

VANA PREMI



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Oriental Garden Lizard
(*Calotes versicolor*)

Photo: T.S. Prasanna Kumar



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CONTENTS

1. Editorial: "Rising up from drought together"4
Mohd. Thayyab
2. Sri J.V. Sharma-A Crusader.....7
V. Sambasivam, IFS (Retd.)
3. No target for forest revenues –9
P. Mallikharjuna Rao, IFS (Retd.)
4. The Award11
Mohammad Ahsan, IFS (Retd.)
5. Reminiscences of a visit to Thailand.....14
Dr. B. Raghotham Rao Desai, IFS (R)
6. Through My Office Window15
S.K. DAS, IFS (Retd.)
7. Human Wildlife Conflicts16
B.M.T. Rajeev, IFS (Retd)
8. Introspection19
V.V. Hari Prasad, M.S(IS),
9. Synchronous Fireflies20
10. IPCC Report & Retarding Climate Gains.....21
B.K. Singh, IFS (Retd.)
11. Green Quiz- June 202224
Dr K. Tirupataiah, IFS (Retd.)
12. R.Godavari In Spate & The Worst Flood...25
Paresh Kumar Sharma, IFS (Retd.)
13. Botanisatation in a Sylvan Valley27
Dr. N. Chandra Mohan Reddy I.F.S. (Retd.) & Dr. N.V. Sivaram Prasad
14. The Return Gift33
M. Ramcharan Sharma
15. Convocation of 7th Batch FRO Trainees34
M. Ram Mohan
16. Mother - A God's Form36
Konda Mohan
17. Forest Settlement in Telugu States – A Study37
Dr. Akula Kishan, IFS(Retd.)
18. Changing Araku Valley as seen by an40
DC Khanduri, IFS (Retd.)
19. Climate Change and Food Security in India42
Dr Uma Shanker Singh, IFS(Retd.), DSC
20. You Hit with Lathi We Strike with Leaves44
Dr. K.Tirupataiah, IFS (Retd.)
21. Padma Shri Dr.G.V. Chalam45
Akshaya Kumar Nayak
22. Captive Breeding of Asiatic Wild Dogs.....47
Dr. G. Ramalingam, IFS.,
23. LEGAL NOTES56
K. Buchi Ram Reddy, IFS(Retd.)

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Editorial:**“RISING UP FROM DROUGHT TOGETHER”**

Every year we celebrate World Day to Combat Desertification and Drought on the 17th of June to spread awareness about the cooperation required to combat desertification and the effects of drought. This day aims to create awareness about sustainable development and the welfare of people. The UN General Assembly in December 1994 acknowledged this day to spread awareness about the cooperation required to combat desertification and drought. The UN General Assembly is also making efforts to bring attention to the association between consumption and land. This is the only Convention stemming from a direct recommendation of the Rio Conference (Agenda 21) adopted in Paris on the 17th of June 1994 and entered into force in December 1996. It is the only internationally legally binding framework set up to address the problem of desertification. The Convention is based on the principles of participation, partnership and decentralization—the backbone of good governance and sustainable development. It has 197 parties, making it near-universal in reach.

Land degradation results from human-induced actions that exploit land, causing its utility, biodiversity, soil fertility, and overall health to decline.

There is a need to educate the people about the difference between the natural deserts and the desertification process. As we know, desertification is when the healthy land becomes degraded by drought, deforestation, climate change or over-farming. Desertification happens when nutrients in the soil become so few that the soil itself is no longer fertile, becoming arid. Conversely, natural deserts are born through organic processes that take a long time. Desertification affects areas known as ‘drylands, most common in Africa and Asia. Drylands make up around 40% of the land on Earth and are home to approximately 2 billion people. It has affected an

estimated 10-20% of drylands. It can lead to famine, as people are unable to grow crops. And increase dust storms, which are dangerous and affect human lives.

The motto of the current international day is “Rising up from drought together”, and Ibrahim Thiaw, UNCCD Executive Secretary, said: “Droughts have been part of human and natural systems, but what we are experiencing now is much worse, largely due to human activity. Recent droughts point to a precarious future for the world. Food and water shortages and wildfires caused by the severe drought have all intensified in recent years.” It’s very alarming to note that between 1900 and 2019, droughts impacted 2.7 billion people in the world and caused 11.7 million deaths. Currently, forecasts estimate that by 2050 droughts may affect over three-quarters of the world’s population. Hence, it’s high time for all the world leaders to come to a common platform with a common agenda for combating this menacing global problem as the ecosystem does not follow man-made territorial boundaries. This is the impending problem of the human race.

As declared by the UN General Assembly in 1977, the annual Desertification and Drought Day has three objectives. First, to promote public awareness about desertification and drought. Second, to let people know that desertification and drought can be effectively tackled and that solutions are possible. The essential tools for this aim lay in strengthened community participation and cooperation at all levels. Lastly, to strengthen implementation of the United Nations Convention to Combat Desertification in Countries experiencing severe drought and/or desertification.

It’s also very interesting to note the previous annual themes of the World Day

2021 - Restoration, land, and recovery. We build back better with healthy land

- 2020 - Food. Feed. Fibre - the links between consumption and land.
- 2019 - Let's Grow the Future Together (Reflecting on 25 years of progress and envisaging the next 25) .
- 2018 - Land has true value. Invest in it.
- 2017 - Link between land degradation and migration (in light of Syrian mass emigration following the environmentally-caused failure of Syria's agricultural system)
- 2016 - Protect Earth. Restore Land. Engage People.
- 2015 - Attainment of food security for all through sustainable food systems - "No such thing as a free lunch. Invest in healthy soil."
- 2009 - Conserving land and energy = Securing our common future
- 2008 - Combating land degradation for sustainable agriculture
- 2007 - Desertification and Climate Change - One Global Challenge
- 2006 - The Beauty of Deserts – The Challenge of Desertification
- 2005 - Women and Desertification
- 2004 - Social Dimensions of Desertification: Migration and Poverty
- 2003 - International Year of Deserts and Desertification
- 2002 - Land Degradation

Yet, it is known that the current global agricultural practices result in soil erosion more rapidly than ever. The greediness and land hunger for the ever-increasing demand for habitations and food production is resulting in the degradation of the ecosystems worldwide, more so in the developing world. The governments require stringent agricultural measures on the land use patterns as land is being degraded rapidly worldwide. Ensuring food security for the ever-increasing population needs

healthy land resources and flourishing ecosystems. The natural process of replenishing the eroded soils is taking much longer due to the increased use of non-biodegradable materials. The coming generations will pay a heavy price for our fallacies.

Mr Ibrahim Thiaw, a Mauritanian public servant who has been serving as Executive Secretary of the United Nations Convention to Combat Desertification since 2019, had rightly said in his message, "Land restoration can contribute greatly to post-COVID19 economic recovery. Investing in land restoration creates jobs and generates economic benefits and could provide livelihoods when hundreds of millions of jobs are being lost".

To achieve the objectives required to combat desertification and the effects of drought, efforts from the local, regional, country, and global levels are to be planned and implemented on a war footing. Unless a holistic approach is designed and implemented, it will receive adverse public reaction and ultimately result in a fiasco. The governments shall address all the aspects of environment and health, economic prosperity, equity, conservation of nature, sustainable communities, civic engagement, population, international responsibility, and education.

Our life depends on the land, and we are bound to care about how we treat the land. We need the land as 99 per cent of the calories we need come from it. The healthy and resilient land acts as the first defence against disasters, which are becoming more frequent, long and damaging. To reach a sustainable future, we must use the present period to restore our land.

The problem of desertification is man-made, which means the solution must come from us. Sustainable land management is everyone's business. We can restore the productivity of over 2 billion hectares of destroyed land and better the lives of more than 1.3 billion people worldwide. Land degradation, climate change and biodiversity loss are connected and affect human wellbeing.

The Global Mechanism (GM) was established in 1994 under Article 21 of the UN Convention to facilitate the mobilization of financial resources to implement the Convention and address desertification, land degradation and drought. Global Mechanism (GM) spearheaded the establishment of the Land Degradation Neutrality Fund (LDN Fund) and undertook its initial design with support from the Governments of France, Luxembourg, Norway, and the Rockefeller Foundation and the involvement of an advisory group that brought together representatives from the public financial institutions, international NGOs, and academia. The LDN Fund is an impact investment fund blending resources from the public, private and philanthropic sectors to support achieving sustainable land management and land restoration projects implemented by the private sector. There is every need to increase the volume of funds many folds for implementing various identified programmes worldwide to achieve the objectivities.

At a high-level United Nations dialogue meeting last year, Our Prime Minister informed us that India was working towards restoring 2.6 crore hectares of degraded land by 2030. Further, India also supports fellow developing countries in developing land restoration strategies and tactics. With the help of these new measures, it is hoped that issues like the economy, food security, health, safety and quality of life will be improved considerably.

According to the UN, 1.8 billion people will experience absolute water scarcity by 2025, and 2/3 of the world will be living under water-stressed conditions. One hundred thirty-five million people in 2045 may be displaced due to desertification. To store up to 3 billion tons of carbon annually, restoration of the soils of degraded ecosystems is required.

As a communique from the UN states, 'We have already altered 70 per cent of all ice-free land, impacting over 3.2 billion people. At current rates, 90 per cent of the land will bear our imprint by 2050. The impacts of land degradation will be felt by most of the world's population. Land degradation also changes and disrupts rainfall patterns, exacerbates extreme weather like droughts or floods, and drives further climate change. It results in social and political instability, which drives poverty, conflict, and migration.'

The Agenda for Sustainable Development 2030 declares that "we are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations". Specifically, Goal 15 states our resolve to halt and reverse land degradation.

Why do we celebrate the International Days? We know these are the occasions to educate the public on issues of concern, mobilize political will and resources to address global problems, and celebrate and reinforce the achievements of humanity. The existence of international days predates the establishment of the United Nations, but the UN has embraced them as a powerful advocacy tool.

Hence the need of the hour is to educate the public, more so the politicians, policymakers (at all levels) who are at the helm of the affairs and running the country on the related issues of combating desertification and drought. Awareness programmes must be conducted at school, college and university levels, addressing problems caused due to drought and desertification and the methods to combat them. These programmes must be conducted not as a mere rhetorical event but result in specific time-bound actions.

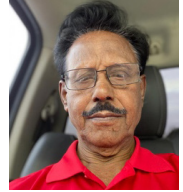
— Mohd. Thayyab

"I used to sell furniture for a living. The trouble was, it was my own."

- Les Dawson

Sri J.V. Sharma- A Crusader Against Forest Rights Act

V. Sambasivam, IFS (Retd.)



The parliament of India enacted the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forests Rights Act) 2006 and it was published in the Gazette of India dated 02.01.2007.

The main objective of the Act is to give legal rights to the Scheduled Tribes, whoever is in possession of forest land. The Act also mandates that no action be taken against the tribal encroacher if certain conditions are satisfied. This Act also included a section of the people as beneficiaries stated to be other Traditional Forest Dwellers. The cutoff date stated in the Bill is altered from 25-10-1980 to 13-12-2005. The extent of land under occupation originally conceived was 2.5 hectares, but it is increased without a rationale to 4 hectares per family.

I was in the USA when the parliament passed the Act. I came to know about this through Sri Buchiram Reddy. Sri Reddy also told me that Sri Sharma had filed a PIL in the Andhra Pradesh High Court, challenging the validity of the Act.

