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VANA PREMI



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Photo: *Narahari Kanike*

Greater White Fronted Goose (*Anser albifrons*)



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- Large grower of about 26,809.00 Ha. of Eucalyptus clonal / seed origin plantations. Bamboo also grown as an important crop over 6,405.00 Ha.
- The TSFDC has also taken up the challenging task of Eco-Tourism development in the State. Already made open to public – Hyderabad Botanical Garden, Pala Pitta Cycling Park near Hi-Tech City, Madhapur, which has received the ISO 9001:2015 certification on 16-10-2019. Effective SMC measures for recharging pond water and improving surface water taken up in association with Smaran NGO. Mahavir Nischal Van Eco-Tourism Centre, Vanasthalipuram, and Mrugavani National Park at Chilkur are attracting increasing number of visitors.
- TSFDC is also developing Urban Parks in Lalgadi Malakpet RF Cluster, Thumukunta RF & Gowdelli PC Kalan & PC Khurd Cluster. Sankalp Taru NGO is collaborating with TSFDC in improving greenery at Gowdelli Park.
- TSFDC has also taken up consultancy work for NTPC and RFCL and successfully raised multiple Row avenue plantation along Rajiv Rahadari highway in peddapally Dist.
- Dhanvanthari herbal garden is revived with support from Deloitte and Technical support of environment forest solutions.

Vice Chairman & Managing Director

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

Editor : Qamar Mohd. Khan

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

The Association of Retired ForestContentsOfficers, Telangana & Andhra Pradesh

(Regd. No. 557/1990)

- President : Sri. S.K. Das, I.F.S.
Cell : 9550681964, 23115085
- Vice President : Sri. T. Narayan Swamy, I.F.S.
Cell : 9701336446
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2. Editor : Qamar Mohd. Khan
Tel: 040-40205831, 9849233624
e-mail:qamar_asima@yahoo.com

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EDITORIAL

Bush fire in Australia: Australia is a continent, an Island and a country. The total land area of Australia is 7,741,220 Sq. km, which is about 5% of the world's total land mass and about 2.35 times larger than India's total land area. The Tropic of Capricorn is passing through in the centre. Australia is a highly developed country, with the world's 14th-largest economy. It has a high-income economy, with the world's tenth-highest per capita income. Australia's total population is 2.46 Crores. Australia has an average population density of 3.3 persons per square kilometre, which makes it one of the most sparsely populated countries in the world. In India population density is 455 persons per sq. kilometre. The population of Australia is 131.46 Crores less than India's population. Named deserts of Australia cover 1,371,000 square kilometres, or 18% of the Australia's land. However, approximately 35% of the Australian continent receives so little rain it is effectively desert. Australia has a total of 134 million hectares of forest, which is equivalent to 17% of its total land area. Of this total forest area, 132 million hectares (98%) are 'Native forests', 1.95 million hectares are 'Commercial plantations' and 0.05 million hectares are 'other forest types. The following species are mainly found in Australia along with few other species. *Acacia*, *Callistemon*, *Eucalyptus*, *Leptospermum*, *Cycads*, *Conifers* and fern species. There are more than 700 species of eucalyptus of Myrtaceae family and most are native to Australia; There are some 1350 species of *Acacia* found throughout the world and close to 1000 of these are found in Australia, commonly known as Wattle. *Eucalyptus*, *Leptospermum*, *Acacia*, *Callistemon* and *Conifers* species contain essential oil in some part of the plant, which helps in burning of forests of Australia. Forest fires in Australia are known as bush fires.

The climate of Sydney, the capital city of New South Wales, lying on the southeast coast of Australia, is subtropical oceanic, with mild winters and warm summers. The highest maximum temperature was recorded as 50.7 °C, at Oodnadatta on 2 January 1960, which is the highest official temperature recorded in Australia and the lowest minimum temperature was -8.0° C, at Yongala on 20 July 1976. This shows that there is huge variation in the temperatures of Australia. The hottest months in Australia are December, January and February and the coldest months are June, July and August. Australia broke its all-time temperature record twice in December this year. An average maximum of 40.9C was recorded on 17 December 2019, broken a day later by 41.9C, both beating 2013's record of 40.3C. By the end of the month every state had measured temperatures above 40C, including Tasmania, which is usually much cooler than the mainland. Notably, Australia experienced its hottest year on record in 2019, climbing 1.5 degrees Celsius higher than the average. According to a report by the Bureau of Meteorology, 80% of the land receives less than 600 mm (24 in) of rainfall annually and 50% has even less than 300 mm (12 in). As a whole, Australia has a very low annual average rainfall of 419 mm (16 in). Rising temperatures increase the risk of bushfire, and in November, Sydney experienced a catastrophic fire danger for the first time ever. But the overwhelming scientific consensus is that rising levels of CO₂ are warming the planet. Australia has been getting hotter over recent decades and is expected to continue doing so. The more extreme weather patterns and higher temperatures increase the risk of bushfires and allow them to spread faster and wider. Australia's deadly fires have been fuelled by a combination of extreme heat, prolonged drought and strong winds. The country is in the grip of a heatwave, with record-breaking temperatures over the last three months.

While Australia is particularly fire-prone, natural fires account for only six percent of known causes of vegetation fires attended by fire services. Fires can start in a number of ways -- from carelessly discarded cigarettes butts to lightning strikes and deliberate fires by people. Lack of rain and low soil moisture can help enable small fires to grow in size, and coupled with the high temperatures and fierce winds that Australia has experienced in the last few months, these small fires can become huge infernos. In the years between 1967 and 2013, major Australian bushfires have occurred which resulted in over 8000 injuries and 433 fatalities, close to 50 per cent of all deaths from major Australian natural disasters in the period. The worst bush fire accident of Australia occurred on 16th February, 1983 remembered as "Ash Wednesday bush-fire". The Ash Wednesday bushfires were a series of fires in south-eastern Australia on a hot, unrelenting dry day more than 180 fires caused widespread destruction across South Australia and Victoria in just twelve hours. In Victoria, 47 people died and in South Australia, 28 died. From 2013 the occurrence of bush fires has increased and in 2019-20 almost entire Australia is burning. In southeast Australia, bushfires tend to be most common and most severe during summer and autumn, in drought years, and particularly in El Nino years. The most devastating fires are usually preceded by record high temperatures, low relative humidity and strong winds, which create ideal conditions for the rapid spread of fire. While New South Wales, Canberra, South Australia and Tasmania have all experienced devastating bushfires in recent years, it is Victoria -- particularly in regions near Melbourne that stands out as a hotbed for bush-fire activity. Four of the five deadliest fires on record in Australia have been in Victoria.

The Australian states of Queensland and New South Wales, bushfire started in September 2019 and continuing even today. This

year's bushfire is very severe and the 2019-20 bushfire season is of notable intensity compared to previous seasons as it has burned an estimated 10.7 million hectares (107,000 square kilometres, about 1.38 percent of Australia's total area) and destroyed over 5,900 buildings and killed 28 people as of 8 January 2020 including fire volunteers. Fire continued till 14th of January and from 14th January to 18th January there was rain and forests got some respite from fires due to rains. The bushfires of this year are regarded by the New South Wales Rural Fire Service as the worst bushfire season in memory. In December 2019, the New South Wales Government declared a state of emergency after record-breaking temperatures and prolonged drought exacerbated the bushfires. Professional firefighters are the first in line to battle the flames, but they are outnumbered by the thousands of volunteers. There's also help coming from abroad: the US, Canada, and New Zealand have sent firefighters to help. Australia's police, military and navy are involved in rescue and evacuation efforts. Firefighters are spraying water and fire retardant from planes and helicopters as well as from the ground.

A reader of Vana Premi and retired Indian Forest Service Officer Sri B.M.T. Rajeev from Bengaluru whose son is in Australia and who visited Australia "says it is a Nature struck tragedy for the innocent animals of Australia and manmade catastrophe of Green House Gasses. Its ill effects are on environment and planet. The Australia has no practice of forming and cleaning fire lines, employing fire watchers and all paraphernalia to control forest fires like India. They have the system of fire management with patch burning in fire risky areas to an extent of 10-15 ha. by throwing kerosene dipped fire balls from helicopters during evening of winter to see the fire is off naturally. The roads only serve as fire lines. They even give patch burning to the forests of fire hazardous areas after rains so

that the fire risk for next year is reduced. Their forests have a lot of deadwood, as they have no system of harvesting dead wood, except harvesting timber. The areas other than the forests too are fire risky due to presence of thick bush. The fire-fighting arrangements is only mechanical i.e. dowsing by spraying water from helicopters and aeroplanes when it becomes a national disaster. Sufferers are the animals. It is a tragedy to see the cattle in farms too are charred”.

New South Wales experienced the longest continuously burning bushfire complex in Australia's history, having burned more than 4 million hectares (9,900,000 acres), with 70-metre (230 ft) high flames being reported. Due to safety concerns and significant public pressure, New Year's Eve fireworks displays were cancelled across New South Wales including highly popular events at Campbell town, Liverpool, Parramatta and across the Northern Beaches, and as well in the nation's capital of Canberra.

Australia is on fire even today (18-01-2020) and is facing an unprecedented national crisis. Professor Christopher Dickman at the School of Life and Environmental Sciences, the University of Sydney and a fellow of the Australian Academy of Science, the renowned ecologist, estimates that over a billion species of animals have died due to fires and this figure will go up. (News item in Times of India dated 18-01-2020) Among Australia's best-known wild animals, which are found only in Australia are the kangaroo, koala, echidna, dingo, (a dog) wallaby and Glossy black Cockatoo to name a few, which have been killed in large numbers now in fire. We forget that we are saving ourselves while we save other species from extinction. Hence the saving of bio diversity is in our own interest.

I am a witness to see the burning of forest (bush fire) adjoining to Great Ocean Road one of the World's Most Scenic Coastal Drives, built by

soldiers between 1919 and 1932 and dedicated to soldiers killed during World War I. The road is the world's largest war memorial and 243 kilometres long, when I visited Australia about 4 years ago this forest was burning and was giving very pathetic look, with smoke and burning smell. This patch I have visited earlier also and was really one of the beautiful areas.

Before we forget the fire accident in Amazon which occurred few months ago the second incident of Australia's bushfire occurred which is much bigger than Amazon fire incident which caused heavy damage to life of human, animals and property including rare wild animals of Australia. Climate Change warnings went unheeded and now we are facing its results. Floods, droughts and huge fire accidents are manmade for selfish purposes and we are not learning any lessons from past incidents. In fact, these incidents are warnings to human from nature and if now also, we don't come out of slumber our future generation will not excuse us.

It is estimated that over 18,629 square kilometres of forest within the Amazon biome has been lost to fires in 2019 which is much less than the bush fire areas of Australia. The total area burned this year, across New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania has now reached 107,000 square kilometres. If we lose our forests at this rate than that day is not far off when we will lose all the forests of this planet, and human, animal life will not be able to continue on this planet as oxygen will not be available. Hence all the countries should take care of the forests of their countries and protect forests for continuation of life on this planet.

Vana Premi pray God to start early rains in Australia and wish that the bushfires are extinguished naturally due to rains to save human, animal, plant life and property. **QMK.**

LETTERS TO THE EDITOR

Dear Editor,

Greetings!!

While reciprocating the festival-greetings, super-scribed on the top of title-page of the current-month's issue of Vana Premi, I am to refer also the earlier number, which too was found with attractive photos & get-up/logo, matched with very informative and well-written Editorials on the topical subjects of Energy-conservation & Women's Safety. As ever, you continue to be resourceful in getting articles by motivating the potential contributors which includes persons of the Calibre of JVS & KBR. In particular former's two beautifully composed articles on "match-fixing..." and "...create confusion..." are marvellous, while the latter is always visible at his chosen corner of "Legal Notes", with his well-researched and painstakingly-edited cases of immense relevance. Sri Hari Prasad also has joined the race with so much gusto. Hearty congratulations for your purposeful endeavour even during the storms away from the rocks, along-with such able team, of which the earlier two are so committed despite their advanced-age and now they are the chosen permanent-invitees to the joint-Association, keen to keep its mouthpiece Vana Premi afloat. May your tribe increase!

With Best wishes,

Dr Raghotham Rao Desai.

Dear Sir,

Please refer the editorial of Vana Premi of January, 2020; Women and their Safety. A very nicely analysed editorial on pros and cons for the uncontrollable rapes happening in India inspite of all precautions taken by the governments and will of society to put them done.

Your suggestions are worthy for consideration.

One more reason for rapes is the imbalance in sex ration of males and females among the younger generation.

Historical evidences shows that man goes mad to ease physical sexual urge for which brothels were permitted all over the world. Some countries have them even now.

But, India has abolished brothels on health and moral grounds. Due to which mad fellows in musth commit crime of rapes as animals and kill the victims to destroy the evidences.

B M T Rajeev,

Bengaluru

GREATER WHITE FRONTED GOOSE

(*Anser albifrons*)

Source: Internet

General Description: The Greater White-fronted Goose is mottled brownish-gray overall with a black tail, white rump, white band at the tip of the tail, and bright orange legs. The belly has a varied pattern of large black splotches. Its name is derived from the white facial feathers around the base of the pinkish-yellow bill. The juvenile looks similar but lacks the white facial feathering and black markings on the belly.

Habitat: Greater White-fronted Geese nest on marshy ponds in the tundra or taiga. They winter in open country in mild climates in habitat with shallow fresh or salt water near agricultural fields.

Behaviour: The Greater White-fronted Goose grazes while walking on land, and dabbles when in the water. Social most of the year, this goose is territorial during the breeding season.

Diet: In the winter, seeds and waste grain are the staple of the diet. Stems and roots become more important sources of food during the breeding season. These geese also eat some invertebrates.

Nesting: The Greater White-fronted Goose doesn't usually breed until 3 years of age. The female builds a shallow depression lined with plant material and down in a sheltered spot near the water. She lays and incubates 3 to 6 eggs for 22 to 27 days. The young walk and swim almost immediately after hatching, and both parents tend them, although they feed themselves. First flight is typically between 38 and 45 days, but the young remain with the parents for at least the first year, and often maintain an association with the family for several years.

Migration Status: A long-distance migrant, the Greater White-fronted Goose relies on established migratory routes and stopover points on its way to wintering grounds in California and southern Oregon.

Conservation Status: The population of Greater White-fronted Geese has fluctuated. Pacific birds declined in the 1970s and 1980s, but increasing numbers have been wintering in western Washington in recent years. Hunting is a major factor controlling populations (but losses due to hunting can be managed). Habitat loss is a more difficult challenge. Large oil fields on the Alaskan Arctic coastal plain have degraded the wetlands in that area, potentially affecting nesting success of the Greater White-fronted Goose. The Tule Goose, a large, dark subspecies that nests in southern Alaska and winters in central California, makes up about 1% of the total population, but its status in the Pacific Northwest is poorly known.

Editor's Note: The Greater White-fronted Goose, a rare bird in the Indian subcontinent, with just three previous records in Maharashtra, (Pune) has been sighted in Bhigwan by Dr Sudhir Gaikwad. Bhigwan is a small town on the border of the Pune and Solapur districts in Central Maharashtra. While observing a flock of about 300 Bar-headed Geese, Dr Gaikwad spotted a Greater White-fronted Goose among them. This lone individual had probably strayed to Bhigwan with the flock of Bar-headed Geese. Sri Narahari Kanike found for the first time a lone bird in Hubli which was never sighted earlier in south India. This bird is not sighted south of Pune in past.

PAROTHI

By

Ramesh Kalaghati

(Continued from last month)

Chapter 13; One afternoon when she was teaching a lesson to Siddhu, a grown-up woman shows interest in learning. Parothi gladly starts teaching her. This inspires other women. They too come to Parothi for learning. While teaching them, Parothi interacts with them about many issues of common interest. One day a woman comes with a swollen cheek and a blackened eye. Parothi and other women ask her the reason for her bruises. The woman tries to hold back her tears but fails. Parothi and others console her. She tells them that her husband in inebriated state beat her. The other women join her pouring out their hidden emotions. They say boozing has become a regular habit to their men after the wine shops were opened in their neighbourhood because of which there are regular scuffles and quarrels in their houses. Parothi is lost in thought. After a brief introspection, with a decisive face she looks straight into their faces. The women are eager to know her mind. Parothi asks them whether they will co-operate with her if she plans an agitation for the closure of the shops. After a few minutes of silence, the women come forward. There and then Parothi starts *Mahila Seva Samaj*. She says that the *Samaj* should work for the welfare of the women. It must preach good things to the people. It should fight sincerely against social evils such as drinking, wife beating and illiteracy. The women nod in agreement. Parothi asks them to begin their activity at home by keeping their homes and surroundings clean.

Parothi speaks at length on environment also. She reminds them of the green forest which was

cut off. She reminds them of the birds and animals that have disappeared. She brings back the forest products to their memory which they used to collect from the mother forest. She asks them to remember that Shankaragudem was calm and serene in those days before the mining company came. She puts a visual picture of words of the Koneru which was once interwoven with their lives and how it has been strangled and polluted. She speaks of the waterfall that was silenced and the lotus pond that was changed into a muddy hole and the cranes which flew away to alien lands. This mindless modernization and development have brought poignant sorrow into their lives. If such lethal attitude is not checked, it makes Shankaragudem a place to live in with constant fears and unending tears. She tones up her address by saying that they have no right as mothers to reduce Shankaragudem an unworthy place to their descendants. If they do so, they are plunging their children into a well of darkness. The gathering is inspired. There and then they chalk out a programme. Next day the *Mahila Seva Samaj* protests before a wine shop.

