

VANA PREMI



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Indrella ampulla

(Endemic to Southern Western Ghats)

Photo: T.S. Prasanna Kumar

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- ✓ TSFDC has introduced new commercial species with in the RRR region viz., Seethaphal, Sandal wood, Red sandal, Rose wood, Teak, Panasa, Bambusatulda, etc.,
- ✓ TSFDC has also taken up consultancy works for NTPC & RFCL and successfully raised multiple row avenue plantation along with Rajiv Rahadari Highway in Peddapalli District.

Vice Chairman & Managing Director

Telangana State 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

Maecenas Editor : Mohammad Thayyab

THE ASSOCIATION OF RETIRED FOREST OFFICERS Telangana & Andhra Pradesh

(Regd. No.557/1990)

President : Sri P.K. Jha, IFS (R)
Mobile: 98499 04774

Vice President: Sri G. Krishna Murthy
Mobile: 88977 28528

Secretary : Sri B.M. Swami Das
Mobile: 90008 17781

Jt. Secretary : Sri A. Shankaran
Mobile: 94940 19595

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2. Editor: Qamar Mohd. Khan

Maecenas Editor : Mohammad Thayyab
Tel: 040-3592445, 99890 95939
e-mail: thayyab@gmail.com

3. Associate Editor: D.Nagabhushanam, IFS(R)
Mobile: 80965 11200

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Editorial:**Climate Change and Monsoon Patterns**

People who live in remote areas all over the world- untouched by industrialization and modern technological advancement -often wonder why their lives are not as pleasant and comfortable as they used to be. They are clueless as to why they are being punished by nature for no fault of theirs. As no boundaries are demarcated by nature, modern 'civilized advancement' that has been happening worldwide mercilessly took these people's lives along with the culprits. Nature responds in its way to the ecological interventions of the MODERN MAN.

We know monsoon means happiness and prosperity to millions of people worldwide. But in the last two decades, these rains have also brought many hardships with them. An extreme weather pattern now and then has always been expected, but to see the pattern get worse over our lifetime is more than just flukes in weather. A trend becomes apparent, which is backed up by scientific studies.

During this month, the Western U.S. experienced hot, dry, and windy weather as crews from California to New Mexico battled wildfires that had forced hundreds of people to leave their homes. Roughly 2,500 homes have been evacuated because of two wildfires burning on the outskirts of Flagstaff in northern Arizona. In our country, a landslide in the Nizarapar area near Boragaon in Guwahati resulted in human casualties. The landslide occurred after heavy rains lashed the city early morning, followed by very heavy rainfall (7-20 cm in 24 hrs) the following day.

East London experienced a tornado last year, which, by all means, is very abnormal. Many seafarers observe that the average wave height in the Atlantic has been rising consistently (according to the UK Met Office records, based on daily observations by ships). There are other worrying aspects to this, such as changes in ocean currents- an event that happened about three thousand years ago and caused the Bronze Age Collapse. The data suggests the gulf stream is slowing, which is not a good sign for the ecosystem. In 2020, Australia's annual "bushfire season" was much worse than usual due to

climate change. Washington State (WA) has seen the melting of glaciers and an increase in wildfires over the years; smoke got so bad in 2020 that the people were forced to wear masks. The smoke blotted out the sun for a few days!!

Similarly, Houston saw temperatures of 12 degrees Fahrenheit last February, which is unheard of as Houston is located in a semi-tropical region. A phenomenon called a "100-year storm," which meteorologists expect to be so bad that it will only occur once in 100 years; the Houston area has seen at least three of these "100-year storms" in the past five years. And it's only going to get worse.

Rainfall and other patterns vary so much when we use the current and past recorded data. Cyclones, strong tornados, hurricanes, snowfall, glaciers, droughts, and floods are climate markers we need to follow carefully in order to judge the significance of climate change from the ongoing global warming, which is likely to be an additional degree Celsius this century. In Canada, people feel global warming has shifted the spring thaw by several weeks.

Climate change is the effect of temperature excursions that persist for a long time. Global warming is more significant in the northern hemisphere than in the southern and most pronounced in the north part of the northern hemisphere. According to a study, India may lose 3-10% of its GDP yearly due to climate change. The poverty rate can increase by 3.5% by 2040. It's bad, and it's only going to get worse. We've been engaged in a reckless, uncontrolled, for-profit, global experiment in atmospheric change for decades, and now it's catching up with us.

The result? Summers are hotter and drier, so lakes and marshlands are drying up, which has led to shifting vegetation and a drastic drop in numbers for some wildlife species. The overall climate is warmer; many infections are spreading worldwide; some areas are suffering persistent drought, and agriculture is suffering; the heatwave of 2018 killed some 700 people; forest fires used to be extremely rare, but we now have a "world forest fire season".

The rain that does fall tends to come all at once, so flash floods are becoming much more common. Anyone who thinks they perceive climate in casual observations is fooling themselves. It is far more subtle. It is a fact that the extreme weather events which used to happen every 10 or 15 years now occur every 2 or 3 years. Anyone who's paying attention can see the impact of monsoon patterns with climate change as well, viz., rising sea levels, wiping out beaches, polars going extinct in the arctic, and whales struggling with elevated ocean temperatures.

In July 2005, Mumbai received an unprecedented rainfall of 944 mm, which was 100 years high in the span of 24 hours. The rains continued, over 1000 people lost their lives, and 14,000 homes were destroyed. In August 2010- the Ladakh cloudburst- killed 255 people, and property worth over one billion rupees was destroyed. In June 2013, the Uttarakhand cloudburst, the country's worst natural disaster since the 2004 tsunami, these floods took the lives of more than 6000 people. In November 2015, Chennai received the heaviest rainfall in 100 years. The floods also affected neighbouring regions of Andhra Pradesh and Pondicherry, and nearly 500 people lost their lives and thousands of crores. So was the case with the Kashmir floods of 2014, Kerala floods of 2018, Assam floods of 2020 and the list goes on.

People realized that cyclones, hurricanes, and heat waves are no longer unusual in the summer season. Wavering polar vortex, jet streams weakened by Arctic warming, alternate drying and submergence and flooding of the regions are happening even in the summer! The farmers whose fields were swept down by rivers by rain bursts are replaced with sand and clay should have realized that climate change's fingerprints were all over them.

Climate change is making the Lake ice disappear in many parts of the world. For example, researchers have been tracking ice cover on Lake Mendota since 1855. The average number of ice-cover days per season has dropped from 122 for the first 20 years; the record has been kept to 79 during the last 20, a decline of 35 per cent, which is very alarming. Confirmed NOAA ((National Oceanic and Atmospheric Administration) statements showed that winters are generally two weeks shorter while summers are about a week longer.

In addition, oxygen levels dropping are corroborated by atmospheric oxygen measurements at over 150 international locations. Oxygen levels are dropping, in line with the amount of carbon dioxide rising, just as you'd expect from fossil fuel burning, which takes oxygen out of the air to create carbon dioxide.

India is heavily dependent on its monsoon. 60% of crops are rain-fed, and the agriculture sector contributes over 16% of India's GDP. More than 40% of India's workforce is in the agriculture sector. So, any monsoon-related change directly impacts India's 16% GDP and 40% percentage of our workforce. The indirect impact is much more alarming too. Crop production and prices go up and down, directly impacting our economy and those who consume it, i.e., everyone. At the same time, floods and cyclones directly impact those living in those areas. In our country, floods in 2020 claimed the lives of more than 2000 people and displaced more than four million. This cycle of destruction will continue unless we do something about it.

Global summits without follow-up and monitory contributions are not the solutions. We know the fate of the Paris Accord. Over 190 countries have signed the agreement to keep global temperature rise below 2 degrees Celsius in this century. But reports indicate that we can't achieve even this target. If we are serious about climate change, the world must come together with a unanimous and actionable plan. Otherwise, we will continue to see disasters like what Mumbai, Chennai Karela and Assam saw in the last two decades. The time to change is now.

Sea-level rise, and in some places, multiple storms wash all the sand away, leaving nothing but cobbles, and the marsh grass is being eroded or gone, leaving just a few patches.

The CO2 readings have gone from 286ppm in the 1820s to 420ppm in 2020. No matter how you slice it, the Earth retains more heat than it releases in 24 hours. It's a known fact that when the atmosphere reaches a concentration of CO2 greater than 450ppm, we're in the foothills of a runaway heating event. As per the recent study, we are adding 15ppm per decade -so, by mid-century, we will be there. Almost every climate scientist from every country has come to the same conclusion. This is a high equilibrium

trap situation.... we can't stop what we're doing because of the social, political, and economic crisis, but we shouldn't continue because, in the end, a significant amount of the Earth's surface won't be inhabitable by even a fraction of the people now alive.

Yet we find some people who do not believe in these studies, picking data to fit their preconceived notions. Many weather changes, after all, occur as minimal change over a span of decades. The effects could easily be brushed off as weather anomalies if not correlated with scientific data on the monsoon pattern of an area. Bias makes many leaders and policymakers want to pretend otherwise or point fingers at anything except human-caused climate change. But now we know that's just nonsense and do something about the real danger to our world, physical and economic. Now we have weather records which show that the number, intensity, and duration of weather events have changed in a way indicative of climate change or that there has been some other long-term change in weather.

All the above research data with facts and figures makes one feel that climate change is about to come, but it will take some time, and then it's a blunder. Climate change

is already there and will be worse if not tackled in a missionary mode by every country.

As per the Earth System Dynamics, climate change is everywhere, and the impact is felt every year. The study compared more than 30 climate models to predict that summer monsoon rains in India will grow more significant and unpredictable if global warming and climate change continue unabated. It also says that global warming is tackled effectively, meaning seasonal rainfall might increase by as much as 24% by 2100.

The unfortunate thing is that many world leaders and policymakers have short memories, despite the warnings by the environmentalists and scientific community the world over. The leaders fail to see the impacts of the changing monsoon pattern with climate change happening around them. People tend to forget the past decades' climate havoc and extreme weather conditions when normalcy restores... terming the past as normal. Thus the "new normal" settles in pretty quickly till a big hue and cry is raised by the affected in the subsequent incidents.

This is a serious situation and requires immediate action at all levels.

-Mohd. Thayyab

Letters to the Editor...

Dear Sir,

Apropos to the Editorial of the Vana Premi of May, 2022 "Invest In Your Planet" on the eve of the 'Earth Day' during the month is timely to stir the consciousness of the readers to give a thought about what is happening around them against the Earth and the living beings in it and it's climate.....and makes them to feel shy for it as they are also responsible like all other human on the earth for the present status of pollutions on the earth, ecosystems and the climate.

A well analyzed ways & means have also been suggested for the human to do some favours for the mother earth individually.

Further, the magazine is coming up with good informative articles on various issues regularly every month. The addition of pictures connected to the articles convey more pictorial descriptions.

The printing, dept of printing & the font size are excellent for reading.

Congratulations.

BMT Rajeev IFS (Retd)
Bengaluru

Service Beyond Call of Duty

“Happy Birthday (on 07.07. 2022) to the Founder of Vanapremi”

Sri K. Buchiram Reddy, IFS., (Retd)



My acquaintance with Mr KBR dates back to 1974 when he was ACF (Law) in the head office at Hyderabad and I was undergoing practical training in Adilabad district. Since then, for the last almost five decades it has been an association of continuous interactions regularly and he has

been a great help in every phase of my career in the Forest Department.

It does require any mention that his untiring efforts, indomitable spirit, and total devotion to duty beyond the call have not only resulted in saving invaluable forests from the Patta Mafia but also inspired many other officials. It was due to persistent persuasion by him and late Mr Narayanaswamy, I agreed to hold the post of President, Association of Retired Forest Officers with the assurance all the works would be attended to by them only and they kept the promise. At the end I would like to mention how he was running from the pillar to the post to save the VANAPREMI.

Perhaps it was in 2006/2007, when I was the Head of the Department; he came to me one day and discussed over the difficulties of running the VanaPremi due to poor circulation and consequent financial difficulty. Mr Ramesh Kalaghatgi, who was in-charge of world bank project was requested to come to my room. We three discussed the subject and I requested Mr Ramesh to find out a long-lasting solution. Most probably after a day or two, he came with the solution that Vana Premi be circulated among the forest staff up to the level of foresters as a subject of forestry education and

the expenditure would be incurred under world bank project. For storage and circulation of VanaPremi, Room 514 of Aranya Bhavan was allotted. Till today the executive committee meeting of retired officers is held here. And it was made possible due to the tireless efforts and matchless initiative of Mr K BUCHIRAM REDDY only.

I wish him many more years of active and healthy life.

- S. K. DAS, IFS.,(Retd.)

Former PCCF (HoFF), AP, Hyderabad.

I met Mr Buchiram Reddy in the year 1983, and he headed the law wing of the department. As DFO, Kakinada, I had come down to Hyderabad to file the affidavit (parawise remarks) in a forest patta case. I was a new entry to service, new to Hyderabad and affidavits are boring to read, difficult to comprehend. Mr Buchiram Reddy, a very affable person, went through the draft, made the necessary corrections and arranged all the connected documents in sequence. Then he took me in his personal scooter to meet Mr M. R. K.Choudhary, the Govt Pleader at his residence, who invariably gave appointment late evenings. After briefings and discussions, the GP will dictate the draft to his steno who will then type it on his machine for its approval. This took considerable effort and by the time the work was completed it became late night, even beyond 11 pm, with little public transport available. Mr Buchiram Reddy will always drop me back at the Chief Conservator of Forest office (Aranya Bhavan) rest room, where I stayed.

By presenting the case factually, Mr Buchiram reddy got the felling permission granted in Perikivalasa forest patta cancelled by the High court and later the forest patta cancelled by Mr Achanta, I.A.S then Commissioner of Survey and Settlements.

Mr Buchiram Reddy's amiable nature, and his service beyond the call of duty, left an indelible mark in the beginning of my service and I am always grateful to him. His helpful nature, even after his retirement from service continues. Happy Birthday!

- A.V. JOSEPH, IFS (Retd.)

Former PCCF (HoFF), AP, Hyderabad.

It indeed is great news that Sri K.Buchiram Reddy is turning 90. He is 90 years young. I have been associated with him since nearly four decades and feel privileged in knowing him closely. His knowledge of Forest Laws and great administrative abilities are unmatched. Infact his passion for Forest Law continues even today at this advanced age. I used to consult him on many tricky issues on interpretation of law while dealing with sensational forest offence cases during my tenures in Narsipatnam, Adilabad and Rajamahendravaram and his tips were very useful. As founder of Vanapremi, he has ensured a lively platform for the Forest fraternity. He has been a fatherly figure for many, and I salute him and pray for his health and well-being. Happy Birthday!

- Ramesh Kalghatgi, IFS (Retd.)

Former PCCF (HoFF), AP, Hyderabad.

I never worked with Buchireddy sir. He is always affectionate and encouraging me personally. He is remembered for his professional excellence and high degree of commitment to save the forest. His dedication, legal expertise and perseverance safeguarded many forest areas of Telugu states. He never dissociated from the foresters fraternity even after 3 decades of his retirement. With his unique qualities and unparallel contributions, he continues to be the inspiration to all of us. May God give him good health and long life.

- P Mallikharjuna Rao, IFS (Retd.)

Former PCCF (HoFF), AP, Hyderabad

Nature lovers in Hyderabad are familiar with KBR. Forest fraternity all over the country are in love with KBR. While the former is the National Park people frequent to get recharged, the latter is the person whom foresters rely upon for all sort of legal advice. Sri Buchiram Reddy garu is a humble, empathetic, and kind-hearted person, always eager to help others. For

him age or health condition is no bar. It is the spirit of the forester that drives him. For the past 9 decades he made a name for himself and left an indelible impact on the lives of the people who met him and was instrumental in protecting our precious natural resources through his legal acumen. He was probably the only forest officer to have worked in the Anti-Corruption Bureau and brought laurels to the forest fraternity. His legal inputs are followed religiously by even the legal fraternity.

Even after retirement his passion for forest law continued. As the editor of Vanapremi he initiated the Legal notes column highlighting important case studies and helping the foresters all over the country to keep track of the latest developments and court judgements. He even got one compendium titled "Legal Notes for Forest Officers" compiled, which is a comprehensive document and ready reckoner for budding foresters. Whether he is in India or abroad, his heart was always with the Indian forestry scenario. He never missed a program organised by the Forest Department, be it the Forest Martyrs Day at the Nehru Zoological Park or the Convocations and KVS Babu Gold Medal Presentations at Forest Academy, Dulapally. He is a role model for forest officers, and I used to invariably invite him to interact with forest officers from all over the country at Forest Academy, Dulapally, whom he used to inspire a lot. The Kushnepally case was got revived by KBR through his PIL, eight years later. I wish him a happy, healthy, and contented life on the occasion of his 90th birthday and pray to God that He continues to give him the strength and energy to contribute to the Indian forestry scenario in the coming years as well.

- P. Raghuveer, IFS (Retd.)

Former PCCF, TS, Hyderabad.

Our association goes back to mid-forties when we became classmates in the same middle school & section at Hanamkonda, which took us further in a similar manner through to High School & Intermediate College there. And when moved to Hyderabad in 1952 for a degree in science, we found ourselves in the same University College of Physics with the same combination of subjects. Thereafter we were in the same B-Hostel and joined 1st batch of NCC

(same branch of "Signals"). It did not end with that: we went through the competitive examination and got selected to undergo training at Madras Forest College, Coimbatore during 1954-'56, preceded by 3 months of practical training in Mancheril Division, and joined service on the same day at Hyderabad on 2-7-'56 after successfully completing it. Can you find another example where two persons from different districts (one from the then Mahbubnagar & the other from the then Nalgonda) closely associated with each other for 11 consecutive years? That too entering the same profession & getting inducted into IFS, and becoming Editors of Journals of their respective Associations, after retirement on superannuation (in the States they got allocated to, when Hyd. State was trifurcated due to States' Reorganisation)? Rarest of the rare cases, even and impossible perhaps to come across! Be it so.

I find him to be sincere, honest, very hardworking, and talented, which qualities he continues to cherish even to this day. Finding him to be a luminary with a Law Degree (obtained subsequently), I exclusively created a special corner of "Legal Notes" for him in "Vana Vikas" (as its Chief Editor), which he is so ably managing to date from day one, and we are proudly continuing it.

I am extremely happy that he is going to celebrate his 90th birthday next month (precisely two-and-a-half-years earlier than me), and I wish the very best to my dear colleague Keesara Buchi Ram Reddy & pray God to bestow all His benevolence on him during the days/weeks/months/years to come!

Amen!!

- Dr B. Raghotham Rao Desai, IFS (Retd.),
Bangalore, Karnataka.

Sri K.Buchirami Reddy is a great human being. I came into contact with him through Retired Forest Officers' Association. The interest he has been evincing in the activities of the retired officers' association being an octogenarian is beyond anybody's stretch of imagination. Being a founder of Vanapremi a monthly magazine of retired Forest officers of TS and AP he

has been regularly contributing law related articles with indomitable spirit because of his erudition on legal issues. The present generation of forest officers are bound to emulate him so that they can render great service to the environment. I bow down my head before the great personality Sri. K. Buchirami Reddy and convey my greetings on his 90th birthday.

- V.V. Hariprasad, DyCF (Retd.)
Advocate, Hyderabad.

Sri. Keesara Buchiram Reddy is affectionately known as KBR among all his friends and Foresters of AP and Telangana. It is a pleasure to talk with him and be in his company knowing so many knowledgeable issues on both Forestry and the Forest Laws.

My first acquaintance with him was when I was working as Forest Range Officer in Nandyal Division, I had to go to Head Office at Hyderabad in some case in which we had to file a counter affidavit in the Hon'ble High Court of Judicature. He was then working as Asst Conservator of Forests-Law, and I approached him for assistance. He guided me thoroughly and directed me to the Govt. Pleader and I could file the Counter very easily.

Subsequently also I have been meeting him on some occasion or the other and kept up my contacts with him. He was instrumental in making me to contribute so many articles to Vana Premi about my experiences in the Department while he was looking after Vana Premi Magazine as Editor. He used to correct them, rectify omissions and commissions and tuned me in writing articles. His Legal Notes in Vana Premi are the sources of best guidance for all the Forest Officers in India.