On my return from the USA, I was unanimously elected as the General Secretary of the newly formed Association, viz. "The Tamandu Association of Senior Professionals of Environment and Forestry" during 2007. As the General Secretary, I convened a meeting to discuss various subjects, and one of them was to file PIL against Forest Rights Act 2005. The executive committee discussed and decided not to file PIL against

Forest Rights Act because the Association did not have sufficient funds to fight the case in the High court and Supreme court. My boss Sri K.P.D. Rao CCF (Retd) called me after the meeting and said that I should take up the case not as a General Secretary but as a loyal and dedicated Forester. Immediately I swung into action to file a PIL in the Madras High Court.

I contacted Sri J.V. Sharma of Hyderabad and discussed his case filed in the High Court. He gave me the details of the entire history of how the Forest Rights Act was initially tabled as a Bill in the parliament and what all happened in the Joint Parliamentary Committee meeting. The original proposal was to give rights to scheduled tribes living in the Forest over 2.5 ha, and the cutoff date was fixed for 1980. The Short title of the Act, called The Scheduled Tribes Forest Rights Act initially, was drastically changed by The Joint Parliamentary committee as follows:

1. The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, though other forest dwellers are in no way connected to Scheduled tribes.
2. The cutoff date has been shifted from 25.10.1980 to 13.12.2005 to include occupations of forest lands dating forward to another quarter of a century.
3. the extent of land on the occupied land has been increased from 2.5 hectares to 4 hectares.

Sri Sharma is the epitome of dedication, loyalty, commitment and hard work. He is the fundamental pillar in fighting against the Forest Rights Act. His contribution to forestry is unparalleled in his dedication and service to forestry.

Sri Sharma came forward and handed over all documents prepared by him to file PIL in Andhra Pradesh High Court. I have taken up this case as a true forester on my own and filed the PIL in Madras High Court. To my good fortune, within three or four sittings, the Madras High Court passed a stay order not to implement the Act in Tamilnadu. Even though many states have filed the PIL in their respective states even before me, they could not get the Stay order. I got the STAY order only because of Sharma's voluminous record of information and his encouragement. The credit for getting a stay order goes to Sri Sharma only.

Sri Sharma was extremely happy when I conveyed the news about the stay order. I got the stay order and sent it to him. When his case came up for hearing, he produced the stay order issued by the Madras High Court and pleaded for a stay order. The Andhra Pradesh High court passed a stay order similar to the stay order of the Madras High Court with the same text verbatim. Sharma has communicated his Stay order to other states, and other states have also issued a stay order. After a few years, almost all High Courts have vacated the stay order except Tamilnadu.

When I was in the USA, my case came up for hearing in Madras High Court and my attorney needed vital information to argue the point. I immediately contacted Sri Sharma and requested him to go over to Chennai and clarify the doubts of my advocate. He has spontaneously agreed to fly from Hyderabad to Chennai at his own expense, requesting someone to pick him up from the airport and remain with him until his departure to Hyderabad. Despite his ill health, he has flown to Chennai and briefed my advocate apart from giving all salient points for arguing the case. When I contacted my advocate, he told me that Sri Sharma is a gem of a person and gave a volume of information about the case for arguing in the Madras High Court.

The Tamilnadu Government pleaded to vacate the stay order citing that the stay order of FRA was vacated

in all states except Tamilnadu. The High Court Judge passed an order to submit the list of beneficiaries to the court for further action. The Tamil Nādu Government has submitted a detailed list of beneficiaries of hill tribes for four Districts to the Madras High Court for approval.

The court directed the applicant (Myself) to inspect the areas and submit an affidavit. I have visited three districts along with concerned officials. I have verified all the documents, applications, and surveyed sketches. Applications have not been filled in all columns. There were no surveyed sketches. Applications were not placed before the district committee. I submitted a detailed report listing the irregularities to the Madras High Court. The Court has ordered the Government to produce all records for perusal. The Government could not make the documents and kept quiet for a few years. Meanwhile, Supreme Court has ordered all FRA cases to be transferred to the Supreme court. Tamilnadu government approached the Supreme court and pleaded that stay orders be vacated in all states except Tamilnadu. The Supreme Court vacated Tamilnadu stay order in 2015 Only

Sri Sharma has drafted a lengthy draft explaining adverse facts and controversial information about existing Acts. Sri Sharma has published more than 100 articles in Vana Premi of Hyderabad and VanaVikas of Bengaluru. His writing is informative, exhaustive, and educative. He has earned high appreciation from eminent persons of forestry.

Sri Sharma IFS presented an article On Forest Rights Act 2006 at the National Workshop of IFS officers at Hyderabad in 2015. He has narrated details of forests lost due to the implementation of the Forest Right Act. We have lost 78.58 lakh acres of forests in 16 states. We have lost 4.23% of forests in these States.

I wish him to be healthy and live long and contribute for years to come to the cause of forestry & environment.

-Contributed by K. Sudhakar Reddy, DFO (Retd.)

No target for forest revenues – Path for good forest management

P. Mallikharjuna Rao, IFS (Retd.)



A few years ago, I happened to witness (I was working outside the Forest department) that a senior officer of Forest Service was feeling guilty for not able to achieve the revenue target in a review meeting (Forest Department is included in the list of revenue earning departments) held by Hon'ble CM. Though the officer was sincere, committed and proficient in forest and wildlife management, he had to cut a sorry figure for not fulfilling the revenue target which was uncertain and many times not in the hands of the Department. This is not a strange phenomenon in several other states where Forest Departments struggle to achieve the revenue targets and make a tight rope walk between conservation and commerce. During informal discussions, the seniors and colleagues of Forest service used to express wide variety of comments on this subject. Some argue that with such a huge area, the forests should be more productive and generate sizeable incomes to the state. They also blame the legal hurdles of restrictions/ban imposed on harvest and logging of timber from forest. Recently, one colleague commented that the payments of Compensatory Afforestation Fund (CAF) and Net Present Value (NPV) received annually for diversion of forest lands under Forest Conservation Act far exceed the forest revenues earned in many states. One senior officer remarked that the Mining Department contributes much more revenue from the payments of royalties on the minerals extracted from Reserve forests (after diversion also the status of land remains the same). Another dominant view is that, as the forestry is aimed at conservation, restoration and sustainable management of whole ecosystem for environmental stability and multiplicity of other benefits, the emphasis on revenue earning is not justifiable. It is necessary to moderate all these views and to bring a conceptual clarity on this subject so that

the Forest Service at the helm can take measures to secure rightful place and appropriate policy support to the forestry sector vis a vis other sectors. An attempt is made here to discuss and try to bring clarity on this subject within the frame work of my understanding.

Revenue from the forest – only incidental:

While presenting annual Budget estimates, the State Governments show revenue receipts from different sources viz., Tax revenue, Non tax revenue, Grants-in-aid, public debt and loans and advances. In the past, incomes from the forest used to be substantial in comparison to other sources of revenues to the Government because of the thrust on production forestry and abundance of timber resources. However, for about last 3 decades, the share of the forest revenues are getting diminished gradually. Three main reasons can be quoted for this downslide. First, with galloping population growth and overexploitation of the resources, the forests cannot produce the same quantities of timber now. Second, the base of revenue sources has widened with emergence of new economic opportunities and enormous expansion of various economic activities resulting into incomes from forest insignificant. Third, the emphasis of forest management is now shifted from economic output to environmental services and socio economic benefits to local communities. In the recently presented budget of 2022-23, the Government of Andhra Pradesh have projected the estimate of revenue receipts combining both Tax and non-tax revenues as about 1.51 lakh crores. Of this amount, the revenue estimate from the forest is shown as Rs133 crores i.e., 0.088 % which is insignificant. Similar kind of situation prevails in almost all the states. Keeping in view of this miniscule size of revenues from the forest, it will be useful to treat the

forest revenue as incidental and not as an essential one.

The role of forests – priority to livelihood services:

In our country many sectors work both in government and private management. If we take the example of two important sectors viz., health care and education, they are functioning both under private and Government purviews. The hospitals and educational institutions in private management are run on commercial lines with handsome profits. Whereas these institutions under Government function only for extending the services and facilities to the needy and poor without any profit motive. Even though there is potential to earn revenues from these institutions, the Government do not treat them as revenue earning sectors in order to not to deviate from the main goal of providing universal health care and education. The same analogy needs to be drawn to the forest sector. The forests managed by the Government should not aim at earning revenues to the state so as to not to distract the focus of meeting the livelihood and subsistence needs of the poor and forest dependent communities besides providing various environmental and cultural benefits to the society. On the other hand, the agro forestry and private forestry can generate incomes to the farmers/owners.

Focus on revenue – detrimental to forestry:

The forests are now recognised to provide wide range of ecosystem services such as provisioning (food, fodder, medicine, fuel, fibre etc.), regulating (climate, water, disease regulation, pollution control, pollination), supporting (habitat for living organisms, soil formation, soil conservation and nutrient cycling) and cultural (heritage, sacred, aesthetic, tourism etc.) services to the society. Forest Service has to put the best efforts to manage these forests on scientific lines in order to achieve optimisation and sustainability of these services whose real values are not captured with resultant underestimation in calculation of Gross Domestic Products (GDP) of the states and the country. Under these circumstances if revenue earning becomes mandate of the forestry, it would deflect

the focus and disturb the balance in holistic forest management. As conservation and sustainable forest management is found to have significant influence on various sectors such as agriculture, animal husbandry, water resources, tribal welfare etc., any shift of thrust to revenue generation will have detrimental effect on all these sectors. As revenue earning does not reflect the true - performance of the forest management, the forestry loses its importance vis-à-vis other sectors with this kind of target allocation. By keeping revenue targets, the department at field level gets diverted from the core functions of forest conservation and protection with resultant disruption to smooth forest management. Collection of more compound fee and realisation of higher amount of sale proceeds of the confiscated forest produce is actually an indicator of serious problem of forest protection and failure in forest management, but the same gets masked and shown as good performance when revenue earning becomes the motto.

Forest and revenues to the state – What does forest policy say?

National Forest Policy, 1988 has declared unequivocally that the forest should not be seen as source of revenue. The preamble of policy states that the tendency to look upon forests as revenue earning resources along with other factors is responsible for serious forest depletion. It is time for the Forest Service at the helm to undertake concrete measures to internalise this concept into forest management and to initiate steps to bring out the new policies at state level to declare that the forestry as non-revenue earning sector in consonance with the national forest policy.

Avert revenue targets to forestry-way forward:

Treating forests as revenue generation asset is not well founded as it causes deviation from the main goal of forestry and creates conflict with other objectives of forest management as explained in the foregoing paras. The pronouncement from national forest policy, insignificant share of forest revenues, need for thrust

Contd.. on page No.18

The Award

Mohammad Ahsan, IFS (Retd.)



I and 'Awards' never crossed each other's path until about four years ago, the time this story gets its genesis. All my life we both moved our own chartered paths. Awards went their own way, never straying into my life even erroneously. I too did not care or ever tried to charm them with any of my deeds. They too remained indifferent to my body and soul. We both were contended in our own worlds.

My guess is award-winning persons are made of different stuff. They exude some kind of smell, and awards get automatically drawn to them. I never believed for a second that that stuff was in me at any point of time in my life, even in small quantities, say like in ounces. I guess award winning persons work very hard including good deeds and lobbying for getting their first award. Once they get their first award of life, it becomes a habit for them. They keep getting it. An old saying says 'money begets more money'. I think this is even more aptly applied to awards, and the saying may go like 'awards beget more awards'.

The first award in a life of a person becomes a steppingstone for getting the second award. The second award, joined with first award, makes a solid resume for getting the third award. Thereafter there is no looking back in the life of a person if his deeds are backed by solid lobbying. The person keeps getting awards at the fall of every hat.

Many people think that awards are a kind of rewards given to a person by the award giving organizations for the material or emotional services rendered by the award-winning person to the organization. In other words, this is a give-and- take relationship. This kind of understanding about the awards is totally false, as would be evident to my reader from my story.