The owner of the shop would brook no interruption to his sales and profits. He enters into a heated argument with them. Parothi and others persuade him by pointing out how the shops such as his have been ruining the peace of mind of women and how the drink has been straining the relationships between people. They say because of the drink the men are becoming violent and are indulging in doing nasty things such as ill-treating wives and neglecting children. The shop-keeper answers back in a derisive tone.

'I sell a man the drink to drink it; not to beat his wife. If he does so, I am not responsible for it. If that is your concern, chain your husbands. I am sure you can't do it. When you cannot discipline your husbands, how do you think of controlling a vendor who is not your husband.'

The gathering around laugh and jeer at the women. The *Mahila Seva Samaj* is not deterred. They vow to continue their protests. Some in the crowd sympathise with the agitating women. The *Samaj* sends right signals to the people, though it fails to make the shop-keeper shut his shop.

Rajaroo comes to know about these activities. He gets furious because he has underhand dealings with the wine merchants. He decides to put Parothi in her place. He knows that Parothi has borrowed money from him through a third person to meet Shiviah's medical expenditure. He considered it an opportunity to grab her land. He decides to settle scores with Parothi who challenged him in the temple meeting and foiled his plan of taking the temple under his control. He goes through his account books. His eyes shine with joy as the principle and the interest accrued over the years become quite a figure. He summons the person who borrowed money on Parothi's behalf and demands immediate payment. Parothi is informed. She has no means to clear the debt. She hands over her two acres land to Rajaroo. She feels she is up-rooted. She writes a letter to her sons about the turn of events.

Parothi gets a reply from Ramana. The letter reads.....

My dear mother,

I am very sorry I was not there by you when father died. I am now aw-

fully sorry because I was not there by you when you were ill-treated by people and when you lost our ancestral property.

I got a decent job here in a multi-national company that has got many overseas branches. I am working hard and I am in the good books of my bosses. I am soon expecting promotion in my career.

Mother, you are not young. You are no match for the wily Rajaroo. Please don't pick quarrels with him. Narasiah and I can't come there to support you. You have nothing there in Shankaragudem except a thatched house that is not worth two pennies. Leave Shankaragudem and settle down in a town. Buy a house there and live in it. I will send you money to buy the house. Drop me a letter after selecting a house in town. Apart from it, I will send you some allowance every month. You can live on it.

I have no immediate plans to come to India. One pleasant news to you. I beg your pardon because I have done it without informing you. Recently I have married my colleague Nirmala. Nirmala is not a tribal girl. She hails from a forward community. Nirmala without much resentment agreed to my proposal of sending money to you to buy house and for your maintenance there.

Leave Shankaragudem. Don't give me and Nirmala anxious moments by shouldering the responsibility of solving the problems of others. You

cannot do it. Please don't forget that Rajarao can pull strings.

Please be mindful of your activity there. Please don't swim against the current. It is not your cup of tea.

Your loving son,

Ramana

While reading that letter Parothi visualises her son standing before her and talking to her in an eerie voice. Parothi with a straight face pushes the letter into the envelope. Her fingers feel something inside the envelope. She pulls it out. It is a photograph. It shows Ramana and his wife. She looks at the photograph with a wooden face. She keeps on staring at it. Suddenly the photograph changes into young Ramana who was playing hide and seek with her. Parothi's face lights up with expression. Tears roll down her cheeks. Siddhu comes. He asks her why she is weeping. Parothi says,

'I hatched two eggs into birds. I toiled and struggled day and night to give them strong and powerful wings. I hoped that they would fly around me singing the songs of the soil. But their wings are far-fetched. They have flown into unknown lands not to come back to the nest which has become old and is falling to bits.'

Siddhu fails to make out the sense of her words. He looks at her with wide open eyes. Parothi pulls Siddhu into her arms and says,

'you are my little bird now. Don't fly away from your poor mother's nest. Don't be so insolent to throw some crumbs to her. Don't fly away from your poor mother's nest'.

She breaks down and wails sobbing. Siddhu wipes her tears.

Ramana's frame of mind hurts Parothi deeply. His veiled warning that she should not offend Rajarao outrages her. She believes without an iota of doubt that Rajarao had prompted Ramana to write that letter to her. She makes up her mind to continue her crusade against the wide spread damage that was thrust on Shankaragudem by the multinational company. She decides to educate people especially women as they are the main victims of this mindless modernization that has no other motto except exploitation and profits.

Chapter 14; On a *Dasara* Day late in the evening, a car screeches to halt before Parothi's house. A young man in the early thirties gets down from the car. He is in full suit. He knocks on the door. Parothi comes out. She looks at the young man in awe. He calls her Amma and touches her feet. Parothi recognises him. 'Narasiah!' She shouts with joy. She lifts him up and embraces him. Narsiah says he has joined duty as a senior manager in a company that is into mining operations nearby. He says he has been allotted a big bungalow at Dhanwada. He adds that he is very happy to be with his mother. Parothi asks him,

'My son, are you really happy to be with your mother. Are you not shamefaced to see your mother?'

Narsiah is baffled. Parothi continues

'you must be really ashamed to see your mother. I mean not me. Your real mother. Shankaragudem is your real motherland, Koneru is your mother. See how they are transformed. Your company has been torturing her and molesting her. Your mother is crying helplessly. Everyday your company is raping her'.

Parothi holds back her breath. She starts weep-

ing. Parothi's emotional outburst strikes Narsiah dumb. He takes a few minutes to recover from the shock. Narsiah hugs her.

'Mother I am really sorry. I am helpless. This is the age of modernization. You cannot have the cake and eat it. Modernization demands its pound of flesh. That is the law of science and development. I know you are deeply upset with this bad change. Please come to live with me at Dhanwada. Mining and quarrying have resulted in Silicosis, a rare form of lung disease and there is no way of escaping from it unless you leave Shankaragudem and come with me. How can you live here alone?'

'I am not alone. My son is with me.' Narsiah is surprised. 'Ramana! when did he come? How could he come without informing me.?' 'No. It is not Ramana.' She calls Siddhu. He comes from the adjacent room. Parothi puts her hand round his shoulder and says, 'It is Siddhu, my third son.' Narsiah pats Siddhu on his back and says, 'Mother please oblige me. You and my younger brother Siddhu come to Dhanwada. I will take care of him. Please, mother you have done many things for me. Please do this one also. The sweetness of your nearness fills my heart with great joy. Leave Shankaragudem. Please for my sake'

'My coming to Dhanwada is not a solution to the problem of Shankaragudem. Therefore, I won't come. How can I live with you, when you indulge in such a destructive activity? Siddhu too cannot leave the temple rituals and move away'.

Narsiah stands crest fallen. He walks out disappointedly. Parothi too is down with sorrow. Her harshness towards Narsiah wrings her heart. Tears appear in her eyes. Siddhu wipes those

tears with his hand. Parothi hugs Siddhu and cries.

Chapter 15; Narasaiah laments. His heart is filled with shame and helplessness. He has lost his Mother's love. Attraction of growth in his job had brought him back to India. The Multinational Company in which has been is working had sent him on a special assignment for expanding mining activity to Shankarakonda since the quality of granite in that hillock was of international standard and had potential for another 20 years. Being a local man, Narasaiah was given the responsibility of convincing the local villagers and forest and the authorities later.

Narasaiah was not aware of his Company's plans for mining Shankarakonda. After coming over to India and after interacting with his maternal uncle Rajarao, he realises that without company's knowledge Rajarao had already extended mining activity in the rear side of Shankarakonda and that it had attracted the attention of the villagers as well as authorities. The task assigned to him was to convince the villagers and the authorities to legalise this activity since Company's reputation was at stake. Before leaving for this assignment, Narasaiah was not informed of the exact location of the mining site. When he realises that the site in question is hills of Shankarakonda, his heart sank. With the further retort by Parothi, he is crest fallen.

It was Shankarakonda, Shankaragudem, Shivaiah and Parothi who had supported him since childhood, He remembered the days he was sleeping in the temple premises without food. How Shivaiah and Parothi had supported him and how the villagers had treated him as if he was one among them. And now here he was. On an assignment that would eliminate the faith of Shankaragudem, the Shankarakonda, heart and soul of Parothi, his mother, completely remove Koneru and the temple for the earth once

and for all. All because of the job he had. All because of his ambition for growth. He spends a sleepless night. Dreading at the very sight in which neither the temple, not Shankarakonda nor the river Koneru nor the lotus pond nor Shankaragudem nor Villagers nor his mother existed physically. He was in jitters and shivered as if it was a bad dream. When dawn set in, he was still sleepless but now determined. Enough was enough. He cannot ditch the mother who was the cause of his very existence. He decides to quit his job and join his Mother in her fight against the atrocities and in her efforts for social mobilisation. But he is too hesitant and embarrassed to face his mother and the villagers.

Next morning, he approaches Hariprasad and expresses his decision. Hariprasad advises him not to quit but to convince his Company of reality of the matter. The facts of illegal mining were hidden from the Company and it was Rajarao, its local director, who was responsible for the entire mishap. The Company wanted Narasaiah to legalise the whole issue. Hariprasad pleads with Narasaiah to use his good offices with the Company to ameliorate and make amendments. Though unaware of the reality, the Company has enjoyed the profit of mining – legal as well as illegal. It is Company's moral and social responsibility to help the Village in recovering from the turmoil created. The least they can do is stop further destruction and degradation and help in reconstruction. They can build a hospital for the benefit of villagers, since the nearest hospital is around 50 KM away. They can help the villagers in getting rid of their loans by contributing to the revolving fund of the *Mahila Seva Samaj*. All this would not be possible if Narasaiah quits and leaves the Company. Narasaiah can pay back to his mother only by remaining in the Company and making the Company realise the reality and make amendments.

Narasaiah agrees to take up the matter with the authorities though it may displease his maternal uncle. He returns to America on this pious mission. Rajarao feels Narasaiah has returned with an intention of gathering more resources and support for expansion of the mines. Parothi is sad that Narasaiah left. Though she laments at what had happened the previous day, she sighs at the turn of events. She thinks she has now lost Narasaiah also.

After a week, Narasaiah returns. He is accompanied by a few other senior officials of his Company. They approach Hariprasad and discuss with him about their plans. They express their ignorance of what was happening here and have decided to restrict mining only to the area covered by their lease agreement and to compensate the village by constructing a hospital and funding for its maintenance, contributing to temple renovation and contributing to the *Mahila Seva Samaj* for social upliftment of the villagers. Hariprasad conveys this to Parothi.

Parothi is excited. She breathes a sigh of relief at the return of Narasaiah and at the turn of events. Meantime, the Company comes down heavily on Rajarao and sacks him from all the responsibilities. Rajarao cannot bear this shame and shock. He falls ill. Doctors diagnose that his Kidneys are damaged. He is now another responsibility for Narasaiah. Narasaiah requests Parothi and Hariprasad to find a suitable donor since he has lost all contacts in India.

Despite her bad experiences with Rajarao, Parothi agrees to donate her kidney. For her Rajarao was a link to Narasaiah. Her fondness for Narasaiah is more important than her health. She was past middle age and strong believer in the principle of *Paropakarthamidam sharam*, that this body is meant solely for helping others. Narasaiah is dumbstruck. Hariprasad

is speechless. They try to convince Paorothi to find someone else. But Parothi insists. After the required Medical tests, and confirmation of compatibility, Parothi donates one kidney to Rajarao, her longtime foe.

Lying side by side in the hospital beds, both Parothi and Rajarao have mixed feelings. Parothi has a sense of utmost satisfaction where as Rajarao remorse. He repents all that he had said and did to Parothi and Shivaiah. He apologises profusely even while convalescing from the hospital bed.

Rajarao recovers. But Parothi continues to be in hospital having been diagnosed with acute silicosis.

The Multinational Company, as promised, constructs and equips a 100 bedded hospital in Shankaragudem. Now the villagers of Shankaragudem and Kamalapur do not have to travel far for medical treatment. They also renovate the temple of Lord Shankara and Parothi's school in Kamalapur by constructing two additional classrooms and a toilet complex. They create a Trust and contribute to its corpus fund for management of the temple, the school and the hospital and also donate to the revolving fund of the *Mahila Seva Samaj*.

Hearing all these developments, a shamefaced Ramana returns and meets his convalescing Mother in the hospital alongwith Nirmala.

After discharge, Parothi is joined by Ramana, Nirmala, Narasaiah and Siddu to visit the renovated temple. They all sit on the banks of the lotus pond and see their images on a moonlit night. Parothi remembers her young days after marriage when Shivaiah was showing her face in the clear waters of the lotus pond alongside moon on a moonlit night.

Chapter 16; *Sadhu* offers a sip of water to My-

narao. He continues.

The granite monolith, the children have been using for playing cricket is actually a *Masthikallu* or *Maha Sathi Kallu*, a rock edifice erected by the villagers of Shankaragudem as a mark of respect and remembrances for the service rendered by Parothi. It is a sacred rock.

Sridhara and his friends stand petrified. Their faces are smeared with tears. Sridhara drops down on his knees and bows before the *Sadhu*. The *Sadhu* requests for a glass of water as his stock is exhausted and Sridhara takes him inside his house. After sipping water, the *Sadhu* is surprised to see two portraits hanging on a wall in the house. Sridhara says they are the portraits of his father and another distant relative. *Sadhu* says they are the portraits of Rajarao and Narsiah. He continues and says, he is Sidhareddy, the third and adopted son of Parothi.

Sridhara is stunned. You have opened my eyes. You have animated my dead spirits. I am Sridhara, Narsiah's son. I am Rajarao's grandnephew. My forefathers have been opportunists.

Sridhara's face glows with a firm resolution. He raises his fist into the air. 'I take an oath on the sacred edifice of Parothi nayanaamma that I would not allow any environmental decay. I carry the torch of environmental awareness handed over to me by the great seer of our tribe till the last breath of my life.

Mynarao perches on Sridhara's shoulder. 'What about you? It is not one man's job'. He says looking at the crowd.

All raise their fists into the air and take the pledge in a firm and unwavering tone and repeat Sridhara's words.

Mynarao flies away gracefully. All wave to *Mynarao* with radiant faces. (Concluded)

CAN 'THAR DESERT' EVER BECOME GREEN AND POSSIBLY BLOOM?

By

Dr B Raghotham Rao Desai

1.Introduction: The Thar desert ---- also known as the Great Indian Desert ---- is 200,000 sq. km in extent and is located in the North – Western part of our country (mainly in Jaisalmer, Jodhpur, Barmer, Bikaner districts of Rajasthan & Indo-Pak boundary), and this large arid region is the world's 9th largest subtropical desert & world's 17th largest desert ---- about 85% being located in India, with the remaining 15% in Pakistan ---- the biome (or the large naturally occurring community of flora & fauna occupying a major habitat like a Tundra) having sand hillocks & sand ridges. There happen to be only a few local tree spp., suitable for planting in the desert which are slow-growing, while there are several protected areas which make it the most widely populated desert in the world (with a population density of 83 people per sq.km) ---- about 40% of total population of Rajasthan living in the desert ---- though the climate is like that of any other desert. It is the biggest wool- producing area in the country.

Its 11 National Parks, covering 44,000 sq. kms are the only sources of protection for the native animals such as (i) the Indian spiny-tailed lizard, (ii) the desert snakes (iii) the Indian spotted Eagle, (iv) the Great Indian Bustard, the State bird of Rajasthan (v) the Blackbuck (vi) the Chinkara (vii) the Asiatic Wildcat (viii) the white-footed Fox (ix) the Indian Wild Ass (x) the Dromedary (the genus *Camelus* to which they belong, and there being three different spp., ---- the Bactrian or

two humped camel, the wild Bactrian camel & the dromedary, virtually meaning an Arabian camel with one hump, especially one of a breed: trained for riding or racing, and is recognisable because it has only one hump)

Permanent features of the vegetation include trees & shrubs like *Acacia nilotica*, *Prosopis cineraria*, *Tamarix aphylla*, *Lycium barbarum*, *Salvadora oleoides*, *Zizyphus numularia*, *Capparis decidua*, *Acacia jacquemontii*, *Calligonum polygonoides* and *Leptadenia pyrotechnica*. The common tree species found are: Khejri or *Prosopis cineraria*, *Prosopis juliflora*, *Acacia Jacquemontii*, *Acacia Senegal*, *Vachellia nilotica* ---- all belonging to *Fabaceae*, *Tecomella undulata* (*Bignoniaceae*), *Salvadora oleoides* & *Salvadora persica* ---- both belonging to *Salvadoraceae*.

Luni is a river, and the only one, integrating into the desert (also known as Lonari, Lavanavati), originating in the Pushkar-valley of the western Aravalli Range (near Ajmer), passes through the south-eastern portion of the desert and ends in the marshy-lands of Rann of Kutch in Gujarat, after traversing a distance of 495 kms.

The Thar desert was formed when strong winds lifted sand & silt particles from alluvial sediments and deposited them in the region ---- aridity was repeatedly giving way to humidity ---- when the sand dunes got stabilised, soil formed & vegetation sprang back to life. Man thrived during the said congenial periods.

Nomadic tribes still inhabit the region. However, there is an ingrained conservation-instinct among the residents of the region: the Khejri tree ---- one of the handful that exist in the area ---- is revered. While in bloom, it is stripped of foliage for fodder, but done cyclically in a very careful manner so that it does not prove fatal to the tree and it has enough-time to recover its leaf-cover.