When I visited my son in USA sometime back, he was also with his son, and we spent a couple of days together. I am extremely happy to note that, Sri. KBR is completing 90 years of exemplary innings in his life by July 7th of this year and I Pray God to shower all His Blessings on him and his Family. Many more Happy returns of the day!!

- V. Santhaseela Babu
Retd DFO, Visakhapatnam.



Save Red Sanders - Need for a People's Movement

P. Mallikharjuna Rao, IFS (Retd.)

A few months ago one of my juniors from North East cadre in a telephonic conversation was enquiring as to why the name of Forest Department did not find a place in multilingual movie, Pushpa which was based on Red sanders' (RS) smuggling. The foresters who worked in RS area feel discontented about this movie due to glorifying an illegal wood cutter on one hand and ignoring and down playing the relentless efforts and sacrifices made by the forest field functionaries in protecting RS forest on the other. In the past few decades, 13 field foresters lost their lives and several got severely injured while fighting to prevent felling of Red sanders trees and to intercept smuggling of wood. These unsung heroes deserve proper recognition and fair treatment.

Red sanders and its smuggling:

Red sanders (*Pterocarpus santalinus*) is an endemic plant species limiting its spread to natural forests of about 5300 square kilometres in hill ranges of Seshachalm, Veligonda, Lankamala, Palakonda of Eastern Ghats covering erstwhile 5 districts/8 forest divisions of southern part of Andhra Pradesh. Except at this place, the naturally grown RS trees are found nowhere in the world. In 1960s the Department launched series of measures for protection through various institutional, legal and management interventions on noticing about the smuggling of wood mainly to Japan in the past and now to China. Over a period of time, the smuggling activity evolved into a well organised criminal network of people at seven stages - wood cutter, maistry, logistic supporter, transporter, godown keeper, exporter and finally international exporter at China. The road and railway line running parallel to the RS bearing forests to the tune of 275 Kms and close proximity to two state boundaries viz., Tamil Nadu and Karnataka also keep these forests vulnerable for smuggling.

Red sanders protection - our team's experience:

After working for about 12 years outside the forest department and 5 years in supporting wings (GIS and AP Forest Academy) it was a good learning opportunity for me to work as the head of Tirupati WLM circle (from 2007 to 2010) covering of about one-third of total Red sanders bearing forest of the state. It was interesting to know that majority of the field staff here work with good passion to protect forests and especially to control RS smuggling in spite of the problems of shortage of manpower and funds. The officers and field staff worked here in the past had memorable incidents of preventing tree fellings, seizing of materials in transit and storage, arrest of wood cutters and important smugglers, implementation of PD act etc., to their credit.

After my initial visits to the forests, interaction with field functionaries and other stake holders in the first month of joining, I had a meeting with the DFOs (Sri Krishnaiah, Sri Ramalingam, Sri Srinivas Reddy & Sri GV Subbareddy) and other few field officers to discuss and work out strategies to improve/strengthen the protection of RS forests focussing especially on prevention of fellings. In the meeting it was informed that there was a practice of hiring local youth occasionally to support the field staff for Red sanders protection and fire control during summer season as and when some budget for the specific purpose was released under forest protection schemes. Participants felt that there would be good improvement in forest protection if these protection watchers are deployed in groups of 5 to 6 members under one forest field staff to be stationed with in the forests of vulnerable patches for maintaining strict vigil and watch through foot patrolling. It was decided to constitute such forest protection teams (5 members per team) at 22 identified

vulnerable forest patches immediately. The suggestion of Sri Srinivas Reddy, the then DFO, Rajampeta to name such forest protection teams as 'Base camps' got wider acceptance in the meeting. Consequent upon this, the DFOs worked relentlessly to establish, operationalise and run 22 number of such base camps by December, 2007. There were no any specific scheme to fund such an activity. Thanks to the DFOs who managed to run them uninterruptedly for about the next 3 years by pooling finances from various schemes pertaining to forest protection, fire control, wildlife management (Anti-poaching) and other with the support of senior officers from state Headquarters. On seeing successful results from this experiment of about 2 years, the former head of vigilance Sri Sammireddy, IFS encouraged it and took steps to spread this practice to other forest areas in the state by arranging regular funds flow. The base camps got improved and strengthened subsequently with semi-permanent shelters, communication equipment, effective monitoring system etc., with interventions from various committed forest field officers. It is informed that about 400 such base camps are functioning successfully now in both the Telugu states (AP & Telangana) put together with significant contribution to forest protection.

Other new initiatives of our team were setting up of Legal and Investigation support Cell (LIC), launch of Boat Squad in Somasila waters, deployment of Prachara Rathams-3 (Publicity vans with Audio Visual equipment), instituting Striking force parties (12), intensive publicity through wall writings, establishing 16 additional check posts and forest stations (8) which created remarkable positive impact on Red sanders protection in the circle.

In August 2009, when I met Mr Peddireddy Ramachandra Reddy immediately after his joining as Minister of Forest of combined Andhra Pradesh state asked me to suggest one immediate measure that would significantly improve the RS protection. Responding to this I suggested to consider deployment of Police armed parties (1+8) for each of the 8 forest divisions to support the forest staff and reinforce the RS

protection measures taken up by the Forest Department. He acted swiftly on this suggestion and arranged deployment of police armed parties from September/October 2009. I had another good experience with him. Ever since I joined at Tirupati circle I was pleading with senior officers of Head Quarters to consider to transfer the post of DFO, Flying Squad Party (FSP), Pileru from Anantpur circle to Tirupati circle without any successful result. One day I got an opportunity to explain in detail and convince him regarding the dire need to shift the Flying Squad division. It was a pleasant surprise for me to receive Orders of shifting of FSP, Pileru to Tirupati circle after 3 days.

With the support and guidance of Sri B Muralikrishna, IFS, the then Addl PCCF, we could take up some administrative restructuring measures which helped to improve the status of forest protection and operational efficiency at field level. Two examples of this were transferring of Red sander bearing forest of Krishnapuram section (adjoining Tirupati town) from Chittoor (E) division to Tirupati division and shifting of Headquarters of one of the 2 ranges stationed at Bhakrapet to Pileru.

Management of RS forest – emphasis on Protection and conservation:

When we look back into the history of forest management of Red sander bearing forests some interesting facts are discernible. These forests were taken over by the Forest Department under British rule in early 1870s for exploitation to meet the fuel wood needs of the railways. The pre scientific forestry period between 1870 to 1883 saw felling of trees and harvesting of about 1.5 lakh tons of fuel wood from this forest which would have included red sanders in substantial quantities. Fuel wood extraction continued from 1883 to 1958 under silvicultural systems with periodic changes of the techniques such as selection, improvement fellings and coppice with standards. It is believed that some traders used to segregate and collect good quality logs of Red sanders from the fire wood transported to Chennai during that period where from it was finding destination to China and other countries.

The natural regeneration of red sanders takes place in two ways. One is through seed and another is through coppicing. Studies have found that most of the red sanders trees seen today are coppice origin and face a threat of losing their vigour after 2 to 3 cycles, thus affecting the population adversely. This is also one of the reasons to keep this species under endangered category earlier and now in near threat category by International Union for Conservation of Nature (IUCN). Field surveys reveal that the current population structure of RS trees is highly skewed towards the lower girth classes (<60cm girth). The population of higher girth trees (>70cm) of 80 years and above have become scarce due to past working of the forest and continuous illicit removal of such trees. In 2012, the Institute of Forest Genetics and Plant Breeding (IFGTB), Coimbatore advised the AP Forest Department not to undertake harvest of RS wood immediately in the forests considering very slow growth rate, high level threat from illegal cutting, annual fires and unfavourable girth class distribution.

Hence the management of the Red sanders bearing forests should continue its focus on protection and conservation. Appropriate site specific interventions of forest restoration, aided natural regeneration, fire management, habitat improvement works for wildlife and other related activities are to be taken up. Three wildlife sanctuaries and one national park are existing now in this forest. Major portion of these forests was constituted as Seshachalam Biosphere Reserve in 2010 to develop it as model for sustainable ecosystem management and for mitigation and/or adaptation to Climate change. This forest is recognised as home of about 1800 plant species, around 200 animal species, 137 bird species, countless insect species and other living organisms. Similar to red sanders there are 10 more endemic plant species such as *Shorea taluria*, *Cycas beddomi*, *Boswellia ovalifoliata* and other are present in these forests. Slender loris, golden gecko, yellow throated bulbul and other rare animal species are found in these forests. Seshachalam is also home for Elephants. This forest forms the catchment of rivers such as Swarnamukhi and Penna, several lakes and

tanks that provide life saving water in the poor annual rainfall region of the state besides providing various other environmental benefits and ecosystem services of unlimited value. These forests meet livelihood needs of large number of tribals (Yanadis, Chenchus and Yerukalas), people from marginalised sections and other forest dependant communities. Thus, the conservation and protection of this entire forest ecosystem becomes an imperative.

Large scale plantations of Red sanders in farm lands – Is it a panacea to control RS smuggling? :

The standpoint of many foresters that promoting cultivation of Red sanders and liberalising transit rules would help to improve RS protection requires validation by a detailed research and study. Red sanders can grow easily in different agro climatic zones in the country. About 3000 farmers in the country are reported to have been growing red sanders. The incidents of illegal cutting and stealing of the wood from red sanders trees grown in farm lands is rarely reported unlike in the case of sandal wood and other high priced woods. The well grown trees of about 60 years old artificial RS plantations of Karvetinagar forest range are never touched by smugglers in spite of easy accessibility and concentrated population of trees of desired size at one place. Some traders have shared an information that the farm grown timber do not fetch even 10 percent of the price of wood from naturally grown RS in international market which gives an hint that the geology and soils of Seshachalam and surrounding hills may have something to do with influencing on the quality and value of wood. Some argue that if RS trees grown everywhere is valuable, the China would have cultivated extensively in their country by now. There are unofficial allegations that some traders purchase the farm grown wood for the sake of official permits and subsequently smugglers would replace it with illicit wood from the forest. Hence a detailed study and Intensive research is required urgently to find out the facts in this regard before taking up a policy of aggressively promoting large scale RS plantations in farm /private lands.

Strengthen Protection Machinery:

Forest Department which is the custodian of the forest wealth including Red Sanders needs to be reorganized and strengthened to match with the power of criminal network and magnitude of the problem. First, the vacancies of field level posts which constitute more than half of the current sanctioned staffing pattern should be filled without any delay. Additional posts required after reorganizing the beats by reducing its size from 7,500 -12500 hectares to 3000 – 5000 hectares and other staff needed should be got sanctioned and recruited immediately. Focus of protection should be on prevention of felling of trees in situ. To support and reinforce the strength of this field machinery, a dedicated Red sanders forest protection force on the lines of Special Rhino Protection Force in Assam should be created by revamping the present Task Force. Latest technologies such as high-resolution satellite data to monitor individual trees, sound motion sensors, drones and geo referencing of trees, CCTVs at important points should be suitably deployed to monitor and detect tree fellings on real time basis. Presently the Red sanders area is falling in the jurisdiction of 3 circles of forest administration working in three independent compartments. It is necessary to bring the entire Red sanders forest under one umbrella headed by a senior Indian Forest Service Officer to prevent and stop the illicit fellings from the forest.

With enactment of Andhra Pradesh Forest (Amendment) Act, 2016, the legal backup for forest protection especially for RS protection got strengthened adequately. These amendments facilitate to create special courts, treat forest offences cognizable and non bailable, seize and forfeit the properties illegally acquired through smuggling, keep burden of proof on accused and other. Opening of special courts for trial of cases pertaining to Red sanders smuggling with Headquarters at Tirupati on 9th June, 2022 is an important mile stone for improving RS protection. Once the Red sanders wood crosses the borders of Andhra Pradesh, the anti-smuggling operation becomes a challenging one due to absence of specific laws and rules for Red sanders protection in other states. It will

be useful if the Central Government initiates appropriate legal measures and suitable institutional arrangements for overseeing anti-smuggling operations cutting across different states duly ensuring effective coordination with various state Departments of Forest and Police, Wildlife Crime Control Bureau, Customs and Revenue Intelligence and other related agencies to check this organized crime. The active role of Center would be essential to deal with the countries receiving smuggled wood and to coordinate with international crime control agencies to check the smuggling. As most of the wood cutters come from Tamilnadu, it will be useful if the state Government takes up appropriate welfare, development, and livelihood enhancement measures to wean them away from the activity for which the Centre's intervention becomes crucial.

Save Red Sanders – People's movement is necessary:

Local tribals and other people dependent on forests for livelihoods and basic needs should be associated in forest protection and management while ensuring smooth flow of benefits from the forest in accordance with the objectives of forest policy. Promotion of forest based micro enterprises and community-based ecotourism activities in forest fringe areas will help to build a vested interest to protect and conserve the forest in the communities. Vana Samrakshana Samithis and Eco Development Committees formed earlier with local communities should be revived and revamped to facilitate their active participation in forest management and protection. Base camps formed with youth from local communities should be strengthened. Unlike other commercial timbers, the RS wood is not cut for local usage and only outsiders are exploiting the resource causing huge damage to the surrounding forest and environment with consequent ill effects. This provides a strong ground for the local people to be supportive to check this onslaught. Further, the local cultural values are inclined to protect the forests as these hills are treated as sacred ones being the abodes of the most popular Hindu gods and several holy theerthams (water springs and falls) from the

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OSTEOPOROSIS - Part II

POROUS BONES AND JOINTS

Dr. N.V. Jayanth Babu

(Continued from the previous issue)

PHOSPHOROUS: is an essential mineral for building healthy bones and regulates the activity of enzymes. Phosphorous is an integral component of DNA that store genetic information. Phosphorous aids in storage of energy by the cells. Excess of phosphorous decreases the calcium levels in the body resulting weak bones. Phosphorous helps to maintain the balance between Acids and Bases. Rich foods of phosphorous are, Chicken – 113 mg in 100 gms; Sea foods ;; Salmon fish - 190 mg in 75 gms.; Sardines fish- 368 mg in 75 gms ; Eggs - 133 mg in 100 gms.; Dairy Milk - 217 mg in 250 ml ; Yogurt – 229 mg in 175 gms.; Dark chocolate – 308 mg in 100 gms.; Pea nuts - 124 mg in 140 gms; Sun flower clean seed – 375 mg in 60 ml /10.5 g; Pumpkin clean seed seed – 476 mg in 60 ml /10.5 g ; Oat meal – 142 mg in 100 gms.; Bread 38 mg in one slice, and 22 mg / in 1 Banana.

Normal values of Phosphorus in blood of humans are to be: 2.8 to 4.5 mg/dl. High level of phosphorous leads to kidney disorder, uncontrollable diabetes, and other endocrinal disorders. Our daily intake requirement of Phosphorus from the natural foods by the humans is to be between 800 mg and 1200 mg

CALCIUM: The role of calcium in the human body is to form bones and teeth. In addition, Calcium is essentially required and responsible -- for contractions and dilations of blood vessels, functioning of all muscles, transmission of nerve signals, proper functioning of all cells, inter cellular signaling, regularization of secretion of hormones and enzymes, stabilization of blood pressure, blood clotting, maintenance of normal heart rhythm, maintenance of normal serum glucose range in non- diabetics and to decrease the risk of obesity.

Prolonged intake of calcium in excess quantities results

in formation of calcareous stones in kidneys and if still in excess it may lead to cardiac arrest. Normal range of calcium in blood of humans is 8.6 to 10.3 mg/ dl. The daily intake of calcium is to be about 1200 mg. Para thyroid glands act as “calcium thermostat” that regulates calcium our body. Calcitonin is released by the thyroid gland if the amount of calcium in the blood stream is high. Calcitonin decreases the amount of calcium and phosphorus in the blood by slowing down the activity of osteoclast cells in the bone. Calcium, vitamin K2 and vitamin D must be balanced with magnesium.

Foods rich in calcium are sesame seed or Nuvvulu 975 mg of calcium in 100 gms.; Milk - 125 mg of Calcium in 100 ml; Cheese - 184 mg in 100 gms; Yogurt - 199 mg in 100 gms ; Almonds - 264 mg in 100 gms.; Chia seed - 631 mg in 100 gms.; Chick peas - 150 mg in 100 gms.; Dark green leafy vegetables - 140 mg in 100 gms.; Mint leaves – 243 mg in 100 grams ; Sardine fish - 382 mg in 100gms.,

‘K’: Vitamin K is an essential and fat-soluble nutrient and has antioxidant properties. It protects cellular membranes damage caused by free radicals. Vitamin-K-1 and Vitamin K-2 have different chemical structures. Our body stores vitamin K-1 and K-2 in different parts. K-1 is stored in Liver, heart, and in pancreas whereas, K-2 is stored in Brain and in Kidneys. Vit- K1 is called ‘phyloquinone’ is useful in blood clotting from bleeding wounds. Our body has difficulty in absorbing vitamin K-1 whereas, Vitamin K-2 can be absorbed and utilized by the body easily.

VitaminK-2 is called ‘menaquinine’. Research revealed that, regular intake of vitamin K- 2, in adequate quantities improves bone density and reduces the risk of bone fractures. Vitamin K promotes bone metabolism, accelerates calcification of bone to have strong bones. Activates formation of a bone matrix protein called

osteocalcin, which is responsible for the accumulation of calcium in bones and teeth.

Low intake of vitamin K results in enhanced risk of osteoporotic fractures. Vitamin K is useful for intestinal absorption of calcium prevents further bone mineral loss in osteoporosis. Vitamin K helps in ossification of the spinal ligament. Vitamin K prevents deposition calcium in blood vessels, controls and removes calcium score in coronary blood vessels. Vitamin K associated with calcium helps in clotting of blood being discharged from wounds. Deficiency symptoms of vitamin K: continuous bleeding can be seen from gums of our teeth, nose, urine, menses, from fecal matter, wounds.

Sources of vitamin K-1: Vitamin K-1 is found in dark green leafy vegetables, Broccoli, Spinach, kale, 'Tulsi' leaves, vegetables, green peas, Beans, Kiwi, Avocado fruits Walnuts, Almonds, Apricots, sun flower seeds, Oat meal, and in some plant oils. Sources of Vitamin K-2: Cheese, egg yolks, liver and organ meat. Other foods containing Vit. K 2: NATTO - is rich in several nutrients and promotes good gut health and it is also rich in K2. Natto is a Chinese dish made from fermented soya beans. One tablespoon of Natto contains 150 mcgs of K2. EEL Fish: 63 mcg in 100 grams, suffice for a person's daily requirement. CHEESE: K2 content varies in cheese from 12 to 50 mcgs per 50 grams. Chicken: 10 mcgs in 100 grams. Butter: 2.1 mcgs in one tablespoon. Eggs: Egg Yolk contains 67 to 192 mcgs (chicks fed with soya or corn-based diet are more with vitamin K deficiencies). Our daily requirement of vitamin K is 1 mcg per 1 kg of our body weight. For ex: A person having a body weight of 70 kgs requires 70 mcgs per day.

VITAMIN - D: Vitamin D is a very good Immune booster that improves the resistance power in humans to fight against diseases. One of the major functions of Vitamin D is to maintain normal blood levels of calcium and phosphorous which are essentially required for the formation of bones and teeth. Vitamin D helps in absorption of calcium by our body through intestine. It reduces depression and is helpful for weight loss in obese people. It is useful in proper functioning of

nervous system, nerve conductions, movements in muscles, Heart and Brain. Vitamin D puts a check to Osteomalacia (softening of bones), inflammations, and inhibits multiplication of cancer cells.

Normal range of availability of vit. D in our blood is to be -- In children from 1-18 yrs, adults up to 70 years and in pregnant & lactating women is = 600 IU (15 mcg). In adults over 70 years = 800 IU (20 Mcg) per 1 milli liter of blood.

Deficiency symptoms of vitamin D: Severe pains in bones, joints and in muscles, stress fractures in legs, hip, pelvis. Experiencing weakness in the body and tiredness. Difficulty to get up from a chair of low height, also difficulty in climbing stairs. Deficiency of vitamin D in Human body results in softening of bones, osteoporosis, rickets, paralysis stroke, Alzheimer's, allergies, asthma, colon and breast cancers, autoimmune disorders, diabetes, high B.P., osteo-malacia, and irritable bowel syndrome.