My story dates back to sometimes in May 2012. I had just retired from government job and was trying to shift from an official residence to my personal house. Life was in a mess. Everything had gone topsy- turvy. I did not know where what was. Under such excruciating circumstances, one day I had a call from Salahuddin who was speaking from Barabanki, a town only 28 km from Lucknow, the place from where I had done my High School and Intermediate, a place where father had made a house in the middle of 1960s, a place from where I commuted for my graduation and post-graduation from Lucknow University, a place where I idled away my time until I got settled into Indian Forest Service. A brilliant hockey player in his times, Salahuddin was my contemporary in the University, had served Railways, and now was a respected retired citizen in Barabanki, and deeply involved in the social life of this small town.

The call from Salahuddin was very disturbing as would be revealed to my readers from the following transcript of the call. After a few formal sentences, the transcript runs as follows.

'Ahsan bhai, we have decided to confer upon you 'Fakhr e Barabanki' Award this year'.

Let me explain to readers 'Fakhr-e-Barabanki' in Urdu means the 'Pride of Barabanki'.

'What, who we?'

'The Society for Peace and Harmony. This is a Society that runs lot many charitable activities in the town.'

'But I haven't done anything to deserve to be pride of Barabanki.'

'You have no idea, you fully deserve this Award.'

'Pray, explain'

'You put in about 35 years of government service. We never heard you were ever suspended from the Service, or your house was raided by CBI, or you faced charges of graft, corruption or sexual harassment.'

'This is no big deal, lot many government servants lead that kind of life.'

'But you retired from the highest post of forest department.'

'But I was on the top post for a very short period.'

'But you were there on the top post, the duration doesn't matter, tell me how many of your contemporaries have reached to any top post?'

'I reached there by virtue of my seniority, no big deal.'

'True, but you were honest; you did not make money like others do.'

'That is easily explained. To make money needs guts, and I had no guts.'

'This is equally creditable; you did not try to create such guts.'

'But I hardly did anything for the people of Barabanki, I don't even properly

know the rural part of the district.' I changed the gear of conversation thinking earlier line of argument was leading us nowhere.

'But how does it matter? You are not supposed to know the whole district, you have your roots in Barabanki, and that is enough.'

'But I was always trying to run away from these roots, and doing that as fast as I could, left the town way back in 1977 or so, still you think I deserve Fakhr-e-Barabanki?'

'Of course, you do. If you had not run away, we would not have been giving you Award. You will get a call from Rajiv Chaudhary too; he will talk more about it.'

The readers, after going through this transcript may

very well imagine I was not left with many escape routes.

Rajiv Chaudhary, senior to me in College, a law graduate but non- practicing lawyer, was a public figure in the small town of Barabanki, and had served as Chairman of Barabanki Municipal Corporation for a term or two. I had a call from him few days after the former conversation with Salahuddin. The transcript of this conversation is almost the same as previous conversation, so for the benefit of readers I am not repeating it. However, this conversation ended on the following note

'Just come to Barabanki at 6 PM on 2nd June, we are having this function in Municipal Hall, and do send me your resume.'

I refrained myself from asking, 'And how will I come there, are you guys arranging some transport for me?'

I sent him my resume by email which faltered to reach him few times. Rajiv did not seem to be very computer savvy. Finally, I sent him my resume by speed post which he acknowledged but lambasted me at having sent it in English, instead of Hindi.

On 2nd of June, as the evening approached, a kind of nervousness took me over, and for very valid reason. Life was passing through a transitional phase right after retirement. I was not sure my 20-year-old Maruti 800 car would be able to take me on highway. I had yet to buy a new car using my pension benefits. I requested my friend Manikant who was still in the job of forest department to provide me help of a driver and vehicle.

His official car, as he might not have been in a position to maintain it ideally, shuddered whenever driver exceeded the limit of 60 km/ hour. Its AC stopped working midway making me to brave the oppressive heat of June. However, finally when I reached Barabanki Municipal Hall exactly at 6PM to receive my first Award of life, the Hall posed a deserted look. Of course, there were few men working on the stage, and few chairs were being arranged in the hall. I looked for

Rajiv Chaudhary who was amiss. A few frantic calls to him made him appear from somewhere. He apologized for the delay in start of function and took me to a room which was cool and asked me to wait. It took about two hours to set the stage and Hall ready for the function. In the meanwhile, few more would-be- recipients of the Award were brought to the same room to wait.

Finally the function began. I, along with other candidates for the Award, was asked to sit in the front row. The other awardees belonged to different professions: one was a former government counsel, another very old medical practitioner of the town, another businessman, yet another a progressive farmer, and so on. I hardly knew any one of them. Neither did I know the audience. I felt like marooned on a deserted island. Stage was graced by a young plump Minister of State who moved with about half a dozen security personnel; a local MP, some local senior gentry who, I think, were the pillars social life of Barabanki. The minister and the MP belonged to rival political parties. Organizers, acting like jugglers, had a tough job of balancing the two. However, for about next two hours, the gentry sitting on the stage and the organizers kept expressing their gratitude to each other with feigned humility and long speeches. Bouquets and encomiums showered like rain from the sky.

I felt like a captive animal in a zoo, freshly brought to it, the animal not knowing his bearings, nervous and looking for a route to escape. But it was too late. Escape was not possible. Rajiv, guessing my predicament, signaled to me that main function was going to start soon, and I must not even think of escaping.

Finally, the hour of agony reached. Our names were called. Our citation was to be read by organizers, and the Award to be received at the hands of one of the dignitaries sitting on the stage. I was called at number 3 or maybe 4, now not remembering so well. I was

shocked to listen to the citation read about me. It did not sound like related to me. It was full of ridiculous mistakes, probably the result of horrors of translation from one language to another. I was to receive my Fakh e Barabanki Award at the hands of local MP. I was called to come to dais. While being escorted to the dais I felt like being taken to gaol before execution. The organizers spared me the trouble of speaking 'few words' which is generally the vogue on such occasions. I felt relieved at this exception.

It was 10.45 PM by the time Fakh-e-Barabanki was in my hand, a small statue in bronze or some other metal, tried to be done in some obscure artistic style, and fixed on a wooden platform. On this wooden platform were inscribed, rather printed my name and former rank on a glossy paper pasted neatly on it, wherein one word was missing that made all the difference in the rank. I had no option but not to mind it.

I was feeling hungry and tired. I thanked Rajiv and asked him to allow me to go. I wished to reach my Lucknow home before midnight. He insisted upon me to have dinner, which was an open buffet, being devoured by a hungry crowd of audience like a riot. I had a tough struggle to reach the food. Finally, I was able to bite a few morsels and excused myself.

By the time I reached my home in Lucknow, it was already past midnight. Rani, my wife, said, 'do you know what the time is, I was pretty worried about you.'

I handed over to her my 'Fakh-e-Barabanki' Award.

She laughed loudly and said humorously, 'Keep it safely. This is your first and probably the last Award.'

Now four years after, my name and the wrongly written rank have gradually faded away, and it is hard to guess what this statue stood for. In any case I never flaunted it to anyone ever.

(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).



Nostalgia:

Reminiscences of a Visit to Thailand

Dr B. Raghotham Rao Desai, IFS (R)

Preamble:

I paid a visit to Thailand (historically known as Siam) in the middle of 2004 (by entering it through 'Visa on Arrival' procedure) as my daughter (Shararthnandini) was posted at Bangkok, the nation's capital, and as there was an invitation from Kasetsart University (located at its suburb called Chatuchaks), whose Forestry Professor (who was trained at FRI, Dehradun) was known to Sri N S Adkoli, IFS-R (then Chairman, Bamboo Society of India).

Thailand happens to be one country in Southeast Asia never to have been colonized and so the name Bangkok is not a relic of any Empire – yet, according to recent decision, it is learnt, the capital is proposed to be known everywhere as 'Krung Thep Maha Nakhon (Bangkok)'. In fact the formal name of the capital of Thailand runs 168 letters ---- so long that it has entered the Guinness Book of World Records----'Krung Thep Maha Nakhon Anon Rattanakosin Mahinthara Ayuthaya Mahadilok Phop Noppharat Ratcharhani Burirom Udomratchaniwet Mahasathan Amon Piman Awatan Sakkathattiya Witsanukan Prasit' (the full moniker meaning: 'City of Angels, Grand city of Immortals, Magnificent city of Nine Jewels, and so on & so on'), drawn from the holy Pali & Sanskrit languages used in Bhuddist and Hindu Texts----but none of those 168 'Thai letters' spell-out 'Bangkok'! By using the parenthesis, the punctuation-mark emphasizes the importance of the name, the Royal Society's Ruling being subtle. The capital is, however, universally known to Thai speakers as 'Krung Thep' (or by the initials 'Kor Tor Mor', it being the government's push to use the modified name as international nomenclature, (following certain countries such as Turkey's campaign to change to 'Turkiye' and a push to refer to the capital of Ukraine as 'kyiv' rather than the Russian kiev!!

Fact file:

The first king of Chakri Dynasty (Rama I) moved the capital (in 1782) to the present site (to the East bank of Chao Phraya river), where gilded/jewelled palaces exist----full name of 'Krung Thep Maha Nakhon' includes a paean (or a song of praise) to an 'enormous royal palace resembling the heavenly abode in which the reincarnated god reigns', the king being semi-divine in Thai tradition! And hence royal defamation called lose-majested attracts more than four decades in prison (or even face collectively hundreds of years in prison, if any senior member of royal family is criticized).

At the time of my visit, Bhumibol Adulyadej Phumiphon Adulyadet or Rama IX (1927–2016), who came to the throne in 1950, was reigning. The king's lavish lifestyle, however contrasted with the austerity forced upon many of his subjects. Though absolute monarchy was abolished way back in 1932, still the royal family retained an enormous presence in Thai life----giant posters of the king & queen towered over public places, as a proof to their cult-position. I could visit some places in the interior too like Kanchanaburi (where Erawan National Park Exists) and the historic bridge on the river Kwai (or Kwae Yai at the border with Myanmar or Burma and a Forest Sanctuary, as also tourist centre Pattaya (on the Gulf of Siam), in addition to a visit to the Regional Office of FAO (for SE Asia & Oceania region), after paying a visit earlier to the Kasetsart University and Wat Pho (having Reclining Buddha) & Wat Timit (having golden Buddha) temples.

Conclusion:

After a coup in 1932, Thailand changed to a Constitutional Monarchy. The said coup was followed by a 'Manhattan Rebellion' in 1951, and a couple of

Contd.. on page No.18

Through My Office Window

S.K. DAS, IFS (Retd.)



*I've my office
On the top floor of three storied building
The eastern side is covered with glass,
I see part of the city through the glass,
Rows of houses flanking the main street
Hoardings covering the frontage of many of the
houses.*

*As I look down
The trees on either side of the road look too puny.
Different types of cars are passing by all along the
road
Occasionally there are visitors on the windows sill-
The pigeons stare at me with their red eyes,
Walk leisurely and disappear.
The sky above has just flown over the houses and
shops,
And found its final destination
In some far-off green fields.
Clouds sail by
On the blue ocean of sky
I keep on conversing with different people
I get drowned in different types of files-
Fat or thin-easy or complicated*

*I get tired after some time.
I leave my seat and stand beside the window
I witness various scenes down below
My heart is filled with compassion
As I watch the terrible traffic,
Rain drenched humanity waiting for buses
The great downpour of afternoon rain.
Sometime on a spring evening
I have noticed the well-dressed beauty
Waiting for her lover under the large Gulmohar tree
laden with flowers,
Just below my window
Her face lights up at the approach of her lover,
The light touches me too,
But at the same time,
My aging self experiences a pang of sadness*

*Sometimes I see a few garden kites flying towards
my office
Their wings drenched in golden sun rays
As I keep on passing through these experiences
Once again I come and sit on my chair
I start clearing files again
Fat and slim, simple and complicated.*

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

*"Never follow anyone else's path. Unless you're in the woods and you're
lost and you see a path. Then by all means follow that path."*

- Ellen DeGeneres



Human Wildlife Conflicts

B.M.T. Rajeev, IFS (Retd)

Human Wildlife Conflicts (WACs) are frictions between the humans and wildlife. The frictions are many and are universal and are common since time immemorial i.e., from the day the humans started hunting wild animals (WA) for food; till then he was a coexisting animal along with wild animals.