[**Trivia:** Readers may recall the discription of this species in a paragraph of an earlier article written (after my visit to Behrain) in 2010 under the caption 'Behrain - a country with many hues' (and which appeared in print soon after some-time in the middle of that year) which ran this way : "*In the middle of the tract of desert sands, however, there stands alone and spreading : a tree known as 'Shajra-ul-Hayat'----- The tree of life. This unique tree (which is indeed a natural wonder) is Prosopis cineraria in all likelihood (belonging to the family Mimosideae) , nearly evergreen (called Banni in Kannada, Jammi in Telugu, Jhand -Khejri in Hindi and Sumri in Gujarati). It has been standing there apparently for centuries, sustaining magically without any discernible source of water. Perhaps this land was indeed the original site of the Garden of Eden--- who knows?"*]

2.Probabilities & Proposed Action Plan: Going green, may be 'being taken quite literally' in the Thar desert, but plans could be made to transform the arid and hot desert ---- that means changing it from dry & barren to lush & green ---- the effort having the potential to remove a billion tons of atmospheric-carbon annually! It should be possible if massive solar & wind-farms set-up shops there, which could also increase the rainfall --- particularly in the semi-arid area ---- and alter the local-climate, leading to growth &

establishment of more vegetation.

It is also felt that Thar desert is particularly well-suited to such a facility, as population is concentrated in pockets, and large areas at a stretch are sparsely populated, its landscape largely not being used for agriculture. But it should be always at the back of our minds that we have to go about changing the very nature of such a vast space. It may be a distant possibility, but surely the wind turbines would be increasing the air-temperature & slow down wind speeds, which would be able to bring moisture to the famously dry area. Further, the solar panels would also be increasing the average air-temperatures.

Thankfully, we find that stretches of sand in the desert are interspersed by hillocks & sandy-and-gravel-plains. **Due to such diversified habitat & ecosystem, the vegetation, human culture and animal life is quite rich in contrast to the other deserts of the world. The natural vegetation of this dry area is classified as 'North-western thorn scrub forest'** occurring in small clumps, scattered more or less openly ---- density & size of patches increasing from West to East, as the rainfall is found in ascending order in that direction. The endemic flora includes *Calligonum polygonoides* (locally known as phog), *Khejri* or *Prosopis cineraria* (wood having high calorific value, lopped branches being used as good fencing material, roots encouraging nitrogen fixation), *Acacia nilotica*, *Tamarix aphylla*, *Cenchrus biflorus*, etc.,

That being the possibility, all this may perhaps still sound fantastic, but it isn't all 'that far from reality'. A way of going about this would be to plant crops & trees, and use desalinated-water from the nearby Gujarat-coast as a form of irrigation. Eucalyptus trees would be ideal for

Thar desert's climate which have the potential to replenish the soil with nutrients. Then, such a massive effort won't come cheap ---- there could also be environmental costs to such a drastic move! There is a living example of China, achieving through 'Kubuqi Ecological Restoration Project', leading to the successful greening of a third of Kubuqi desert over a period of 30 years, which has seen the return of cattle, creation of secondary industries and establishment of housing colonies, as also China's largest single-state solar-farm. The greening being a consequence of offering residents bonuses for planting trees that survived, and encouraging them to plant licorice (*Glycyrrhiza glabra*-a leguminous plant from which licorice is obtained ---- a sweet, chewy, aromatic black substance made from the juice of a root ---- which is used as a sweet, as also in traditional medicine), much water!

3. **Conclusion:** Stone-age artefacts found in the region had confirmed that the actual desert began to build up 70,000 years ago, and that each dune-layer formed after a period of relative wetness. Around 7000 years ago the area experienced a period of abundant rainfall, lakes filled up and clayey sediments got deposited. Through a study established that several plants, trees & shrubs were once growing. **There was a lush vegetation but half a million years ago, powerful tectonic movements distorted the river-system.** The wet stretch lasted for 3000 years, but then semi-arid conditions set in. The Thar desert, thus got created, because of climatic & hydrological changes.

It may be noted that if un-irrigated agriculture is mixed with concentrated grazing, it spells doom. The stabilised dunes that prevail in this region consist of mature soil, which reacts very well to

proper irrigation. These facts are to be kept in mind while evolving an action-plan for the region to be proposed as outlined above.

Forestry has an important part to play in the amelioration of the conditions in semi-arid & arid lands. If properly planned, forestry can make an important contribution to the general welfare of the people

living in desert areas ---- the living standards of the impecunious people in the desert being so abysmally low. As they cannot afford other fuels like gas & kerosene, 75% of them depend on firewood, though forest cover in the desert is so low (Rajasthan is having only 9% of its geographical area under forest). The forest being insufficient to fulfil their needs, people resort to the use of cakes moulded from cattle-dung for their hearths, in turn as a chain-reaction decreases in agricultural production adversely, which cannot be helped. Agro-forestry model appears, under the said compelling circumstances, to be best suited to the people of the desert. (This article was published in V.P. of January but while sending the article through e-mail, major portion of article was not received due to technical reasons. Now the author has sent it again and published in full shape. The inconvenience caused to the readers is regretted)

Results of Green Quiz Campitition of February - 2020

1. b	2. c	3. d
4. c	5. d	6. c
7. a	8. d	9. a
10. b	11. c	12. a
13. c	14. b	15. a

GREEN QUIZ CHAMPIONSHIP

FEBRUARY 2020

QUIZ MASTER:

Dr K. Tirupataiah

This month's quiz competition is on "fight for action against Climate Change". Pick correct answers from among the choices:

1. The Global Environment Movement using nonviolent methods to compel government action against climate change is named: a) Anti-Extinction, b) Extinction Rebellion c) Climate Rebellion, d) Movement against extinction	2. It is feared that unregulated human activity is causing loss of biodiversity leading to: a) Fourth Mass Extinction, b) Fifth Mass Extinction, c) Sixth Mass Extinction, d) Third Mass Extinction
3. What is the Extinction Symbol? a) Circled Skull, b) circled human face, c) Circled animal & plant face, d) circled hour glass	4. Extinction Rebellion was established in Oct 2018 in: a) Sweden, b) Finland, c) UK, d) Germany
5. One of the three Goals of the Extinction Rebellion Movement is: a) halt biodiversity loss & reduce GHG to 10% by 2025 b) halt biodiversity loss & reduce GHG to 05% by 2025 c) halt biodiversity loss & reduce GHG to 15% by 2025 d) halt biodiversity loss & reduce GHG to net zero by 2025	6. Symbol of Extinction Rebellion is "XR". XR Youth group is formed in July 2019. It is formed for people born after: a) 1980, b) 1985, c) 1990, d) 1995
7. What is the main "tactic" of the Extinction Rebellion group to achieve its objectives? a) Mass Arrest, b) Mass violence c) Mass blockade, d) Mass Boycott	8. What word did Collins Dictionary pick as "Word of the Year 2019"? a) Climate Action, b) School boycott c) Climate change, d) Climate Strike

9. Greta Thunberg, a teenager popularized school strike for climate change action. She is a citizen of a), Sweden, b) Finland, c) Germany, d) Norway	10. Greta Thunberg was awarded the “Ambassador of Conscience Award” by: a) UN General Assembly, b) Amnesty International, c) Red Cross Society, d) European Union
11. The Global Climate Strike that was held days before COP25 at Madrid, Spain was the: a) First Global climate strike, b) Third Global climate strike, c) Fourth Global climate strike, d) Fifth Global climate strike	12. For something to be called “Mass Extinction”, loss of species should be: a) at least 75%, b) at least 50% c) at least 25%, d) at least 15%
13. Which country’s school board proclaimed that children/students have constitutional right to take part in strikes? a) Netherlands, b) Germany c) Finland, d) Sweden	14. Which country’s Prime Minister said “More learning and Less Activism” in Schools? a) PM of England, b) PM of Australia c) PM of India, d) PM of New Zealand
15. Prince Williams of England instituted prizes for “anyone who is making a substantial development or outstanding contribution to solving our environmental challenges,”. The award is named as: a) Earth Shot Awards, b) Earth Warrior award c) Earth Samaritan award, d) Earth Friend award	

**You must not lose faith in humanity. Humanity is an ocean;
if a few drops of the ocean are dirty,
the ocean does not become dirty.**

(Mahatma Gandhi)

A VALENTINE FOR LOVE (IN URDU POETRY)

By

Dr B. Raghotham Rao Desai

In commemoration of 'Valentine Day':

A. Preamble:

Valentine means a card sent on St. Valentine's Day (14th February) to a person one loves or is attracted to, in use as 'Middle English', the origin being 'Old French'. It is enthusiastically observed by many across the country, against the backdrop of 'usual noises about it being a **Western-custom** or **against Indian Traditions** and the efforts of **moral vigilantes**'—— members of a self-appointed group (of people) who undertake law-enforcement (in their community) without legal authority :typically because the legal agencies are thought to be inadequate!

But the opposition seems perplexing—— given how avidly we look to love in popular literature and poetry, as also celebrity-culture, and in cinema: particularly Urdu, wherein there being a widespread impression that the **Urdu poetry is overwhelmingly devoted to love (especially its most popular form of the ghazal)**. It may not be fully, but a considerable and most well-known part is!! Let us begin from its magnificent corpus (or collection of written texts) at some famous (& not so known) expressions of love in all its splendour and moods.

B. Fact file:

We begin with **the incomparable Ameer Khusrāu, one of the progenitors of the tradition in the Indian subcontinent**. Though inclined towards "**Ishq-e-haqiqi**" (divine or sacred love) as against "**Ishq-e-majaazi**" (earthly or profane

love), he had interesting "takes" on love —— and the anticipation it entails.

And there was **Meer Taqi 'Meer'** who **stressed the strength needed in love**. Then there was **Hakeem Momin Khan 'Momin'** who was successful in-real-life amours as portraying in his verse, sketching its effects & the jealousy it may cause. The Lucknow School (**Dabistan-e-Lakhnau**) is **believed to be fixated** (or obsessively interested) **on it** in describing the beloved: the feelings and the setting.

Asar-UI- Haq 'Majaaz Lakhnavi' was not as successful in real life, but **evoked its contours perfectly in verse**. **Hari Manchanda 'Bani'** was a poet cut off in his prime, but not before giving us more precious gems —— Ghazal aficionados (or persons who are knowledgeable & enthusiastic) like **Mehdi Hasan** remember him, before any famous renditions.

And the art is the bedrock of South Asian Cinema, which freely depends on its songs from the tradition. **Saahir Ludhyanvi's qawwali "Na to Kaarvaan ki talaash hai"** (from "**Barsaat ki Raat**" 1960) is a **splendid evocation** (i.e., evoking strong images, memories or feelings) **of the religious basis of love across a wide spectrum of faith**. There can perhaps be no better evocation of the sentiment than what **Qateel Shifae** had stated in his verses.

C. Conclusion:

In light of what all had been stated above, it seems really inexplicable that love and its

expression attracts so much opprobrium (i.e., harsh criticism or scorn — public disgrace arising from shameful conduct) **from obscurantist sections** (i.e., the sections which practice prevention of facts or full details from being known). Do they really know something we don't?

A. References (Legend):

1. Ameer Khusro: (Abul Hasan Yaminuddin Khusrau: 1253-1325 AD):

"Khusro darya prem ki, so ulti bakidhar

Jo ubhra so doobgaya, jo dooba huya paar "
— (a)

"Khabaram raseed imshab ki nigaar khvahi aamad

Sar-e-man fida-e-raah-e ki sawaar khvahi aamad" — (b)

English rendering of (b): the couplet from one of his Farsi ghazals

"Tonight, I received news that you, oh beloved, would come

Be my head sacrificed to the road along-which you will come"

"Kashish ki ishq daarad naguzaradat badinsaa Ba-janaza gar naayi ba-mazaar khvahi aamad" --- (c)

English rendering of (c):

"Love's attraction won't leave you unmoved

You might not come to my funeral but you'll definitely visit my grave"

2. "Meer" (Meer Mohammed Taqi Meer) (1723-1810):

"Ishq ek 'Meer' bhaari pathar hai

Bojh kab naatvaa se utha hai"

3. Momin (1800-1851 AD)

(a) *"Maktab-e-ishq-ka, Momin, hai niraala das-tuur*

Usko chutti na-mili jisko sabaq yaad-hua"

(b) *"Roya karenge aap-bhi pahron isi-tarah*

Atka kahin jo aap-ka dil-bhi meri-tarah"

(c) *"Nataab hijr mein-hai na-aaram vasi"-mein*

Kambakht dil-ko chain nahin-hai kisi-tarah"

(d) *"Be-parda ghair paas-usey baitha na-dekhthe*

Uth jaate kaash ham-bhi jahan-se haya-ke saath"

4. Asrar-ul-Haq 'Majaz' (1911-1955):

"Ek arz-e-vaada-bhi kar-na-sakey kuch kah-na-sakey kuch sun-na-sakey

Yahaan ham-ne zabaan-hi kholi-thi vahaan ankh-jhuki sharma-bhi-gaye"

5. Hari Manchanda "Bani" (died in prime):

"Ajeeb tajurba-tha bheed-se guzarne-ka

Use bahaana mila mujh-sey baat karne-ka"

6. Kanwar Mahendra Singh Bedi (1909-1998)

"Hua-jo teer-e-nazar neemkush-to kya-haasil

Maza-to jab-hai-ke seene-ke aar-paar chaley"

7. Saahir Ludhyanvi (Abdul Hai:1921-1980):

"Zindagi-mein-to sabhi pyaar-Kiya karte-hain,

Mai-to mar-kar-bhi meri-jaan tujhe-chaahuunga" (from 'Azmat', 1973)

8. Qateel Shifaaee' (Mohammad Aurangzeb:1919-2001):

"Apne jazbaat-mein naghmaat rachaane-ke

Maine dhadkan-ki tarah dil-me basaaya-hai tu-jhe,

Mann tasavvur-thi judai-ka bhala kaise-karun,

Maine qismat-ki lakeeron-se churaaya-hai tu-jhe"

PUBLIC INTEREST LITIGATION

By
K.B.R. Reddy

“Injustice anywhere is a threat to justice everywhere” – Martin Luther King Jr.

Litigation is a process of making or defending a claim in court of law. Public Interest Litigation (PIL) is the use of law to advance the cause of human rights and demand equality or raise issues of broad public concern. In simple words, PIL is litigation to safeguard public interest.

PIL concepts originated in U.S. which encouraged lawyers and public-spirited men to fight for under privileged and fight against dangers to environment and public health and exploitation of consumers and weaker sections. In Indian context, PIL is used (and must be used) for public interest and public good. The remedy is available in courts which have writ jurisdiction. Writ is a written order issued by a court. There are five kinds of writs, Viz.

1. Writ of certiorari: A more informal order calling for record for review;
2. Writ of Mandamus: Command for performing public duty;
3. Writ Habeas Corpus; Order to produce the body;
4. Writ of Quo Warranto: An order to find on warrant a person is held;
5. Writ of Prohibition: An order to stop doing something the law prohibits.

Constitution of India, under Art.32 and 226, confers writ jurisdiction on Supreme Court and High Courts respectively for enforcement/protection of fundamental rights of an individual. The Constitution guarantees the following six fundamental rights:

1. Right to Equality (Articles 14 to 18);
2. Right to Freedom (Articles 19 to 22);
3. Right against Exploitation (Articles 23 to 24);
4. Right to freedom of Religion (Articles 25 to 28);
5. Cultural and Educational Rights (Articles 29 to 30); and
6. Right to Constitutional Remedies (Articles 32 to 35)

PIL has played a vital role in justice delivery system. It helps people who have no resource, or have limited resource, to reach courts seeking justice. It extends to all areas of injustice, negligence of duty, excessive use of power (including legislative power) and matters of environmental pollution, damage to ecology, forest and wildlife.

Under the directive principles of state policy, it is laid down in Art. 48 A of the Constitution of India that the state shall endeavour to protect and improve the environment including forests and wildlife of the country. Under Art. 51 A (g), it is the

fundamental duty of every citizen of the country to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures.

The Supreme Court is responsible for bringing the institution of Central Empowered Committee (CEC) to look into cases of violation of Environmental Laws. Dealing with the petition filed by Godavarman Thirumalpad, the Apex Court applied the doctrine of 'Continuing Mandamus' so

as to review all cases affecting the environment; it is a judicial innovation.

Courts discourage PILs if they are filed on frivolous grounds by busy bodies, meddlesome interlopers, money spinners and publicity seekers. They are not public interest litigants but publicity interest litigants. For the abuse of law such litigants are penalized.

Quite a few cases of PIL appeared in the Vana Premi under the column: Legal Notes. A summary of the cases is given below.

1. *Capt. Tyabji Vs. State of A.P.* : When the Government passed an illegal order vesting a valuable forest land of Karlapalli village in Warangal district to a private person, a PIL petition was filed in the High Court of AP and after a prolonged battle, the order of the Government was quashed in March 1988 and the valuable property of more than two thousand acres, worth a few crores of rupees, was restored to the State Forest Department. (V 2001/P.34)

2. *Visakha Society Vs. Government of A.P.*: The petition was filed in the year 2000 in the wake of gory death of tiger 'Sakhi' in the Nehru Zoological Park to nab the killers of the tiger and direct the authorities concerned to draw up a comprehensive scheme to prevent recurrence of such crimes. In the Counter affidavit it was submitted that several measures have been taken to improve the security system. The court was satisfied with the steps taken and the petition was disposed of accordingly. 2003/100

3. *Dr T. Patanjali Sastry Vs. Chairman, AP Pollution Control Board*: The validity of the declaration of Kolleru lake as a sanctuary for migratory birds was questioned in the High Court in 2002 on the ground that it deprives fishermen from exercise of their right to live-

lihood. The court held that the ecology has to be maintained at all costs having regard to Art. 48.A and Art. 51. A (g) of the Constitution. The court held that the declaration is valid. 2003/131

4. *Madireddy Padma Ram Babu Vs. D.F.O, Kakinada*: In the petition to the High Court an interesting point, whether an agricultural land can be put to non-agricultural

purpose, was raised. The lands are sought to be used for pisciculture/aquaculture for which deep wells had been dug. Extensive use of water led to salination of ground water.