VITAMIN - D TOXICITY: is usually caused as a result of intake of large doses of Vitamin - D supplements, but not from Diet or exposure to Sun light. Taking 60,000 IU of vitamin-D for several months results in Toxicity which is called Hypercalcemia ie., a condition characterized by the presence of high levels of calcium in blood and the symptoms associated are nausea, vomiting, weakness, frequent urination. It may progress into bone pain, formation of calcium stones in kidneys. Calcium with higher levels of phosphorus linked with low vitamin 'K' levels, results in the formation and deposition of calcium that may ultimately leads to cardiac arrest. Hence Vitamin D is harmful without vitamin K. Treatments as per the prescriptions of doctors might include usage of vitamin K for longer periods ie., for more than 6 months, usage of I.V. fluids, corticosteroids and others to come out of this situation.

Sources of availability of Vitamin - D: Vitamin D is a fat-soluble vitamin. There are 2 forms of Vitamin D that differ from each other. Vitamin D3 (cholecalciferol) is found only in the food from 'animal sources'. Vitamin D2 (ergocalciferol) is obtained from 'plant sources' like plant oils and fortified foods. Both the types meet our

Vit D requirement. Research revealed that, Vit. D3 has superior bio-efficiency. D2 is less effective to D3 in rising vit D levels in blood.

The best source of Vitamin D is Sun light. Our skin synthesizes Vitamin D3 when exposed to sun light. Ultraviolet B (UVB) radiation from sun triggers the formation of vit D3 from the compound 7-D Hydro cholesterol (7-D.H.C. present in our skin) which is a zoosterol that photo chemically converted into vitamin D3. The vitamin D3 ie., cholecalciferol thus obtained from synthesis from our skin or from the food we eat or from the supplements we take, reaches our liver through blood stream. In the liver vitamin D3 is converted in to 25-Hydroxycholecalciferol (the activated form of vitamin D) to meet the actual requirement of our body and is sent to kidneys.

This 25- Hydroxycholecalciferol thus stored in kidneys is converted into 125 Dihydroxycholecalciferol under the directions of para thyroid gland and is sent to the small intestine. This 125 dihydroxycholecalciferols causes the intestinal cells to make calcium binding proteins to the required levels, which bind calcium cells to be utilized by the body for performing its functions. Without vitamin D, even though we take more amounts of calcium it would be released unutilized through our excreta and urine.

In case of people having fair skin, which contains pheomelanin pigment, in their skin, for their daily requirement of Vit. D, they should be exposed to sun directly for at least 20 to 30 minutes. Simultaneously, for the people with fair coloured skin, there is also a risk of the damage of their skin cells that may result in skin cancer ie., cutaneous malignant melanoma (CMM), as a result of production of more number of free radicals by the skin, when exposed to higher levels of ultra-violet rays, ie., UVA Rays that coexist along with UVB rays. Hence fair coloured people may have to use sunscreen lotions invariably to protect themselves against this problem.

People with black / darker skin, are to be exposed to sun light comparatively more time ie., about 45–60 minutes per day, because of the presence of eumelanin pigment, which acts as a natural sunscreen and protects the body from harmful ultra violet radiation.

SUN BATH: The best useful time for soaking yourself in the sun for harvesting more vitamin D is between 10 AM TO 3 PM, when UV index is above 7, duly exposing the bare skin covered around the body with minimal clothes. At noon, when sun is at its highest point, its UVB rays are more intense and effective. That means you need less time to be under the sun to make sufficient Vitamin D3. Many scientific studies revealed that, our body is more efficient to make vit D3 at Noon. The vitamin D thus stored in the body is released basing on our requirement and hence you need not go for sun bath every day, not to take vitamin D supplements every day since our daily requirement of vitamin D is only 25 to 40 IU. If you have more Vit. D stored in your body means, you are packed with much more IMMUNITY power to offer resistance against several infectious diseases, as well to increase your bone strength and health. Hence it is better to get the Vitamin D levels checked now and then and to consult a physician.

Foods rich in vit D: Mush rooms – 130 to 450 IU in 100 gms. ; Butter – 40 to 60 IU in 100 gms ; Fish :: Salmon 526 IU in 100 gr. ; Wild salmon – 988 IU in 100 gr ; Sardines (fish) – 216 IU in 100 gr. ; Macreals and fatty fish – 384 IU in 100 gr. Cod liver oil – 448 IU in 5 ml.; Dairy milk – 54 IU in 100 ml ; Curds– 43 to 60 IU. in 100 ml.

PLANT BASED REMIDIAL MEASURES FOR OVERCOMING OSTEOPOROSIS (Stages I to III)

ITEM - I.

1. Intake of *Salvia officinalis* (soya bean) regularly. This supplements the Phytogetic Oestrogen and Glycine for curing osteoporosis in women.

(The writer is Retd. Divisional Forest Officer and can be contacted over +91 94402 66618 and email: nagireddy.jayanthbabu@gmail.com)

Only One Earth – To Love, Live and Prosper

(Poem in commemoration of WORLD ENVIRONMENT DAY - 5 June)

- Dr Ashok Chakravarthy Tholana



*Yes! The greenhouse gas emissions do choke the world
Wreaking havoc across the world, a misery it unfolds,
Threatening the humanity, with an impact on our living,
With an erratic climate on all fronts, it keeps on pouncing.
We have ONLY-ONE-EARTH, let's step up our action.*

*With 8-million species of animals, humans and plants
Healthy ecosystems and rich biodiversity are important;
There's an imperative need to co-exist with ecosystems,
Realize, the man-made factors are creating mayhem.
We have ONLY-ONE-EARTH, let's protect other species.*

*The plastic waste is causing severe health consequences
A systemic change is vital to stop its polluting substances,
The flow of plastic waste from deep inland to the oceans,
Pose a grim threat to the environment, with dire pollution,
We have ONLY-ONE-EARTH, let's reduce the use of plastic.*

*The alarming rise of sea levels, the ever-changing climate,
The regularly battered coastlines and increasing waves, violent;
The unstable climate, paves a way to a catastrophic outcome,
We need to build weather stations by restoring the ecosystems,
We have ONLY-ONE-EARTH, let's prefer rainwater harvesting.*

*Yes! How to protect this planet? How to restore this planet?
Is it not a global responsibility of every human of this planet?
Lest; water scarcity, droughts, thunderstorms and violent waves
Pose a biggest challenge to the Planet Earth! How to survive?
Let's awake and transform to live in harmony with our Nature
Yes! We have ONLY-ONE-EARTH to love, live and prosper.*

(The Poet is persistently composing for the past 30 years message-oriented poetry promoting Universal Peace, World Brotherhood, Environment Consciousness, Protection of Nature, Safeguarding Children's, and Human Rights, uplifting the oppressed downtrodden etc. His poetry is published in more than 90 countries and has a privilege of being conferred with several prestigious national and international awards including five doctorates, laurels, commendations, citations, titles etc. More: www.worldpeacepoetry.com)

**Tales- True and Simple:****Ode to Crows****- Mohammad Ahsan, IFS (Retd)**

I looked at this missed call on the screen of my mobile phone and, as usual, felt uncomfortable. These missed calls definitely make me uncomfortable as you have a moral responsibility of calling the person back. Until you are finished with the business of calling back the person you feel tense and anxious. If the missed call is from some unknown number, it leaves you much more anxious. Who could it be! You keep thinking until the weight is off your mind.

I called back this number with unknown fear. It rang and rang but elicited no reply. Finally, the recorded voice said in an automated manner, 'the person does not seem to be available to take your call, you may try again or call later.' I had no intention of either trying again or call later. I was happy; I had done my moral obligation of calling back. I passed about two minutes in this ecstasy, when all of a sudden, my mobile rang. I looked at its screen.

Now this was some other unknown number from a landline phone. The unknown numbers from landline are not good omen. At the end of conversation, you feel unhappy and often bored. Generally, they are from realtors, insurance chaps, portfolio managers, sales promotion guys, investors; and you have to be rude to escape their trap. They ask you too many sickening questions and conclude that you need their services quickest to have a happy life. And, about a year back I had a call from an unknown number that belonged to income tax people telling me I owed them about four lacs of rupees. This call had kept me in a state of unrest for about six months until my income tax advocate - a smart guy - disentangled me from the mess.

I picked this very call little shaken, remembering that call from income tax department, and said in a low meek voice,

'Hello.'

'Sir, I am Jyoti from Hindustan Post (if I had heard her correctly), I wish to ask you a question'. 'It was me who had called you earlier from my mobile number.' She added.

So, the big mystery of unknown number was solved.

I thought, I had no option of saying No, whoever it was for whatever business. Now since I had received the call, I had to face it.

'Well, yes, what can I do for you?' I asked with a moribund, terrified voice.

'Sir, can you tell me, is there some kind of relationship between the crows and environment, Or something to that effect.' She asked me.

This question was so unexpected that I felt a kind of tremor around. In my early imagination, I had thought she was going to ask me what kind of water filter I was using or would I like to invest some money in some piece of land which her company was going to develop. However, this question of crows and environment was beyond the realm of my healthy imagination. I did not like the question and felt a different kind of trap. I wished to get out of this trap as soon as possible. I asked her back with a shooting question.

'Ms, are you sure you are talking to the right person?' I said.

'Very sure, Sir.' She said.

Ah, I thought to myself, so she knows my background and I can't refuse to reply. Then with little slyness I thought - suppose I refuse to speak she would definitely find someone else to speak, after all I am not the only

one in the trade, there are others too, so why give up a chance of stealing a limelight howsoever dim it might be, after all press people don't speak to you every day on matters, adjudicated best by specialists. She thinks I am specialist on the matter. Let her stick to her illusion. Let me stick to my elevated position of a specialist. I was feeling little irritated yet did not opt to let the opportunity go. Now I had to play my cards very safe.

'What do you have in mind when you talk of these crows and environment?' I asked her with some airs of scholarly traits.

'Sir, do you think the population of crows has declined recently?' she tried to explain.

The question shook me from the ground. I had not heard this thing of crows and lamented over my ignorance. It simply meant I was out of touch with the realities of life. It also meant my knowledge about the birds was not updated, although it was hard to believe the number of crows was declining. I knew vultures had become rare, their number declined beyond recovery, and a few years back I had felt so sorry for them as to have written a sentimental poem on the subject. Sparrows too had declined in number and for them too I had written a poem. In fact, I had dedicated to little sparrows my entire anthology of poems published a few years back. Fact is whenever some bird or animal like elephant, tiger, rhino etc was declared endangered, I wrote a poem for it and came to rescue their lot through my pen. However, when did this crow bird become endangered, I simply wondered.

Rather, my notion about the crows was different. They were in plenty. Every morning when I went to National Botanical Garden for my morning walk, I saw them in big bunches going through daily chore of cawing and crying. On one occasion, I had flaunted my knowledge about them to one fellow morning walker, 'Look at these crows, they are house crows or common crows, there is another species, the jungle crow, totally black which you may also call raven, but that one is generally not seen in and around Lucknow.'

Now here was a lady, who was telling me crows were declining in number, but I have to be very diplomatic; I thought to myself. I could not afford to expose my ignorance about the crows, so once again I shot back a counter question.

'And what makes people think crows are disappearing.' I asked her.

I am not sure whether she liked my counter question or not, but she continued with affability.

'Sir, you know these days people are observing *'Pitrapaksh (Pindpradaan)'*, people with religious inclinations leave lot of cooked food to birds to feed on, the general perception is that there are not enough crows in the town to feed on the delicacies people have cooked for them, and lot of food is getting unconsumed to great dismay to devotees.' She tried to explain.

Now this was the time to speak my mind. I had a feeling she was getting bored with me, and I was gradually losing my professional credibility. I was in a fix, whether to say she was right or say something different. I decided once more to be diplomatic and ambiguous as far as possible.

'Look, people are right in a way, the number of crows is likely to come down in large towns like Lucknow which have turned into concrete jungles. After all crows need to rest and roost on trees, and there are no large trees left for this activity. That way people's frustration is justified in this period of *'Pitrapaksh'*. But I am sure if I and you go on the outskirts of town, we can definitely locate large bunch of crows happy in their life on larger trees.' I tried to be expert on the subject.

She seemed to be convinced with my reply. I was sure she had no wish to visit outskirts of Lucknow to testify the facts about the life of crows.

Then I don't know what caused me to add, "Sometimes, you know with the rising standards of living, in large cities and metros, eating so much on the same day is a problem for the poor crows. Maybe on normal days they must be struggling for their living."

I said this in light humor but regretted this kind of talk might dilute the seriousness of the subject and erode my scholarly airs.

Then there was another question.

‘Sir, do you think crows have important role to play in the cleaning of environment?’

By now, I had recovered my lost confidence. I tried to look like an expert on the subject.

‘You know, now with the disappearance of vultures, crows have to shoulder a great responsibility of cleaning the environment. Crows always cleaned whatever was left of the dead animals once the vultures did their job. This had been going on since ages, and that way crows always helped clean the environment and maintain a balance in the scheme of things. Even in urban areas, if you visit surroundings of butchers’ shop, you will find lot many crows sitting here and there, waiting for their turn to take away the inedible leftovers of butchered animals, and thus trying their best to keep the surroundings clean. How very sad it is that now the number of crows too is declining from the urban areas, this is a state of affairs which is a serious threat to the healthy environment.’

It was years now that I had visited any butcher’s shop and observed crows taking the entrails of some butchered animal. I was not sure whether the bluff had worked or not.

Then there was the voice at the other end of the line.

‘Sir, thank you very much for speaking on the subject.’

‘Thank you very much.’ I too said.

The line was snapped dead, and I was perspiring heavily. Gradually I came to myself and felt relieved. Last fifteen minutes had been nightmare.

The interview had left me little perplexed. I was not happy with myself over my ignorance about crows. Only if I had been reading local newspapers more thoroughly, I would not have looked so ignorant about

the crows, I bashed myself. Still, I was not sure whether the population of crows was really declining. I wished to settle the issue as soon as possible.

I decided to make some reality-checks and double check the matter.

I called Ghizala Haseeb at Kolkata. She is a professor of English in a college but kind of omniscient on any subject on earth. Besides, she has fallen into habit of wandering into far-flung National Parks and Sanctuaries.

I asked her straight away, ‘Ghizala, do you think the population of crows is declining in large cities like Kolkata.’

Ghizala explained to me at length the ecology and sociology of the crows, then added, ‘throughout history crows have been associated with both positive and negative symbolic means, they have been an integral part of Hindu mythology all through – whether it be life magic, mystery of creation, destiny, personal transformation, , alchemy’

I felt like committing suicide. I snapped, ‘Ghizala, just tell me whether their population is declining.’

She was terse, ‘I really have no idea.’

Then I called Alaka in Pune. Alaka is a natural historian, a poet and writer. I asked her the direct question, ‘Alaka, do you think crow population is declining?’

‘I am not sure.’ She said, then added joyfully, ‘Although only yesterday I spotted a jungle crow outside my window sitting on firangipani, the bird was so beautiful with its dark sooty color and blood shot eyes that it inspired me to write an instant poem.’

‘Oof’, I exclaimed, ‘these poets!’

My next call was to Rishi Mathur in Delhi. He is the one who has extensively photographed all kind of birds all over the places. Conversation with him on the subject proved much more disappointing. He was not sure of declining population but narrated some personal

anecdotes regarding his encounters with crows.

Not knowing whom to contact now, I emailed Dr Rehana Yaqoob ji in Mumbai. She is a well-known doctor and philanthropist there. She is an enlightened soul and I have the pride of knowing her through the world of net. I wrote to her, 'Rehana ji, do you think the population of crows is declining.'

I got a quick email back, saying "The crow mentioned in Quran taught man to bury the dead- - they cannot decline and are in hundreds when some crow dies"

Rehana ji definitely had examined the issue under the light of religion and personal experience, but the reply definitely did not serve my purpose.

The issue remained unresolved, and I had a restless night.

Next morning when I accosted Dr Bajrang Singh, a retired scientist in the office I had taken a small consultancy with after my retirement, I asked him, 'Sir, do you think the population of crows is declining.'

Dr Bajrang Singh is an expert on plants and trees. His

knowledge about the birds and beasts is not as hefty as about herbs and shrubs, yet I thought he might help.

'I did not understand your question.' he said. The question to him, obviously, was little out of place.

'Ok, Dr. sahib, let me put it this way. Do you observe "Pitrapaksh?"

'Yes, of course I do.' He replied.

'Did you feed the crows?' I made further inquiries.

He was perplexed, yet without losing his patience he said, 'Yes, I did.'

'Do you think there were not enough crows in the surroundings to feed?' I was blunt in my speech.

He thought for a long moment, closed his eyes, opened them, and replied in a well thought out manner.

'Yes, I think so, although I don't know the reasons.'

So now, it was confirmed that crows are disappearing.

My immediate problem was I never had very strong sentiments for crows to write a poem on them.

(The author is former PCCF & HOFF, UP: Editor, Reminiscences of SORFO (Society of Retired Forest Officers, Uttar Pradesh & Uttarakhand) and author of many books. He can be contacted over phone: +91 9415409325 and Email: ahsaanluck@gmail.com)

You Can Reduce Carbon Footprint of VanaPremi

I convey my best wishes to all the subscribers of VanaPremi, who are enjoying the content month after month from the magazine's inception two decades back. I am indebted to the readers who give unconditional support with their suggestions and support in all forms. The magazine is also released every month on the website for global access.

There is a felt need to reduce the carbon footprint in every possible way in our day-to-day life. As you know, printing has its share in contributing to the increase of greenhouse gases. Hence, it is decided to send a digital copy of VanaPremi every month to the subscribers who opt out of the physical magazine (hard copy). Please mail your consent to the editor (thayyab@gmail.com) so that the printed copy is dispensed with, and the digital copy will be sent through email every month.

- Editor, VanaPremi.



Green Quiz- July 2022

Quiz Master: Dr K. Tirupataiah, IFS (Retd.)

(Quiz Master is the Defending Champion of the QUIZ competition held as part of All India Forest Sports Meet at Raipur, Chattisgarh, January 2019)

1. An initiative is being taken to re-introduce Cheetahs in India by bringing them from South Africa. Which National Park in India would be their future home?
2. Scientists from the Wildlife Institute of India identified, for the first time, species that are in IUCN Red list and survive in harsh winters in Himalayas. What species did they find?
3. This tree has a hollow trunk in which about 40 persons can hide. Its believed that thieves hid in its trunk during day and committed theft at night in Golconda fort. Name the tree?
4. A herd of 2 wild Elephants travelled from Chattisgarh forests over 09 years and reached Gadchiroli of Maharashtra, their new home. What name is given to this herd of Elephants?
5. Scientists in Australia discovered the World's Largest plant which is three times the size of Manhattan. First they thought its a meadow of grasses. It turned out to be just one plant. Name the plant.
6. These are world's rarest marine mammals. Just 10 are surviving in Mexico. They have dark rings around the eyes and dark patches on lips resembling smiles. Name the mammal.
7. Recently Panama joined Colombia, New Zealand, Chile, Mexico to ensure legal protection to nature either through constitution or through courts. What protection was ensured?
8. The Australian lung fish was brought to a San Francisco museum in 1938 and still survives as World's longest surviving museum fish . It is given a name from Bible (for long life). What is name is it?
9. Among Reptiles, it is the only surviving member of a lineage dating back to more than 200 million years. Name the reptile?
10. Which is the Wold's largest Penguin?
11. Recently, tribals in this state filed FIR against forest officials for confiscating beedleaf bundles collected (so called) unauthorizedly. Which state?
12. In a recent case related to Andhra Pradesh, the SC ruled that in so far as the jurisdiction is concerned, Tribunals are sub-ordinate to HC. Which case?
13. Which Indian State suffered most deaths due to extreme weather events during 2021?
14. Which state in India has the largest acreage under Lemons?
15. What is the major reason for less Lemon production causing prices to soar high recently?

[Answers on Page:40]

(The Quiz Master presently works part-time as Chief Consultant (Trg) at Dr.MCR HRD Institute of Telangana)

Note: contributions are invited from member/readers. Select questions (with answers) would be published in this article along with those from Quiz Master. Questions with answers may be mailed to: kota_86@rediffmail.com.

Happiness is not getting what you want

It is in wanting what you get.