From the day human started hunting or killing wild animals, they started fearing at the sight of human and started running away to escape from his treacherous acts believed to be killing. But some infirm, some bold and strong animals resisted to run away after seeing man & retaliated against him for safety. In turn human too practiced escaping from the WAs attack for safety and sometime got injuries or killed.

The above are the primary HWCs existed since time immemorial. But the present HWCs are many & are more complicated with passage of time after the inception of the Indian Wildlife Protection Act, 1972 & wildlife conservation measures by declaring wildlife habitats as Protected Areas (PAs)-National Park, Wildlife Sanctuary, Conservation Reserve and Community Reserves in India.

In the past 50yrs, the wildlife conservation & management practices have achieved success in terms of consolidation/conservation of PAs, control of poaching of animals and gradual rise in the population of wild animals and tourism etc. But the forests outside the PAs started to deplete, degrade, disintegrate & fragmented due to ever mounting human & his cattle pressures and release of forest lands for developmental projects & for encroachers.

The wildlife or wild animals (WAs) estimated to be 75% in the forests outside the PAs were disturbed and

started moving to safer habitats and concentrating in PAs.

Of late, the PAs/forests too started losing their carrying capacities (CCs) due to successions in vegetation causing graying of the tree growth, absence of regeneration of tree species, invasion of forest floors by exotic weeds-Lantana, Eupatorium & Parthenium in thickets and denudation of forest floors by killing grasses underneath them inviting forest fires especially in deciduous forests and thus the PAs fell in providing sufficient food, shelter & space for the spread of gene pool of different species of WAs as per their biological requirements in their habitats contrary to the PAs progress in WAs population/tourism . This imbalance in CCs of the habitats and the rise in WAs population caused friction in animals and lead WAs to go out of PAs/forests to meet their bonafide requirements for survival and spread of gene pool; and thus, entered into human habitations in search of food/water and space and came in contact with human causing conflicts.

The conflicts are in the form of crop raiding when elephants, bison, ungulates, antelopes, wild boars, and monkeys enter the crop lands for foraging food and cause loss of crops. In the meanwhile, elephants damage the crops & property wherever they move and may even cause human deaths if someone comes across them...

Whereas the big cats like tiger, leopard & sloth bears go out of PAs for the similar reasons and cause cattle kills, human deaths & terrorize the human habitations by entering houses & cattle sheds.

The affected people around the PAs agitated whenever

crop damages & human deaths take place. The forest department/Wildlife authorities take all possible relief and rehabilitation measures to resolve HWCs in consultation with the affected people as per the government policies as follows...

1. Quick & humanitarian measures in case of human deaths with ex-gratia payment.
2. Quick compensation for the animals killed.
3. Quick n early compensation for the crops damaged.
4. Preventive measures like
 - a. *Elephants/tiger/leopard/sloth bears scaring parties on receipt information on their depredation.*
 - b. *Translocation of rogue animals*
 - c. *Elimination of declared rogue animals*
5. Permanent solutions against HWCs like
 - a. *Erection of barriers between human habitations & PAs or Forests wherever the HWCs problem exists like crop raiding with creation of elephant proof trench, stone walls, electric pulsating fences, old rail fence etc*
 - b. *Honeybee fence*
 - c. *Persuading farmers to grow crops that do not attract wild animals like chilly, Sunflower, cotton & tobacco close to the PAs and not to grow crow crops like-sugarcane, banana, jawar, paddy close to PAs*
 - d. *Educating farmers on the behaviours of the WAs to co-operate with the PAs to resolve HWCs & practice to avoid going out for nature calls in wildlife affected belts & to use toilets.*
 - e. *Eco-development provisions to enhance the income generating capabilities of the affected people ecotourism, improved dairying/ farming etc.*
6. **Improvement of carrying capacities of habitats**
 - a. *Actions to improve the CCs of the PAs & forests to resolve the shortage of habitat's facilities to WAs by eradication of exotic weeds & control of fires & improvement of the fodder & water facilities.*
 - b. *Creation of corridors to link all forests with PAs*
7. **Suggestions....**
 - a. *The PAs has to change their management strategies to maintain the WAs population on par with their carrying capacity & the surrounding forests as in developed countries.*
 - b. *WAs population cannot be allowed to grow in leap & bounds when their traditional habitats outside the PAs are shrinking and getting denuded in India.*
 - c. *Measures to check the population of prolific breeding herbivores and wild boars in regions where there are no predators to check their population.*
8. **A Unique Situation in COORG of Karnataka.**
 - a. *Coorg or Kodagu district is a unique ecosystem in the middle of the Western Ghats with four PAs- Nagarahole TR in part, Pushpagir WLS, Brahmagir WLS and Talakaveri WLS in it. Its landed area cannot be distinguished between the forests and human habitations due to its unique nature in possession of forests & greenery everywhere with coffee estates.*
 - b. *The HWCs in it are different in nature with more of elephants and tigers depredations in to human habitations/coffee estates causing crops loss/property damages and human kills.*
 - c. *Madikeri requires more effective barriers between the PAs & the affected human*

habitations and a wildlife mobile squad to be ready to attend all complaints of HWCs with relief measures.

- d. To avoid elephants frequent visits/depredation...the illicit arrack distilling in coffee estates in practice by labour force has to be checked since elephants have liquor

savvy mindset to go in search of wash and cause havoc.

- e. The people must shun the habit of crowding whenever elephants & tiger surface in coffee estates- this habit creates complication in getting out of the situation of HWC.

(The writer is former Wildlife Warden, Bandipur TR and a freelance writer on Wildlife, Forestry & Environment. He can be contacted over mobile: +919632781811 and email: bmt.rajeev.ifs@gmail.com)

Continuation from page No.10

on various ecosystem services, detrimental effects on forest and other factors justify delinking the forestry from the function of generating incomes to the State Governments. Forests being the providers of multiple services and goods which have significant influence on various other sectors deserve a proper and overriding place in the Governance and Public administration. It is therefore necessary to avert fixing the targets of

revenue generation which is incoherent and conflicting to the main goal of forestry. I think time has come now for the top brass of Forest Service in various states to influence their policies appropriately so that Forest Management does not get stuck up with inconsistent objectives and become more focussed to contribute to the flow wide range of ecosystem services in a sustainable manner.

(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)

"Before you criticize someone, you should walk a mile in their shoes. That way when you criticize them, you are a mile away from them and you have their shoes."

- Jack Handey

Continuation from page No.14

years after my visit, the army did a coup d'etat and took control from Thaksin Shinawatra's government. Eight years later a new military coup d'etat removed yet another government, two years after which Rama X was anointed as the new king whose reign continues to date.

That apart, the character of the capital---whether the name is Krung Thep Maha Nakhon or Bangkok---is

continuously changing drastically, with passage of each decade. City planners are filling in the canals that used to be city's transportation arteries---rice paddies giving way to malls & condominiums (or complexes containing a number of individually owned flats/houses). It was so pleasing, however, to hear Thai Xylophone still played at the back alley behind a Buddhist temple---though the lane's residents were found to be mostly migrants from upcountry.

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



Introspection

V.V. Hariprasad, M.S(IS), M.A, M.Phil,
LL.M, PGDEM, PGDCL & IPR, PGCJ & FS



*Is it not audible?
The mother earth is crying out loud
For the human beings
Bereft of sense of duty*

*You inhale oxygen, a life saver
But enjoy while emitting greenhouse gases
You drink water to quench your thirst
But pave the way in a brazen manner for its
pollution*

*You relax under the shade of a tree
whereas you do not even feel the pinch of
cutting
umpteen number of those trees
under the pretext of so called development*

*You dare even to obliterate the forests
unhindered
Whereas those forests cause to rain cats
and dogs
Which rainfall helps you grow food crops
To fill your empty stomach to survive*

*Homo sapiens, think a while!
After the "Big bang"
The planet earth formed billions of years ago
whereas human ancestors*

*Appeared only millions of years ago much
later*

*Which asserts the fact that
mother earth and nature existed
well ahead of the evolving of the human
beings*

*The evolution of civilization made you
An epitome of destruction of nature on earth
Resulting in the extinction of species
Relating to flora and fauna*

*Mother earth is worrying a lot
That you are digging your own grave
undeterred
And is looking forward with a request
That you had better introspect
And take up the measures invincible
At least during the decades to come, for
undoing the damage caused to the nature
Because of your sheer arrogance and apathy
That resulted in climate change
Consequent on unleashing of global warming
That is bound to result
In the annihilation of the whole human race
itself
Alas, over a period of time in the bleak future
If left unchecked and uncontrolled.*

(The writer is a retired Deputy conservator of forests, an Advocate in High court of Telangana and a former consultant, A.P. Medicinal plants Board, Biodiversity Board, Govt. of A.P and IFB, Govt. of India. Presently he is working as guest faculty in the Central university, Hyderabad)

Synchronous Fireflies

A rare Phenomenon in Anamalai Tiger Reserve

A new species of synchronous fireflies has been identified in the Anamalai Tiger Reserve, where several lakhs of fireflies have turned a large portion of the protected forest into an Avatar movie-like bioluminescent world.

The bioluminescent world of Pandora in the movie Avatar may be fictional, but the phenomenon has become a reality in the Anamalai Tiger Reserve (ATR). In summer, several lakhs of fireflies turn the pristine forest reserve into a blanket of lush green.

In April 2022, under the direction of Field Director Ramasubramanian, Deputy Director MG Ganesan, along with Sriram Murali, a software engineer who is also an expert in light pollution and fireflies, walked deep into the protected forest to observe the synchronized flashing of a large congregation of fireflies. What they witnessed was mind-boggling and contended to be an eight-world wonder.

Several lakhs of fireflies were seen coordinating their flashes across the forest. The illumination was found emerging in one tree, and the relay was carried across the forest, and the cycle continued all night - some trees pulsed in flashes that showed the trees' structure in pitch black. Each tree seemed to have a different flashing pattern, and the entire forest was glowing in yellowish-green.

The rare sighting has been spotted in about 8,000 hectares of the ATR protected forest land of the Pollachi range. Similar sightings at the nearby Parambikulam and Nelliampathi forest ranges in Kerala. Now the officials are planning on working towards understanding the ecology and life cycle of these fireflies, their relationship with other animals and their selection of trees. Samples of these fireflies are being collected for detailed research and DNA sequencing to identify the species properly. There are only 7 to 8 species of fireflies recorded in India. It is hoped that this species might be a new one owing to the synchronous illumination with different patterns

Through communication with firefly scientists, including Sara Lewis from the USA, it was known that the synchronous behaviour was noted in ATR in 1999 by a visiting researcher, but no research paper was published. A team of researchers from the Institute of Forest Genetics and Tree Breeding, Coimbatore, also noted this phenomenon in 2012. This phenomenon is believed to be a result of decades of conservation work by several passionate officials who have toiled to protect the Anamalai Tiger Reserve. As the firefly populations are on the decline worldwide, this extremely rare celestial wonder needs to be protected for our future generations. **[Photos on page:30]**

(Source: The Hindu & TNIE)

NOTICE

The 96th GENERAL BODY MEETING of the Association of Retired Forest Officers of Telangana and Andhra Pradesh will be held on 26th June 2022 (Sunday) at 11.00 AM in Aranya Bhavan, Hyderabad.