By extensive prawn culture, the surrounding agricultural lands had become useless for paddy cultivation. The petitioner contended that Pisciculture is a form of agriculture but the court did not agree with the argument. The court directed the respondents to make sure that the land is only used for agricultural purpose. 2003/132

5. *Tarun Bharat Sangh Vs. Union of India*: The petitioner, a Social Action Group, brought up this litigation in the Supreme Court and it relates to Sariska Tiger Park in Alwar district of Rajasthan. Because of the notification declaring the Tiger Park, no mining activity could be carried out in the protected area and yet the state Government allegedly issued 400 mining licences to various persons. The mining activity is not only harmful to the wildlife but also the ecology of the region. The petitioner filed several expert reports in support of its claim. The State admitted to the facts but the Miners Association raised some technical points and objected to the stoppage of their work. The Supreme Court ordered to stop mining in the area and appointed a five-member committee to enforce the notifications and recommend to the State

Government to allot alternate sites outside the protected area. The petition is kept pending for report of the compliance of the order. 2004/52

6.K.K. Vasant Vs. State of Karnataka: A public spirited lawyer filed the petition before the Karnataka High Court and requested the court to stop exploitation of virgin forest in the Western Ghats, cancel licences of forest-based industries, restrain raising eucalyptus plantations and direct the Government to amend the Forest Act. The petition was opposed by the Government and it was stated that it was balancing the need for conservation of forests and industrialization along with agriculture. The court dismissed the petition and advised the petitioner to take up the matter with the legislators of the western *ghat* region to take initiative and get the relief which the court is not able to give. 2004/ 53

7.K.M. Chinappa Vs. Union of India: The litigation relates to the renewal of lease to the Kudremukh Iron Ore Company Ltd. The following observations made by the Hon'ble Supreme Court in 2003 gives us an idea how deeply the court is concerned with the need for conservation of forests of the country:

"By destroying nature, man is committing matricide.....In the case at hand, the alleged victim is the flora and fauna in and around Kudremukh National Park, a part of the Western Ghats. The forests in the area are Hot Spots for bio-diversity conservation in the world.....It cannot be disputed that no development is possible without some adverse effect on the ecology and environment, and the projects of public utility cannot be abandoned and its necessary to adjust the interest of the people as well as the necessity to maintain the environment. The balance has to be struck between the two interests....."

While disposing of the matter the court agreed with the recommendation that the mining be allowed up to the year 2005. 2004/97

8.Environmental & Ecological Protection Samithi Vs. Executive Engineer. The Government of Kerala sold right to cut and remove bamboos from a certain area. Apprehending that this action of Government would have disastrous effect on environment, a PIL was filed in the High Court of Kerala. While dealing with the matter the Kerala High Court made the following observations:

"The competing claims for preservation of ecology and exploitation of natural resources, have to be balanced. The needle of balance is Art. 21. The right to life comprehends, right to environment, right to health care and the right to an adequate health delivery system. While nature should be preserved, protected and nourished, exploitation of natural resources is necessary for the sustenance of the human race..... Rights in these regions have been upgraded to constitutional protections, under Art. 21. The directive principles contained in Art-A and that magnificent Art. 51-A provide perspectives. ... The courts must meet them (new challenges) to protect the rights of citizens under Art. 21." 2004/266

9.People for Better Living in Calcutta Vs State of West Bengal: This PIL was filed in the High Court of Calcutta. The court made reference to Stockholm Conference of 1972. Habitat Conference in British Columbia of 1976 and the World Water Conference of 1977 in Argentina and made the following remarks:

"While it is true that in a developing country there shall have to be developments, but that development shall have to be in closest possible harmony with the environment....."

The present day society has a responsibility towards the posterity for proper growth and development so as to allow the posterity to breathe normally and live in a cleaner environment.....
the law courts also have a duty towards the societyit is a plain exercise of the judicial power to see that there is no degradation.....
 There shall have to be proper balance between the development and the environment.....The society shall have to prosper, but not at the cost of the environment and in the similar vein, the environment shall have to be protected but not at the cost of the development of the society
 2004/266

10. Godavarman Thirumalpad Vs. Union of India: (1). The petitioner belonged to a royal family of Nilambur. The family had an estate of forest in Gudalur. The estate forest was well protected by the family; it was taken over by the Government of Tamil Nadu in 1969 and afterwards was subjected to reckless felling of trees. Godavarman approached Supreme Court and filed PIL Writ Petition No. 202 of 1995. During hearing of this case, the court "assumed the role of principal decision maker so far as issues relating to forests and wildlife are concerned" and is taking up cases under the 'Continuing Mandamus'. One such case is the irregular granting of saw mill licences. On the report of the CEC, the young DFO of Orissa was reprimanded for his lapse of contempt of court was awarded a cost of Rs. 50,000/-
 2005/533

(2). In Tatkola Reserved Forest of Karnataka, an extent of Acs. 2312.38, hundreds of acres were encroached for coffee plantations and they were continued for some reason or

the other. The matter went to the notice of the Supreme Court and the court found that adequate steps were not taken by the Government.

The court appointed Conservator of Forests Sri R.M.N Sahay as its commissioner and he was mandated to assess the ground truth. The Supreme Court ruled that there can be no matter of doubt that any land which forms part of Tatkola RF could only belong to the Government. Once it is established in 1936, rights of all others therein came to an end. On the recommendation of the CEC, the court ordered removal of encroachments forthwith and directed method of working involving the Chief Secretary. The court recoded its appreciation for commendable work done by Sri R.M.N. Sahay
 2006/38

(3). The Supreme Court while hearing Inter Locutory Applications (I.As.) reviewed the work of implementing the provisions of The Forest Conservation Act, particularly the compensatory afforestation, and directed the Central Government to constitute a body to manage Compensatory Afforestation Fund etc.
 2006/68

(4). Land measuring 15 ha was leased by Government of Chhattisgarh in favour of M/s Maruti Clean Coal and Power Ltd. One Sri Deepak Dayal filed a PIL in the Supreme Court alleging that the Government has shown undue favour in granting the lease. The question for consideration was whether the leased land is a part of forest land. The matter was investigated by the CEC and in the course of investigation several methods of survey were applied and court reviewed the work. The CEC reported that the land is not a forest land. The State of Chhattisgarh, the Ministry of Env. & Forest, Forest Survey of India etc. have not questioned the conclusion drawn by the CEC. The Court accepted the report of the CEC that the land is not a forest land and concluded that the PIL is a frivolous. The PIL was dismissed and Deepak Agarwal was directed to pay costs amounting to the CEC

amounting to Rs. 1.00 lakh to the CEC and the amount to be utilized for Forest conservation. 2010/39

(5). The Supreme Court was concerned with the need for special protection for Sandal wood and Red Sanders wood. The court referred to the legislative measures taken by the states of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Maharashtra, Madhya Pradesh, Orissa and observed that there is no uniform legislation dealing with endangered species. The court also referred to Art. 51 – A (g) of the Constitution of India highlighting the duty of a citizen. The court referred to the amendment made to the Wildlife Protection Act by inserting Chapter II-A providing for protection of 'specified plants. The court adverted to International Laws like CITES, Convention Biological Diversity etc. The court ordered for effective control sandalwood industries. The court also suggested to the Government of India to bring a legislation similar to Endangered Species Act of USA. 2012/255

(6). The Supreme Court passed an order on Asiatic Wild Buffalo found in Eastern and Western Ghat forests. It is the State Animal of the Chhattisgarh state. Referring to Art. 48 A and Art. 52 A (g) of the Constitution and the Central Government's initiative of 'the Integrated Development of Wildlife Habitats, the court asked the state Government to notify conservation reserves for protection of flora and fauna. The court disposed of an I.A. while giving direction to state to save wild buffalo from extinction. 2012/455.

(7). The Supreme Court held that natural resources are assets of the entire nation. It is the obligation of all concerned including Union Government and State Governments to conserve and not waste these resources. Under Article 51-A it is the duty of every citizen to protect and improve the natural environment including

forest, lakes, rivers, and wildlife and to have compassion for living creatures. On another occasion it was held that the court accepted the application of the Public Trust Doctrine as it was founded on the ideas of that certain common properties such as rivers, sea-shore, forests and the air were held by Government in trusteeship for free and unimpeded use of the general public. 216/206

(8) The Supreme Court took cognizance of the recent case of criminal assault on the woman Forest Officer Ch. Anitha and the other Range Staff in Kaghaznagar division on June 10, 2019 and passed appropriate orders to the State Government to give police protection to the staff. The motion was moved in the Supreme Court by the Senior Advocate Sri A.D.N Rao. 2019/362

11. *J.V. Sharma Vs. Union of India*: A PIL was filed in the High Court of Andhra Pradesh in October 2007 against the Union of India and others questioning the validity of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act. 2006. Similar PILs were also filed in Tamil Nadu, Karnataka, Orissa, Maharashtra before the respective High Courts. During the pendency of the petitions before the High Courts, the Union of India approached the Apex Court in January 2015 with a request for common hearing and disposal of the matter to avoid any possible conflicting and inconsistent verdicts by different High Courts. The matter is resting there. The action taken by Sharma is appreciated by the veteran forester, former teacher and retired CCF, Kerala Sri K.K. Nair. 2009/134, 222

12. *C. Sankareswaran Vs. Commissioner Land Ceiling and Land Reforms*: The land in dispute of an extent of Acs. 624.32 is determined as surplus and is situated adjacent to reserved forest

of Tamil Nadu State bordering Kerala State in Western Ghats. The land was proposed to be assigned to 185 applicants. The former and the present chairman of Bodinaikkanur Municipality filed writ petitions in the High Court of Madras at Madurai Bench against the Commissioner Land Reforms decision to grant pattas. The Government had not put the land to any use for agricultural purpose for the reason that it is a sensitive and fragile piece of land and needs to be protected. The DFO submitted counter affidavit stating the land lies in hills and there are many brooks and streams from whom the water flows into a river. The court taking into consideration of the various judgments of the Supreme Court, the petitions were allowed forbearing the grant of patta. 2010/343

13. Centre for Environmental Laws, WWF Vs. Union of India.: This is a historic and landmark judgment of the Supreme Court. The matter pertains to translocation/ reintroduction of Asiatic Lion from the forest of Gujarat state to Kuno Wildlife Sanctuary of Madhya Pradesh state, as a second home for Asiatic lion. A PIL was filed and a Division Bench recorded meticulously and with due care, the background history of the whole matter. The court felt that the approach made by the Gujarat State Wildlife Board and the state of Gujarat is anthropocentric, not eco-centric. The views of National Board for Wildlife have to prevail over the views expressed by SBWL. The court directed that the scheme of reintroduction of Asiatic lion from Gir forest to Kuno Wildlife Sanctuary be completed within a period of 6 months. 2013/289

14. Nature Lovers Movement Vs. State of Kerala : This is an important judgment of the Supreme Court to decide (1) whether Sec. 2 of the Forest Conservation Act is prospective in operation and (2) whether the Government of Kerala could without obtaining prior approval of the Central

Government grant pattas/lease hold rights to the encroachers of forest land. The matter was considered on an appeal against the judgment of the Kerala High Court. The Supreme Court emphasized the need for forest conservation. The court highlighted the situation on the loss of forest land on the basis of statistical information.

The court directed that whenever any land is proposed to be regularized, prior approval in terms of 'Sec. 2 of the FCA is necessary. The Act came into effect on 25.10.1980 and all provisions of the Act are enforceable from that date 2016/185

15. K. Buchi Ram Reddy V. State of Telangana & Ors: This is a case in which land holders having dubious nature of ownership had requested the DFO Kaghaznagar to grant permits to enable them to fell trees and transport the resultant timber. The request was made in 2001. But permits were not granted as the DFO was not satisfied with the genuineness of ownership rights of the land holders, though the Revenue and Survey Department officials have vouchsafed the *patta* rights. It was found that the lands are in fact are a part of the reserved forest. A long litigation took place and the High Court passed orders on different occasions directing the Forest Department to grant permits. Under the orders of the Supreme Court, a Division Bench of the High Court stayed the order of Single Judge. At this stage I made a thorough research to strengthen the claim of the Forest Department and filed a PIL so as to safeguard the forest interest. The PIL is admitted and it is pending. The PCCF, in his counter affidavit, supported my plea. The Revenue and Survey Dept. officials are silent over the matter. (Not published in Vana Premi)

The above are a few instances of PILs, attempted to protect nature, environment and forest. Much more needs to be done to save mother earth and the plants, trees and wildlife.

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		6. Sanjay Gupta	05-03-1962
			7. Smt. P. Shyamala	12-02-1980
1.	P. Upender Reddy	05-02-1942	8. P. Ramulu	14-02-1963
2.	B. Chandramouli	08-02-1944	9. Ch. Suryanarayana	15-02-1966
3.	Abdul Aleem Md	25-02-1951	10. M.S. J. Vasantha	23-02-1980
4.	Vijay Kumar I	23-02-1954	11. V. Krishna	25-02-1966
5.	Mohd. Thayyab	16-02-1956	12. N. Kondala Rao	02-03-1961
6.	Sultan Mohiuddin	17-02-1942	13. V. Saibaba	04-03-1980
7.	Sharda Prasad	20-02-1953	14. S.P. Sulthan	04-03-1989
8.	A. Kishan	20-02-1952	15. K. Vinod Kumar	05-03-1979
9.	A.V. Ramakrishna Rao	23-02-1935		
10.	P. Rajender Reddy	27-02-1956		
11.	M. Anjaneyulu	01-03-1954		
12.	L. Krishna Bhoopal Rao	02-03-1942		
13.	V.V. Rajan	02-03-1945		

Secretary

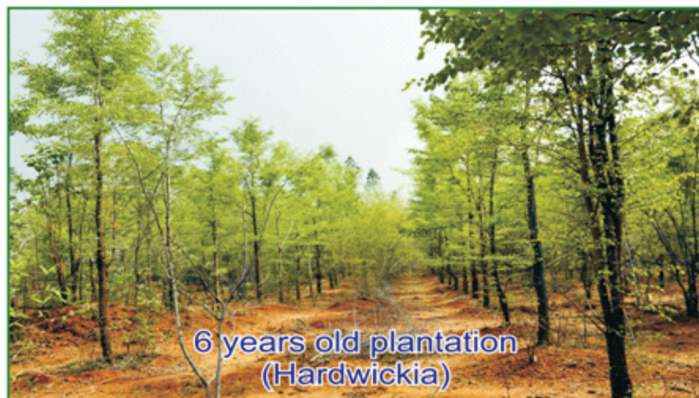
S.No. Name of the Serving Officers D.O.B.

1.	V.S.N.V. Prasad	10-02-1979
2.	Smt. R. Shobha	11-02-1962
3.	Chiranjeevi Chowdhary	16-02-1965
4.	Anil Kumar Mourya	21-02-1960
5.	Sm.t A. Soni Bala Devi	01-03-1974





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



6 years old plantation
(Hardwickia)

- 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)

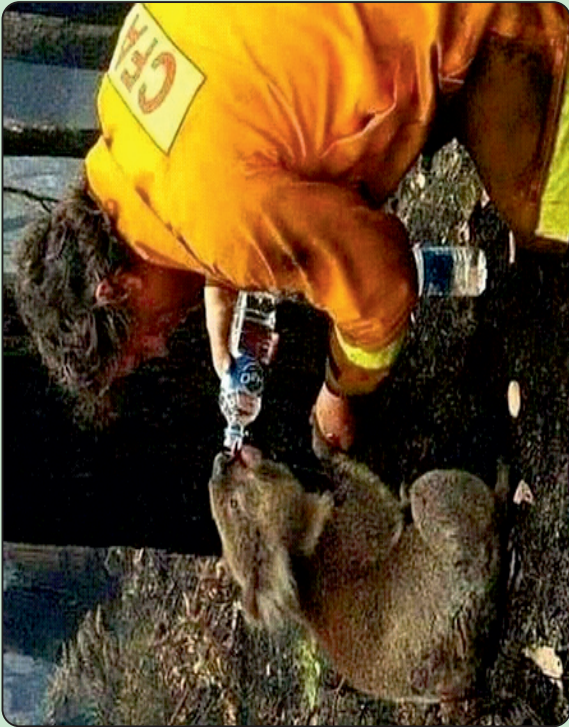
Rehabilitation of RF land (Non mandated)

- 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".