- Sidharth Sabat

The Legacy of My Love

S.K. Das, IFS (Retd.)



One day I would cease to exist in this world
I would leave behind
The surging humanity, trees & creepers
Animals & birds
For destination unknown.

Even on that day, life would go on
The lover would collect the scented white flower
From below the autumnal tree
For the loved.
And that day again,
The lady love would count time anxiously
Standing under the flame of the forest
When the twilight of dusk has mellowed
The Sharpness of spring
However, I would not be the part of the scene.

That winter afternoon
The kingfisher would have dived on the pond
With a masterly, feathery stroke
And hunt the fish with dexterity.
But would not be there,
The cuckoo will continue its tune.

On that spring morning
The Bulbul will hop from tree to tree.

And sip the nectar of the flowers.
I can only imagine now
I will merge in that void
Beyond this earth
Would anyone care to think then-
Where has he gone?

Maybe I would see all,
But also, I would not see
Maybe I would hear everything
But also, would not hear.
Maybe I would belong to a different world

Devoid of thoughts, wishes and feelings,
Leaving this body losing this mind
I may live forever in a soft lighted world of
consciousness.

That's why I yearn so much now
To understand the stories of my fellow-brothers
The tales of my immediate environment-
Of trees and creepers, of birds and animals.
Before I set for that inevitable journey
My love for all of them
Will remain a legacy.

(The poet is former Prl.CCF and HoFF, Andhra Pradesh and the poem is taken from his collection of poems 'Kabitake Bhalobeshe -Poetry-My Love' translated by Ms Chandana Khan, IAS (Retd.). Feedback -Mobile: +919550681964 and email: susantakumardas76@gmail.com)

Continuation from page No.13

time immemorial. This is right time for the people of southern Andhra Pradesh to build and participate in a strong movement to protect and safeguard this natural

heritage and pride of Andhra Pradesh so as to hand it over to the future generations in a good form and condition. (NB: The views expressed are personal.)

(The author is former Principal Chief Conservator of Forests (Head of Forest Force) Andhra Pradesh and can be reached over mobile: +919989171958 and by email: pmkrao72@gmail.com)



The Curious Case of Kunja Suraiah (Illegal assignment of forest land in Kothagudem Division)

Paresh Kumar Sharma, IFS (Retd.)

While coming to join the duty as DFO Kothagudem from Karim Nagar by road in May 1986, I had passed through Warangal, Narsampet, Mahboobabad, Bayyaram & Yellandu towns. The road was leading to Bhadrachalam via Paloncha. One had to take a right turn to go to Kothagudem from a tri-junction point near Helipad and then cross the Murredu stream to enter the town. Prior to this stream lies a sprawling Bungalow area of the Singareni Collieries Company Ltd., a GOI enterprise, on the eastern side of the road AND FD's Govt. Timber Depot, Sri Ram Chandra Arts & Science College, a Milk Chilling Centre, APFDC Complex and village Laxmidevi Palli & a theatre and part of the town on the western side of the road. Just after crossing the stream, the Forest Range Office was located. Earlier this building was a Forest Check Post.

Once I was free from the flood duty, post the worst devastating flood of the 20th century, I started taking stock of the Division. It was my habit to go through the Leaving Note left by my predecessor, the latest Annual Office Inspection Notes of the Conservator of Forests Khammam, latest Audit Inspection Report of the Accountant General and the Stock File of the Field Inspection Notes of the Conservator of Forests Khammam and superior Officers. These gave me solid knowledge about the persons and Division administration. I came to the grips of the problems and challenges awaiting, beforehand.

I came to know, to my astonishment that the then Government of Hyderabad, after accession to the Union of India, in 1949 had ordered for clearance of "Jungle growth" up to a width of one furlong on either side of the Warangal-Bhadrachalam Road so that the "Communists" could not attack the dignitaries travelling on this road, by surprise. By clearing the jungle growth on either side, it was believed that the Communist

elements could be spotted from a distance and preventive action taken. Not only this, the cleared land was assigned to the people on "Eksala Patta" basis so that it could be brought under cultivation and the forests could not grow again and pose problem in the security of the VIPs travelling on this road. I was told that during that period Communists had really become a menace and headache for the administration, and the administration considered clearance of forests to be best option to tackle the problem. Whether the problem was brought under control or not, is debatable; but people had not brought all the so-called assigned lands under cultivation. Wherever the lands were brought under the plough under this scheme, people continued to cultivate despite lapse of the one-year tenure of Eksala Pattas. Encouraged by this, some of the unscrupulous Revenue Officers had assigned forest lands in violation of the Forest and Revenue Laws, immediately after merger of Hyderabad State into Andhra Pradesh in 1956. In most of the cases the Revenue Officers had gone unpunished. However, none of the beneficiaries could be given physical possession of the so-called assigned lands. The lands were in the possession of the forest department. But the orders of the Revenue Officer, Special Social Welfare Officer Yellandu in the instant case, had sown the seeds for litigation.

At that time there was no Forest Conservation Act in force. It was enacted in the year 1980. However, there were enough safeguards to protect the Govt. lands as well as Forest Lands. Before assigning lands, it was mandatory for the Revenue Officers to examine the matter with reference to the Board Standing Orders (BSO) & Section 33 of the Land Revenue Act of 1317 Fasli. The former clearly states, "As per BSO 15 (35{VII}) any land has been set apart as reserved under rules framed under Section 26 of the Forest Act, the Survey No. of that land should be entered as reserved in the

appropriate Column of the settlement register and of the Adangal of the Village. It should not be assigned except with the special sanction of the Collector. The Collector should obtain the consent of the Conservator of Forest before sanctioning the assignment."

As per Sec.33 of the Land Revenue Act (TA) 1317 F, "Unless land is set apart demarcated for cultivation within the limits of reserved forest, no fresh patta shall be given without consulting the Chief Conservator of Forest." It is obvious that neither the BSO nor the Land Revenue Act was followed by the then Special Social Welfare Officer, Yellandu in assigning the Forest Lands in 1956. That's why the Forest Department as well as the Collector did not come to know about these illegal assignments till certain Court cases were filed at a later date.

A similar case of fresh illegal assignment in Yellandu Range, very close to Yellandu town came to my notice as DFO Kothagudem in 1988-89. In fact, a plantation was being raised in this plot. There was no doubt about the legal status of the land as Forestland. By that time the Forest Conservation Act had been enacted and was in force. Therefore, the assignments were in violation of the Forest as well as Revenue Acts. I lodged a complaint with the Collector Khammam with full details. He caused enquiry and found the complaint to be correct and placed the Mandal Revenue Officer or MRO (Tehsildar) under suspension. This incident had salutary effect on the other MROs in the District.

One day I was in the Office an Old Man in eighties, Sri C. Rajeshwar Rao (not the national leader of CPI) came to meet me. On meeting he introduced himself as an old farmer of village Laxmidevi Palli and told me that he had come to inform me about the plans of some influential leaders to set up a colony in the Chatkonda RF near the tri-junction point. I was impressed as well as alarmed. I prodded if he had any evidence to back his statement. He replied in affirmative and pulled out a map from his bag. It was the plan of a proposed colony prepared by an Engineer/Planner. In this, Plots and roads with open spaces etc. had been demarcated. He further informed that an influential leader of a national

party was behind this plan and that he had already collected huge amounts of money as "advances" from the gullible or avaricious people / purchasers towards sale of the plots. The Octogenarian further informed that this leader was going on collecting money from the purchasers in the name of fighting court cases as well. I requested him if I could retain that map/plan! He had obliged me readily. I enquired if he was willing to appear as a witness on behalf of FD and depose before the Judge in a Court of Law, if need be. He told me that he would be more than happy to do so and that he had no other demand or desire in lieu of this service. He told me that he had only one desire of saving the precious forest land and also to help penalize the unscrupulous & mischievous elements. My respect grew manifold for this Old Man. I felt proud of him and thanked him profusely with reverence.

This incident set me in the motion. I had gone through the entire file on Chatkonda RF, page by page & word by word. I learnt that the lands located in the Survey No. 17 of Laxmidevi Palli village had been notified as Reserved Forests in 1355 Fasli itself. I also came to know that in the year 1978 there was an attempt on encroachment in this part of the RF Chatkonda, where in forest had been illegally cleared. However, the attempt on encroachment was foiled and the Department had raised a plantation of Mango & Cashew in this plot. Already a case had been filed by one Kunja Suraiah (O.S. No.3/84) in the Court of Agent to the Government (i.e., the Collector, Khammam). I checked the Counter-Affidavit and the maps and the documents appended to the CA as Exhibits. I found serious lacunae in the CA. The petitioner was contending that he had been granted Patta by the Revenue Department and was in peaceful enjoyment of this land. Whereas the DFO was refuting it on the basis of a plantation of Mango & Cashew raised by the Department on this piece of land. He had submitted the Plantation Journal in support of the contention. But, did not submit a copy of the Gazette Notification declaring the land in contention as RF along with map of the RF Block and the area statement showing details of Survey No. & Village wise extents of lands included in the RF Chatkonda

(including the S. No. 17 of the v Laxmidevi Palli, the suit land in question) as Exhibits in the Court of the Agent to the Govt. This was a major lacuna and would have weakened the case. I met the Govt. Pleader and discussed the case in detail. He advised me to prepare an additional Counter Affidavit with all the relevant records as Exhibits, i.e., Copy of the Gazette Notification, Map of the Block, Area Statement wherein the details of the lands in S. No. 17 of Laxmidevi Palli village were available, the Survey of India's Topo Sheet indicating the lands under question with a plea to reject the request of the Petitioner and to pass appropriate orders so as to cancel of the illegal assignments. I did prepare the additional CA accordingly, duly bringing out the mala-fide on the part of local leaders in usurping the Govt. Lands with the help of the illegal assignment orders.

Sri Rajan Habib Khwaja, IAS, was the Collector Khammam and Agent to the Govt. for the Tribal district. I appeared in the Court of the Agent and gave my deposition in the case as DFO Kothagudem. The Collector had himself recorded my statement and allowed the counsel of the Petitioner to cross examine me. I also sought the permission of the Agent to produce a private and independent witness, the Octogenarian farmer & resident of Laxmidevi Palli Sri C. Rajeshwar Rao in support of the DFO's contention. Agent granted the permission and the old man was examined & cross examined. He clearly deposed that the land in question was forest land since his childhood and that nobody had ever cultivated these lands. His deposition put the case of the Department on firm footing. I thanked Sri C. Rajeshwar Rao profusely for having taken the trouble of coming up to Khammam and deposing before the Agent to the Government in the case. The case of the Petitioner had fallen flat. I was relieved of the whatever tension I had and had expected the favourable orders from the Collector shortly.

At about the same time, in 1987, when I was on leave for a fortnight, there was once again an attempt on forcible encroachment on the forestland in question, at the tri-junction point. The Local leader had clandestinely, in the night, had organized sowing of the seeds of agricultural

crop in between the Mango and Cashew plantation and putting up of a thorn-fence around the plantation area. The local FRO and staff were intimidated by this Leader. On return from leave, I noticed it and enquired from the FRO about this incident. He pleaded that he had seen this area in the evening when no such activity was noticed, the plantation was intact. However, he stated that he had come to know about this in the following morning when the local FG came to inform him. I got infuriated and admonished the FRO & staff as to how did they not come to know about this illegal activity in the night itself when the spot was not far away from the GTD & the Range Office. I was not satisfied with their explanations; hence I had directed them to remove the illegally planted crop in the same manner as it had been planted. The FRO was damn afraid of taking action as directed. However, after consulting all the members of Range Staff, he had mustered courage to act. He approached me in the evening and requested for my presence during the "operation"; I gave my consent immediately. We planned the operation in the night.

The FRO Kothagudem reached the spot at 11 pm. All the other staff also reached while doing the night patrolling. I too adopted the same tactics and reached the spot after night patrol. Within no time the crop had been uprooted and the thorn fence removed. At this point in time the Local Leader had strangely also reached the spot with Press and Photographer. He wanted to converse with me and record the conversation. It was unavoidable. Hence, I informed him that on receipt of the information about a fire incident in the Plantation area, I had directed the Range Officer to mobilize his staff and rush to the site to put out the fire & save the plantation. I also came to there to personally supervise the operation fire fight. I told him that I had suspected the hand of some mischievous elements behind this fire accident or it could have started accidentally. It was my responsibility to ensure that fire was put off at the earliest and no damage was caused to the plantation. This appeared in the local newspapers the following day. The unlawful attempt on encroachment was thus thwarted successfully.

Sensing that the Collector was likely to pass orders against the Petitioners, they filed a Writ Petition in the

High Court. By this time, I was fully prepared with all the needed documents and the evidences. I met the G.P. for Forests Sri Seetha Rama Raju and presented the FD's case before him so that he could prepare the Counter Affidavit. The Petitioners had also made the Collector Khammam as one of the Respondents. The G.P. had desired that it would be better if the Collector could also file the Counter Affidavit as it would strengthen the case. I met the Collector Sri R.H. Khwaja, appraised him of the W.P. in the AP High Court and requested him to file a counter affidavit on behalf of the Collector & Revenue Department. He readily agreed to do so and directed the Joint-Collector to prepare the draft CA to be approved by the GP for Revenue Department. The CA was thus prepared and filed in the High Court by the Collector. In this the Collector had brought out the mischiefs carried out by the Tehsildars in the Pahanies and Adangals (Village Land Records) by way of "insertions, deletions, additions and erasures" etc. and as the land in question was notified RF and the assignments made were illegal, had pleaded before the High Court to quash the WP of the Petitioners.

The Collector Khammam was preparing the orders in O.S. No. 3/84, on conclusion of enquiry, but he was transferred before this could happen. The new Collector, Sri I.Y.R. Krishna Rao, IAS, took over the charge of the district. I met him personally and explained at length about this particular case and requested him to expedite the orders. But he never found time to do so. Perhaps the Collector had more important works to attend to. He was also transferred and the case remained pending for the final orders. It did not happen, despite persuasion from my side till my transfer from the Division in April of 1990.

I came to know subsequently that a large number of cases were filed by various Petitioners in different Courts for upholding the assignments made by the Social Welfare Officer, Yellandu in 1956 and declaring that the lands in S. No. 17 of (v) Laxmidevi Palli were NOT RESERVED FORESTS. Petitions were also filed in the A.P. High Court just to confuse the Government

and take possession of the precious lands based on the "illegal assignment orders". After a long period of time the Honourable High Court of AP passed an order in a WP (W.P. No. 22498 of 2010) on 11th of December 2013 directing the Collector Khammam "to review the assignments made to 54 persons by the then Special Social Service Officer, Yellandu, in the year 1956 and consider their cases either for regularization or cancellation by due process of law."

Accordingly, the Collector, Khammam caused enquiry into all the cases through RDO Kothagudem. The later took his/their own time but reported in April 2016 that the land purported to be assigned to 54 persons in 1956 was indeed a part of the Reserved Forest Chatkonda and all the assignments made were illegal, null and void as the same were in violation of the laid down procedure. He further reported that in addition to above the MROs had assigned lands in the RF to 8 persons in the year 1989 and to 9 persons in 2012. However, none of the assignees were in possession of lands. The lands were still under the control of the Forest Department. The RDO had also mentioned that the village Laxmidevi Palli was a Tribal village and part of the Agency area (Tribal Sub-Plan Area), but pattas had been given to many non-tribals as well. Therefore, the RDO Kothagudem had strongly recommended to the Collector Khammam for cancelation of all the Assignment Pattas granted since 1956.

Therefore, finally Sri D.S. Lokesh Kumar, IAS, the Collector Khammam cancelled all the illegal assignments vide his Proceedings in Rc. No. E3/1496/2009-(1 to 54), Dated 16.08.2016; after my retirement from Govt. Service on attaining the age of superannuation on 30th of June 2016. This could have happened much earlier had the Revenue Department acted in time. Nonetheless, I was happy that the Forest Department had won the long drawn legal battle putting the curtains down on the case once and for all though it had taken very long time of almost four decades. Well, all is well that ends well. It proved once again the old adage "Justice is delayed but not denied."

(The author is former PCCF & HoFF, Telangana and can be reached on mobile at +91 6300030519 and e-mail at pareshvyas22@gmail.com)



Sustainable Life Style and Environment

M. Ramcharan Sharma

The Earth has been the only planet supporting life from ages. From its origin to till date the planet has undergone many transformations. The climate changes, natural hazards and pollution regimes changed significantly at a global scale over years. And now the subject is after witnessing all these events, mostly deteriorative What could be done? is the biggest question

Charity begins at Home-says an English saying. The context applies to everything even saving our Mother-The Earth. The Glasgow conference of 1972 marked the beginning of such action plans. The latest idea is the LIFE- "Life Style for Environment". LIFE is about making lifestyle choices to improve our planet.

LIFE will be a coalition of like-minded people across the world who will promote sustainable lifestyles – 3Ps – Pro Planet People. This global movement of Pro Planet People (3-Ps) is the Coalition for LIFE. These three global coalitions will form the trinity of our environment efforts for improving the global commons. The concept gained attention following our Hon'ble PM Narendra Modi's National Statement at the COP26 Summit in Glasgow at COP 26. The major idea is the reducing the use of resources thereby reducing the carbon footprint in short living sustainably.

How we can live sustainably- by saving energy, eating less meat, using reusable alternatives, going paperless, using renewable energy, recycle and reuse, growing own produce, Donating unused items,

Saving water, buying fair trade products, driving less, Not wasting food, using sustainable clothes, using eco-friendly cleaning products

India's Commitment:

Apart from the subjected targets, India's Prime Minister emphasised that the world should launch a people's movement with "3 Ps" - "Pro Planet People".

(The author is currently with Dept. of Silviculture and Agroforestry, FCRI, Hyderabad @ Mulugu -502 279. He can be contacted over email: ramcharansharma808@gmail.com) Mail:raamfcrites@gmail.com.



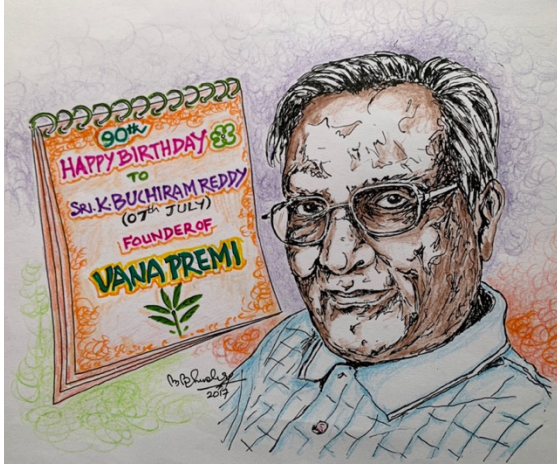
While addressing the COP26 summit last year, he also presented his five-point agenda, 'Panchamrit' which he called the five 'Amrit tattva' (nectar elements) to deal with the challenge of climate change.

1. To raise the non-fossil fuel- based energy capacity of the country to 500 GW by 2030
2. India will meet 50 percent of its energy requirements from renewable energy by 2030
3. India will reduce the total projected carbon emissions by one billion tonnes from now to 2030
4. By 2030, India will reduce the carbon intensity of its economy to less than 45 percent
5. By 2070, India will achieve the target of net zero emissions.

With all these efforts and action plans formulated by the global thinktanks, the sustainable living is the most important thing to be achieved-a global concern of the time.

Happy Birthday To Sri K. Buchi Ram Reddy, IFS (Retd.)

Art and Photos (Below) by Sri D.Nagabhushanam, IFS (Retd.)



Sri KBR – Synonym for VanaPremi



Sri KBR -The writing continues as usual @ 90



Books authored by Sri KBR



Smt R. Shobha, IFS (R) -
Adviser to Govt of Telangana



Woolly-necked stork
(Ciconia episcopus)

Photo: Rajesh Kanni
Kagaznagar Division

We produce black - But our views are Green



Cultivation near Reclaimed Dump



Settling pond / Summer storage tank

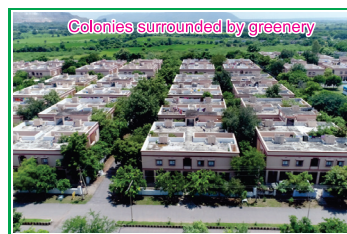


Eco-Friendly Park



Award in recognition of eco-friendly measures

- Pollution control and Soil Conservation Measures.
- About 5.50 crore saplings were planted in Singareni spread over area.
- Artificial forest covers to OC Dumps.
- Avenue plantation in colonies and roads.
- Eco-friendly parks developed in colonies.
- Sand manufactured from OB.
- STP/ ETP at all Colonies / Establishments.
- Efforts of Singareni were rewarded by State and National level awards.



