computer Sciences, Humanities, Life Sciences, Mathematical Science, Physical Sciences, and Social Sciences.

Manjula started her schooling at Mannanur (1968-'70) and went through Middle and High Schools at Narsapur, Banswada and Madapati High School at Hyderabad (1971-'78). She did Intermediate from Vanitha Maha Vidyalaya at Hyderabad and graduated in science in 1983 from St. Francis College at Hyderabad. She did M.Sc. in 1985 from University of Hyderabad and Ph. D from CCMB in 2002. She was Research Fellow at the Institute of Microbial Technology at Chandigarh until 1989. Dr Manjula is now the Chief Scientist in CCMB.

The author acknowledges with pleasure and pride, the help he received from Dr Manjula Reddy on the technical aspect of the paper.

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(2). when found in or brought from a forest;

(3). such other produce as may be prescribed.

The first category mentions among others "rousa grass". In the second category it is said not merely trees but also "such leaves, flowers and fruits as may be prescribed and all other parts or produce not hereinbefore mentioned of trees". The second category includes plants not being trees and third category includes wild animals etc. Fourth category includes rocks and minerals etc. The last category mentions such other produce as may be prescribed.

It is seen that the definition includes not only such produce which is normally referred to as 'forest produce', but also various products which are not referred to as 'forest produce'. In addition, the Government also is empowered to prescribe 'forest produce' by rules. It appeared to the court that the definition of 'forest produce' is exhaustive. The item in dispute is not covered by the definition in Section 2 (g) Sub-Clauses (iii), (iv) and Section 2 (g) (3).

The court referred to the judgments of the Supreme Court and that of A.P. High Court in similar cases and came to the conclusion that the expression "includes" is used really to mean "means and includes" and not "includes" as generally understood. It is observed that the consignment in dispute is not forest produce and no permit or certificate is required from the Forest Department for the transit of the goods in dispute.

In the facts and circumstances, a writ of mandamus was issued directing the Railways to accept the consignment without insisting on the production of permit from the Forest Department. The writ appeal was allowed and the order of the Single Judge was set aside on 26.12. 1991.

Source:A.I.R. 1991 A.P. 249. K.B.R.

LEGAL NOTES

Hakim and Company Vs. Government of India and Others

M/s Hakim and Company wanted to transport Rousa Oil by Railways and with that intention the Company approached the concerned Railway official at Namplly Railway Station of the SouthCentral Railways. The Rousa Oil was sealed in drums and was packed in baskets to be sent to Dadar, Bombay and Byculla. The Railways insisted that there should be a permit issued by the Forest Department, without which the consignment cannot be accepted.

The petitioners considered the refusal to accept the Rousa Oil by the Railways (R-3) is improper and illegal and therefore the company filed a writ petition which was dismissed. Then a writ appeal against the order of the Single Judge was filed. In the writ petition, it was asserted that the Forest Department sells every year Rousa grass and the oil extracted from the Rousa grass is sold in the market. The petitioners purchase the Rousa Oil and export the commodity to other states. The forest laws do not regulate the sale of Rousa Oil or its transport.

The learned Single Judge referred to the definition of 'forest produce' in Section 2 (g) and Rule 3 of the Forest Produce Transit Rules and took the view that the Rousa Oil produced from the Rousa grass comes within the definition of "forest produce" and therefore requires permit under the Rules. The learned Single Judge dismissed the writ petition on 29.10.1987 on this ground.

Aggrieved by the order of the Single Judge, Writ Appeal was filed and the appeal came up for consideration before the Division Bench (D.B.) comprising The Hon'ble Justice Y. Dayal and The Hon'ble Justice S.S. Quadiri. The prayer in the appeal was for issue of a writ of mandamus or any other appropriate writ to Railway authorities and the Forest Department directing them to accept the consignment of Rousa Oil booked by the appellants at Nampally Rly. Station for transport to the state of Maharashtra.

It was submitted that Rousa Oil is extracted from Rousa grass, but it is not "forest produce". The D.B was of the opinion that the definition uses the word "includes" as opposed to the expression, "means and includes". Their Lordships made an exhaustive and analytical study of the definition of "forest produce". Though the definition of the term "forest produce" refers to the expression "includes", it is divided into three broad categories, namely:

(1). whether found in, or brought from a forest or not;

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Printed & Published by Qamar Mohd. Khan on behalf of Association of Retired Forest Officers, Printed at Venu Graphics, D.No.2-1-392/1/6, Fever Hospital Signal, Nallakunta, Hyderabad-500044 and Published from Room No. 5 & 4, 5th Floor, Aranya Bhavan, Hyderabad-500004. Editor: Qamar Mohd. Khan. RNI Regd. No. Teleng/2000/2185. Email ID: qamar_asima@yahoo.com. Phone No. 9849233624

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Natures' surprise. Photo By R.S. jena

The crown (head) of *Caryota urens* (fishtail palm) about 40 feet in height containing green leaves was cut and removed in order to provide light to the undergrowth flowering plants. After a year during the rainy season two branches, four feet long have come out from the top of beheaded trunk, containing flowers and fruits.

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Date of Publication: 26-10-2019 Total pages : 56 Date of Dispatch : 4th or 5th of every month