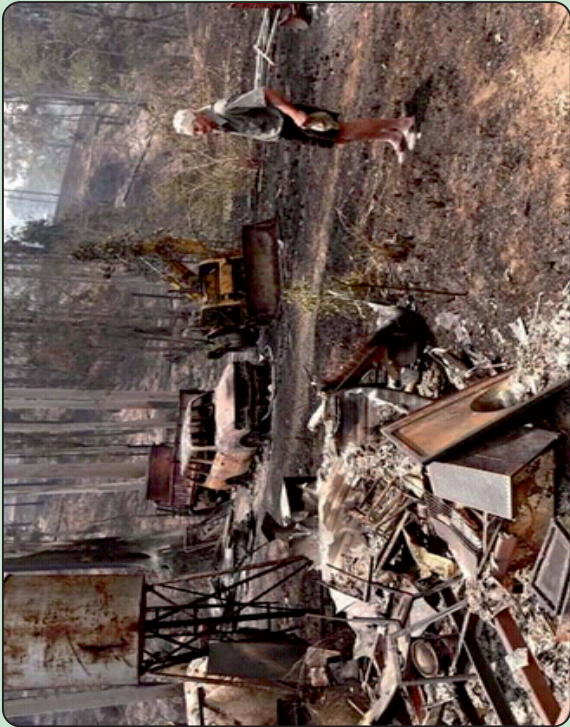


THE SINGARENI COLLIERIES COMPANY LIMITED

(A Government Company)
Telangana State



“Vagaries of forest fires in Australia”



“Vagaries of forest fires in Australia”

GreenAP

Mobile App



- ◆ 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, landscape designers and many more.

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AGROFORESTRY SYSTEMS, RAISING OF PLANTATIONS, MANAGEMENT OF PLANTATIONS AND MARKETING ISSUES

By
Dr G.R.S Reddy

The Institute of Forest Biodiversity (IFB) is organized two days training program under the auspices of Van Vigyan Kendra on 8th and 10th January at Hyderabad by inviting farmers through advertisement and recently as a news item in several Telugu news-papers (My thanks).

The agriculture is practiced by farmers as a tradition. They do not commercialize and adopt technology and timing of produce, study demand and supply and more often than not they taste losses. But they (farmers) are bound by their tradition and the society is enjoying the fruit. The one of the many possible solutions could be crop diversification. The basic concept behind this thinking is that as the biodiversity increases on a unit of land the productivity increases. It is a statistically (Margalef, 1963) and ecologically proven fact as evident from multi-storeyed tropical ecosystems and Agroforestry systems where productivity is recorded to be always higher. As the resources like Sunlight is optimally used by different layers of canopy and the root system also is formed in different layers, minerals from lower layers are brought up by higher plants and replenish soil; the various component parts of multi-storey (trees, shrubs and herbs form one layer each because of their varied heights) benefits one another as the litter falling to the ground increases soil Carbon and with increased soil Carbon the micro-organisms thrive well, improving soil health and benefit the vegetal growth. One good deed of planting a few trees in a farm sets forth a series of improvements ranging from soil health to productivity. The reverse is also true. Should you cause one step of degradation (like felling a tree

from farmland), it leads to a series of losses to the ecosystem and end result is loss of productivity.

The farmers have raised red sanders (*Pterocarpus Santalinus*) trees in large numbers. Its marketing is not easy. There are rules available since British period in India and modified from time to time. Recently, NBA (National Biodiversity Authority of India) has brought out rules facilitating liberalization and sale of farmers' raised produce. What is the need of the hour is setting up of a Certifying agency which certifies that this produce is sustainably harvested as it is coming from farmlands and not from forests. The conflict arises, when unscrupulous elements pass on forest produce as farm produce. The protection of natural forests becomes difficult. There are technological solutions like bar coding at nuclear (DNA) level etc., available. It is beyond the scope of this article to discuss these issues here. But it is up to us to create local demand and add value to export it as it is allowed (export of value-added products) and provided for in the law. One of the solutions offered is to plant Sandal (*Santalum album* L.) under these red sanders plantations as it is a good host of Sandal and make it more profitable. Sandal has local demand, in perfumery industry as it is a fixative oil. The competitor to it is *Abelmoschus esculentus* (Kasturi Bhendi) and also, we should take into account the fact that Australia cultivates nearly in One lakh hectare already (and has earmarked another 80000 ha under a reservoir Unconfirmed source). The State of Madhya Pradesh (Seoni) earns revenue due to Sandal. Recently the state of Gujarat has tak-

en up a little over one million seedlings (during 2001 to 2005). It is expanding in Gujarat, Punjab and Rajasthan as well. A part of the QPM stock was supplied by Institute of Wood Science and Technology. (My point of argument is that the States like Telangana and A.P. and Orissa should not lose it to other states and other countries, for want of protecting naturally grown Sandal in the forests (the revenue earned is negligible in the past two decades). At this juncture it is important to bring out rules to facilitate farmers earn money, offer protection to their crop, facilitate marketing and farmers will not mind paying a tax for it to the State. In the short term there is not going to be any glut in the market as demand is still very high and as of now there is no synthetic substitute available. Therefore, the policy makers should come forward and put forth rules and regulations to encourage Sandal and Red sanders cultivation on farmlands and offer protection by preventing illegal transport to prevent theft from public and private property and above all make it a really successful growth model for farmers and increase GDP and create an avenue for revenue generation to the State. Make production forests, protection forests outside natural ranges which will better protect our environment. Seventeen clones of Sandal, the hard work of IWST Bengaluru, is being cultivated in IFB Hyderabad and Mulugu (TSFD), nearly half a million seedlings were produced and distributed. A number of species were observed for most promising host from the point view of Sandal growth and economic returns. The training encompasses on water needs, nutrient needs, host specificities, host needs, their marketing aspects are elaborately discussed. Methods on how to regulate yield and reduce the age for money rotation from Sandal plantation by creating awareness on forestry principles are extensively dealt with. Also, farmers are going for combination of species like *Melia dubia* *Malabar Neem*, Citrus (Lime & *Mosambi*) which are failing as both the crops need heavy quantity of water. The deep-rooted Neem sur-

vives killing Citrus. Similarly, Mango and Sandal are planted in combination and connected to the same dripper, giving more water to sandal than it can tolerate and thrive as their water needs are different. Farmers who are raising Melia or Neem on deep spoils (one meter to one and a half meters depth) and plenty of water (flood irrigation) are harvesting Neem in five to six-year rotation in Telangana and 4 to 5 years in Andhra Pradesh. However, Melia is interplanted with Sandal which gets damaged when Neem is harvested therefore; their number (density) needs to be balanced. Melia should achieve $\geq 15\text{m}$ clear bole in year one or before branching. It gives branches end of 15th month. So, plant it in field as early as possible. There is also a great scope for planting trees with industrial application like *Pedamanu* (*Ailanthus excelsa*), *Eucalyptus citriodora* on 20-year cycle (rotation) for timber not for pulp, *Jammi Chettu*, *Khejri* (*Prosopis cineraria*) for timber, as a host for Sandal. All hosts that grow slower than Sandal should be planted a little earlier than Sandal planting. It is observed that teak plantations were rendered useless by reckless pruning and spoiled timber and lost investment by many farmers and plantation companies in the 1980s and 1990s and the sad story continues. In forestry the practice is called thinning and trees are removed and not the branches to produce quality timber and densities are manipulated to produce clear bole and never the branches of a tree. It is called concept of light explained in detail by Prof. T Kozlowski in Growth and Development Book. There are many more practical tips and tricks of the trade please contact Dr G. Ravi Shankar Reddy (Scientist of Forestry) and for organizing a special training class to meet your needs Dr Ratnaker Jauhari, I.F.S. and Shri D. Jayaprasad I.F.S., Director of the Institute (Institute of Forest Biodiversity, Hyderabad, GOI) Contact Numbers: 9490127198, Whatassp:9490763398, Landline: 040-66309500. Author: Dr. G. Ravi Shankar Reddy (Scientist of Forestry), IFB, Ph-9490127198 &

ATTACHMENT IN DETACHMENT

by

Sudha Murthy

"When my daughter, the elder of my two, wed and left home, I felt a part of me gone. With a daughter and a son, I know what both mean, differently.

When she was in her teens I felt as if she was my "physical extension"! So, when she left home to set up her own, I felt I lost a limb. Next time she came to stay with us, I was astonished how her priorities had changed.

We too must've given the same shocks to our own parents!

When she said Amma, she meant her mother-in-law, not me! I felt she was always in a hurry to go back to her house and not stay with me for a few more days.

That was the first time, it dawned on me that I have to start practising detachment with attachment.

Two years after my daughter's marriage, my son left for higher studies to US. Having experienced a child's separation once, I was better equipped emotionally. I plunged head long into various classes held in the city starting from Vedanta to healing to ikebana. I just wanted to be away from home since my husband was a 24/7 workaholic. My son used to write how he was missing my home cooked food, how he was waiting to come back to live in Chennai with us

After a few years, he did come back and we got him married. He started living separately with his wife and we were also happy that they wanted to be independent from the beginning... But now, it was all changed!

When in the U S, he missed my cooking, now if I called him to come over with his wife for a meal, it was always some excuse like "oh, amma, we have other plans for the day, please don't mistake us if we don't drop in today"! I could see that his priorities had also changed completely.

We talk so many things and give so much advice

to others, but when it comes to our own children, acceptance comes very late. Our next step is to just leave them undisturbed

in every way.

It was at that time, that I made the following, my 'new profile'. In all my relationships, rather interactions, I give my best and do my best to live up to what I say. My attachment with them is complete. However, I remain detached in the sense that I do not expect them to reciprocate my affection.

Most importantly, I make a conscious effort, not to interfere or pass judgements on the lives they choose to lead. My concern for my near and dear ones will not fade with my detachment.

If you let go of the ones you love, they will never go away – this is the beauty of attachment with detachment! I have learnt to love and let go.

This dictum has developed tolerance in me. When I let the people live the way they want to, I learn to accept them for what they are.

Most importantly, I learn to tolerate the world around me and this tolerance brings in me a sense of peace and contentment.

Since both my children live in Chennai, I follow this very strictly, you know why! Now *I have realised that we start growing mentally much more only after the children leave the house* and we have to tackle the emotional vacuum, that arises, along with age-related problems.

I specially dedicate this post to my friends, who are totally dependant on their children's lives, to nurture their own selves emotionally.

Please develop your own interests, hobbies etc, however mundane they seem to be. We must learn

To love whatever, we do instead of doing whatever we love!!

MASS TREE PLANTATIONS: EXAMPLES, APPROACHES, ISSUES & SUGGESTIONS

By

Gauri Satish Patil and Dr K. Tirupataiah

Context: Trees have always been associated with nature. Mankind derived and continue to derive many tangibles as well as intangible benefits from the trees. As human population increased, more so in the last century, trees and forests started disappearing at an ever-increasing rate. One method man devised, among many, to counter this degradation is to plant trees. While planting trees by individuals in their fields and at home is as old as civilization, massive tree plantation is a recent phenomenon. In this article, we examine massive tree plantation (MTP) programmes at two levels i.e. International and National. We also examine the approaches followed in these programmes and the Issues that are involved therein and suggest ways to address them.

It was estimated that the Earth had about 3.0

Trillion trees at one time. Human interference reduced them by more than 50%. A UN sponsored study estimated that 2/3rd of all emissions could be reduced by planting 1.2 Trillion trees covering 1.7 Billion Ha of treeless land, but it would take about 50-100 years to see the full benefits. UN also resolved to reforest 350 Million Ha of degraded area by 2030. So, it seems that the “best time to plant trees was 25 years ago”. But the “next best time is to plant trees today”.

International Initiatives: Perhaps China leads International initiatives in mass tree plantations with its “Great Green Wall”. Africa, Brazil and many other countries took similar initiatives later. Here, we compare three-major international initiatives one each from Asia, Africa and South America:

S.No.	Parameter	China	Africa	Brazil
1	Name	Great Green Wall of China	Great Green Wall of Sahara & Sahel Initiative	Reforestation of Tropical Rainforest
2	Countries covered	China	20 North African Nations	Brazil
3	Timeline	Started in 1978 would continue till 2050	Piloted in 2007 to 2030	Started in 2017 will run for six years
4	Area covered	4,500 km long and 1440 km wide (405 Mil. Ha) running East-West	100 Mil.Ha	70,000 acres of deforested land
5	Trees to be planted	66 Billion planted, still continuing	About 350 Million planted, continuing	73 Million
6	Implementation	Government	International Alliance	Conservation International with Indigenous People
7	Objective	To arrest spread of Gobi Desert	To arrest spread of Sahara Desert	To restore the “arc of deforestation” in Amazon rainforest

The Great Wall of China, when completed, is expected not only to arrest the spread of the Gobi Desert but also add to the World's Forest cover by over 10%. The Great Green Wall of Sahara & Sahel, when completed, is expected to not only arrest spread of the Sahara but restore the fertile lands in Sahel. The reforestation effort in Brazil is expected to restore over 70,000 acres of deforested Amazon Tropical forest besides enhancing the livelihoods of innumerable indigenous people. Each effort has adopted techniques that are suitable to that area. For example: "Muvuca" (Portuguese for lot of people in a very small area) method adopts spreading of over 200 seeds of native species over every Sq. M area that yields around 5,000 plants/ha after ten years. Seed collection, sowing, tree cultivation, etc. are fully entrusted to indigenous people.

II. National Initiatives:

Mass Tree Plantation programmes could be traced to the annual "Vana Mahotsav" initiative that started in 1950s. Mass tree plantation programmes by states is a recent phenomenon more or less coinciding with the Paris Conference on Climate Change in 2015. Major initia-

tives taken in this regard could be classified in to: a) Campaign nature and b) Programme mode.

a. Campaign Mode

Madhya Pradesh state took up a campaign to plant 66 million trees (6.6 crores) within 12 hours (7 am to 7 pm) involving 1.5 million volunteers. Planting was taken up along the banks of Narmada River spreading over 24 districts. Twenty different types of species were planted.

"Cauvery Calling" is a campaign launched by Jaggi Vasudev under Rally for Rivers. Idea is to plant 242 crore plants along the River Cauvery spread across Karnataka and Tamil Nadu states touching over 84 million people. Farm/Agro-forestry is a major component with call to use 1/3rd farm land for growing trees. This campaign is based on a pilot project undertaken by ISHA foundation with over 69,000 farmers.

b) Programme mode

Only a few states in India have taken up mass tree plantation in a programme mode. Some of them are: Telangana, Andhra Pradesh, Maharashtra and Uttar Pradesh. A comparative statement of these initiatives is given below:

S.No.	Parameter	Uttar Pradesh	Telangana	Maharashtra	Andhra Pradesh
1	Name of the program	Vruksharopan Maha Kumbh	Telangana Ku Haritha Haram	Greening Maharashtra/ Sahabhag	Mission Haritha AP
2	Objective	To meet national target under tree cover	To bring 33% of area under tree cover	To bring 33% of area under tree cover	To bring 50% of area under tree cover by 2029
3	No of trees to be planted	Over 36 crore so far	230 crore (177 crore so far)	Over 50 crore (56 crore so far)	Over 50 crore
4	Time period	Started in 2016, still continuing	Started in 2015, still continuing	Started in 2016, completed in 2019	Started in 2016, still continuing

5	Implementation	Forest ment, depts, people	Depart- other farmers,	Forest ment, depts, people	Depart- other farmers,	Forest ment, depts, people	Depart- other depts, farm- ers, people
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Massive Tree Plantations and Records: The World record for most trees planted in a day belonged to Pakistan where 8,47,275 trees were planted in a single day in 2013. This record was first broken by UP in 2016 when 50 million trees were planted by 8.0 lakh volunteers on a single day. In 2017, MP broke this record by planting 66 million trees within 12 hours involving 15 lakh volunteers. Since then, UP has been on a route to break the record every year by planting 90 million in 2018 and 220 million in 2019. Ethiopia broke this record by planting 350 million trees on a single day in the same year.

Issues with massive tree plantation programmes & suggestions: The above-mentioned initiatives, both International and Indian, have a rather common motivation of increasing green cover to meet the National goals. There is not much data on follow-up action in the campaign mode. Even in the Programme mode, there are issues that need to be addressed. Some of these issues are:

- 1. Overemphasis on planting trees-** While planting trees on a massive scale is an easier way to increase green cover involving people from all walks of life, this measure alone would not be adequate to mitigate adverse effects of climate change. Other green initiatives in terms of vehicular pollution control, green building technology, renewable energy use, etc have to be given due priority simultaneously. Sikkim could be a model state in this aspect.
- 2. Right place to plant-** nature offers a mosaic of ecosystems based on soil, hydrology and environmental factors. Planting trees in places where other ecosystems fare better (grasslands, etc) would prove counter-productive.

The "Trillion trees campaign" provides soil suitability maps that guide campaigners/agencies to select right places to plant trees. Similar effort could be initiated through Forest Survey of India.

- 3. Threat to Biological Diversity-** most mass tree plantation drives have limited number of species planted. This could be a serious threat to the natural biodiversity. Many research studies proved that species rich ecosystems alone provide full benefits. Example of Amazon reforestation could be emulated by preferring indigenous species. Assisted Natural Regeneration (ANR) of TSFD is a model which could be tried on a large scale.
- 4. Maintenance-** plantations taken up in forest areas are provided at least three years. Trees planted in mass plantation drives also need to be provided maintenance to ensure better survival. Independent monitoring & evaluation would increase credibility to data.
- 5. Sustaining interest of stakeholders-** mass tree plantation drives will progressively move to farm lands as agro-forestry/farm forestry. Ensuring remunerative support price for wood/products is essential for such stakeholders to be interested in growing trees on a sustained basis.
- 6. Leadership from MoEF&CC-** India committed to increase forests by 95 Million 2030. There is a need to prioritize states and jointly workout targets for increasing forest cover.