Colonies surrounded by greenery



Reclaimed OB Dump



THE SINGARENI COLLIERIES COMPANY LIMITED

(A Government Company)



"Welcome to Monsoon"

Art: D. Nagabhushanam, IFS (Retd.)



"International Tiger Day -29th July, 2022"

Photo: Dr M. Bubesh Gupta (UEF)

FEW SPECIES OF SESHACHALAM BIOSPHERE RESERVE (Page:47)



Elliot's shieldtail

(*Uropeltis ellioti*)

(New record)



Nagarjunasagar Racer

(*Platyceps bholanathi*)

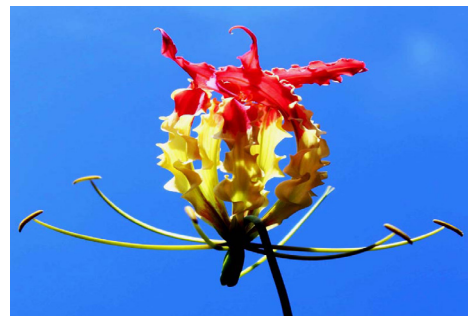
(Rediscovered after 37 years)



Gooty Tarantula

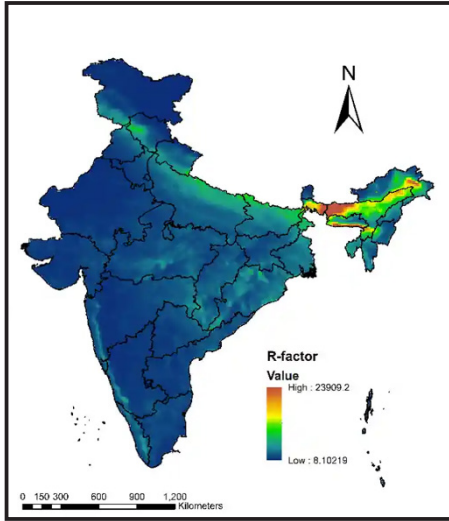
(*Poecilotheria metallica*)

(Re-discovered after 114 years)



Gloriosa superba

Photos by: Dr M. Bubesh Gupta (UEF)



**Indian Rainfall Erosivity Dataset Map
for Rainfall-Induced Erosion
(IIT, Delhi)**



**Since 2009, the North East has lost at least
3,199 Sq. Km. of area.**

Photo credit: Saurabhsawantphoto/
Wikimedia Commons



**GOVERNMENT OF ANDHRA PRADESH
ANDHRA PRADESH STATE BIODIVERSITY BOARD
GUNTUR**



Andhra Pradesh State Biodiversity Board have been playing a key role in Conservation of Biodiversity in Andhra Pradesh since its inception in 2006.

The mandate of the Board is to advise the Governments at various levels on matters related to Biodiversity Conservation. The three main functions of the A.P. State Biodiversity Board are -

1. Conservation of Biological Diversity
 2. Sustainable utilization of the Biological resources
 3. Fair and equitable sharing of biological resources among all stake holders.
- APSBB have recently constituted 14,157 BMCs (Biodiversity Management Committees) at all level bodies of the state (13 @ Zilla Parishad Level, 661 @ Mandal level, 120 @ Municipality or Municipal Corporation level and 13,363 @ Grama Panchayat level) and prepared PBRs in electronic method for the first time in India.
 - Massive awareness & publicity activities have been taken up in the last 2 years to promote Biodiversity in the state of A.P. through short-films, publications, workshops & seminars online & offline.
 - APSBB initiated Core Activities Action Plan (CAPPs) for Operationalization of 10,000 BMCs through a special software platform developed.
 - 661 NGOs appointed as Mandal Biodiversity Coordinators for supporting APSBB/BMCs in implementation of CAPPs.
 - Rs 11.25 crores of ABS funds released directly to LBF (Local Biodiversity Fund) accounts of BMCs through online platform.



**Dr. B.M.K. Reddy, ARS (retd.)
Chairman,
APSBB, Guntur**

**Come & Join Hands in
Biodiversity Conservation**

**Dr. D. Nalini Mohan, IFS,
PCCF & Member Secretary,
APSBB, Guntur**

International Day of Forests:**Can India Shift From A 'Plantation' Mindset to An 'Eco Restoration' One****R. Sreenivasa Murthy, IFS (Retd.)**

The United Nations proclaimed March 21 as the International Day of Forests (IDF) in 2012. This year marks a decade of IDF. The day celebrates and raises awareness about the importance of all types of forests.

The theme for 2022 is 'Forests and sustainable production and consumption'. But I worry about India's forests.

The country has 307,120 square kilometres of forest in the open category, which increased by 4,203 sq km in the last two years, according to India's State of Forest Report 2021.

Add scrub land (46,539 sq km) to this and the total becomes 353,659 sq km, constituting 10.76 per cent of degraded forest and scrub land in India. If we consider only forest area, it is 43.03 per cent.

India's Working Plan Code 2014 majorly focuses on how some timber-producing trees need tendering and felling / working.

I strongly believe that India's forest management needs a paradigm shift from 'working' to 'managing' them for the country's future prosperity and to take care of biodiversity conservation and ecosystem services they provide.

The only solution is an 'eco-restoration' approach.

Forestry at a crossroads

I, as a professional forester, who contributed to the eco-restoration of the landscape in the Panna Tiger Reserve, with recovery of tigers, feel that forestry and forest management in India stand at a crossroads.

The Green India Mission (GIM) was launched way back in 2010, with three-fold objectives:

1. Double the area to be taken up for afforestation / eco-restoration in India in the next 10 years

2. Increase the greenhouse gas removals by India's forests to 6.35 per cent by increasing forest biomass in 10 million hectares (mha), thus achieving carbon sequestration of 43 million tonnes of carbon dioxide annually.
3. Enhance the resilience of forests / ecosystems.

Where we stand today is a question that needs answers.

The 'Working plan Code 2014' still signifies the working of coupes (a forest area wherein felling, and silviculture operations are done in a 20-year cycle), but fails to bring in an ecosystem approach in planning and execution.

My concern is that somewhere, we have missed the bus without proper alignment between these two government documents in letter and spirit.

The GIM started from 2019-20 according to a government statement, with an annual target of two mha. Targets set and achieved over the last 12 years are a big mismatch.

Rising temperatures and changing monsoon rainfall patterns from climate change could cost India 2.8 per cent of its gross domestic Product and depress the living standards of nearly half the country's population by 2050, according to a World Bank report.

The report further cautions that by 2050, Chhattisgarh and Madhya Pradesh will be in the red. The water catchments of this region and the permanence of the river systems and aquifer recharge is directly dependent on health of forests.

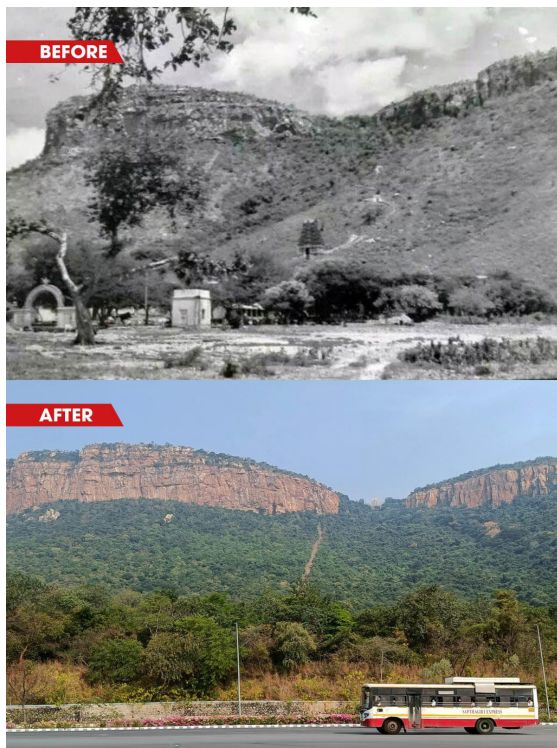
Open forests in the states of MP, Chhattisgarh and Maharashtra account for 74,295 sq km. How much of these degraded forests could we restore since the GIM's inception and regular working plan implementation needs answers?

Forest restoration is a must for water security. The Union Ministry of Jal Shakti launch of a plan to plant trees along 13 rivers at a cost Rs 19,000 crore is laudable.

But governments need to bring in more wisdom on this aspect. Even now, the concerned government agency has not christened it as a river restoration plan.

We need to properly word our goals. The use of proper vocabulary changes the vision.

Miracle at Tirupati.



Let me give an example of forest eco-restoration done by a forest department. It has been four decades in the making from 1982-2022.

I hail from Andhra Pradesh's Chittoor district. I studied botany at Tirupati from 1981-85. It was then the master plan for the restoration of the Tirupati-Tirumala hills started, and forest restoration was part of it.

This tract is a part of the bigger Sheshachalam range of the Eastern Ghats. An area of 3,287 ha of forest was

handed over to mirasidars or hereditary landowners by the Madras Presidency in the late 1800s and it became the property of the Tirupati-Tirumala Devasthanam (TTD).

The Sri Venkateshwara Wildlife Sanctuary, 525.97 sq km in area, was declared in 1989. Immediately, 353.62 sq km of it was made a national park.

Some 4,755.99 sq km of the hill ranges was declared as the Sheshachalam Biosphere Reserve in 2010. All these steps succeeded for providing a better legal status to the area to conserve and restore its biodiversity.

I took a keen interest over the last four decades in the eco-restoration process at Tirupati-Tirumala. I have witnessed a miracle happening there.

Last month, I made a one-day field visit with the help of the AP forest department to understand the process.

In the 1980s, the slopes of the ghat section facing Tirupati town were barren, with bare rocky outcrops showing up.

It was then that a Tirumala Forest Division was created. Its main focus was to beautify the Tirumala hills with plantations and gardens. This it did by planting an evergreen single exotic species *Acacia auriculiformis* (a native of Indonesia, Australia and Papua New Guinea) on 890 ha over the last four decades.

The adjoining forest and wildlife divisions adopted a simple eco-restoration model. People in the vicinity changed their lifestyles which led to cattle and sheep grazing along the hill slopes declining drastically.

This brought down the biotic pressure on these forests to a negligible level. Fire lines and strict fire protection became a reality. Simple reduction in biotic pressure and best fire protection practices have done a wonder for these hills.

The *Acacia auriculiformis* has now spreading naturally in all directions because of its profuse regeneration capacity. The surrounding barren forest lands became dense forests with simple practices of reducing biotic pressure and taking care of fire protection.

Contd.. on page No.40

National Forest Commission – Follow Up

Dr. Akula Kishan, IFS(Rtd.)



Introduction

National Commission on Agriculture was set up in August 1970 by Ministry of Agriculture. The Commission released its report in 1976 in (15) volumes on various sectors and the Volume IX deals with Forests. The Commission took up extensive study of Forestry under the following categories:

1. Forest Policy
2. Production and Social Forestry
3. Minor Forest Produce
4. Forest Ecology and Wildlife Management
5. Forest Protection and Law
6. Forest Planning, Research and Education.

Based on the recommendation of the NCA, the Government of India took the following important steps:

1. Creation of Forest Development Corporations by States for harvesting forest produce and thereby eliminating the contractor.
2. Establishment of the Indian Institute of Forest Management to produce managers.
3. Initiating the programme of social forestry on village and forest land.
4. Formulating a new National Forest policy in 1988.
5. 'Forests' was shifted from the State list to the Concurrent list of the Constitution, whereby both central and state governments share legislative jurisdiction.
6. Creating a separate Ministry of Environment and Forests in 1984.
7. Ensuring people's participation through a resolution issued in 1990 for adoption of Joint Forest Management as a tool of managing forest resource.

8. Conferring ownership right of minor forest product to Panchayats through a Constitutional amendment, and
9. Enactment of the Panchayat Raj (Extension to Scheduled Areas) Act (PESA) 1996.

National Forest Commission

The Indian Board of Wildlife in its 21st meeting held on 21 January 2002 under the chairmanship of Honorable Prime Minister of India, Government of India resolved to constitute a National Forest Commission to review the working of the forest and wildlife sector with the following terms of reference (TOR):

- i) Review and assess the existing policy and legal framework and their impact in a holistic manner from the ecological, economic, social and cultural viewpoint.
- ii) Examine the current status of forest administration and the forestry institutions both at all India and State level to meet the emerging needs of the civil society.
- iii) Make suggestions indicating specific policy options for achieving sustainable forest and wildlife management and ecological security.
- iv) Suggest ways and means to make forest administration more effective with a view to help achieve the above policy options.
- v) Establish meaningful partnership and interface between forestry management and local communities including the tribals.

Composition of the Commission

The composition of the Commission is as follows:

1. **Justice B.N. Kirpal**, *ex-Chief Justice of India*
Chairman (Part-time)

2. **Director General of Forests**
Member (ex-officio) and Special Secretary, MoEF
3. **Prof. J. S. Singh, Banaras Hindu University**
Member (Part-time)
4. **Sh. Chandi Prasad Bhatt, Member (Part-time)**
5. **Dr. M. K Ranjitsinh, Member (Part-time)**
6. **Sh. A. P. Muthuswami, Member (Part-time)**
7. **Addl. Director General of Forest, MoEF**
Member Secretary (ex-officio)

Definition of Forests:

The Commission adopted the ruling of Supreme Court of India, in the context of the Forest (Conservation) Act, 1980, chose the following Words in the case of T. N. Godavarman Thirumulkpad vs. Union of India and Others, Writ Petition (Civil) 202/1995 Order dated 12 December 1996

“The word ‘forest’ must be understood according to its dictionary meaning. This description covers all statutorily recognized forests, whether designated as reserved, protected or otherwise for the purpose of section 2 (1) of the Forest (Conservation) Act. The term ‘forest land’, occurring in section 2, will not only include ‘forest’ as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of ownership...”

The study done by the Commission

The Commission studied the following topics:

- 1) Forest Policy
- 2) Legal Framework
- 3) Ecological Security
- 4) Emerging Needs and Goals of Forestry Sector
- 5) Constraints and Threats
- 6) Forest Conservation
- 7) Wildlife and Nature Conservation
- 8) Forests of the North-East
- 9) Forests, Local Communities and Peoples' Participation
- 10) Agroforestry and Social Forestry
- 11) Research and Applications
- 12) Forestry Institutions
- 13) Forest Administration
- 14) Personnel Management
- 15) Forests and Industries
- 16) International Forest-related Instruments
- 17) Forests in National Resource Accounting
- 18) Centre-State Relation
- 19) Financial Support
- 20) Implementation and After

The Recommendations

The following are some of the important recommendations out of the (360) recommendations of the Commission:

1. The National Forest Commission endorses the recommendation of the Forest Policy of 1988 that one-third of the landmass of India should be under tree cover, with 60% in the Himalayas.
2. Within the broad parameters of the National Forest Policy, each State should have its own forest policy statement, for the sustainable management of its forest and wildlife resources.
3. The Indian Forest Act, 1927, needs revamping, taking into account current requirements,
4. Transit rules /regulations are preventive tools for forest protection and should continue on such highly restricted and endangered tree species only and there should be no restriction and regulation on the felling and removal of other trees planted on private holdings.
5. As regards saw milling regulations / rules,
 - a) The state government should assess the demand and supply of wood.
 - b) The working capacity of the sawmills should be assessed by the respective State Government.

- c) The number of licenses should be based on the legal and ecologically sustainable timber supply and the working capacity of the sawmills
6. In respect of the Biological Diversity Act, 2002, no agency has been identified for the implementation of this Act. The implementing agency may be the Forest Department (FD), in coordination with other agencies, in areas under the control of the FD.
7. With respect to the Environment Protection Act, 1986, no agency has been identified for the implementation of this Act at the field level. The Forest department may be considered as an implementing agency for this Act in areas under its control. It may coordinate its efforts with those of other agencies.
8. The Forest Conservation Act, 1980, serves its purpose only in its existing stringent form. It may not be diluted or made less effective.
9. In respect of the Wildlife (Protection) Amendment Act, 2002,
 - a) List of endangered species in different schedules needs to be periodically reviewed
 - b) Species may be added or deleted to the list on the basis of review
 - c) Rules for community reserves and Conservation Reserves need to be framed.
10. The animal husbandry department should relate the number of goats and sheep to the availability of natural fodder especially in such areas where these animals could cause further degradation to natural ecosystems.
11. The main objective of forest management should be ecological security. For assessing the effectiveness of forests in contributing to ecological security on the basis of a number of parameters and paradigms such as volume of growing stock, biodiversity, health of forest soil, soil moisture, hydrology, carbon sequestration and crown density, the scope of work of the Forest Survey of India (FSI), Dehradun should be expanded, and adequate infrastructure be provided for this purpose. Monitoring of ecological security should be done at five year's interval and a national level report should be published by the FSI. In addition, the FSI should undertake research required to conduct necessary forest surveys and assessments.
12. There should be appropriate rural development and animal husbandry policies and projects to address issues of grazing and fodder for cattle. The grazing requirements of livestock of villages located in and around forests (within five kilometers), should be addressed within the carrying capacity of forest areas. The practice of unregulated grazing should gradually be replaced by stall-feeding.
13. The medicinal plants growing in forest areas play a very important role in primary health care of neighboring communities who do not have access to hospitals or cannot afford to buy costly medicines. Besides, the knowledge of these medicinal plants is an intellectual property right of the forest dwellers, which must not be allowed to be lost.
14. The objectives of management for Joint Forest Management (JFM) / Gram Van need to be revised and clearly stated to broadly include restoration and development of degraded forest areas in order to meet demands for fuel wood, fodder and small timber and also to contribute towards poverty alleviation.
15. Tree planting in open areas along railway lines, canals and roads must be undertaken and adequate funds for both tree planting and their maintenance be provided for by the departments concerned. Assistance in tree planting may be acquired from the concerned State Forest Departments wherever required.

16. Water conservation in forests, therefore, deserves special attention and should be an important objective of forest and grassland management and adequate financial resources should be provided and should form an integral part of every forest working / management plans.
17. Since occurrence of fire reports are underreported, in terms of number of occurrences, the qualitative damage caused and the area affected, by the field functionaries, a mechanism should be developed for higher authorities to crosscheck these reports.
18. Management plans for coastal and shelterbelt plantations, which include mapping of habitat utilization patterns including sea turtle and sea birds nesting beaches, should be prepared.
19. Mangroves should be officially classified as forests and mangroves found anywhere should be placed under the control of State Forest Departments. The important mangrove areas need to be made Protected Areas if they are not so covered already.
20. A National Wetland Conservation Act should be framed.
21. Local communities living in and around forest areas be trained in eco-tourism activities, which will not only help ensure their livelihood security but could facilitate their involvement in forest conservation.
22. Corporate funding should be invited for revival of degraded forests. Mechanisms for the same may be worked out.
23. Each protected area should have a comprehensive management plan, which needs to be followed and revised periodically.
24. No attempts to develop recreational facilities in the protected area or its buffer area should be permitted. Park managers must ensure that even private sector entrepreneurs do not do so.
25. The protected area managers, and not the territorial authorities of the Forest Department, should have full and effective control over their protected areas, and also of their buffers and corridors to the extent possible. Linkages with the local people should be built up in the buffers.
26. To protect the highly endangered great Indian bustard (less than 500 left in the whole world), lesser florican, Bengal florican and other grassland associated flora and fauna, Project Bustard should be initiated.
27. Agroforestry is another very viable alternative. But to ensure its success there should be no hindrance to the harvest, transportation and sale of the produce.
28. Wood-based industries should also be encouraged to supply certified quality planting stock to farmers and to enter into buyback arrangements with them for the raw material produced by them. The farmers should be free to sell to the market if they get higher prices.
29. ICFRE (Indian Council of Forest Research and Education) institutes should focus on basic research, and on research relating to national or regional problems which cannot be handled by State Forest Research Institutions (SFRIs), such as genetics and tree breeding, wood science and technology, forest hydrology, chemistry of forest products and their utilization, bio-pesticides, global warming, biodiversity conservation and management, forest sociology including participatory management, and forest economics. Strong linkage should be ensured between SFRIs, ICFRE institutes and agricultural universities undertaking forestry research in the same State. Networking of scientists working in these research organizations on common problems needs to be done.
30. The Forest Development Corporations should be given the task of extending forestry to grassland/ watershed management in government lands outside of forests, as well as to cooperate with agriculture departments in the extension of farm and agroforestry.