All the members of the Association are requested to make it convenient to attend the meeting with their spouses.

- Secretary

IPCC Report & Retarding Climate Gains Against Current Geopolitical Situation

B.K. Singh, IFS (Retd.)



Ukraine war has led to series of sanctions on Russia, disrupting the energy supply and increasing the cost of crude. Half of the energy need of Germany, Austria and other European countries is met from Russia. These countries are under pressure from US and NATO allies to reduce/ cut their dependency on Russian oil and gas to put up solidarity with Ukraine. Nord Stream is a set of offshore natural gas pipelines in Europe running under Baltic Sea from Russia to Germany. Gas supply through the pipelines will have lower carbon foot print as compared to the supply through ships. Even the shipping cost for oil and gas would be lower if it is from Russia, which would make crude import from Saudi Arabia and other gulf countries prohibitive.

Sometime back in its latest report, United Nations Intergovernmental panel on climate change (IPCC) has warned of disastrous consequences and has said that Carbon emissions must peak by 2025, to prevent any climate disaster. An average annual global green house emission during the decade (2010-2019) has been reported to be highest in any decade in human history. The report added that if the world has to be saved from frequent and destructive climatic catastrophes, the warming must be restricted to 1.5° Celsius and prerequisite for this is to phase out fossil fuel and reduce emissions across all sectors.

Though leading emitters of GHG like US, China, European countries and even India have committed to peak their emissions between 2030 and 2035, and finally achieve net zero by 2050, 2060 and 2070 according to the pledges of different countries, the latest IPCC report says that the peak emission should come by 2025 or even earlier and should be cut by 43% by 2030. And if it is not adhered, the report warns that there will be 3° Celsius warming of the planet by 2100, which would mean that the regions would face longer

heat waves, forest fire, and Sea level rise, melting of glaciers, droughts and cyclones.

This report of Inter Governmental Panel on climate change (IPCC), fifth since 2013 says that the human induced climate change is causing “dangerous and widespread disruption in nature”, which impacts the lives and livelihoods of billions of people globally. The major findings of the new report are severe water scarcity in part of the year for half the world, experiencing heat related illness and death with increase in food borne and infectious diseases, melting glaciers and thawing permafrost approaching irreversibility in some pockets, loss of agriculture productivity risking food security for millions of people and 14% of animal species face extinction at 1.5° Celsius warming.

According to the report the World has entered a phase which may lead to VI mass extension events. The increased frequency, intensity and duration of extreme events such as heat waves and droughts have driven mass mortalities of trees and corals and hundreds of local extinctions. According to American museum of Natural History, the five mass extinction of the past are listed here; 445 million years ago - Ordovician extinctions, 370 million years ago – Late Devonian extinction, 252 million years ago - Permian Triassic extinctions, 201 million years ago - Triassic Jurassic extinction and 66 million years ago – Cretaceous Paleogene extinction.

Hans Otto Portner, the Co-chair of IPCC report says, “If we want to avoid mounting losses, the governments must work now. We should have healthy planet conserving 30 to 50% of our land, fresh water systems and oceans. The conservation has to be effective and equitable so that the people can make a living on the land. Of course the conservation has to go hand in hand with reduction of GHG emissions and adapting to

changing climate.” Portner further adds that we are not on track to secure a livable world and it can be turned around if we cut the emissions and take action to adapt to the risks we face from the changing climate.

For the first time, latest IPCC report focuses on the role of individuals. Under the caption, “what can every person do” the report highlights the power of individual through different actions as well as putting pressure on politicians for remedial measures. Rich investors, rich consumers and professionals like urban planners, engineers, teachers, and researchers can suitably modify the process of their functions and set standard to decarbonise it. Rich investors are advised to reduce dependency on fossil fuel and sincerely attempt for transition to clean energy. Rich consumers are advised to adhere to sustainable consumption and cut carbon footprints especially in mobility. The report suggests increasing taxes on carbon intensive products.

Despite warnings from scientific communities and earlier IPCC reports, the global leaders are failing to take effective actions to cut emissions; the individuals are being alerted to rise to the occasion and take action to minimize carbon footprints. To accelerate the emissions cut, individuals should form groups to exert pressure on politicians to adhere to circular economy principles for sustainable development. It should be driven in such a way that achieving climate goals should be election agenda.

Indian forests provide storage for 7.2 Giga tonnes of CO₂. Deforestation to make way for developmental projects can have serious consequences and is never sustainable. It can bring down the carbon storage capacity of our forests and accelerate warming of the planet. The pressure group from the public can guide the politicians and can also prevent contractors' driven projects at the expense of the nature.

CoP 26 (Glasgow climate summit) President Alok Sharma has expressed his concern on the occasion of release of the report. He cautioned that the crisis is proving much worse than predicted and called for quick action. On the question of climate finance promised for adaptation in poor countries he reiterated that rich

countries have agreed to double their aid to poor world for climate adaptation by 2025. Sharma's statement appears to be rhetoric as what has been promised in Copenhagen in 2009 has remained unfulfilled so far.

Emerging economies contributing high proportion of GHG to the atmosphere are talking of 2050, 2060 and 2070 to completely decarbonise their economies. After the corona pandemic, they are moving aggressively to revive their GDP growth and increasing their dependency on fossil fuel burning. India's target of achieving 450 Giga watt of renewable energy by 2030 indicates that our GHG emissions would peak between 2030 and 2035 and thereafter it would take downward trajectory to be net zero by 2070. Similarly China's emission would peak around the same time and thereafter would start falling to be net zero by 2060. Developed countries per capita emission is far too higher and their announcement to become net zero by 2050 is eye wash. They are solely responsible for increasing the concentration of CO₂ from 325 ppm at pre industrial level to present 380 ppm, resulting in warming of the planet by 1.1° Celsius. Will the world leaders listen to scientific advice, and go for mid course correction and make drastic cuts in their emissions, lest the humanity would face frequent and destructive climatic catastrophes.

At the time of finalization of IPCC report Savitlana Krakovska, a senior Scientist of Ukrainian Hydro meteorological Institute remarked, “Human induced climate change and war against Ukraine have direct connections and the same roots. They are fossil fuels and humanity's dependence on them.”

Russian forces are raining rockets and missiles on Ukraine which releases GHG emissions to the atmosphere. A number of European countries dependent on Russian oil and gas for their energy needs are to find alternative after sanctions from West and United Nations are imposed on Russia. SWIFT a global messaging center that allows central banks to communicate among them securely, enabling safe transfer of funds, now excludes Russian banks and prevents any transfer of fund for export and import.

Countries dependent on gas may now be forced to go for coal for power generation, which will increase GHG emissions of respective countries and undo the climate gains already achieved. Nord Stream is a system of offshore natural gas pipeline in Europe running under Baltic Sea from Russia to Germany and would have met two third German energy needs is non functional. The advantage of reducing carbon footprints is again lost. Experts say that the move would result in 5% shrinkage of GDP of Russia; already 'Ruble' has registered a devaluation of 30%.

India's growth in the last quarter has been a modest 5.4% and the sanctions imposed on Russia will hurt our economy further. There will be negative impact on \$ 11.9 billion India Russia bilateral trade. In 2021, we exported \$ 3.3 billion goods like pharmaceutical and imported goods worth \$ 8.6 billion such as crude oil, petroleum, coal, fertilizers, gold, precious stones and metals. Russia is India's biggest arm supplier and accounts for more than half of total arms import.

Nearly 80% of our energy needs are imported and increase in oil prices will increase current account deficit and inflation. This would in turn slow down our planned achievements in renewable energy sector and green hydrogen etc for transition to cleaner energy and battery swapping projects to boost the demand for electric vehicles. We have not made any significant achievement in afforesting 26 million hectare degraded lands, in accordance with our nationally determined contribution announced during Paris Climate accord 2015. Latest IPCC report suggests stepping up conservation.

There is prospect of realignment in global energy routes owing to the disruption due to Russian conflict in Ukraine and international sanctions imposed on Russia. Brent crude accounts for 50% of global oil trade, has rocketed to \$117 per barrel the highest since Feb 2013 in six weeks of the conflict. Oil prices surge will jack up inflation and raise import bill as well as subsidy bill.

Every \$1 increase per barrel in crude prices will add \$2 billion to our oil import bill annually. Higher import bill widens current account deficit, weakens the rupee and make import costlier. Government programs for infrastructures, welfare and climate mitigation shrinks. International crude oil prices have shot up nearly 50% above the prices when the Government drew up its budget for the year 2022-23.

Developed countries, responsible for warming of the planet so far, had pledged in Copenhagen climate summit in 2009 to support climate action and adaptation in developing/ poor countries and committed to pay \$ 100 billion each year. Even after a decade it has remained only a promise and no financial support has been made by any of them. With the energy prices going up, most developed economies face budget deficit and high inflation and are not seriously considering climate financing to poor nations.

The fuel price hike in India is weakening our investments to clean energy transition. A report by economic research wing of country's largest lender SBI reveals that high global crude oil prices beyond \$90 a barrel could lead to a revenue loss of Rs 95,000 crores to Rs 1 lakh crores in the current financial year.

The ongoing conflict in Ukraine would further delay the fulfillment of climate actions. The momentum is derailed and the climate budget is shifted towards defense. In 2020 defense budget globally went up by 1.9% and reached \$1.93 trillion. Annual global budget on defense in current year is adequate for half of clean energy investment required to achieve net zero by 2050. 40% of global defense spending is in US; Germany has increased its annual defense budget to \$150 billion and other NATO members to \$100 billion. To counter US, China has provided 7.1% of GDP for defense. India has also increased its defense budget to \$70.2 billion, 10% more than the previous year.

Global leaders will not focus on climate till Ukraine crisis is resolved peacefully.

(The author is former Principal Chief Conservator of Forests (Head of Forest Force), Karnataka and can be reached over Mobile:9449863501 and Email: bksinghretiredpccf@gmail.com).



Green Quiz- June 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. Which NGO supported the system of Protection Assistants from among locals for wildlife protection in Simlipal NP?
2. Tribals in Mayurbhanj district of Orissa do a ritual Akhand Shikar (mass hunting) every year on which occasion?
3. This Frog is called Fossorial since it comes out of ground only once a year. Name the Frog.
4. This bird can drop almost 15 degrees temperatures at night and then re-warm in the morning every day. Name the bird.
5. What is the name given to a fruit eating primate?
6. The Gangetic Dolphins cannot see. This is the only Dolphin species in the World that uses another method to sense living beings in front of them. What do they use?
7. Cats can see almost six times better than humans in darkness. This is due to a layer present in their eyes that captures light. Name the layer.
8. Which is the World's biggest and beautiful dove?
9. This bird weaves/stitches its nest by making small holes and stringing the spider's web thread to bind the leaves in to a nest. Name the Bird?
10. This wood is considered moth repellent since Greek days. Name the wood.
11. The hydrocarbon present in the Cedar wood is?
12. This Ocean during its low tide gives way connecting (by land) Mt. Desert island in Maine (USA) and Bar island. Which Ocean?
13. What was the theme for the Earth Day 2022?
14. What is the warning given by UN based on IPCC Report on Climate change?
15. What was the theme for the World Environment Day 2022?

(Answers on page:26)

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.

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

"I often warn people: "Somewhere along the way, someone is going to tell you, 'There is no "I" in team.' What you should tell them is, 'Maybe not. But there is an "I" in independence, individuality and integrity.'"

- George Carlin

R. Godavari In Spate & The Worst Flood of The Century

Paresh Kumar Sharma, IFS(Retd.)