Gauri Satish Patil is a FRO trainee and Dr K. Tirupataiah, IFS (R) is a former PCCF & presently consultant at TS Forest Academy.

THE TECHNIQUE OF RAISING OF RED SANDERS PRIMARY BEDS

By

K. Sudhakar Reddy

Standard technique for Raising Red Sanders

Nursery:- Red Sanders is botanically called as *Pterocarpus santalinus*. This is naturally occurring in Sheshachalam Hill Range in Rayalaseema region only. It is called as "endemic" to Sheshachalam Hill Range. The Sheshachalam Hill ranges extend from Tirumala (Chittoor District) via Kadapa district up to Nandyala in Nallamalas. The off shoots of these Sheshachalam Hills extend to Nellore district at. The nucleus of Red sanders zone is. 60% in Kadapa District, 20 % in Chittoor District (Tirumala Hills), 10% in Kurnool District (Nandyala area Hills in Nallamala's) and 10 % in Nellore District (off shoots of Sheshalam Hills from Chitvel of Kadapa to Rapur of Nellore District). It is extremely fire hardy and draught resistant species. It is a very good coppicer. This is the reason why it is extensively surviving against the odds like regular extensive fire, illicit felling and extreme hot conditions. It has got high economic value from village level in Rayalaseema up to international levels in Japan its economic values are as follows: -

Hitherto it is used as common domestic fuel in villages of Kadapa, For *ROKALLU* in villages (grinding stick), A dye by name "Red Sanderin" is extracted from wood, which is useful for curing of Cardiac diseases, The drugs prepared out of "Red Sanderin" are used for treatment of humans suffering from vascular system problems and heart disease, The wood with closer grain is used for preparation of musical instruments (SHAMSHIAN) by Japanese and It is used for preparation of agricultural implements in village of Rayalaseema region.

A farmer in Chitvel mandal has sold 140 R.S. Bund planted trees of 40 years old for 36 lakhs at around Rs.26500 per tree to a middle man. If farmers take permit from Forest Department and sells to buyer at Chennai directly, he gets around 72-75 lakhs for this.

Mythological importance:- As per the version of "JAMBAVANTA" an auspicious *Vanara*, in Ramayana, who explained to *Vanaras*, who were going towards south in search of SEETA, he explained the topography, natural wealth, economic activities etc. of people of south of Vindhya and during this narration, JAMBAVANTA while explaining natural wealth of different parts of south of Vindhya, he made a reference to Red Sanders trees and its availability in selected pockets and called it as DEVATHA VRUKSH-AM or divine tree.

Collection of Seed: - Dry pods are collected from forests during April-May. They are dried in sun for a week and stored in gunny bags, away from white ants and rain. Seed extraction from pod is difficult and hence pods are used as such for germination. The pods with wings are collected from trees used for regeneration purpose.

Viability: - Seeds generally remain viable for 18 months but fresh pods are used invariably.

Seed Weight: - 1200-1400 pods weight per Kg. Germination capacity in 50-55% plant percentage 30-40%. Seed is reddish brown with a smooth leathery Testa.

Pretreatment of seed: - The dry pods are

soaked in a pit or tub filled with water. After every 24 hours the water is drained off and pits with pods are refilled with fresh water. This continuous soaking of pods in water lasts for 4 days.

After soaking for 24 hours water should, invariably, be drained off and pods to be soaked with fresh water only. It is because, the red sanderin dye, present in pods, gets dissolved in soaking water has got poisonous effect on germinating seed i.e. on radicle. On 5th day, the soaked seed has to be heaped under a tree, in shade, in the form of cone and covered with gunny bags and water to be sprinkled to keep the heap wet. It lasts for 4 days. On 9th day we notice the seed germination here and there. This seed, now, is ready for sowing in the beds.

Preparation of Beds: - The soil is dug to 30cms deep, the clods are broken, to powder, farm yard manure or vermi-compost, small pebbles or gravel is also added to improve structure and drainage. Standard size beds of 12x1.2 mts raised 20cms above the ground are prepared. The sides are supported by split bamboo or with soil raised like ridge along the sides. The seed ready for sowing after soaking for 4 days and heaped for 4 days is also to be treated with fungicide before sowing on the beds prepared as above. The fungicides recommended are pseudomonas fluorescence (8grm/Kg of seed) Carbendazim (3gms per kg of seed). The pretreated pods above are spread uniformly on standard size beds at 15 kgs per bed or the seed is dibbled in lines with 10cms spacing and a thin layer

of soil is covered on it. While pods sowing in beds, flat side of the pod is touching the ground. The beds are covered with dry leaves, or straw and profusely watered. 40-50% germination is noticed within 20-25 days. To get good stumps culling i.e. weaklings to be removed to get on an average of 500-800 stumps from each bed.

Preparation of stumps: - The seed/pods sown as above in standard size beds have to be watered twice a day with application of fertilizers/vermicompost etc. for every month and maintained for 15 months. Then, the seedlings attain a size of collar diameter of 1cm. Then such seedlings of 1cm diameter at collar, are taken out with the help of a shovel after irrigating the beds. They are cut 5cms above and 22-30 cms below the collar with a sharp instrument and side roots are also carefully pruned. These stumps after dibbling in a fungicide are planted inside the poly bag. They sprout within 7-10 days and give a leading shoot.

These stump-sprouted seedlings can be planted when they are 4-5 months old. All seedlings to be nourished with at least 1Kg of vermicompost per bed per month for balanced micro nutrients. Generally, 18 months are required from sowing of seed/pods in the beds till the stump-sprouted seedlings are ready for planting. Accordingly, programme of planting stock production to be planned. Young planting stock is prone for severe leaf spot disease. It is caused by fungus. Systematic fungicide application every month is recommended to ward off this disease.

**Our most basic common link is that we all inhabit this planet.
We all breathe the same air. We all cherish our children's future.
And we are all mortal.**

(John F. Kennedy)

THE BIGGEST ORNITHOLOGICAL DISASTER

SAMBHAR LAKE, NOVEMBER, 2019

— A Study of cause and prevention

By
Madhukar Swayambhu

The Sambhar Salt Lake, India's largest inland Salt Lake is located 80 km southwest of the city of Jaipur and 64 km northeast of Ajmer City. The lake receives water from six rivers: Medha, Samaod, Mantha, Rupangarh, Khari, and Khandela. Lake has 5700 square km catchment area. The lake is an extensive saline wetland, with water depth fluctuating from as few as 60 centimetres (24 in) during the dry season to about 3 meters (10 ft) at the end of the monsoon season. It occupies an area of 190 to 230 square kilometres based on the season. The lake is elliptically shaped with a length of approximately 35.5 km and a breadth varying between 3 km and 11 km. The lake straddles Nagaur and Jaipur districts and borders on the Ajmer district. The circumference of the lake is 96 km, and it is surrounded by the Aravalli hills on all sides.

The rivers bring in salt from the Aravalli ranges. Sodium from the rocks of Aravalli gets mixed with the river Waters and travels all the way to the Lake through the river, now here in the Lake when the Water gets evaporated in direct heat from sunlight, the salt remains in the Lake making it a Salt Water Lake.

The Sambhar lake basin is divided by a 5.1 km long dam made of sandstone. After the salt-water reaches a certain concentration, it is released from the west side to the east side by lifting dam gates. Another key aspect of the lake is the historicity and promotion of the picturesque site due to film industry therefore a huge tourism potential, due to which Sambhar Salts Ltd. (SSL) has signed an agreement with a private company (Chandra Events Pvt. Ltd.) in Jaipur. Sambhar Salts Ltd. (SSL) has sold all commercial and tourism rights to this company. One can no longer put a private camp, photograph

or organise any personal or commercial activity without permission and prepayment of fees to Chandra Events Pvt. Ltd.

But Apart from Economics there is a substantial ecological perspective to the Lake as well. Ecologically speaking, Sambhar has been designated as a Ramsar site (recognized wetland of international importance) because the wetland is a key wintering area for tens of thousands of pink flamingos and other birds that migrate from northern Asia and Siberia. The specialized algae and bacteria growing in the lake provide striking water colours and support the lake ecology that, in turn, sustains the migrating waterfowl. There is other wildlife in the nearby forests, where Nilgai move freely along with deer and foxes.

Our story today is concerning this ecological aspect only. It's about the November, 2019 mishap of mass kill of the migratory birds in the biggest Salt Lake of Bharat – The Sambhar Lake.

The Official Reports say –

Avian Botulism is found out to be the cause of "Death of over 25,000 birds in November, 2019", as per the question raised in the parliament by Rajya Sabha MP, Mr. Raj Kumar Verma on 22nd November, 2019 in chairmanship of Rajya Sabha Speaker & Vice President of India Mr. Venkaiah Naidu.

The reason cited by the government authorities

- 1- Good rains filled up the Lake to the brim, after many years. Even taking to the Waters till the new boundaries.
- 2- Slowly when the Water started getting evaporated, the surface area reduced and the Water receded from the new embank-

ments first.

- 3- In the shallow Water, the microbes started to die, turning the Water into toxin.
- 4- Eating these microbes, poisoned the birds and they started to die.
- 5- The dead birds started to decompose, spreading the infection to the other birds, resulting in to mass deaths.

Jagroop Singh Yadav, DM – Jaipur: “Unfortunately this year rains occurred before the normal schedule. Due to early monsoons, the migratory birds also came in earlier than the schedule. The birds couldn’t get acclimatized to the climatic conditions due to early arrival and therefore the deaths happened.” – as reported by Rajya Sabha TV.

The Government Action & Disaster Recovery –

10th November, 2019 – administration got to get the notice of the mishap through a telephonic information from some aware citizen, and started to begin the disaster recovery work. The death of around 700-800 birds was reported and the bodies were removed from the site for burial. Some of the dead body samples were sent to National Institute of High Security Animal Diseases (NISHAD), Bhopal, wherein the possibility of bird flu was negated through lab testing of the bodies, but they were unable to declare the exact reason for the deaths.

Bird lovers, NGOs and other social organisations also gathered to extend support to the administration. Temporary hospitals and ICUs got created near the site. Nurseries were created and birds admitted. Injections and drip facilities have been created and birds are being treated, however over 50% of the admitted birds have succumbed to death.

Within next 20 days IVRI, Bareilly was able to declare that the cause of mass death was Avian Botulism and thus all the protocols were set for the DR teams for rescue. Ratan Lake was made the under observation soft release site. Birds brought to the rescue centre were paralysed

(wings, neck or legs), suffering from diarrhoea, unable to eat or drink Water. After a treatment for almost a week, when they get stabilised, they were released to Rattan Lake for 24 hours under observation, and were finally released if all went well for these 24 hours.

Indian Veterinary Research Institute, Bareilly, Uttar Pradesh (IVRI) – was the institute to declare it was avian botulism, although it was already mentioned in a report by Bikaner Veterinary College earlier during the primary investigations itself.

Maggots are supposed to be the key reason behind these mass deaths of birds, because they are supposed to be the vectors carrying the germs of Avian Botulism. It spreads when the birds eat an infected maggot that in turn paralyzes the bird. A paralyzed bird can dry sitting on the ground or even drowning in Water.

Avian Botulism – The cause of massacre

This has been a cause of mass kill of birds historically around the globe, but for India this is a new phenomenon. In the year 1910, in Utah & California, US *Clostridium botulinum* was the cause of a mass kill of over 1.1 lakhs birds in one go. In Australia, the epidemic attacks almost every year. This has also been reported from Italy, Korea and other countries across the globe.

Botulism has been occurring all over the world and is especially predominant in North American wetlands. Prime locations wherein Botulism has been observed include the Great Lakes, North Dakota, Japan, South Korea, and Saskatchewan.

Logical objections on the given theory –

While it was a humongous effort for rescue and rehabilitation and a massive exercise in finding the reasoning behind the mishap, but let’s now get on to some basic logical queries on the explanations provided above from the official Government stand point of the whole incident, so that we could prevent and safeguard the envi-

ronment, birds, the lake and the human population around the vicinity:

- 1- How did the initial birds die? They can't be eating microbes from shallow Water for sure.
- 2- If Botulism has never been reported in the country, what was the cause of the bacterial infection reaching the country?
- 3- If the disease communicable?
- 4- If yes, can it get to humans and other animals too?
- 5- If no, then how did it get spread to the extent of killing 25,000 birds in a matter of 20 days?
- 6- And most importantly, is it gone or is it just a temporary phase of respite? Because the temperatures have dipped in acute winters?

The Scientific Study says –

Avian Botulism is caused by a bacterium recognised as *Clostridium botulinum*. So, let's understand this organism more, before proceeding any further on the subject.

Clostridium botulinum is a rod-shaped, anaerobic, spore-forming, motile bacteria with the ability to produce the neurotoxin botulinum. The botulinum toxin can cause a severe paralytic disease **in birds, humans and other animals** and is the most potent toxin known to mankind.

These *C. Botulinum* organisms are categorised as obligate anaerobic beings, which means they are the organisms killed by normal atmospheric concentrations of oxygen (20.95% O₂). Oxygen tolerance varies between species, some capable of surviving in up to 8% oxygen, others losing viability unless the oxygen concentration is less than 0.5%. Since they metabolise energy anaerobically, the presence of oxygen is a sufficient reason to kill them.

This means they can neither be on the surface of the Waterbody or on the Soil, because the

moment it comes in contact with atmosphere, it would die its own natural death in presence of oxygen. So, where did it come from in the first place?

The degree of avian botulism outbreaks in populations is largely determined by how favourable conditions are for Botulism Bacteria, which include low-oxygen and high-protein availability. This is common of shallow and stagnant Water, which is met in Sambhar Lake.

Reconstructing the crime scene – What would have happened?

We need to understand a few phenomenon in order to get to the root cause of the occurrence.

Salting out of Protein is one of them. It is based on the principle that excess of salt in Water forces protein precipitation. Salting out (also known as salt-induced precipitation, salt fractionation, or anti-solvent crystallization) is an effect based on the electrolyte–non-electrolyte interaction, in which the non-electrolyte could be less soluble at high salt concentrations. It is used as a method of purification for proteins, as well as preventing protein denaturation due to excessively diluted samples during experiments. The salt concentration needed for the protein to precipitate out of the solution differs from protein to protein. This process is also used to concentrate dilute solutions of proteins.

In Sambhar Lake, since all five rivers are bringing in Salt from Aravalli hills, this phenomena could happen naturally. And when this would happen, the proteins would get deposited in the bottom of the Lake. Although this would be harmless, until the lake is also devoid of oxygen (O₂) creating an anaerobic environment in the bottom of the tank.

Another key aspect to be understood is – **Protein Bio-synthesis**. As we know, Proteins are the workhorses of the cell, controlling virtually every reaction within as well as providing structure and serving as signals to other cells. Therefore, proteins can be synthesized by living cells at microbial level as normal part of their routine metabolic activity.

Now in a rare activity, when two conditions are met, i.e.

- 1- When the bottom of the Lake is anaerobic, and
- 2- When the protein deposition in the bottom is high,

The environmental condition is apt for the *C. botulinum* to dwell. So probably this would have happened to start the problem in the first place. And this got further intensified when the birds started to die by drowning in the Lake.

The probability of reoccurrence & a sustainable remedy –

As explained above in the article, the temperature is on our side with acute winters in the region, because in these dropped temperature both the bacteria and the maggots can't grow that rapidly. But if the following conditions are met, the problem could resurface again, when the winters are gone and the temperature rises to normal (moderate), before the advent of the summers (when the extreme temperatures of Rajasthan would again go in our favour) –

- 1- If the dead bodies are buried in the soil, without burning.
- 2- If the dead bodies of the drowned birds aren't fished out.
- 3- If the Dissolved Oxygen (DO) level of the Lake Water still remains as low as earlier.

Therefore, the authorities must take utmost care of the Waterbodies and the landmass too, in and around the vicinity to prevent such mishaps in future.

The most sustainable solution would be to rejuvenate all the Waterbodies ecologically, utilising the forces of Nature and restoring the Water, Soil and Air ecology. Somewhat similar to what is being done through Cownomics© Technology across the country in solving the sewage problem, wasteland restoration, and curbing air pollution.

Recipe for a disaster

The initial carcasses of the birds, for the first twenty days, before IVRI, Bareilly, officially confirmed this to be Avian Botulism, were picked up in sacks and tractors and buried in the pits in the ground.

Just imagine, what kind of a disaster would it mean,

- 1- *Clostridium Botulinum* needs an anaerobic environment to survive and a lot of proteins to flourish.
- 2- When we dump the dead birds in the pit, there's a lot of animal protein in the dead bodies and covering the pit with soil, we've created an anaerobic environment too, by separating the pit from atmospheric oxygen.
- 3- *C. Botulinum* colonies will dwell within the soil and the spores will resurface when the temperature gets apt for them.
- 4- Maggots and houseflies could be the vector carrier for the bacteria and take it to all around the vicinity.

This is the apt recipe for an epidemic and a major threat to public health in the region, because *Clostridium botulinum* doesn't just effect birds, but is equally deadly for animals and human beings too.

Government must take immediate actions, on the following fronts on war footing before this time bomb explodes with the temperature getting moderate;

- 1- Ecological restoration of the Lake, with daily monitoring of the DO levels in the bottom of the Lake.
- 2- Re open the burial pits and burn the carcasses of the birds.
- 3- Foliar spray of the well oxygenated Water on the soil surface for 10-15 days in a row.