31. For efficient administration and better coordination among the various wings of the State Forest Department, it is necessary to have a single line command. Only the Principal Chief Conservator of Forest should report to government on policy issue.
32. The State governments must complete demarcation of forest boundaries, and mutation in revenue records. The process requires financial and technical capacity building of forest settlement offices. A trained team of surveyors be equipped with global positioning system and other technical tools to carry out the process of demarcation. Forest maps should be updated after demarcation and be incorporated in the working plans.
33. Staff and vehicles of the Forest Departments are requisitioned for non-forestry purposes, the advantage of which is taken by wood and wildlife poachers. Such requisitioning must be avoided.
34. In view of prevalent threats to forests and forest personnel who unlike the police have to function alone or in very small units, the forest field staff need to be armed and need to be given protection under the law in the exercise of their duties, as is given to the police and the paramilitary forces, under section 197 of the Criminal Procedure Code. They need to be safeguarded against wrongful accusations under the various anti-SC/ST (Scheduled Castes/Scheduled Tribes) atrocities legislations and need to be provided reasonable and just indemnities in fabricated cases.
35. The National Forest Commission is of the considered opinion that the proposed Scheduled Tribes (Recognition of Forest Rights) Act would be harmful to the interests of forests and to the ecological security of the country. It would be bad in law and would be in open conflict with the rulings of the Supreme Court. Another legislation, therefore, needs to be framed providing the forest dwelling communities a right to a share from the forest produce on an ecologically sustainable

basis and Ministry of Environment and Forests could be asked to do the needful, after taking into account the inputs of the State Governments as recommended by the Sarkaria Commission as a subject under the concurrent list.

36. The allocation to the forestry sector must be increased, both in central and State budgets, and must not be less than 2.5% of the total plan outlay.

The Follow up

1. The Commission has commenced its work on 21.02.2003 and concluded by 01.03.2006 and held 29 meetings, and about 2000 responses were examined.
2. The report of the Commission is exhaustive and at times abstract, and thus making it difficult to implement all the (360) recommendations.
3. The Commission desired to set up monitoring units at State and Central Government levels but appears to be not implemented.
4. The Commission has recorded its concern on implementation of Forest Rights Act, and the same is to be taken into cognizance.
5. The recommendation on budgetary allocations is not followed.
6. It has been pointed out that the Joint Forest Management (JFM) concept has taken firm roots in the country since 1990, however, the pace of institutionalization of JFM has been highly uneven. The JFM programme is not running on expected lines.
7. The Commission felt that there is no need to amend National Forest Policy 1988.
8. No action is taken to notify the Forest Department as the implementing agency for Biodiversity Act and Environment laws.
9. Recommendations of the Commission include Fire Protection Measures to be adopted, Controlled use of Pesticides, Control of Invasive Species and Exotics, role of Media and

Educational Institutes in Awareness and Training and creation of Forest Conservation Fund (CAMPA). These recommendations are to be implemented to the desired extent.

10. The recommendation that Protected Areas should be managed by trained special officers is not implemented.

(The author is Retired Conservator of Forests, Telangana State, authored many books on Forest and allied Acts, Forest Code and drafted various amendments. Currently he is working as Legal consultant to the AP Forest Department and a practicing Advocate in the AP High Court.)

Continuation from page No. 34

Faunal components including herbivores (deer species and elephants), carnivores (leopards and a few tigers) made a comeback.

Other known eco-restoration projects of recent times include Delhi's Aravalli (forest) and Yamuna (aquatic) eco-restoration projects and one in Rajasthan. But these three have not been carried out by forest departments.

However, there is a spoiler here.

The plantation drive done by the TTD division has been successful by all counts. Except species selection.

The main concern of government agencies in any forestation programme is the 'survival percentage' while they get evaluated. Even a three-year-old 'live plant stub' is counted as surviving after getting browsed or hacked.

So which plant species does the forest department select usually for afforestation? Usually those that are non-palatable, have good coppicing (ability to grow new

11. A separate 'Department of Forests and Wildlife' within MoEF, to ensure adequate importance and attention to management of the natural resources; for efficient administration and better coordination among the various wings of the department, it is yet to be implemented.

shoots from stumps) power even after getting browsed, are less water-demanding and are fire-resistant.

Forest departments prefer such species even if they are Invasive Alien Species (popularly known as IAS).

This mistake occurred in TTD too. Fortunately, BMK Reddy, the chairman of the AP State Biodiversity Board took note of it three years back.

The TTD Forest department is now in the process of replacing this exotic species, which may change the floral / faunal composition and ecology of the Sheshachalam range in the future.

It is my wish as a former forest professional that 43.3 per cent of India's open forests are restored for sustainable production and consumption at the earliest. Let wisdom prevail on this World Forestry Day 2022.

(This article was first published in Down To Earth. Link: <https://www.downtoearth.org.in/blog/forests/international-day-of-forests-can-india-shift-from-a-plantation-mindset-to-an-eco-restoration-one-82005>)

(The author is currently the Director of RVNL, and a wetland expert based in Bhopal. Feedback: Mobile: 9644004102)

ANSWERS TO THE GREEN QUIZ :

1. Kuno-Palpur NP, 2. Cool Tadpoles, 3. The Boab, 4. Chanda Hathni, 5. Seagrass, 6. Vaquitas, 7. Right to Exist, 8. Methusela, 9. The Tuatara, 10. The Emperor Penguin, 11. Chattisgarh, 12. Rishikonda case, 13. Maharashtra, 14. AP, 15. Drought.

ISFR 2005 - ISFR 2021:

Are The Forests Slipping Away?**Dipak Sarmah, IFS (Retd.)**

In the recently published India State of Forest Report (ISFR 2021) published by the Forest Survey of India (FSI), Dehra Dun, the forest cover of the country is 713,789 km² comprising 99,779 km² of very dense forest (VDF), 3,06,890 km² of moderately dense forest (MDF), and 3,07,120 km² of open forest (OF). The extent of scrub forest is 46,539 km². The remaining area of the country, designated as non-forest (NF) land, is 25,27,141 km². Comparison of these figures with the corresponding figures published in the ISFR 2019 reveals that there has been an overall increase in the country's forest cover by 1,540 km². The scrub forest has increased by 242 km² and the non-forest (NF) land has decreased by 1,782 km². The figures depicting the extents of scrub forest and non-forest land are significant, as increase in the extent of scrub forest generally implies degradation of existing natural forest and decrease in the extent of non-forest land implies promotion of non-forest land to tree-clad land that contributes to forest cover. As a matter of fact, the difference between these two figures (1,782 km² – 242 km²) represents the overall increase (1,540 km²) in the country's forest cover.

It has also been indicated in the ISFR 2021 that, out of the overall increase of 1,540 km² in the country's forest cover, increase in forest cover inside the recorded forest area (RFA)/ green wash area (GW) is only 31 km² and the remaining 1,509 km² of increase has taken place outside RFA/GW. Although the green wash area may occasionally include some natural forest outside the purview of the Forest departments, the above break-up of the increase in the country's forest cover broadly indicates that the lion's share of the increase has taken place in areas that are outside the traditional forests managed by the Forest departments.

From the above, a general impression emerges that while the forest cover inside the recorded forests has

remained more or less stationary, the overall increase in the country's forest cover has been achieved primarily due to plantations raised outside RFA. Apparently, tree plantations raised outside the recorded forests have contributed significantly to the increase in the country's forest cover. These plantations may include considerable extents of horticultural, agroforestry and farm forestry plantations, in addition to social forestry plantations.

It may however be mentioned that the above trend of increase in the country's overall forest cover primarily due to increase in the forest cover outside the RFA/ GW is not a new development and has been observed in the earlier ISFRs also. On the basis of information furnished in the recent India State of Forest Reports (ISFR 2005 to ISFR 2021), various components of India's forest cover such as very dense forest (VDF), moderately dense forest (MDF), open forest (OF), Scrub, non-forest (NF), etc. are depicted in Table I.

Perusal of Table-I indicates that during about fifteen years representing the period that elapsed between ISFR 2005 and ISFR 2021, the country's overall forest cover increased by (713,789 - 690,171) or 23,618 km², representing an increase of about 3.42%. During the same period, the extent of scrub forest increased by (46,539 – 41,286) or 5,253 km² and the extent of non-forest land decreased by (25,55,806 – 25,27,141) or 28,665 km².

Increase in the extent of scrub forest by 5,253 km² primarily indicates increase in degradation of existing forests by an equivalent extent. In other words, about 5,25,300 hectares of land have been demoted from one or the other of the forest categories (VDF, MDF or OF) to the category of Scrub Forest. On the other hand, reduction of non-forest area indicates promotion

of non-forest areas to the category of forest areas. In other words, about 28,66,500 hectares of non-forest land have got promoted to one or the other of the forest categories (VDF, MDF or OF). Although social forestry is one of the avenues of promotion of non-forest area to the category of forest, by and large horticultural and agroforestry plantations have been found to contribute more significantly to the increase in the forest cover, as these private plantations are better protected than public plantations which are very vulnerable to biotic pressures. In the recent years, especially after the launching of the National Horticulture Mission (NHM) in 2005-2006, there has been large-scale expansion of horticultural plantations

The above changes broadly indicate that at the national level there has been reduction (5,253 km²) of the forest cover inside the RFA/GW and this has been more than compensated by the phenomenal increase (28,665 km²) in the forest cover outside the RFA, and as a result, there is an overall increase 23,412 km² (28,665 – 5,253) in the forest cover. [Note: A difference of 206 km² in the overall increase in forest cover (23,618 – 23,412) is on account of the difference of 206 km² in the geographical area of the country (32,87,469 km² - 32,87,263 km²) appearing in ISFR 2021 and ISFR 2005].

An overall increase in the forest cover, even when it is contributed by tree growth outside the traditional forest, is a welcome sign, as it reduces the pressure on our natural forests and enhances the possibility of their rejuvenation. However, it is necessary for the Forest departments and the forest officers to be aware of the exact status of the natural forests that are located primarily within the RFA, for a couple of reasons.

In the absence of a proper and in-depth analysis, an increase in the overall forest cover is often taken as an increase in the forest cover due to tree growth inside the RFA also, i.e., the forest managed by the forest departments; this results in a false sense of complacency and may lead to slackening of measures required for the protection and improvement of the natural forests.

An overall increase in the forest cover also helps in building a false narrative that is conveniently used to justify diversion of prime forest land for non-forest purposes under the Forest (Conservation) Act, 1980. It is necessary for the forest officers to keep a close tab on the real status of the forests under their custody and not to be swayed by this false narrative of overall increase in the forest cover that generates an erroneous impression that everything is well in the forest sector.

TABLE – I

INDIA'S FOREST COVER SCENARIO AS DEPICTED IN ISFR 2005 TO ISFR 2021

(Area in km²)

	ISFR 2005 (Revised)	ISFR 2009 (Modified)	ISFR 2011	ISFR 2013	ISFR 2015	ISFR 2017	ISFR 2019	ISFR 2021
VDF	83472	83,428	83,471	83,502	85,904	98,158	99,278	99,779
MDF	319,948	320,238	320,736	318,745	315,374	308,318	308,472	3,06,890
OF	286,751	288,728	287,820	295,651	300,395	301,797	304,499	3,07,120
Total forest cover	690,171	692,394	692,027	697,898	701,673	708,273	712,249	713,789
Scrub	41,286	42,050	42,176	41,383	41,362	45,979	46,297	46,539
NF	25,55,806	25,52,820	25,53,060	25,47,982	25,44,228	25,33,217	25,28,923	25,27,141
Total Geographical area	32,87,263	32,87,263	32,87,263	32,87,263	32,87,263	32,87,469	32,87,469	32,87,469

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Who brought us here? What should we do to live? Seed for the Idea of Peoples' Forestry

Dr. Kota Tirupataiah, IFS (Retd.)



The year was 1989-90. The season was summer. The social context was one of intense activity by Left wing extremists. I was destined to have worked with a Forester who feared nothing and none and a Range Officer who was the most pragmatic. I must thank them for creating and also solving challenging situations.

One fine day we got a message from one of the staff that the fearless Forester was beaten badly by the LWEs and he was admitted in a hospital in Metpally adjoining our sub-division. When we visited, we found that any ordinary staff member would have died with the way he was beaten with rifle butts. Since he was a body builder, he survived.

Once we ensured good medical care to the Forester, we went into the details of the incident. The local people in Bhimnagar/Manal, under the influence of the LWEs, felled high Teak Forest of over 10 Ha and planned to cultivate it. The forester and his staff resisted it and that was the reason that LWEs beat them up.

Myself, FRO and others visited the area where Teak Forest was felled and were really shocked looking at such huge trees felled. We then spent some time in the village Manal and came back. We prepared a preliminary report and submitted to the DFO Nizamabad and to the CF Nizamabad. Naturally, both were upset at such a scale of felling. One even mentioned that it may definitely cause a problem to even the Sub-DFO along with others.

We had long discussion over the next course of action. We examined various options available. After going through the merits and risks involved in each option, we decided on the one which looked pragmatic but still risky. We went back to Manal and sat in front of the Forest Guard quarters. After some time, villagers

gathered and questioned as to why we are sitting there. They had a hearty laugh when we said, "we want to take away the felled Teak timber". They said, "why did we fell it if you have to take it away?".

The exchange of intentions went on for quite some time. The time for sun set was approaching and the staff was worried about the LWEs. In fact, the local FG informed that some of the LWE members are very much around us observing the exchange of statements. We realized that there was no other way than to stick to our idea. We insisted on salvaging the felled wood and leaving the rest for local use. Our stars were bright that day. The people then asked what would happen to the land where the Teak trees were felled. We could very adamantly argue about various reasons why they should allow us to take away the teak wood but were caught with this question.

We asked them to go in to the past and narrate the whole story of how the village/s came in to existence in the center of forest area. Then they told us the whole history of how they were brought as labor to carry out various forestry operations during the Nizam's period and later under the forest department. Once felling and other silviculture operations were done away, the villagers found themselves abandoned in the middle of the forest. The youngsters who came in have grown up, married, had children who in turn grew up and married and had children. A third generation is now growing up there. They questioned, "What do we do? We do not own land. There are no activities in the forest. What should we do for a living?" These questions stumped us. We really did not have answers for those questions. We said we will ponder over them and come back.

A very detailed report was prepared and submitted to the DFO and CF suggesting that the villagers be

involved in re-planting the felled area and they be allowed to grow field crops as inter-crop between forest trees. In this way, they allow us to salvage very costly timber which was felled and also participate in planting tree crop again. The feedback from the officers was that I failed as a sub-DFO. Instead of keeping quiet, I ventured to report that villagers be allowed to cultivate field crops inside forest area. They were sure that most severe action is definitely waiting for me from the head office.

Again, our stars were good. The year was 1989-90. The department had begun to share success story of Arabari of West Bengal and how peoples' participation resulted in regeneration of forests there. Soon, the then APFD itself organized a state level workshop to discuss

merits and demerits of adopting Peoples Forestry. Of course, it was a free for all closed-door war. Ultimately, the idea was voted as a candidate worth giving a try. Our team heaved a sigh of relief and felt a sense of pride that we were not wrong to make the suggestion that we made a couple of years ahead of the decision of the department to try out Joint Forest Management.

PS: The FSO who was brutally beaten by LWEs recovered fully and discharged his duties with high honor. The FRO went on to become one of the most loved persons by his staff. This article is dedicated to the FSO Bhimgal, FG Manal and all staff of Kammarpally sub-division, Nizamabad division. Advice and inputs given that time by a native of this area and a double Vrikshamitra awardee are gratefully acknowledged.

(The writer is retired PCCF, Telangana and currently working as Chief Consultant (Training) at Dr Marri Channa Reddy HRD Institute of Telangana, Hyderabad. Feedback-Mobile:8885532021 Email: kota_86@rediffmail.com)

"In 1922, scientists at the University of Toronto, Canada, went to a hospital ward with diabetic children, most of them comatose and dying of ketoacidosis (high blood glucose). The room was filled with parents sitting at the bedside awaiting the inevitable death of their children. Diabetes was fought only through a strict diet that ended up driving the patients to chronic malnutrition.

The scientists went from bedside to bedside and injected the children with the new purified extract: insulin. When applied to the last comatose child, the first injected child began to wake up. Then, one by one, all the children awoke from their diabetic coma. A room of death and sadness, became a place of joy and hope.

Thank you Dr. Frederick Banting and Dr. Charles Best, discoverers of insulin, which earned them the Nobel Prize in Medicine.

Continuation from page No. 42

The fact that the forest areas under their custody are shrinking should be viewed by them with utmost seriousness. In light of the reported loss of extensive forest areas due to occupation of forest land for

various reasons including settlements and cultivations permitted under the provisions of the Forest Rights Act (FRA), 2006, an impartial audit of the natural forests of the country is urgently called for.

(The writer is former PCCF (HOFF), Karnataka, former Deputy Adviser, Planning Commission, former Deputy Inspector General of Forests, authored number of books on forestry, wildlife, and agroforestry. He is currently the Chairman of the Monitoring Committee for mining operations and sale of iron ore in Karnataka. Feedback-Mobile:9986232094 & Email: sarmahdipak1@gmail.com)

Heat Islands In India

Dr. Uma Shanker Singh, IFS(Retd.), D.Sc.



The month of May was extremely tough for the commoners in India because the high temperatures at different part of the country made them immobile. At least 25 people have been reported killed in India, and more than 65 deaths have been reported in Pakistan, but the true numbers are expected to be higher. Northwest and central India faced the hottest days and nights with the temperature going beyond 40 degree Celsius. On 15th May, 2022 some of the places in and around Delhi registered more than 49 degree Celsius, for instance two areas in Delhi namely Mungeshpur and Nafazgarh recorded temperatures close to 49.2 and 49.1 degrees Celsius respectively. The maximum temperature in Gurgaon, meanwhile, touched to 48.1 degrees Celsius, while in Noida, it was 47.1 degrees. But surprisingly the temperatures around these cities, however, were not as high as this and they were mainly because of the urban heat islands.

URBAN HEAT ISLANDS

An urban heat island is a local and temporary phenomenon experienced when certain pockets within a city experience higher heat load than surrounding or neighbouring areas on the same day. For example, there are many greener localities in any city which often records cooler temperatures than surrounding urban areas and the variations are mainly due to heat remains trapped within locations that often what we call them concrete jungles and surprisingly the temperature variation can range between 3 to 5 degrees Celsius.

DELHI IS BAD IN POLLUTION

The Delhi has witnessed a sharp decline in the green cover over a period of last several years and this loss was due to decline in city forest cover by 6426.09 ha. The city has benefitted from initiatives in implementation of biodiversity parks and plantation drives, but also suffers widespread loss of forest over the years. There

has been an estimate of financial loss to the tune of Rs. 560 million (US\$ 7.614 million) on account of the loss of green cover (Sonali Sharma et al 2020). There are 17 city forests in Delhi today but most of them need utmost care.

Delhi is also one of the most polluted cities in the world and about 31% of the air pollution in Delhi comes from local sources and the rest is from outside (Centre for Science and Environment, CSE) and this is scientifically proven that pollution increases heat. Besides Najafgarh and Mungeshpur localities in Delhi which recorded nearly 50 degree Celsius on 15th May, 2022, there were some other areas also which registered high temperatures for example, Mayur Vihar (45.4 degrees Celsius), Lodhi road (45.8 degrees Celsius), Palam (46.1 degrees Celsius), Ayanagar (46.8 degrees Celsius) and Delhi Ridge (47.2 degrees Celsius).

These temperature differences were due to variations in heating over highly urbanised and semi-urbanised areas and the comparative less availability of open and green spaces in the surroundings. This is also because we have different urban and rural legislation for the construction in our country.