I had barely settled down in Kothagudem, incessant rains with heavy cyclonic winds, started falling in the northeastern parts of district. Staff was in a mode of panicky as it had become difficult to transport the Teak stumps and other seedlings from the nurseries to the planting sites. Even if the staff could manage to transport the planting material, planting could not be done due inundation of the planting sites. Water level in the river Godavari was rising gradually & dangerously, due to continuous heavy downpour. It crossed the 1st Danger Mark (48 feet), 2nd danger mark (53 feet) and the 3rd or final Danger mark (58 feet) in quick succession. The entire District machinery was geared up to this unprecedented challenge; trying to shift the villagers on either side of R. Godavari to safer places and providing basic amenities to such people. The Sub-Collector Kothagudem was the Flood Control Authority as per the Manual; but she had gone to Bhadrachalam where her husband was posted as Sub-Collector, on the weekend. However, in the night the water level in the R. Godavari had crossed 60 feet and the water had started flowing over the bridge. The approach road to the bridge on Sarapaka side (where Bhadrachalam Paper Board Ltd is located) had been washed away snapping the road connectivity between Bhadrachalam and rest of the district. As a result, the Sub-Collector Kothagudem could not return to Kothagudem where Flood Control Centre had been set up. Consequently, the Collector Khammam had to take over the mantle of the Sub-Collector. He was not happy about it. All the District Officers were drafted for the flood relief works. I too had been drafted for this work. I was made responsible for Pinpaka Mandal.

Situation was very bad. Thousands of people had been marooned and had been cut off from the district and

land. They had virtually taken shelter on the “islands” created in the river Godavari. The span of R. Godavari had become 5 km wide at many a place. Entire town of Bhadrachalam had been submerged in flood water. People had to go on to the top of the houses. Many had taken shelter in the Shri Ramalayam, the highest place in the town.

The first priority was to supply water and food to the stranded people. I was made in-charge of cooking of food, preparation of food packets and despatching these to the Helipad where from these were taken in the Helicopters for air dropping. The Chief Minister Sri N.T. Rama Rao, many Ministers of his cabinet and Secretaries had come to Kothagudem to supervise and review the flood relief works. It was one of the worst floods of the twentieth century. There was no record of more severe flood in the district prior to 1986. Though Southwest monsoon break in Telangana part of the State in the first week of June, flooding of R. Godavari was witnessed in the month of August and October in the past. We were already in the month of August and were afraid that though the situation was appearing to be normal, it might worsen in the month of October again. Because of early action in warning the people with the first danger signal to move to the safer places loss of lives was minimal.

Subsequently heavy rains were received in October, but the severity was lesser, and everybody took a sigh of relief.

The flood water had started receding slowly after a week. But lots of mud & slash had got deposited in the villages as well as Bhadrachalam town. Priority was given to clearing of the muck from the houses, streets and roads. There was fear of epidemic. Hence, special

medical teams were constituted and attached to all the Nodal Officers. I was allotted 2 Medical Teams. They were sent to the worst affected villages first and then covered all the villages gradually. The next task was the assessment of the damages to the crops, houses/huts and cattle heads. For assessing the losses GOI had also sent a Central Team to the district. A senior Forest Officer Mr. R.B. Lal, IFS, was a part of this team to assess the losses to the forests and properties of the forest department.

Forest Department was entrusted with the supply of poles and bamboo to the flood victims. Addl. PCCF had come to Kothagudem to oversee this task. Poles and Bamboo were supplied to the victims to the extent of availability in the Govt. Timber Depots. During this period, I had a pleasant experience riding in a jeep driven by a young Minister Sri K. Nageshwar Rao, to the affected area. In fact, I was on the wheel, but the Minister asked me to be seated while he drove. He was a jovial person, down to earth and very good at driving in the flood affected area as well. I continued the work of enumeration of losses as well as distribution of gratuitous relief material (rice, dal, salt, milk powder, dhoti, sari and cash). Almost the entire month of August

1986 was spent in flood duty. I was relieved of the Flood duty in the second week of Sep 86 once the relief work was over.

There were damages to the Govt. properties as well, including the buildings. The residence of the DFO at Kothagudem had also been damaged badly. Reports about its damages besides damages to the other properties of the Forest Department in the District (mainly in Kothagudem, Paloncha, Bhadrachalam North & South Divisions) had also been given to the Collector. Some funds were allocated to the DFO Kothagudem for the repairs to the above building. This gave me an opportunity to bring the above building in a reasonable & habitable shape. By December of 1986 I moved into the residential quarter. One would laugh, if it is known that this quarter was a Forester's quarter till 1964. It was converted into the DFO's residence with some alterations when the Department was re-organized by way of creation of additional Forest Circles and Divisions. The Auction Hall had been converted into Division Office. The DFO's chamber was 20 feet away from the Office; nearer Residence. Once the flood duty was over, the Department could focus on & attend to the normal tasks of the department.

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

*"I do this real moron thing, and it's called thinking.
And apparently I'm not a very good American
because I like to form my own opinions."*

- George Carlin

ANSWERS TO THE GREEN QUIZ :

1. Sangram, 2. Pana Sankranti, 3. Purple Frog, 4. Humming Bird, 5. Fugivore, 6. Ultra-sound waves, 7. Tepatum Lucidum, 8. Victoria Crowned Dove, 9. Common Tailor Bird, 10. Cedar, 11. Sesquiterpene, 12. Atlantic Ocean, 13. Invest in our Planet, 14. Now or Never, 15. Only One Earth`

Botanisation in a Sylvan Valley

Dr. N. Chandra Mohan Reddy, I.F.S. (Retd.) &
Dr. N.V. Sivaram Prasad

As part of a brief floristic exploration, the authors visited Guramandha forest area of Addatheegala Range, Kakinada Forest division on 12.04.2022, along with Mr. L. Bhimaiah, State Silviculturist, Rajahmundry, Mr. B. Venkata Raju, field botanist and local forest staff. We entered the forest area from Y. Ramavaram Village and proceeded upto Sesharayi village. This is a beautiful green valley dotted with perennial streams and diverse flora. The vegetation in general is predominantly deciduous, moist deciduous and semi-evergreen depending on the moisture regime.

It is of considerable interest to observe many uncommon plant species in the valley such as *Drypetes assamica*, *Lasiococca comberi*, *Manilkara roxburghiana*, *Nothopegia heyneana* and *Toona ciliata*. (These species were not reported in Flora of East Godavari District by Dr. Rolla Seshagiri Rao et al.). Variety of epiphytic orchids were also noticed particularly *Pomatocalpa decipiens*.

A rare evergreen tree species, *Drypetes assamica* (Putranjivaceae), is found here. It has been reported from Northeastern States of India up to 1400 m above sea level (efloraindia, 2021). *Nothopegia heyneana* (Anacardiaceae) is endemic to peninsular India. Conservation status of the species as per IUCN is 'Near threatened' (NT).

Another threatened tree species occurring in this area is *Lasiococca comberi* of Euphorbiaceae. (The identity of this species was confirmed by Dr. Manoranjan Bhanja, I.F.S. (Retd.). Because of the existence of a few dwindling populations and narrow geographical distributions, this species has been listed as a 'Threatened' (T) taxon by IUCN. Natural populations occur in Andhra Pradesh and Orissa were assessed and a very few individuals were enumerated (Pradeep K. Kamila et al., 2018).

The area needs to be explored extensively for its floral diversity and to assess the conservation status. Also, an attempt can be made to propagate the rare and uncommon species for reintroduction in similar ecological niches and identified ex-situ conservation sites. There is an urgent need for identification of such biodiversity rich areas and to declare them as Biodiversity Heritage Sites (BHS) for in-situ conservation. Special protection measures need to be ensured in such areas to prevent them from biotic pressure, fires, and invasion of exotic species.

Some of the rare, endemic, and uncommon plant species observed during the visit are tabulated below. Images of some species are presented in the plate.

Sl.No.	Botanical Name	Telugu / Common Name	Habit
1	<i>Abelmoschus manihot</i>	Adavi pathi	Shrub
2	<i>Acampe praemorsa</i>	Orchid	Epiphyte
3	<i>Aerides odorata</i>	Orchid	Epiphyte
4	<i>Aglaia elaeagnoidea</i>	Yerra adugu	Tree
5	<i>Albizia procera</i>	Tella dirisanam	Tree
6	<i>Amorphophallus sylvaticus</i>	Adavikanda	Herb
7	<i>Aphanamixis polystachya</i>	Rohithaki	Tree
8	<i>Ardisia solanacea</i>	konda pogaku	Shrub
9	<i>Bischofia javanica</i>	Nall mushti	Tree
10	<i>Calamus rotang</i>	pemu	Shrub
11	<i>Camonea vitifolia</i> (Syn. <i>Merremia vitifolia</i>)	Grape-leaf Wood Rose	Climber
12	<i>Cleistanthus patulus</i>	Tella vadisae	Tree
13	<i>Cosmostigma cordatum</i> (Syn. <i>Cosmostigma racemosum</i>)	Adavi thamalapaku	Climber

14	<i>Dendrobium aphyllum</i>	Orchid	Epiphyte
15	<i>Diospyros sylvatica</i>	Gaatha	Tree
16	<i>Drypetes assamica</i>	--	Tree
17	<i>Elaeocarpus tectorius</i>	Gutti manu, Rudraksha	Tree
18	<i>Entada phaseoloides</i> (Syn. <i>Entada scandens</i>)	konda chinta	Liana
19	<i>Entada rheedei</i>	tikkativvu	Climber
20	<i>Erythrina stricta</i>	Badisa	Tree
21	<i>Euphorbia cattimandoo</i>	kathimandu	Shrub
22	<i>Ficus arnottiana</i>	Konda ravi	Tree
23	<i>Ficus benjamina</i>	Konda juvvi, Putrajuvvi	Tree
24	<i>Ficus concinna</i>	Lipstick Ficus	Shrub
25	<i>Ficus exasperate</i>	Karakaboddu	Tree
26	<i>Ficus geniculata</i>	--	Tree
27	<i>Ficus rumphii</i>	Bodhi	Tree
28	<i>Ficus variegata</i>	Red stem fig	Tree
29	<i>Firmiana colorata</i>	Scarlet Sterculia	Tree
30	<i>Flagellaria indica</i>	False Rattan	Climber
31	<i>Garuga pinnata</i>	Garugudu	Tree
32	<i>Glochidion zeylanicum</i>	Itepulla	Tree
33	<i>Gnetum edule</i> (Syn. <i>Gnetum ula</i>)	Loluga theega	Climber
34	<i>Hemionitis arifolia</i>	Ramabanam	Fern
35	<i>Heptapleurum venulosum</i> (Syn. <i>Schefflera venulosa</i>)	Edakula marri	Tree
36	<i>Hymenodictyon orixense</i> (Syn. <i>Hymenodictyon excelsum</i>)	Dudippa	Tree
37	<i>Lasia spinosa</i>	Kanta kachoramu	Shrub
38	<i>Lasiococca comberi</i>	--	Tree
39	<i>Manilkara roxburghiana</i>	Pala, kirini	Tree
40	<i>Mucuna monosperma</i>	Dulagondi	Climber
41	<i>Murraya paniculate</i>	konda Karivepaku	Tree
42	<i>Neonauclea purpurea</i>	Manjari kadambam	Tree
43	<i>Nothopegia heyneana</i>	Nall alli	Tree
44	<i>Polystachya concreta</i>	Orchid	Epiphyte
45	<i>Pomatocalpa decipiens</i>	Orchid	Epiphyte
46	<i>Premna mollissima</i> (Syn. <i>Premna latifolia</i>)	Narava	Tree
47	<i>Protium serratum</i>	Yerrakarra	Tree
48	<i>Toona ciliata</i>	Galimanu	Tree
49	<i>Tritaxis glabella</i> (Syn. <i>Dimorphocalyx glabellus</i>)	Pachhava	Tree
50	<i>Vanda tessellate</i>	Orchid	Epiphyte
51	<i>Vitex peduncularis</i>	Nemali adugu	Tree
52	<i>Wrightia arborea</i>	Pedha reppala	Tree
53	<i>Xylia xylocarpa</i>	Konda Thangedu	Tree
54	<i>Zingiber chrysanthum</i>	Adavi Allamu	Herb

(The first author is retired Chief Conservator of forests, Andhra Pradesh and the second author is Assistant State Silviculturist, Rajahmundry, Andhra Pradesh)

Species found in a Sylvan Valley - Guramandha Forest (Page:27)

(Photos: Dr. N. Chandra Mohan Reddy & Dr. N.V. Sivaram Prasad)



Entada phaseoloides (flower)



Euphorbia cattimandoo



Firmiana colorata in flowering



Flagellaria indica (with flowers)



Drypetes assamica (with fruits)



Lasiococca comberi (with flowers)

*Nothopegia heyneana* (flower)*Pomatocalpa decipiens* (with flowers)

**RISE UP
FROM
DROUGHT
TOGETHER**

DESERTIFICATION & DROUGHT DAY
17 JUNE 2022



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 it is inception in 2006.