REVIVE LAKES OF TELANGANA

By

Dr Kishori Lal Vyas

The development of Telangana villages depends on the availability of water sources. The availability of water sources depends on the protection, Conservation and beautification of lakes. Every village in Telangana is endowed with at least one or two lakes. These lakes cater to supply the water needs of the villages, both for agricultural and domestic purposes.

The village lake (also known as 'Oora Cheruvu') play a vital role in meeting the religious and cultural needs of the people. Most of these lakes are ancient and were built by kings of Kakatiya dynasty. Some lakes were impounded by the Nizams, Marathas, Nawabs, Philanthropists and even by Saints. The terrain of Telangana is rocky and uneven; hence it is comparatively easy to impound a lake, laying a bund across a river or stream. Each village in Telangana was self-sufficient and prosperous. The villagers never felt water shortage. But the times have changed.

The village tanks were gradually destroyed due to neglect and illegal occupation. The lakes have disappeared due to encroachments resulting in acute shortage of water. Some villages in undivided Mahbubnagar, Nalgonda and Medak districts faced terrible and unprecedented drought conditions in summer. There was no cultivation and the villagers were forced to migrate to towns and cities in search of livelihood. This caused great imbalance. The migrated villagers suffered as they were forced to work as laborer's and live in sub-human conditions in slums. This caused a great economic, social and cultural problem. The poor illiterate village folk were subjected to all sorts of exploitation

If the village lakes are revived, the villagers will have sufficient water for cultivation.

Therefore, there is urgent need for restoring and improving the village lakes comprising small and medium reservoirs in Telangana. The lakes play a

very important role in improving the economy, environment and ecology of the surroundings. The tanks play a very important role as enumerated hereunder:

1. They are a source of supply of water for irrigation, domestic and industrial needs;
2. They regulate the eco-system and sustain environment cycle;
3. They help in recharging the underground water table;
4. They help in reducing atmospheric temperature and regulate climatic conditions;
5. They help in maintaining inter-relationship between flora and fauna and preserve bio-diversity. They offer shelter to many birds – both native and migratory;
6. They improve sub-soil moisture and promote biological activity like decomposing organic matter and convert the biomass into organic manure.
7. They increase capillary action and colloidal water between soil particles;
8. The tanks will serve recreational needs;
9. They help in improving the aesthetic value of the area;
10. The tanks help for fish farming and will provide employment to fishermen.

The District Administration of each district in the State must gear up to prepare Village Wise and Mandal Wise data on tanks, and draw up a time-bound programme for conservation of all tanks involving among others Revenue department, Irrigation department, Panchayati Raj department etc.

The author is Convener of "Green Earth & Save Lakes" and is on phone 040-23044660.

WHAT IS CLIMATE CHANGE?

Source: Internet

Climate change is the rise in average surface temperatures on Earth, mostly due to the burning of fossil fuels.

Climate change, also called global warming, refers to the rise in average surface temperatures on Earth. An overwhelming scientific consensus maintains that climate change is due primarily to the human use of fossil fuels, which releases carbon dioxide and other greenhouse gases into the air. The gases trap heat within the atmosphere, which can have a range of effects on ecosystems, including rising sea levels, severe weather events, and droughts that render landscapes more susceptible to wildfires.

Is climate change real?

There is broad-based agreement within the scientific community that climate change is real. The U.S. Environmental Protection Agency, the National Aeronautics and Space Administration, and the National Oceanic and Atmospheric Administration concur that climate change is indeed occurring and is almost certainly due to human activity.

What are the causes of climate change?

The primary cause of climate change is the burning of fossil fuels, such as oil and coal, which emits greenhouse gases into the atmosphere—primarily carbon dioxide. Other human activities, such as agriculture and deforestation, also contribute to the proliferation of greenhouse gases that cause climate change.

While some quantities of these gases are a naturally occurring and critical part of Earth's

temperature control system, the atmospheric concentration of CO₂ did not rise above 300 parts per million between the advent of human civilization roughly 10,000 years ago and 1900. Today it is at about 400 ppm, a level not reached in more than 400,000 years.

Increased burning of fossil fuels contributes to climate change.

What are the effects of climate change?

Even small increases in Earth's temperature caused by climate change can have severe effects. The earth's average temperature has gone up 1.4° F over the past century and is expected to rise as much as 11.5° F over the next. That might not seem like a lot, but the average temperature during the last Ice Age was about 4° F lower than it is today.

Rising sea levels due to the melting of the polar ice caps (again, caused by climate change) contribute to greater storm damage; warming ocean temperatures are associated with stronger and more frequent storms; additional rainfall, particularly during severe weather events, leads to flooding and other damage; an increase in the incidence and severity of wildfires threatens habitats, homes, and lives; and heat waves contribute to human deaths and other consequences.

Climate change: the debate

While consensus among nearly all scientists, scientific organizations, and governments is that climate change is happening and is caused by human activity, a small minority of voices

questions the validity of such assertions and prefers to cast doubt on the preponderance of evidence. Climate change deniers often claim that recent changes attributed to human activity can be seen as part of the natural variations in Earth's climate and temperature, and that it is difficult or impossible to establish a direct connection between climate change and any single weather event, such as a hurricane. While the latter is generally true, decades of data and analysis support the reality of climate change—and the human factor in this process. In any case, economists agree that acting to reduce fossil fuel emissions would be far less expensive than dealing with the consequences of not doing so.

The Role of Human Activity

In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change, a group of 1,300 independent scientific experts from countries all over the world under the auspices of the United Nations, concluded there's a more than 95 percent probability that human activities over the past 50 years have warmed our planet.

The industrial activities that our modern civilization depends upon have raised atmospheric carbon dioxide levels. The panel also concluded there's a better than 95 percent probability that human-produced greenhouse gases such as carbon dioxide, methane and nitrous oxide

have caused much of the observed increase in Earth's temperatures over the past 50 years.

CONSEQUENCES OF CLIMATE CHANGE

The global temperature increase brings disastrous consequences, endangering the survival of the Earth's flora and fauna, including human beings. The worst climate change impacts include the melting of the ice mass at the poles, which in turn causes rising sea level, producing flooding and threatening coastal environments through which small island states risk disappearing entirely.

Climate change also increases the appearance of more violent weather phenomena, drought, fires, the death of animal and plant species, flooding from rivers and lakes, the creation of climate refugees and destruction of the food chain and economic resources, especially in developing countries. All these we are witnessing throughout our planet including in India.

HOW CAN WE AVOID CLIMATE CHANGE?

First, it is important to be clear that climate change cannot be avoided. We can mitigate its effects and adapt to its consequences, i.e. we can fight it through the application of small- and large-scale measures that help to slow down climate change. These actions are known as climate change mitigation and adaptation measures.

**Every society gets the kind of criminal it deserves.
What is equally true is that every community gets
the kind of law enforcement it insists on.**

(Robert Kennedy)

News and Notes

The 20 countries where people live the longest: - In second place is Japan, which averages 73.1 years. Singapore is the country with the highest life expectancy in the world, according to a new report. The south-east Asian country clocks an average life expectancy of 74.2 years. In second place is Japan, which averages 73.1 years.

The annual World Economic Forum (WEF) Global Competitiveness Report looks at 98 indicators across 140 countries to determine the overall ranking. It uses surveys as well as official government and statistical data to organise the findings into 12 pillars, including health, skills, financial system, infrastructure, and institutions.

The WEF also lists countries by health life expectancy — the “number of years that a new born can expect to live in good health, taking into account mortality and disability,” according to data from the Institute for Health Metrics and Evaluation, Global Burden of Disease 2017.

The US and UK ranked poorly — at 54 and 32, respectively. The average life expectancy in the US is 66.6 years while the UK average is 69.3 years.

Singapore and Japan commanded the top of the list while Spain came in third with 72.1 years, followed by Switzerland with 72 years.

Unsurprisingly, healthy diets and cleaner environments are the reasons for the longer lives of people living in the countries at the top of the list.

Countries with the highest life expectancy.

Rank	Country/Economy	Value (years)
1	Singapore	74.2
2	Japan	73.1
3	Spain	72.1
4	Switzerland	72.0
5	Italy	71.9
6	France	71.7
7	Korea, Rep.	71.7
8	Israel	71.4
9	Iceland	71.3
10	Sweden	70.9
11	Kuwait	70.7
12	Cyprus	70.7
13	Canada	70.5
14	Austria	70.4
15	Colombia	70.4
16	Australia	70.4
17	Ireland	70.4
18	Peru	70.3
19	Norway	70.2
20	Netherlands	70.2

Japan is famed for its staple food products — fish, seafood, vegetables, whole grains, and tofu — which are continually cited as some of the leanest and most nutritionally balanced food to eat. Spain’s ‘Mediterranean Diet’ also is heralded by scientists as helping prolong life.

The report is used as a tool by over 100 of the world’s leading companies and 100 international, civil society, and academic organisations to make the economy, work-

forces, and businesses more productive. and integrate equality and inclusion into the new economy, aiming to reach one billion people with improved economic opportunities.

Good News: Delhi Gets a New Public Forest in Najafgarh:

The Delhi government on Sunday, 22 December, inaugurated the Mitraon City Forest in Najafgarh area – said to include a 3 km jogging track, two small water bodies and eco-huts.

Inaugurated by Delhi's Environment Minister Kailash Gehlot, the new forest is located in Pocket B, near Najafgarh in Southwest Delhi.

According to officials, the development of the area will accommodate the eco-system and bio-diversity of the surrounding area.

““With the opening of this city forest, the nearby residents will get to experience natural treasure. They should make regular visits to the place.”” - Kailash Gahlot, Delhi's Environment Minister to Times of India. The forest contains 37 species of trees, 17 varieties of shrubs and 25 types of herbs. Visitors would be able to spot a vast range of animal species from golden foxes, flying fox and more than 105 species of birds, reported the daily.

A field guide for the forest has also been published which will direct visitors to prominent attractions and species.

Delhi: '2019 December could be the second coldest since 1901: - On Thursday, the maximum temperature recorded was 13.4 degrees Celsius, 8.2 degrees Celsius lower than normal.

This December could be the second coldest in 118 years in Delhi if the average maximum temperature meets the India Meteorological

Department's (IMD) estimation.

Between 1901 and 2018, only four Decembers have had average maximum temperature below 20 degrees Celsius, an IMD official said. This December, the mean maximum temperature recorded as of Thursday was 19.85 degrees, with the IMD expecting the average of the entire month to come to 19.15 degrees.

“If this happens, it will be the second coldest December since 1901 — after 1997 when the average maximum temperature was 17.3 degrees,” the official said.

Average maximum temperature has been below or equal to 20 degrees in 1919 (19.88 degrees), 1929 (19.8 degrees), 1961 (20 degrees) and 1997 (17.3 degrees).

The lowest maximum temperature recorded in Delhi this month was 12.2 degrees on December 18 at the IMD's Safdarjung observatory, and 11.4 degrees on December 25 at the Palam observatory.

Severe cold or cold day conditions have prevailed over Delhi-NCR since December 14, and are expected to continue till December 29, an official said.

The reason behind this, as per an IMD report, is the “persistence of cold north-westerly winds” over northwest India and other favourable meteorological conditions. After December 29, the wind direction over Delhi-NCR is expected to change from north-westerly to easterly, which would reduce the severity of the cold weather. Under the influence of an approaching Western Disturbance, wind speed is expected to increase significantly and light rain is expected over Delhi-NCR

from the night of December 31 to January 2. A hailstorm is also expected on the first two days of the new year.

On Thursday, the maximum temperature recorded was 13.4 degrees Celsius, 8.2 degrees Celsius lower than normal.

Delhi gets its first smog tower: What is it and how does it work? The prototype air purifier was inaugurated by BJP MP Gautam Gambhir. Gautam Gambhir, former cricketer and BJP MP from East Delhi, Friday (January 3) inaugurated a prototype air purifier at Lajpat Nagar in the national capital.

In November, the Supreme Court had directed the Centre and the Delhi government to prepare a plan to install 'smog towers' across the capital to deal with air pollution.

What is a 'smog tower', how does the one at Delhi's Lajpat Nagar work? Smog towers are structures designed to work as large-scale air purifiers. They are usually fitted with multiple layers of air filters, which clean the air of pollutants as it passes through them.

The smog tower installed at Lajpat Nagar is capable of treating 2 lakh cubic metres of air. Besides the tower that Gambhir has installed, the Delhi government is planning to install a smog tower at Central Park in Connaught Place. The 20-metre (65 feet) high tower will trap particulate matter of all sizes suspended in the air. Large-scale air filters shall draw in the air through fans installed at the top before passing it through the filters and releasing it near the ground.

The filters installed in the tower will use carbon nanofibers as a major component and will be fitted along its peripheries. The tower will focus on reducing particulate matter load.

The project is a collaboration between the Indian Institute of Technology (IIT) Bombay, IIT-Delhi and the University of Minnesota, the latter having helped design a similar tower of over 100 metres in China's Xi'an city. The Central Pollution Control Board (CPCB) will also be involved with the project.

Other examples in the world: China, which has been battling air pollution for years, has two smog towers — in its capital Beijing and in the northern city of Xi'an.

The Xi'an tower is dubbed **the world's largest**, and has reportedly brought down PM 2.5 by 19% in an area of around 6 sq. km in its vicinity. The 100-metre (328 feet) high tower has produced 10 million cubic metres of clean air every day since its launch, and on severely polluted days, is able to bring down smog close to moderate levels, according to the *South China Morning Post*.

The tower in Beijing, built by Dutch artist Daan Roosegaarde, has been able to compress the carbon waste generated during purification to produce gemstones, according to the TED Conferences website. Upon compression for 30 minutes, the smog particles turn into dark gems, which are used for rings and cufflinks.

Climate change may have wiped out Sarasvati river, Harappan city of Dholavira: - These changes also led to the collapse of Dholavira, one of the most advanced cities of the Harappan era, which was located in western India, within present-day Gujarat.

Almost 4,000 years ago, climate change may have triggered a severe drought that wiped off the Sarasvathi river, which is believed to have once flown through present-day Rann of Kutch in Gujarat, according to a recent study.

These changes also led to the collapse of Dholavira, one of the most advanced cities of the Harappan era, which was located in western India, within present-day Gujarat.

According to archaeologists, the city had a sound architectural design, as its remains have revealed the presence of a citadel, a bailey, as well as 'lower and middle' towns. The city thrived between 5,500 and 3,800 years Before Present Era (BPE), said archaeologists. These observations have been noted in a recent study — Did the Harappan settlement of Dholavira (India) collapse during the onset of Meghalaya stage drought? The study was led by Anindya Sarkar and Torsa Sengupta, researchers from IIT-Kharagpur, in collaboration with their counterparts at the city-based Deccan College and Post Graduate Research Institute, and the Archaeological Survey of India.

The team carried out carbon dating of archaeological carbonates like molluscs, gathered from the unearthed remains of Dholavira. The fossils of these shell creatures traced at the site indicate that the city could have thrived due to the abundant mangroves that grew in the Rann of Kutch, which has turned into a white desert today. Brackish water, a saline mixture of fresh water and seawater, helps in the growth of mangroves.

The team believes the river that supplied fresh water to Dholavira has to be Saraswathi. Analysis of the fossil samples has led researchers to believe that during the 1,700 years of its existence, the city may have witnessed regular monsoon, with the inhabitants consuming shells as one of their foods from the river.

Archaeologists managed to trace the remains of abundant mangroves growing around the Great Rann of Kutch, from which the researchers concluded that molluscs survived in the region.

"The gastropod shell suggests seasonal mixing of some depleted river water during summer or monsoon months that periodically inundated the present-day desert. But importantly, the mixing happened through river Saraswathi or Indus tributaries," said researchers from Deccan College. During dry months, evaporation from this semi-enclosed water body enriched these seashells, the researchers noted.

But the decline of this city and its ecosystem occurred when a mega drought hit the coastal city at the onset of Meghalaya stage, approximately 4,300 to 4,000 years ago.

"The decline and collapse of Dholavira is a classic case of how climate change can increase drought risk in the future, which has been predicted by the Intergovernmental Panel Climate Change," states the study, published in the Journal of Quaternary Sciences.

Gujarat: 5-yr-old boy dies in leopard attack in Bharuch: - A leopard that came out of the fields caught the boy by his throat and dragged him into the sugarcane thicket. (Express file photo)

Two days after a four-year-old girl died following leopard attack in Surat district, the big cat killed a five-year-old boy in Ankaleshwar taluka of Bharuch district on Saturday. Forest officials of Bharuch claimed it was the first such incident in the district.

Forest department officials said the incident took place in Bharan village in Ankaleshwar taluka on Friday morning, when farm labourers were harvesting sugarcane in the fields, on the outskirts of the village.

According to sources, Pintu, Valvi, his wife and 5-year-old son Kishan, were among the labourers who came to Ankaleshwar taluka in Bharuch district from Nandurbar district in Maharashtra to work in the agricultural fields over the past few days.

On Friday morning, Pintu and his wife were busy in the field while their son Kishan was playing alone nearby. A leopard that came out of the fields caught the boy by his throat and dragged him into the sugarcane thicket.

Hearing Kishan's cries, his parents chased the animal, shouting for help when the animal left the child and escaped. Kishan was bleeding from his throat and was rushed to a private hospital in Kosamba village. He was later shifted to New Civil Hospital in Surat, where he was declared dead. Forest officials who reached the spot in Bharan village found pug marks of the leopard and bloodstains. They installed two cages in the fields to catch the leopard.