HEAT ISLANDS CAN BE NEUTRALISED

Unfortunately, right now in India even existing urban green spaces are under threat. In October 2019, Aarey Milk Colony in suburban Mumbai, known as the city's 'green lung', was caught in a raucous nationwide debate about ecology versus infrastructure projects. This was in response to a plan that involved Mumbai Metro Rail Corporation cutting down 3,000 trees in the area to pave the way for a train depot. According to a scientific report, the site is home to 86 species of butterflies, 90 species of spiders, 46 species of reptiles, 34 species of wildflower and nine leopards.

Despite public outrage, by the time the Supreme Court intervened the Maharashtra government and Mumbai Metro had cut down enough trees to clear the land required. In the southern city of Bengaluru, once known as India's greenest city, the Bengaluru Development Authority has ravaged urban forests by building in them.

The Turahalli forest in southern Bengaluru is being saved from garbage dumping and vandalism thanks to legal action initiated by the Environmental Support Group (ESG), a pan-India advocacy forum. Therefore, the main way to cut heat load within urban areas is increasing the green cover; filling open spaces with trees and plants. Other ways of heat mitigation include appropriate choice of construction materials, promoting terrace and kitchen gardens, and painting white or light colours on terraces wherever possible to reflect heat. Rural areas have relatively larger green cover in the form of plantations, farmlands, forests and trees as compared to urban spaces. This green cover plays a major role in regulating heat in its surroundings. Transpiration is a natural way of heat regulation. This is the scientific process of roots absorbing water from the soil, storing it in the leaves and stems of plants,

before processing it and releasing it in the form of water vapour.

On the contrary, urban areas lack sufficient green cover or gardens and are often developed with high-rise buildings, roads, parking spaces, pavements and transit routes for public transport. As a result, heat regulation is either completely absent or man-made. Physics teaches us that black or any dark coloured object absorbs all wavelengths of light and converts them to heat, while white reflects it. Cities usually have buildings constructed with glass, bricks, cement and concrete, all of which are dark-coloured materials, meaning they attract and absorb higher heat content. Thus forms temporary islands within cities where the heat remains trapped. These are not the typical islands around water bodies, but urban heat islands that record higher day temperatures than other localities.

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(The writer is former PCCF, UP and a prolific writer. He is currently guiding many PhD students in Ranchi university. Feedback: mobile:9450877777 and email: umashankar.87@gmail.com)

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-EDITOR

Fauna of Seshachalam Biosphere Reserve, Eastern Ghats, Andhra Pradesh, India

Dr M. Bubesh Guptha & Dr N.V. Sivaram Prasad



ABSTRACT: Biodiversity is the total variety of life on earth also forests play a key role in maintaining a wide range of delicate relationship with nature and its ecosystem. The Eastern Ghats hill range of southeast India is biologically under-explored. This 1,600 km long discontinuous series of hills extending along the Coromandel coast, from Sirumalai (10.126°N, 77.959°E) near Vaigai River in the southwest to up to Simlipal hills (22.119°N, 86.431°E) near Subarnarekha River to the northeast, hosts a great biodiversity. Seshachalam became the first biosphere reserve (20th September 2011) in Andhra Pradesh and 16th in the country. It covers an area of 4,755.99 sq.km in Chittoor and Kadapa districts. The elevation ranges from 150 to 1130 m, with mostly dry (red sanders bearing) and some areas have moist deciduous forests. This study is a review of biodiversity from Seshachalam biosphere reserve to give adequate and recent information pertaining to fauna of this area conducted during the following successive years with proper scientific methodology of all taxa, mammals (2012 to 2015 & 2019), herpetofauna (2012 to 2015 & 2019), avifauna (2011 to 2014) and butterflies (2012 to 2014). Species identification done by using various field guides and other available literature. Mostly photographic documents were done. A total of 420 species of fauna consisting of (26 species of mammals followed by 215 species of avifauna, 83 species of herpetofauna and 96 species of butterflies) were documented.

A total of 26 species of mammals belonging to 17 families were recorded among which nine species are threatened (Bengal Tiger -Endangered; Dhole - Endangered; Asiatic Elephant- Endangered; Indian Pangolin -Endangered; Sloth Bear- Vulnerable; Sambar Deer-Vulnerable; Leopard- Vulnerable; Rusty- spotted

cat- Near Threatened and Grey Slender Loris- Near Threatened.

A total of 215 species avifauna belonging to 45 families were recorded among which seven species are threatened namely Yellow- eyed Babbler-VU; Yellow-throated Bulbul -VU; Grater Spotted Eagle -VU; Darter -NT; Painted Stork -NT; Pallid Harrier -NT and Alexandrine Parakeet -NT also breeding and non-breeding species were recorded during study period. Existing forest trails were used to conduct the study on foot. The surveys were usually made in the early morning (07:00 to 10:30 h) and evening (16: 00 to 18:00 h), sometime night for nocturnal species like, owls and nightjars.

A total of 83 species of herpetofauna consisting of 21 species of Amphibians belonging to five families followed by 25 species of Lizards belonging to six families and 33 species of snakes belonging to 6 families among which six species are venomous were recorded. Among which many species of news records, new locality records and first record also documented.

A total of 96 species of butterflies were recorded under five families. The family Nymphalidae and Lycaenidae were found dominant with 32 species and 22 species, respectively, followed by Pieridae (19 species), Hesperidae (14 species) and Papilionidae (9 species). Survey was done by systematic methodology 500-meter length with 5-10 meter on either side. Abundance and status of the butterflies are observed.

This study indicates that, the area rich and must contain many more species. We recommend further studies in the Eastern Ghats at the earliest possibility. (Photos of some species can be seen in the center color pages of this magazine.)

(The First writer is a Wildlife Biologist, Pitchandikulam Forest, Auroville and the Founder & Director, Universal Eco Foundation (UEF), Puducherry and can be contacted over mobile: +91 8110991701; +91 9908594183 and E-mail: bubesh.guptha@gmail.com & universalecofoundation@gmail.com. The second writer is Assistant State Silviculturist, Rajahmundry, Andhra Pradesh)



In commemoration of World Nutrition Day (28th May): Few of the Nutritional and Toxic Elements you ought to know!

Dr B. Raghottam Rao Desai, IFS (Retd.)

(Remembering Dmitri Ivanovich Mendeleev who invented Periodic Table – 1834-1907, Russian chemist & inventor, born in Siberia who formulated the Periodic law, created a farsighted version of Periodic Table of elements – 1871)

Preamble:

Elements that are essential for life are taken up in the form of dietary supplements --very common examples being calcium (found in milk) and the common salt (which is rich in sodium & iodine) --but they can potentially become toxic above a certain level. The amounts at which elements are considered as essential are known as the reference or normal values. Sometimes, due to possible exposure, certain elements become toxic at elevated levels (known as toxicity levels or toxic concentrations).

However, elements are essential to maintain life. Neither do these elements provide energy nor do they participate much in the body building, but they are clinically important --because they are the pivots upon which a protein function relies or without which a vitamin's structure couldn't be complete. In short, elements are the biological enhancers. As everything has pros & cons, so do the elements. The elements in general can be categorized into two broad classes: Nutritional & Toxic. For example, elements like Nickel and Arsenic (that are nutritional and essential for growth and reproduction) could become detrimental when they are above recommended dietary intake.

Amongst the three basic necessities --food, clothing, and shelter --food is the major (and foremost) need of living beings to survive. Apart from six major components of diet (vitamins, proteins, carbohydrates, fats, fiber, and water), minerals are also an important component of a balanced diet --they are nothing else, but the elements required in trace amounts. Food is the

prime source of mineral uptake. WHO recommended 13 trace or minor elements in the daily dietary menu.

Our sedentary lifestyles and improper habits have led to many deadly diseases permeating into each and every system of our body. The root cause of this is the unawareness (and lack of knowledge) about the hazardous effects of the toxic elements. Each industry today flows out tons of heavy metals with effluents in the water bodies. When the waters from these sources are consumed for drinking, it could lead to the symptoms emerging from the metal toxicities. Some of the toxic elements are mentioned that could get into the body through food, water or air.

Elements in Blood:

A. Nutritional (Essential Allies):

1. Boron (Symbol: B; Atomic number: 5): -A soft, brown element found in small amounts (0.00003% or 3mg) in the human body. -the trace-minerals occurring in the soil, foods and in our body at much lower levels than the macro-minerals, and therefore becoming depleted more easily. Boron (absorbate) is readily and completely absorbed (from the human gut) to appear rapidly in the blood and blood tissues -bone taking up selectively, however, four-times-higher than its levels in blood-serum and allows it to remain for a longer duration before its elimination. It is predominantly excreted in the urine as borate.

2. Chromium (Symbol: Cr; Atomic number: 24): - A mineral that humans require in trace amounts (0.00002% or 0.2mg) for enhancing the action insulin to regulate blood-sugar-levels in the body --insulin being a Hormone, used by our body to change sugar, starch & other food into energy needed for daily life.

3. Cobalt (Symbol: Co; Atomic number: 27): - Another essential mineral needed in very small amount

(0.000004% or 0.4mg) in the diet, being an integral part of vitamin B12(or cobalamin) which supports red-blood-cell-production and is used to prevent anemia --- also in some cases of fatigue, digestive disorders & neuromuscular-problems.

4. Copper (Symbol: Cu; Atomic number: 29): - Is required in the formation of hemoglobin, red blood cells and for healthy bones -- also being necessary for wound healing. It works closely with the iron for these functions as also for the formation of elastin as well as collagen. Required by the human body to 0.70%, it is a vital component of several essential enzymes, being essential for energy production, connective tissue formation, iron metabolism, melanin formation, while having antioxidant function.

5. Iodine (Symbol: I; Atomic number: 53): - An essential element that enables the thyroid gland to produce thyroid-hormones (T3 & T4), which regulate the conversion of fat to energy and stabilizing our body weight as well as controlling our cholesterol levels, helping to form our bones as well as to keep our skin, nails, hair and teeth in prime condition. Its abundance is 2mg (0.00002%)

6. Iron (Symbol: Fe; Atomic number: 26): - Its main role is to combine with a protein to form a substance called hemoglobin in the red blood cells & transported around the body --releasing the oxygen (by attracting it in our lungs where to send it through breathing) whenever needed (to convert carbohydrates or sugars into energy). Therefore, blood in the arteries is bright red, whereas blood in the veins (which return blood to the heart & lungs for a further dose of oxygen) is darker in colour. Its abundance in human body is < 0.05%.

7. Manganese (Symbol: Mn; Atomic number: 25): - Most of it (0.00002% or 0.2mg) is concentrated in the pancreas, bone, liver, and kidneys --acting as a catalyst & cofactor in many enzymatic processes involved in the synthesis of fatty acids and cholesterol. Important in skeletal and connective tissue development, because of its role in synthesis --its metabolism being like that of iron. Excess manganese is excreted in bile and pancreatic secretion --only a small amount in urine.

8. Molybdenum (Symbol: Mo; Atomic number: 42): - Is found in several tissues of the human body (0.000007% or 0.7mg) as a dietary mineral, reducing toxic build-up & promoting overall healthy body function -- the most associated function being its role in the production of uric acid. The body absorbs Mo quickly in the stomach and in the small intestine where from it is transported (by the blood) to the liver & to the other tissues of the body.

9. Nickel (Symbol: Ni; Atomic number: 28): - In helping the body absorbs the iron it needs; Nickel has a major role to play (its abundance being 0.00002% or 0.2mg). Additionally, it prevents conditions such as anemia, while helping to break down glucose & build strong skeletal frames by strengthening bones, as it is present in every cell of the human body to help to create energy for daily use.

10. Selenium (Symbol : Se ; Atomic number : 34) : - This essential trace mineral (0.00002% or 2mg) in human body) is an important part of antioxidant enzymes that protect cells against the effects of free radicals (that are produced during normal oxygen metabolism) which can otherwise contribute to some chronic diseases .Se is also essential for normal functioning of the immune system and thyroid gland --absorption of the element occurring mainly at the lower end of the small intestine, the highest levels getting deposited in red blood cells, liver, spleen, heart, nails and tooth enamel.

11. Silicon (Symbol: Si; Atomic number: 14): - It is vital for healthy bone cartilage, organ & connective tissues (artery walls, aorta, trachea, tendons & ligaments and for fine-looking skin, hair & nails--in the human body (0.001% or 100mg) it decreases with age from the available quantity of 7g, being a calcium organizer -- shaping the calcification process (& the rate at which calcium is lodged in bone). It is also of value in the reduction of cholesterol & facts in blood, being necessary elements for the process of the construction of antigens & antibodies. Additionally, it stimulates cell metabolism & cell formation, has moderate disinfecting properties and is an anti-inflammatory agent.

12. Vanadium (Symbol: V; Atomic number: 23): - Is

essential in human nutrition (0.0000002% or 0.02mg), considered to be an ultra-trace mineral in human body, stored in fats of body, stored in fats of the body, inhibiting cholesterol formation in the blood vessels & is believed to be involved in energy production --helping to build bones & teeth. Most of it is eliminated in the feces and urine --though suspected to be cause for susceptibility to heart disease & cancer found if deficient.

13. Zinc (Symbol: Zn; Atomic number: 30): - Zn is necessary for the action of various important enzymes and is required for protein and DNA synthesis in body cells (its abundance in human body being 0.003%), while it accelerates the process of wound-healing --its highest concentration having been observed in the liver, pancreas, kidneys, and brain. The deficiency of Zn among human beings is rare, though it is suggested that cirrhosis of liver, pernicious anemia occur due to low zinc levels in the blood --certain cases of growth failure (dwarfism) are also associated with zinc deficiency, as it includes poor prenatal development & growth, mental retardation, impaired nerve condition, and nerve damage, reproduction failure, dermatitis, hair loss, diarrhea, loss of appetite /taste/smell, anemia, susceptibility to infections, delayed wound healing and muscular degeneration.

B. Toxic (Intent Harm):

1. Aluminum (Symbol: Al; Atomic number: 13): - Al is a bluish white metal, widely used in our daily life (such as in utensils, paints, sheets, etc...), being a lightweight and a good conductor of heat __ wires and sheets are widely made out of it. However, its role as an essential element in diet is not clear until now, but the increased uptake (or exposure by means of food or occupation) or any other passive means is well understood.

After oxygen and silicon, Aluminum is the 3rd highest in terms of its abundance in the earth (1% approx. in the whole earth and around 8% in earth crust) and is majorly in manufacturing & metal finishing process, fireworks, ceramics & paints, electrical goods, smelting industry & manufacturing of abrasives.

Bones, brain, kidneys, and stomach being its target

organs, its acute toxicity could lead (on occupational exposure) to dental cavities, dementia, kidney & liver dysfunction, peptic ulcer and eight more serious symptoms --being highest in continents like Africa, Asia, and South America.

2. Arsenic (Symbol: As; Atomic number: 33): - It is a metalloid element (i.e., having properties of metals & non-metals), found in soil & minerals, which forms several poisonous compounds -- generally used to preserve wood (as pesticides etc...) --and can get into air, water & the ground (from wind-blown-dust and from run-off into water). Even for the normal functioning of body, a small quantity is found to be essential --it is therefore also called as trace-element (when talked about in terms of dietary update) --but its toxicity is researched (more than the essentiality) and well documented.

Its abundance in the earth's crust is about 5g/ton, being widely distributed. It is used in the manufacture of brass, bronze, ceramics, wood products & paints, chemicals, glass and in the smelting process, of copper, Zinc and Lead.

It targets blood, kidney, central nervous system, digestive system and skin. Arsenic exposure could lead to symptoms such as Nausea & vomiting, decreased production of red & white blood cells, abnormal heart rhythm, damage to blood vessels, sensation of "pins & needles" in hands & feet, darkening of the skin, appearance of small "corns" or "warts" on the palms, soles & torso, and death in some cases, contaminated foods (especially seafoods), water or medications happen to be the sources of exposure.

3. Barium (Symbol: Ba; Atomic number: 56): - Being silver-white when in pure state, it is a yellowish-white soft metallic element --small amounts of its compounds being used in paints & glasses, while it is beaten to form sheets and hence called malleable.

Ba & all its compounds being highly toxic, show acute toxicity when taken orally --possibly lethal. Nevertheless, it is used in a test in radiological investigations, to have a look inside the intestines. It is the 14th most abundant element in the earth's crust.

It is majorly employed to manufacture spark-plug electrodes, fluorescent lamps, diagnostic-medicines, fireworks, paints, bricks & ceramics, glass & rubber.

Its target organs are lungs, reproductive organs, cardiovascular system, gastric intestinal system and nervous system. Acute symptoms of Ba toxicity are Vomiting, abdominal cramps, Diarrhea, difficulties in breathings, increased or decreased blood pressure, numbness around the face, muscle weakness, changes in heart rhythm or paralysis and possible death. Its toxicity is highest in USA--especially in California.

4. Bromine (Symbol: Br; Atomic number: 35): - Smelling 'stinky', this is one of the only three elements that is liquid at room temperature, although it is non-metallic, and being a toxic & highly intoxicating substance (if inhaled or swallowed), it can cause corrosion burns when exposed to skin. It is 25th element (in order of abundance) in the earth's crust, a few majority (out of very wide range) of applications being: used as water purifier/ disinfectant, to control algae & bacteria growth, to work as pesticides & soil fumigants and prevent pests, to be constituent of batteries for electric cars, to make light-sensitive component of photographic emulsion and become an ingredient in photo development, and in manufacturing pharmaceuticals & sedatives.

Bromine targets the organ of upper & lower respiratory tract, skin, and eyes. Its toxicity could lead to the following to the following symptoms: redness, skin burns, cough, dizziness, headache, labored breathing, severe deep burns, abdominal cramps, burning sensation, sore throat, even cause collapse--the sources of exposure being through contaminated foodstuffs & occupational exposure.

5. Cadmium (Symbol: Ca; Atomic number: 48): - Is a lustrous, silver-white, ductile, and very malleable metal, its surface having a bluish tinge--soft enough to be cut with a knife--a relatively rare element. Cadmium is used in the battery industry, pigment manufacturing, electroplating and in imitation jewelry-making.

Its target organs are liver, placenta, kidneys, lungs, brain bone and cardiovascular system. Acute symptoms

of cadmium toxicity are Diarrhea (stomach pain and severe vomiting), kidney disease, lungs damage, fragile bones, psychological failure & possible infertility, damage to the central nervous system / immune system among more than a dozen adverse impacts. Sources of exposure happen to be drinking water, terrestrial & aquatic food, smoking and occupational exposure.

6. Cesium (Symbol: Cs; Atomic number: 55): - Being one of the three metals that are liquid at (or around) room temperature, Cs is silvery-gold, soft & ductile--not naturally radioactive but is made radioactive in nuclear reactors and in either form it is used for medical therapies such as cancer and depression.

It is majorly used as a catalyst promoter, in making optical glasses, to remove traces of oxygen from vacuum tubes & from light bulbs, and in atomic clocks. It is used as drilling fluid (for the oil industry), propellant (in early ion-engines designed for spacecraft propulsion) and optical character recognition devices, as also video camera tubes, and in a variety of medical & agricultural equipment.

Its target organs are heart, liver and central nervous system. Exposure to Cesium could lead to fatigue, muscle weakness, palpitations, burns and eye irritations--sources of exposure being contaminated food, working in radioactive labs & medical therapies and occupational exposure.

7. Fluorine (Symbol: F; Atomic number: 9): - It is a pale yellow-green univalent poisonous element, rarely found free in nature--having a strong & characteristic odor and is "double-edged-sword": on one hand while it protects dental caries, the other it causes dental & skeleton fluorosis if the uptake is in excess. Makes 13th most common element in the crust of the earth, being in abundance.

It is used in rocket fuels & to refine uranium--also as etching solutions for glasses, production of hard plastics (resistant to high temperatures), pharmacological products, toothpastes, cooling fluids and aerosol products (used as a refrigerant).