The mandate of the Board is to advice the Governments at various levels on matter 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

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)

Convocation of 7th Batch Forest Range Officer Training Course (Page: 34)



Sri P. Raghuvver, IFS (Rtd), Kum Deepa. K, FRO Trainee, Sri RM Dobriyal, IFS, PrICCF & HoFF, Sri Swargam Srinivas, IFS, Sri. PV Raja Rao, IFS, Director, Dr K. Thirupathaiah, IFS (Rtd.)

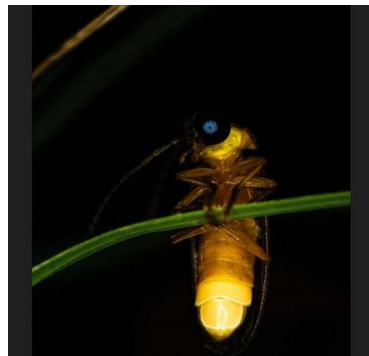


FRO Trainees in the convocation meeting.
Report on page:34-36

Iridescent play Fireflies illuminate Top Slip in the Anamalai Tiger Reserve in Tamil Nadu (Page:20)



The image, created by stacking several photographs shot over 15 minutes, helps estimate an approximate count of fireflies.
(Photo: Sriram Murali)



A new species of synchronous fireflies has been identified in the Anamalai Tiger Reserve.

(The NIE_File Photo)

The Return Gift

M. Ramcharan Sharma



*It was 5 billions years ago
Emerged an entity, opening
The door of life, inorganic
Yet important!!!!*

*Stages passed and the sapiens settled
Surpassing the odds with great mettle!!!
Pierced the mother..
Fed the other....
Turned the wheel...
A revolutionary deal!!!
Inventions and discoveries
Came on age by age
Making the world
A global village!!!!*

*But...
The need turned to greed!!!
What made me say so?!
The sparrow I love ..
Is my farthest relative now &
The ethereal rivers turned*

Penitent bins, how???

*The cars are turning into scars and
The so called industrialisation
Is proportional to pollution!!!
The ruthless extortion from the mothers' womb
Is same as preparing a suicidal bomb!!!!*

*And finally the consequences are ready to be
offered!!!
The light apple becoming even furious
And snowman liquifying at a pace, lot serious!!!!
The warmth we hesitate to feel
Is making the mother pale..
The saga is rolling the reel
As if to narrate there was earth- as a tale!!!!*

*And it's time to introspect
Not me but everyone!!!!
Where to invest the wisdom
And realised that there is need to
"INVEST IN PLANET"*

(The poet is currently with Dept. of Silviculture and Agroforestry, FCRI, Hyderabad @ Mulugu. He can be contacted over email: ramcharansharma808@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.

Convocation of 7th Batch Forest Range Officer Training Course

Convocation of 18-month Induction Training Programme of 7th Batch Forest Range Officer trainees was held on 13.05.2022 at Telangana State Forest Academy, Dulapally, Hyderabad. The Batch consisted of (63) Officer Trainees, including (17) woman Officers, from North, South and North-Eastern parts of the country who belong to (7) states, namely, Jammu & Kashmir, Himachal Pradesh, Madhya Pradesh, Chattisgarh, Nagaland, Tamilnadu and Telangana.

Principal Chief Conservator of Forests and Head of Forest Force, Telangana, Mr Rakesh Mohan Dobriyal, IFS, participated as Chief Guest on the occasion. He inspected the guard of honor. Sri Swargam Srinivas, IFS, Principal Chief Conservator of Forests, (P&V, Admn.) and Chief Wildlife Warden, Telangana, Sri PV Raja Rao, IFS, and Additional Principal Chief Conservator of Forests and Director, TS Forest Academy, Sri P. Raghuvver, IFS (Rtd), Sri Munindra, IFS (Rtd), Sri K. Thirupathaiah, IFS (Rtd), Former Directors of the Academy and former Principal Chief Conservators of Forests, Telangana have also participated in the convocation and spoken on the occasion.

Sharing their experiences during the training period, the Officer Trainees said that they feel proud to have been trained in the best forest education institution, the Telangana Forest Academy and sworn to uphold the

good name of their Alma Mater during their ensuing service. Further, they said that managing hostel mess during the training period was an upheaval task, as the trainees were belonging to different parts of the country and having varied food habits, which helped the trainees acquired skills required in managing similar situations. It is said that extensive tours helped them in acquisition of knowledge which would not have possible otherwise. In his welcome note, Sri P.V. Raja Rao, Addl. Principal Chief Conservator of Forests and Director of the Academy congratulated the passing out Officer Trainees and asked them to be ready to face the challenges in the field and handle professionally using the training imparted in the Academy.

Sri V. Rama Mohan, Dy. Director, presented the report on Induction Training Program on behalf of the Course Director. Started in November, 2020, the Induction Training Program has been the first of its kind which commenced aftermath of the COVID-19 pandemic in the country and the Trainees could withstand the second phase of the pandemic. The training schedule included (152) days of Tour program. Of the (63) Officer Trainees, (14) got the distinction of 'Honors' securing 70% and above marks. Ms. Deepa. K of Tamilnadu topped the training course securing highest aggregate marks with 79.49% and bagged five - (3) gold and



(2) silver - medals, including Best All-rounder medal. Interestingly, women officer trainees secured top (6) ranks and (22) medals of all the (35) medals of the course.

Speaking on the occasion, the Chief Guest, Sri R.M. Dobriyal said that Forest Range Officer post is the key post and considered to be backbone for the Forest Department. He opined that the training imparted at Telangana Forest Academy will be foundation to the officers to excel themselves in field. He advised to provide congenial atmosphere for the subordinates to work and build teamwork which would give successful results. He asked the passing out officer trainees to see opportunities even in the adversities in the field and manage the forests and the situations efficiently. He wanted them to pursue the subject in which they have aptitude or interest and excel. He further said that the TS Forest Academy has become very resourceful in Forest Education as the serving and retired forest officials are actively taking part in imparting trainings. He congratulated the Director and the staff of Forest Academy for conducting the training course and the convocation in professional and impressive manner and was all praise for Ms. Chepeu Koza of Nagaland, the parade commander, who led the platoons of the FRO and FBO Trainees during passing out ceremony.

Sri Swargam Srinivas, IFS, speaking on the occasion, said that in case of foresters, the training time would be the best period and would always be cherished during the entire service. The training toughens one mentally and physically in order to face all kinds of situations. A forester shall have a strong pair of legs, eyes and ears to excel in the field and advised the trainees to observe more to learn more. He asked the trainee officers to work wholeheartedly during their service which would yield successful results.

Sri Munindra, IFS (Rtd) said that working in the field will be entirely different from the training experience. However, the Induction Training gives one foundation and confidence to work in the field. He asked the trainee

officers to become masters of the field by moving in the field. He opined that the reputation of the officer moves ahead before they reach the place of posting and asked them to work diligently and earn good reputation in the initial stage itself which would be carried forward and protects them through thick and thin during their rest of the service. He advised the trainee officers not to put the problems, if any, that they encounter, under wraps, but to bring them to the notice of the authorities concerned for solution.

Speaking on the occasion, Sri K. Thirupathaiah, IFS (Rtd.) said that one should know and control the self and restrain oneself against anger, abuse and sycophancy. One should cultivate the qualities of compassion and empathy for others. Persons who are having the qualities of compassion and empathy for the people around will only lead and become leaders, but not the people having mere high levels of intelligence. He advised the trainee officers to give encouragement and freedom to the people at work place as per their working styles irrespective of their status. He told the trainee officers to keep in mind that there are many people toiled for their success behind the scenes. He advised the trainees to have a library personally.

Sri P. Raghuveer, IFS (Rtd.), in his speech, said that training transforms the persons and further he said that transformation is the matter of attitude. He stressed upon the need to make good use of the time which is the same for everyone. He emphasized that Key learnings of the training shall be applied in the field. He reminded the outgoing officers that the forests would be under their control for the next (30) years and having tougher times ahead as real exams will start in the field in view of the wide variety of challenges arising. Smt J. Vasantha, Dy. Director, acted as master of the ceremony. Sri M. Vamshi Krishna, Asst. Course Director of the Course presented Vote of Thanks.

Sri S. Ramesh, Chief Conservator of Forests and Addl. Director of the Academy, Sheik Nagina Banu,

Contd.. on page No.51



Mother - A God's Form

Konda Mohan

*Mother is the whole of the Love and Affection
Mother is the rarest of the rare species of the Creation
Mother's love is unconditional and incomparable
It is the selfless 'Preamble' of the God's Constitution!!*

*Sacrifice is Mother's Nature at the cost of her future
Lion-like cruel animals behave as saints in Motherhood
Scorpion gives birth to its siblings knowing her death
Universe is existing only on the anchorage of Mother's love!!*

*Mother is always in the receiving end of the shocks
She is the 'shock absorber' and 'steppingstone' for Family happiness
She is the spreader of happiness and absorber of miseries
She is the underneath 'thorny patch' for flower basket of family!!*

*She wakes up the Sun all the seven days in a Week
She runs along the needles of the clock all the twenty-four hours
She is the 'Home Doctor' and 'First Teacher' of the Family
She is the Goddess, her presence in the home makes Heaven!!*

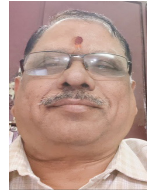
*Kitchen is the Kingdom of all Mother Empresses
But on all the plates and glasses written Father's name
For poor or rich, in a hut or mansion, Mother is God's boon
God created Mother to compensate His absence in every home!!*

*Mother is the living form of Goddess on the Earth
Impossible to clear off MAATHRUUNAM in lifetime
Serve Mother at home and obtain her blessings
Don't send Mother to VRIDDHARSHRAM making your home a Hell!!*

(The poet is Dy Conservator of Forests, Telangana State and presently working on deputation with HMWSSB Hyderabad. Feed back: Mobile: 7989748529 and Email: dcfhmwssb@gmail.com)

Forest Settlement in Telugu States – A Study

Dr. Akula Kishan, IFS(Retd.)