RB Patel, assistant conservator of forests, Bharuch, said, "This is the first such incident of leopard attack in our district. The standing crop of sugarcane is a safe hideout for the leopard. The family members of the deceased will get a compensation amount of Rs 4 lakh. We have also alerted the farm labourers not to be careless and leave their children alone while working. We have also asked them to be careful while staying in tents in agricultural fields."

On Wednesday, the 4-year-old girl daughter of a farm labourer working in the fields in Patl village in Mandvi taluka of Surat district was attacked by a leopard and she died in hospital on Thursday.

Addressing media persons on Saturday, State Forest Minister Ganpat Vasava said, "We have called a high-level meeting of the forest department officials on Monday, at Gandhinagar, to discuss leopard attacks. If needed, we will take decision to kill the man-eater leopard. Forest department has deployed teams to identify the leopard in Mandvi taluka of Surat district. We have also asked the villagers and farm labourers not to dispose of left-over food in open spaces."

Ganpat Vasava added, as per the 2016 census, the population of leopards has doubled than the population of lions in the state. At present, there are 1,400 leopards in the state. Till now, Valsad circle forest department has caught 10 leopards, while Surat circle has caught 25 and Saurashtra 60."

10000 camels to be killed in drought hit Australia for drinking too much water:

Indigenous leaders in South Australia have given their nod to the mass culling of feral camels by an army of shooters News Corporation Australia reported. Professional shooters will begin the five-day air operation which will see 10000 camels shot down from Helicopters according to the Australian publication.

Three more tiger carcasses found in Goa, forest officials say all 4 poisoned:

By Wednesday morning, 30 of Kumar's staff had formed teams and scrambled across the thick bushes of the ghats to hunt for any "stench of death".

A tigress and its three cubs were poisoned

by farmers in Mhadhei Wildlife Sanctuary for killing their cattle, confirmed forest officials. Three farmers have been arrested under the Wildlife Protection Act.

The three carcasses were found in two consecutive days by a search team of wildlife lovers and forest staff, after the first cub was found dead on Sunday, 70 per cent of the body decomposed, and all its nails missing. The bodies of the tigress and a second cub were found on Tuesday night, and the last cub at 3 pm Wednesday, confirmed people in the search team.

All the carcasses were found inside the Mhadhei Wildlife Sanctuary in North Goa's Sattari taluka. All the bodies were decomposed and post mortem is underway on the last three, though officials confirmed all four were poisoned. "The stench is how the carcasses were found," said chief wildlife warden Santosh Kumar.

After the first carcass was found Sunday, wildlife authorities were alerted by the villagers, and Kumar's office made an urgent requisition to the Centre for drone cameras. "The camera traps earlier had recorded a tigress with the cubs. Since two carcasses had been found, and with one being a case of poisoning, we needed to see from high above if there were any more carcasses. This is very unfortunate," Kumar added.

By Wednesday morning, 30 of Kumar's staff members had formed teams and scrambled across the thick bushes of the ghats to hunt for any "stench of death".

The last tiger survey by the Wildlife Institute of India had accounted for four adult tigers in Goa. While environmentalists have often

pointed to "possibilities of more than four tigers", as the tiger corridor crosses the Mhadhei Wildlife Sanctuary, the state has not made any effort to either look for more evidence or ensure better natural infrastructure for the tiger population to grow. This also comes after protests from the mining communities, which have always cried foul of tigers encroaching mining pockets, said environmentalist Rajendra Kerkar.

Kumar claimed that despite the four deaths, the adult tiger population in the state could still be four. "The tigress with her cubs was an addition pointed by cameras early in 2019. The cubs were young, which means the census in 2017 couldn't have counted them. So, our official figure still is four adult tigers."

After the carcasses were spotted Tuesday night, it was found prudent to "seal the spot and ensure the forensics reached the spot at the first light", said Kumar. In the morning, forest staff mapped an area of one square kilometre to look for any more casualties.

"The second and the third carcasses were found within a rough distance of one kilometre," said Kumar. The locals have also, on their own, formed a small group and are looking for clues.

The Chief Minister had earlier asked for a probe, which is also underway, and the state police has now intervened.

On Sunday, after the first carcass was found, a probe was initiated, with the post-mortem pointing to "inconclusive evidence", though circumstantial evidence pointed to poisoning. In the vicinity were remnants of two dead porcupines, making officials wonder if the tiger had attacked or eaten the porcupines —

which could also have been poisoned. The other “crucial clue” raising a red flag was that all the nails of the tiger were missing.

The last time Mhadei Wildlife Sanctuary was in the news was when Goa asked for no water to be diverted to Karnataka from the Mhadei basin since it would directly impact the tiger and other animals in the Mhadei wildlife sanctuary, apart from it being the lifeline of the state.

Australia is being burned alive by the climate crisis – so why is it still promoting fossil fuels? The world of alternative facts is fast becoming an alternative reality. How else to explain the coverage of the bush fires emergency by broadsheet newspaper *The Australian* – one of the only major international titles that finds itself unable to link the devastation unfolding across the country with the breakdown in the climate that the burning of fossil fuels is ushering in.

Since November last year, these fires have destroyed more than 6 million hectares of bush, forest and parks and taken the lives of 24 people and countless animals. It is feared that more than 20,000 koalas recently perished on Kangaroo Island.

How has *The Australian* responded to such events? On 18 December, it celebrated booming Australian coal exports to China – the same day that the Australian Bureau of Meteorology announced that the country was experiencing its hottest day on record. The Australian government continues to believe that the nation’s future remains within the rich coal deposits that lie under Australian soil, and is not being challenged on that position.

The impact that fossil fuels are having

on the country’s climate are plain: they are contributing to prolonged heatwaves, droughts and wildfires that have destroyed Australian ecosystems and communities. Echoing the government’s position, however, the country’s national paper argued in its own editorial column that those attributing the country’s bushfires to climate change were suffering from an “attention-clamour disorder” and creating a “faux climate emergency”.

In this alternative reality, there are no reasons to slow down the mining, export and burning of coal because lethal heatwaves and raging fires are explicable by seasonal variability. And even if these events have been made likelier by humans’ impact on the climate, the only way forward is more fossil-fuelled growth, burning more coal to build bigger economies which can insulate themselves against further climate meltdown.

But the actual reality, out in the Australian bush and its oceans, stubbornly refuses to adhere to this narrative.

Sydney is facing a public health emergency as its residents choke bushfire smoke. Large sections of the Great Barrier Reef have been destroyed by rising sea temperatures. Climate change is threatening what Australians cherish most.

Many Australians have become accustomed to multi-year droughts and summer bushfires. Recent polling by the Lowry Institute found that 64 per cent of Australians now see climate change as “a critical threat”, beating cyberattacks from other countries and international terrorism. Most also want to decarbonise the country.

Australia is the second largest exporter of

thermal coal in the world. In 2018, it mined 208m tonnes of the stuff, bringing in \$26bn for the Australian economy. Attempting to resolve the tension between climate action and climate-wrecking coal mining has arguably led to the downfall of a string of Australian prime ministers. Most recently, Scott Morrison replaced Malcolm Turnbull by successfully framing the Turnbull's carbon reduction plans as a threat to jobs and prosperity.

Back in 2017, Morrison held up a lump of coal in the Australian parliament and proclaimed, "This is coal. Don't be afraid. Don't be scared." He then reminded MPs on the other side of the house that it was dug up by the men and women who vote for them.

It's no secret that Rupert Murdoch's News Corp, the publisher of The Australian, has been a staunch supporter of Scott Morrison. Given that the organisation owns 140 newspapers across Australia, that support can be translated into sustained media pressure. Back in May this year, Australia's opposition leader Bill Shorten argued that parts of News Corp should declare themselves as "political parties" given the degree to which they were campaigning for Morrison's party ahead of the general election. That campaigning includes newspapers continuing to highlight a risk to the economy from climate-friendly policies, while downplaying the risks to the planet of a rapidly-changing climate.

And so, despite the climate crisis unfolding literally outside its Sydney offices, The Australian celebrates coal and continues to frame the bushfires as a natural disaster.

It will be impossible for this position to be maintained forever; sooner or later, increas-

ingly extreme weather will make it untenable.

The risk, of course, is that when reality does bite, it may be too late to act.

Australians Could Become 'Climate Refugees' as Bushfires Turn Country Hot & Dry: Sydney: As global temperatures soar, Australia could become so hot and dry that the country's residents could become climate refugees, US climatologist and geophysicist Michael Mann told Reuters.

Australia is in the midst of one of its worst fire seasons on record, with bushfires burning since September and claiming the lives of 28 people, killing more than a billion animals and razing forests and farmland the size of Bulgaria. Some fires were so monstrous that they created their own weather pattern causing dry lightning and fire tornadoes as a three-year drought left woods tinder-dry.

"It is conceivable that much of Australia simply becomes too hot and dry for human habitation," said Mann, who is director of the Earth System Science Center at Pennsylvania State University. "In that case, yes, unfortunately we could well see Australians join the ranks of the world's climate refugees."

Climate refugees, or environmental migrants, are people forced to abandon their homes due to change in climate patterns or extreme weather events.

Mann, the recipient of last year's Tyler Prize for Environmental Achievement, is on a sabbatical in Australia where he is studying climate change. The co-founder of the award-winning science website RealClimate.org said the brown skies over Sydney in recent days was a result of human-caused cli-

mate change led by record heat and an unprecedented drought.

The remarks resonate with his peers who published a review of 57 scientific papers suggesting clear links.

Climate change has led to an increase in the frequency and severity of what scientists call “fire weather”, periods with a high fire risk due to some combination of higher temperatures, low humidity, low rainfall and strong winds, the review found.

A poll from the Australian Institute published on Wednesday showed the bushfire crisis has intensified Australians’ concerns about climate change and its impact. And yet, Australian Prime Minister Scott Morrison and his conservative government have sought to downplay the role of manmade climate

change in making the country vulnerable to fires.

Morrison has repeatedly said his Centre-Right government would “meet and beat” a 26% global emissions reduction target agreed in Paris, albeit with a caveat that such goals should not come at the cost of jobs and the economy.

Mann, the author of four books including “The Madhouse Effect,” said Australia could still “easily achieve” the target by shifting towards renewable energy. “It’s possible to grow the economy, create jobs, and preserve the environment at the same time. These are things that all Australians could embrace,” Mann said. “They just need a government that’s willing to act on their behalf rather than on behalf of a handful of coal barons.”

Invitation

The following Officers are retiring from service on attaining the superannuation on 29-2-2020.

1. Sri Anil Kumar Maurya, IFS, PCCF.

2. Yadavali Narasimha Rao, FDO, FS, KARIMNAGAR.

Association of Retired Forest Officers, Telangana and Andhra Pradesh invite the officers to join the Association. For further details please contact Sri. A. V. Govindarajulu, Secretary on mobile number 9440764611 or Sri. A. Shankaran, Joint Secretary on mobile number 9494019595.

Secretary.

**When you pray for others, God listens to you and blesses them,
and sometimes, when you are safe and happy,
remember that someone has prayed for you....
Life is full of blessings!!!
Express Gratitude for all the good things in life !!!**

LEGAL NOTES

Hazrath Ghouse Azam Welfare Society Vs. State of Telangana & Others.

Nizam's Trust owned an elephant called 'Rajani' and she was given to the Nehru Zoological Park for maintenance. She was looked after by the Zoo Animal Keepers. She was being used in the procession during Moharram and during the Bonalu festival. The elephant was also provided to the petitioner society since 1995 for *Giarh-veen* Shareef of Hazrath Ghouse Azam Dastgir but it was stopped in 2017.

The Petitioner Society filed writ petition in the High Court which was dismissed. The matter was carried in appeal in W.A. No. 358/2017 which was dismissed on 21.09.2017. Aggrieved by the order dismissing the writ appeal, the Society filed Special Leave Petition in the Supreme Court which was also dismissed on 23.04. 2018.

The Society approached the Government and represented that the elephant is being provided for the Moharram and Bonalu, but the facility is denied to the Society and it should be extended to the Society. Thereupon, in Memo No. 3371/ For I/2018 dated 03.10.2018, orders were issued to provide the elephant to the Society. But the order was not complied for the reason that there is no trained mahout and also for some other valid reasons.

The Society therefore filed Writ Petition No. 481268/2018 seeking orders of the High Court to declare that the action of the second Respondent in not implementing the orders in Govt. Memo dated 03.10.2018 and not providing the elephant to the Society while it is made available for Moharram and Bonalu, is arbitrary, illegal and discriminatory. The case was heard by the Hon'ble Justice Sri Challa Kodanda Ram.

While hearing the case, the court referred to the disposal of W.A. No. 358/2017; it was held therein that the Prl. Secretary is not entitled to

issue Memo to relax G.O.Ms. No. 132 dated 22.12.2009 wherein it was ordered that use of animals cannot be permitted for processions. Contrary to the Government Order, Memos were issued by Special Chief Secretary in 2018 directing the use of the elephant for Bonalu and Moharram which is held to be against the LAW declared by the Division Bench.

The Second Respondent filed counter affidavit opposing the writ petition. It was submitted that there was no trained mahout in the zoo. At the request of the Nizam's Trust, the elephant Rajani was being looked after by the Zoo Animal Keepers whose duty is to feed and clean the elephant. The Central Zoo Authority was created under Sec. 38 A of the Wildlife Protection Act with a view to regulate the functioning of all zoological parks in the country for maintenance of animal health care and facilities for strict compliance. Under its directions the State Government constituted Zoos and Parks Authority by a G.O. issued in 2014. The Governing Body directed that the elephant should not be spared to anyone except for Bonalu and Moharram as an obligation to Nizam's Trust. In 2018, Elephant Rajani had undergone enormous stress and the Chief Wildlife Warden requested the Government to issue orders not to provide Rajani for any procession.

The Petitioner Society filed Reply Affidavit and requested for orders to comply with the Memo dated 08.11.2018.

In W.A. No. 1358/2017, the court found fault with the Government by issuing Memos relaxing rigour contained in G.O. Ms. No. 132 dated 22.12.209. The power to issue executive instructions vests with the Government and no one else. The Prl. Secretary made a mis-

take by transgressing law declared in W.A. No. 1358/2017. Transgression of law amounts to contempt. The petitioner cannot seek directions once again to transgress the law declared, on the ground of Art. 14.

It is well settled that merely because on an earlier occasion, there is a mistake in according permission which is not permissible, there cannot be any direction, much less issuance of mandamus to extend the same benefit, in favour of the petitioner, which is impermissible. Apart from the said reason in the counter affidavit, the second respondent has categorically made a reference to the direction made by the Central Zoo Authority constituted under Sec. 38-A regulating the functioning of all the zoological parks in the country, which are required to be adhered to. It is true that temples in Tamil Nadu, Karnataka and Kerala own elephants which are

trained and except few temples in Telangana and Andhra Pradesh, there is no much scope for owning elephants by any of the temples and there is no private individuals owning the trained elephants.

At one point of time, the Government wanted to return the elephant Rajani to Nizam's Trust but they expressed their inability vide letter dated 06.03.2010. As such Nizam's Trust would not have any superior right than the State.

For all the reasons and in the light of the subsequent developments particularly the judgment dated 21.09.2017 by the Division Bench in W.A. No. 1358/2017, no mandamus can be issued to the respondents to extend the facility in favour of the petitioner, the writ petition is dismissed on 18.03.2019.

Source: Internet

K.B.R

**I have cherished the ideal of a democratic and free society
in which all persons live together in harmony
and with equal opportunities. It is an ideal which I hope
to live for and to achieve. But if needs be, it is an ideal
for which I am prepared to die.**

(Nelson Mandela)

**There is no other definition of socialism valid for us than that
of the abolition of the exploitation of man by man.**

(Che Guevara)



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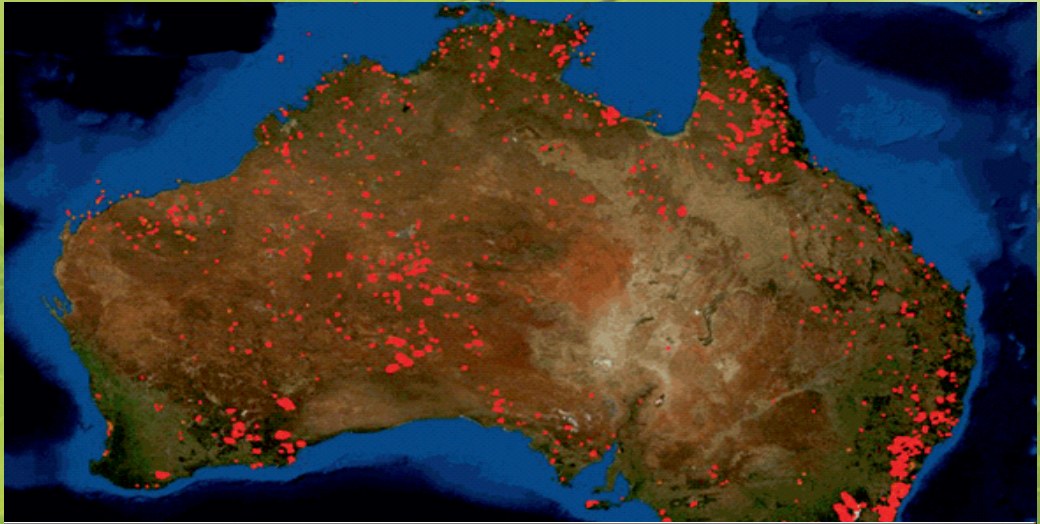
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“Vagaries of forest fires in Australia”

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