It targets the organs such as kidney, gastrointestinal

tract, brain & pineal gland --the symptoms being: chronic fatigue (not relieved by extra sleep or rest), headaches, dryness of the throat (anole excessive water consumption), urinary tract irritation, arthritis-like pain, muscular weakness, tingling sensation (in fingers & feet), gastrointestinal disturbances, abdominal pains, constipation & blood in stools, depression & dizziness, excessive nervousness, tendency to lose balance, diarrhea, bloated feeling (gas), tenderness in stomach area, feeling of nausea, skin rash or itching, mouth sores, visual disturbances and diminished ability to focus (possible retinal damage). Sources of exposure happen to be household products (like toothpaste, drinking water and contaminated food).

8. Lead (Symbol: Pb; Atomic number: 82): - Is a bluish-grey, soft, dense metal that has a bright luster when freshly cut and tarnishes slowly in moist air. The metal could be beaten into sheets & wires could be drawn being extremely resistant to corrosion, while being a poor conductor of electricity. The Romans also used lead for plumbing, calling it 'puro bum nigrum' meaning black lead.

Because of its abundance, low cost and physical properties, lead and lead-compounds have been used in a wide variety of products, including paint industry, ceramic glazes, smelting, soldering, brass & bronze foundry, gasoline & cosmetics. Large quantities are used in storage batteries, in cable covering, as ammunition, as electrodes and as roofing -material.

Lead's target organs are bones, brain, blood, kidneys, and thyroid gland. Being highly toxic element with no nutritional value, its toxicity leads to: high blood pressure, decline in mental functioning, muscular weakness, pain / numbness or tingling of the extremities, headache, abdominal pain, memory loss & mood disordered, irritability, miscarriage or premature birth, loss of appetite, weight loss, sluggishness & fatigue, vomiting, constipation, learning difficulties, reduced sperm count and the sources of exposure are: mainly due to occupational exposure, contaminated food (especially aquatic), water & boys.

9. Lithium (Symbol: Li; Atomic number: 3): - Being the least dense of the metals, it is soft & silvery - white and is not found freely in nature.

Pure lithium metal is used in the manufacture of batteries, glassware, ceramics, air purification & rocket fuels and to treat people suffering from bipolar disorders.

Its target organs are kidneys and thyroid gland. As it is corrosive, it causes skin burns on contact with moisture - other major symptoms of toxicity include diarrhea, vomiting, drowsiness, slurred speech, kidney failure, nausea & stomach pain, coma, hand tremors, seizures, giddiness, blurred vision and uncontrollable eye-movement. Mainly due to occupational exposure, contaminated food, water, and medications.

10. Mercury (Symbol: Hg; Atomic number: 80): - Is one of the elements that is liquid at ordinary room temperatures --a heavy, silvery -white metal: a poor conductor of heat but a fair conductor of electricity. Mercury (hydrargyrum, meaning liquid silver) and its compounds are highly poisonous --its volatility being too high in air, it acts as a cumulative poison as it is readily absorbed across unbroken skin or through the respiratory/gastrointestinal tract.

Hg is majorly employed in mining & smelting (i.e., extraction from its core by a process involving heating & melting) industry, and is used in the manufacturing of mirrors, tube lights, bulbs & batteries. the element is also used in pesticides and fungicides production. Mercury containing instruments such as thermometers & barometers are widely used. Mercury when amalgamated with gold, it facilitates the recovery of gold from its ores. Many of the salts and organic mercury compounds are important.

Its target organs are Brain, kidney, stomach, eyes and ears. Poisoning of mercury gives rise to several symptoms such as: Mood swings, nervousness, irritability & other emotional changes, insomnia, headaches, abnormal sensations, muscle twitching, loss of coordination, tremors, muscle, atrophy & decreased cognitive functions, peripheral vision

impairment, stinging or needle-like sensations in the extremities & mouth, muscle weakness and other impairments of speech & hearing the sources of exposure are occupational, foodstuffs (especially fish) water, household equipment's such as compact fluorescent lamps or CFLs, therapeutic methods (like dental filling & medications).

11. Rubidium (Symbol: Rb; Atomic number: 37): - Its name is a derivative of 'rubidium' --in Latin it means 'dark red' or 'deepest red' as it gives a red flame on burning --& is a soft, silvery-white metallic element which melts just a little above body temperature. It is 16th most abundant element in the earth's crust. It is used in vacuum tubes & photocells, glass & ceramics industry. It is considered to be a potential heat transmission material in space vehicles and as an electrolyte in low-temperature alkaline -m batteries. it has a wide use in therapeutic area such as in the treatment of epilepsy.

Its target organs are skin, eyes, lungs, and mucous membrane. Signs and symptoms of overexposure are skin & eye burns, failure to gain weight, skin ulcers, extreme nervousness, potassium imbalance, reproductive deficiencies, violent muscular, cutaneous burns, death--sources of exposure being contaminated food and most importantly those who work in radioactive labs & therapies.

12. Tin (Stannum --Symbol: Sn; Atomic number: 50):_ Is a silvery white metal which takes a high polish --possessing a high crystalline structure, the crystals breaking when a bar of tin is bent, producing a characteristic 'tin cry '. It is generally used as a coating material to prevent corrosion -tin plating over steel gets used to make cans for storing food. One of the important alloys of tin is soft solder -- used for soldering pipes & electrical circuits. Molten tin is used to float molten glass to produce window glass. Tin is

also widely employed in manufacturing springs, ship propellers, musical instruments & metal for bearings.

Its target organs are gastrointestinal tract and brain. Some (a) acute and (b) long term effects of toxicity of tin are (a) nausea & vomiting, eyes skin irritations and skin rashes, headaches, stomachaches & diarrhea, sickness & dizziness, severe sweating, breathlessness & petitions, urination problems and (b): depressions, liver damage, malfunctioning of immune systems, shortage of red blood cells, brain damage (causing anger, sleeping disorders, forgetfulness, and headaches).

Conclusion:

In our everyday life, we get exposed to so many things like generator fumes, fluorescent lamps, dust of bricks, etc., which could have harmful effects in the long run. When we eat, take medication and above all, drink water we are exposing ourselves to harmful things that we think are negligible but are actually not, it is a common knowledge that cardiovascular diseases, diabetes and hypertension are on increase due to our sedentary lifestyles. We must take precautions so that we keep ourselves away from these, beware should be those who have anything to do with metal factories, paint industries, battery manufacturing firms, cosmetic industries, radiological laboratories, and others. The information is very useful to anybody, be it a doctor or a housewife who ought to know about what the elements are and how important they are or what harms they could cause.

It is hoped that readers enjoyed going through the above write up containing relevant information on 25 different elements ----13 being 'important nutritional' (but which become toxic at elevated levels) and 12 that are potentially toxic (causing major injuries to our organs) if not treated on time.

(The author belongs to Karnataka Cadre, who happens to be the Chief Editor of 'Vana Vikas', a Quarterly)

*The colour which you see when you close your eyes is called
"EIGENGRAU". It is different from black,*



Birthday Greetings

We wish the following born on the dates mentioned

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S.No.	Name of the Member	D.O.B.	S.No.	Name of the Serving Officers	D.O.B.
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2.	K. Buchiram Reddy	07-07-1932	2.	Rahul Pandey	14-07-1974
3.	Prashanth Kumar Jha	07-07-1959	3.	D. Nalini Mohan	15-07-1962
4.	K. Madan Mohan	10-07-1942	4.	Swargam Srinivas	15-07-1962
5.	M. Prasada Rao	10-07-1947	5.	Smt. Arpana	15-07-1985
6.	C. Ramakrishna Reddy	11-07-1931	6.	G. Chandra Serkhar Reddy	18-07-1965
7.	M. Padmanabha Reddy	14-07-1941	7.	Dr. Sunil S. Hiremath	20-07-1980
8.	M.K. Prasad	14-07-1945	8.	Dr. K. Gopinath	21-07-1963
9.	N. Shyam Prasad	16-07-1955	9.	Smt. T. Jyothi	23-07-1975
10.	A. Shankaran	16-07-1956	10.	S.V. Pradeep Kumar Setty	01-08-1986
11.	K. Santokh Singh	21-07-1937	11.	Ratnakar Jauhari	02-08-1970
12.	G. Prakash	22-07-1952	12.	Ajay Kumar Naik	03-08-1965
13.	Mohd. Ibrahim	22-07-1954	13.	P. Prem Kumar	10-07-1983
14.	Rajesh Mittal	25-07-1955	14.	S. Ravi Shankar	16-07-1964
15.	B. Janaki Rao	26-07-1961	15.	Smt. S. Sujatha	18-07-1975
16.	Omkar Singh	27-07-1953	16.	Mrs. G. Krishna Priya	24-07-1982
16.	S.M. Selvaraj	01-08-1953	17.	V. Anjaneyulu	24-07-1966
17.	L.Ch. Tirupaelu Reddy	01-08-1956	18.	Smt. I. Padmaja Rani	26-07-1976
18.	V. Parthasarathy	02-08-1944	19.	Ms. M. Babita	26-07-1972
19.	Hitesh Malhotra	03-08-1952	20.	C. Dharma Rakshit	07-07-1978
20.	P. Adivappa	03-08-1953	21.	P. Maruthi Prasad	26-07-1978
22.	A.V. Joseph	05-08-1956	22.	Y. Srinivas	01-08-1975
			23.	P. Dhanraj	28-07-1963
			24.	A.V. Ramana Murthy	28-07-1969
			25.	Smt. M. Hima Sailaja	29-07-1980
			26.	Jagarapu Ganesh	04-08-1963

Any Omissions and Commissions in the Names / Dates may kindly be informed to the Editor over WhatsApp or Email.

- Secretary

LEGAL NOTES

Range Officer Kandi Range Vs Altaf Hussain Malla

K.Buchi Ram Reddy, IFS (Retd.)



(This judgment highlights the importance of cross-examination of witnesses during enquiries)

On the intervening night between 19/20 May 2019, a search operation was conducted by forest department under the leadership of Range Officer Kandi in Jammu and Kashmir. During the search, a vehicle bearing registration number JK02BA3662 carrying deodar sawn timber 52 nos (49.14cft) was found. As there was no permit for transport of the timber, the timber as well as the vehicle was seized. Magistrate concerned was informed of the seizure and the seized property was produced before the Authorized Officer with a request to confiscate the property. The four accused escaped but they were identified. The matter was also reported to the police. The Authorized Officer confiscated the property on 29/1/2021 following the procedure laid down in Forest Act. A revision petition was filed before the Sessions Judge, Kupwara. The judge held that the confiscation order was illegal and perverse. Aggrieved by the order of the Sessions Judge, the Range Officer approached the High Court of Jammu and Kashmir and Ladakh. The High Court disposed the matter in CRM(M) No. 384/2021 on 18/5/2022.

The Jammu and Kashmir High Court upheld the revisional court's order that had set aside the order of the Authorized Officer, while observing that both prosecution and accused parties need to be given opportunity to cross examine each other's witness.

Justice Sanjay Dhar observed that it is incumbent on the authorized officer to pass a well reasoned order:

"Simply narrating the facts of case and reproducing the evidence led by parties without giving any reasoning in support of the conclusion, does not meet the requirements of a reasoned order. The reasoning assigned in an order forms its heart and soul, without which the same becomes arbitrary in nature. A quasi-judicial authority like an Authorized Officer under the Forest Act is obliged to pass a well-reasoned order while directing confiscation of the seized property/vehicle. An order of confiscation deprives the owner of his property, as such, reasoning is a sine qua non of such a harsh order."

The petitioner had challenged order dated 12 October 2021 passed by Principal Sessions Judge, Kupwara, whereby learned Sessions Judge has allowed the revision petition filed against the order dated 29 January 2021 passed by the Authorized Officer (DFO, Kamraj Forest Division, Kupwara) and set aside the said order. The Authorized officer had confiscated the vehicle of the persons apprehended for carrying illicit timber of deodar sawn.

It seems that the accused persons including the respondent appeared before the Authorized Officer who recorded their statements. The Authorized Officer also recorded the statements of the prosecution witnesses. After consideration of the material on record, the Authorized Officer recorded a satisfaction that the seized vehicle has been used in commission of a forest offence and, accordingly, an order of confiscation of the seized articles/property was passed by the Authorized Officer on 29 January 2021.

The aforesaid order was challenged by way of a revision petition before the Court of Sessions Judge, Kupwara, who observed that the order is illegal and perverse and needs to be set aside.

Petitioner submitted that the impugned order has been passed by the Revisional Court in a hasty manner without proper application of mind. That the Revisional Court has misdirected itself by setting aside the order of confiscation on the ground that the police has filed a closure report in respect of the FIR which was lodged regarding the incident.

The Revisional Court has failed to appreciate that the proceedings before the Authorized Officer are independent and separate from the proceedings before the court of law.

Court after hearing the submissions made by the petitioner perusing the records and the provisions involved, observed that prior to passing of an order of confiscation, a duty has been cast upon the Authorized Officer to not only issue notice to the person from whom the property has been seized or the person who is interested in such property but also to afford such person an opportunity of making a representation against the proposed confiscation and to give him a right of hearing. Court said that in the case of confiscation proceedings relating to a vehicle, confiscation cannot be made if such person establishes before the Authorized Officer that the vehicle was used in commission of offence without his knowledge or connivance.

Another question before the court was that whether requirement of law is simply to record the statements of the witnesses or is it the requirement of law that parties should be afforded an opportunity to cross-examine each other's witnesses?

In the present case, after perusal of records it was clear that the Authorized Officer, none of the parties has been given an opportunity to cross-examine each other's witnesses:

"By not affording such an opportunity to the parties, the Authorized Officer has not adhered to the principles of natural justice which are intrinsic in the provisions contained in Section 52 of the Forest Act, as quoted herein above. In the case of seizure of vehicles, Section 52(5) of the Forest Act provides that the owner has a right to prove before the Authorized Officer that the vehicle was used without his knowledge or connivance. In case an affected person, against whom order of confiscation is proposed to be made, is not given a right to cross-examine the witnesses of the opposite party, the very spirit of the provisions contained in Section 52 of the Forest Act would get defeated and decimated." Court said.

Based on this ground, the court observed that the order of Authorized Officer becomes unsustainable in law.

Apart from the above, the Court also noted that the order of the Authorized Officer in the instant case is devoid of any reason and, as such, the same becomes unsustainable in law on this ground also.

Keeping in view the above, the court did not find any infirmity in the order passed by the revisional court. And passed an order upholding the revisional court's order while remanding the matter back to the authorized officer with the direction to the parties to appear before him.

"Accordingly, while upholding the order of the Revisional Court to the extent it has set aside the order of the Authorized Officer, the case is remanded back to the Authorized Officer with the direction to the parties to appear before the said Officer. The Authorized Officer shall, after issuing notice to the parties, afford them an opportunity to cross-examine each other's witnesses, whereafter he shall decide the matter afresh in accordance with law, by passing a reasoned order".

The High Court disposed the matter with the above directions. Before disposing the matter, the Hon'ble High Court followed extensive case law relevant to the matter.

Informers, an Important Entity

M. Ram Mohan



For effective functioning of any regulatory department, a well-placed informer/informant system is an essential element. Informers, who provide information to forest officials regarding forest offenses, play very important and crucial role in the forest department. Given the vast nature of area of jurisdiction, openness of forest and it's vulnerability to biotic interference, limited man power manning huge areas necessitate the need of the informers.

The informers provide very valuable information with regard to protection aspects of forests and wildlife. They immensely help in sharing information such as, tree felling, clearing of forests, smuggling of timber, sand or any other forest produce, poaching of wildlife, etc. Details of location, involvement of people, vehicles, if any, involved in the offence would be known from them. Precise time of offence and movement of offenders can also be known from informers. The informers also help in knowing the culpability even of the officers of the forest department, if any, in indulging in nefarious activities. The informers usually would be, mostly, people belonging to villages, towns adjoining the forests who are having a fair idea on villages, forests and on forest offenses. Some people within the forest staff, watchers, drivers, etc., can also be good informers.

All the informers do not fall in same category with respect to their nature and providing information. The motive behind providing the information would not be same for all the informers. Some informers share secret information because of their forest and wildlife friendly nature and some for maintaining cordial relations with officials for social status give information to officials. Some share secrets in return of money or some sort of favour and some, out of envy, political rivalry, enmity, vengeance against the people involved in forest

offenses. It surprises one that the informers turn out to be very close relatives and even consanguineous persons to the offenders in a few instances. In some cases, the informers would be offenders of rival group or ex-offenders who disclose more secretive information, minute details, the modus operandi, etc., of the culprits.

Informers would ever like to be secretive and do not want their identity be divulged because of the threat posed by the offenders. Some do not like to reveal even their identity while speaking over phone. They usually speak on condition of anonymity. One should also not insist upon them to reveal their identification. It should be paramount on part of the officer who received the information to maintain utmost secrecy with regard to the details of the informer risking themselves by sharing the information. The details of informers shall not be shared with any other person in any manner, including with the subordinate staff or higher ups, which may harm the informer in one way or the other.

It is also important that on receiving the information from informer, the officer concerned should examine the veracity of the information, practicability in execution, safety of the officials, etc., before proceeding further. Sometimes, the information provided turns out to be fake, trivial, mischievous or misguiding in nature. This kind of informers be put at arm's length. But, in most of the instances the information turns out to be true. The genuineness of the information can best be judged by checking of the facts physically on the ground. Over reliance on informers and getting carried away by the bogus information provided without proper cross check, verification would lead to straining of inter-personal relations which would not auger well for the system.

Compulsory and quick response of action, on part of the officer receiving the secret information, should be ensured. That would lead to gratification in the informer

which would help further in sharing such information in more cases in future. Of course, precious forests and wildlife will also be saved at the same time. If any information shared is unattended for some time, that would be escalated to next level of hierarchy by the informer and end up with adverse consequences, in certain cases.

It is to be ensured that the information flow regarding the happenings inside and outside of the forests, concerning the protection of forests and the wildlife, shall be maintained. Proper functional informer system shall be put in place and sustained by the forest officials beginning from Beat level, duly covering the entire area keeping in mind the vulnerable points, and continued

perpetually irrespective of change of personnel. Unlike during the days of pre-mobile phone era, it has become effortless to reach out to the informers, as most of them would be available over phone, at present. It is also to be ensured that the Secret Service Fund, which is used as an incentive, is reached the informers who genuinely help in protection of forests taking many a risk. Though the informers are not formally instituted, they became integral part of the system and a requisite for proper and effective functioning of the system in safeguarding the invaluable forests and wildlife. Their services need to be recognized and rewarded befittingly. System of intelligence must be improved by liberally granting rewards in deserving cases.

(The author is Forest Range Officer, Telangana and currently working as Asst. Director, Telangana State Forest Academy, Dulapally, Hyderabad and can be contacted over mobile: +919849333055 and email: rammohanm.16@gmail.com)

OBITUARY



G.K. Reddy

(12.11.1931 – 14.06.2022)

Sri Gurajala Gopala Krishna Reddy was suffering from age related ailments since about one year and yet he braved them all with courage and confidence. At last, he breathed his last at about 03.30 p.m on June 14, 2022 at his residence. He was 90.

G.K. Reddy was born to Sri Narsimha Reddy and Smt. Radhamma at Banda Lingapur in Karimnagar district. He made a humble beginning of his career. He graduated with B.Sc. degree from Osmania University and went for forestry training at Madras Forest College, Coimbatore.

He fared very well at the Forest College and secured second position in the final examination 1953 – '55 batch.

After successful training, he joined service in Hyderabad Forest Department and eventually allotted to AP cadre. He worked at many places as Range officers like, Working Plan, Warangal; and territorial Range Officer in many places in Karimnagar, Nizamabad, and Adilabad districts. He was promoted to the State Forest Service as Assistant Conservator of Forests in 1971 and worked in that capacity as Sub-DFO, Medak, Mahbubnagar, and ACF Law, DFO Kamareddy and DFO Anti – Smuggling Squad Sandal Wood. His service as ACF Law was marvelous as he maintained very good relations with Government Pleaders.

G.K Reddy was married to Smt. Vijaya Lakshmi and the couple had three daughters and a son Viz. Arundathi, Manjula Vani, Vekat Ramana and Vinaya Sri. His wife and second daughter met with a ghastly death in an accident. He was promoted to IFS in 1985 and retired in 1989. He was a disciplined officer and maintained discipline among the staff. He used to be very friendly with colleagues and obedient with superiors. He is survived by wife Rajani, son, two daughters and five grand children. His friends and relatives mourn his loss.

May his soul rest in peace.

- DNB



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