Forest Settlement

After a preliminary notification is issued under Section 4 of the Forest Act, 1967, the role of Forest Settlement Officer commences, and in Telugu States, he has to take action as provided in Forest Settlement Rules, 1969. The Forest Settlement Officer receives claims and objections within a period of one year from the date of proclamation in Gazette. The objections and claims would be enquired into by the Forest Settlement officer. If any claim is admitted the Forest Settlement Officer may (a) accept voluntary surrender of the right by the claimant and determine the amount of compensation payable for the surrender of right (b) direct the exclusion of land from the limits of proposed forest or (c) acquire such land as provided in the Land Acquisition Act. The Forest Settlement Officer has to obtain opinion of the Conservator of Forests, as to whether the Forest Department desires to offer land to land compensation or acquire the land or exclude the land from forest block. In case the land is to be deleted from the forest block, the Forest Settlement Officer should obtain prior approval under Forest (Conservation) Act, 1980 before the award is to be passed. However, against the award of the Forest Settlement Officer, appeal lies to the District Court.

Pendency of Forest Settlement process

As per the information available in Facts and Figures of 2013, the total number of forest blocks in Telugu States is 3266, out of which 2475 blocks are notified u/s 15 of the Forest Act as Reserved Forests. 544 blocks are notified u/s 4 of the Forest Act, and the Settlement is pending. About 168 blocks are notified u/s 24 as Protected Forests. The number of blocks formed as Compensatory Afforestation areas notified u/s 24 is not known. The Forest Settlement of Blocks notified U/s 4 is pending

since many decades. The Compensatory Forest Areas and Protected Forest Blocks are yet to be notified u/s 4 as without such notification, the areas cannot be notified as Reserved Forests.

Constraints in Forest Settlement

1. The notifications u/s 4 and 24 of the Forest Act were issued with description of boundaries, in some cases by mentioning the physical features, such as foot paths and cart tracks etc. Such paths are no longer existing making the location of forest boundary difficult.
2. The Forest Notifications are issued after obtaining details of area statement, and areas included in the forest notification specified. But the same is not recorded in Revenue records, as such the lands are being assigned by Tahsildars, and forest staff come to know of such pattas when the patta-dars comes to occupy the land, and the legal battle commences.
3. In Telangana area the forest blocks are generally assigned survey numbers, whereas in Andhra region, there are no such Survey numbers to forest areas. The Survey numbers stop at boundary of forest blocks, and such a situation facilitates the Tahsildars to assign pattas by giving a sub-division number of nearby Survey number.
4. Though the Forest Settlement Officers are available in most of the districts, they come usually on promotion and attend to the works entrusted by the District Collector.
5. The review of progress of Forest Settlement is not given on priority and the Forest Officers and Revenue Officers hardly conduct meeting to resolve the issues.

6. In most of the cases the forest blocks are either partly or fully encroached and the encroachment is since decades, and the encroachers have perfected their title in Revenue records, and to contest such cases special staff in Forest Department would be needed, which is hardly possible.
7. The land records of Revenue and Forest Department are to be reconciled before any action is taken, and such reconciliation is made difficult due lack of data as well as due to political interference.
8. The Forest lands are diverted under Forest (conservation) Act, and though the condition that "status of land remain forest" is stipulated, there is hardly any chance of regaining the diverted forest land.
9. The claims on land included in forest block are enquired into by Forest Settlement Officer but in parallel enquiry the Settlement Officer under Estate Abolition Act or such other Acts, pass awards and grant pattas over forest lands. The Forest Officers are not made a party before such Settlement Officers, and the details of such Settlement pattas hardly known to forest officers, and by the time the information is received, the time for appeal would have been over, and even when the appeal is filed with delay condonation petition, the chance of success is limited.
10. The Forest Rights Act, 2006 is another enactment where the titles are given either with or without knowledge of Forest Officers is another channel where the forest land is given for the purpose mentioned in the Act. But the objectives are hardly implemented, and the land of 4 hectares to a family given are almost lost for forestry works, And the extent of land given under RoFR are to be noted in the Forest Blocks, which is hardly done. Forest Department is not aware of the land lost in each forest block.
11. Due to efflux of time the forest records are lost and in many cases the copies of the notifications with sketchy forest maps are available, which will not be enough to establish the ownership or occupation by Forest Department.
12. At present in many offices of the Forest Settlement Officers, the record of pending cases is not available, and in some cases, they are not aware of Forest Settlement Rules.
13. There are cases where the forest notification refers to certain land whereas on ground the block is located at different place. Reconciliation of such lands is very difficult as in area notified habitations and agricultural lands are established, and there is no notification for the adjacent vacant land.
14. The Forest Survey and computation area is based on the boundaries and whatever extent of land included within the boundaries will be forest land, irrespective of extent contained within. Whereas in the Revenue system, the importance is given to extent of area in a survey number. In many cases, the dispute between Forest and Revenue Department arises, with Revenue department asserting that in a particular Survey number included in Forest Block, the area included is partial and balance area pertains to Revenue Department. For example, if a survey number is stated to contain 1200 acres but only 1000 acres is included in Forest Block, the balance 200 acres belongs to Revenue Department. But the argument of Forest Department would be that the as per notified boundaries, there is no excess area and whatever extent is within boundaries pertains to forest block. For argument's sake if the area is to be alienated, which portion is to be identified and excluded from the notified block is a big question

Suggestions

1. The pending forest notifications should be enquired into expeditiously by deploying additional staff. The identification of any land as Reserved Forest is needed to safeguard the land as well as to enforce the Forest Laws.

2. Still thousands of acres of land under control of forest department is not notified under section 4 or 24 of Forest Act, and protection of such land from encroachments, assignments etc. is not possible.
3. The Revenue Department may be advised to update land records as per forest notifications to avoid conflict with forest department, and the assignment of pattas near forest block should be done after consulting the forest department.
4. Possibility issuing an ordinance may have to be explored to declare all forest blocks notified u/s 4 to be deemed to be notified u/s 15 of Forest Act, so that in Forest Block the forest laws can be enforced and encroachments prevented.
5. The RoFR title deeds should be verified with reference to satellite data and objections may be filed with DLC or if necessary, at SLC so that the ineligible persons can be deleted and save thus save forest land to the extent possible.
6. In forest blocks notified u/s 4, the provision of Section 7(2) may be invoked to declare the pattas granted ab initio void, and Revenue authorities may be requested to cancel such pattas.

(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.)



By D. Nagabhushanam, IFS (Retd.)



Changing Araku Valley as seen by an Environmentalist

DC Khanduri, IFS (Retd.)

After my retirement in November 2002, as conservator of Mandi circle in Himachal Pradesh, I was fortunate to work as consultant of IIFM Bhopal in National Forest commission, set up in 2003 under the chairmanship of Justice BN Kirpal, Ex- CJI with four non-official members and two official members. These non-official members were experts in their field. Dr MK Raingit Singh, though from administrative service but a wildlife expert (drafted Wildlife protection Act, 1972), Prof JS Singh, eminent ecologist from Banaras Hindu University, Mr AP Muthyswami, an administrative officer and last but not the least Shri Chandi Prasad Bhatt, world renowned environmentalist. Among the various issues the commission looked into, was the issue of peoples participation. Further, this issue was intimately linked with tribals like shifting cultivation. In February 2005, the commission requested Shri Chandi Prasad Bhatt to look into the issues by visiting tribal areas. For this, Northeast Andhra Pradesh & Odisha were chosen. I was asked to organize the visit and accompany Shri Chandi Prasad Bhatt during these visits.

On contacting PCCF Andhra Pradesh, Mr. S.K. Das, informed me that he has deputed Mr. RG Kalaghatgi to organize the visit and make arrangements accordingly. Mr. Kalaghatgi proved to be an excellent host and all the arrangements were done with perfection. My interaction with him during the visit created a bond between us, which continued even in the later years and he obliged me in organizing my subsequent visits to Andhra Pradesh, last being in 2013 to the coastal district of Nellore, Prakasam and Guntur to study Farm Forestry plantations.

Before I go to the details of the visit, let me write something about Shri Chandi Prasad Bhatt, who apart

being and Environmentalist is a true Gandhian to the core. Influenced by the speech of Jai Prakash Narayan during his visit to Badrinath in 1956, Shri Bhatt decided to dedicate his life to the social work. In 1957 he joined Survodaya movement. Though he attained national fame due to "Chipko Andolan" of Uttarakhand in 1974, and decorated with many awards such as Magsaysay, Padmabhusan and Gandhi Shanti Puraskar, till this date he is following the teachings of Gandhi and Vinoba Bhave. Though I had the occasion to meet and interact with him many times in past as well, but this visit was exclusive one, which I cherish most. Subsequently in 2011, he published a book in Hindi "Parvat Parvat Basti Basti" in which the visit to Araku valley had been included as chapter 12. Following narration is based mostly on his writings about the visit in this book.

From Delhi we landed at Vishakhapatnam air port during noon. Since we were to visit both Odisha in Andhra Pradesh we left for Koraput and reached there by evening. After interactive meetings with various stakeholders for a day, we left from Araku valley, one of the most picturesque among Indian valleys with rolling hills and attractive topography. Since this was his third visit to Andhra Pradesh Shri Bhatt wanted to ascertain the prevailing conditions there. In his own words:

"If after two decades has there been any change or improvement in the social fabric of the area? Has the exploitation and tension been reduced? Has the greenery of the area increase or reduced?"

Senior officers including Mr. Hitesh Malhotra, the then additional PCCF who had come to conduct the visit informed that there are forest management committees in the area. Earlier, these were called joint forest management committees but for quite some time the

work had been totally entrusted to the community and interference of the department was negligible. Subsequently this fact was also seen during the field visit in the afternoon. The area used to be under Podu (Jhoom) earlier but at the time of our visit, was having sustainable development model. Apart from the planted saplings, old stumps were also seen rejuvenating. Shri Bhatt sums up the field visit by writing.

“The biggest thing is that the confidence in development of forest has increased, particularly among women folk, which is clearly visible”

It was also noted that the forest officials were travelling in private vehicles, instead of official vehicles, may be to conceal their identity. A junior official confided that one had to take care of oneself like this, in view of the occasional danger from PWG extremists.

Next morning around ten, we left for Araku and drove for about 50 Kms through various scenic valleys, having occasional forest blocks, flat fields, and reached Paderu, headquarter of the agency. Expansion of the small town was clearly visible due to presence of newly built tall buildings and having big market, where all type of goods, particularly fulfilling the requirement of tribals, were available. The place was crowded. Discussion was held with the Project Officer of the Integrated Tribal Development Agency, which centred round the change happening in the life of Tribals.

Our next stop was at village Titigamvalasa to interact with the people. They wished to show the forest which had been developed by them. Greenery on the hill top was clearly visible. They shared the information regarding protection of the forest. They were more

expressive and were quite discernible as also the speaking as a group rather than individuals.

Further on, we were shown the work being done by the committees to enhance the income to Tribals by undertaking small projects like candle making. Another innovative action was to provide a common gas cylinder, where the members of the community could cook.

Now we were descending towards plains and some thick forests were being seen with a few huge trees. Near the villages, trees of Imli, Kathal etc. were planted. We reached Vishakhapatnam by the evening.

Next day staying at Vishakhapatnam we had further interaction with Forest Protection Committees of East Godavari and Vishakhapatnam districts and visited Kambhalakonda wildlife sanctuary. Summing up his experience of the visit Shri Bhatt wrote.

“In this way during Andhra Pradesh visit it was seen good coordination between forest department and forest protection committees, as both have started working together”

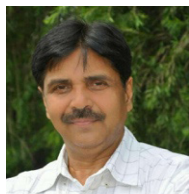
“Area under Podu has reduced. Tribals are inclining towards cultivation of trees on Podu lands and have come forward for the protection of forests through forest committees. Those forests which were over-exploited are improving. Old roots are throwing new shoots and greenery is visible on the hillocks”

Thus after staying a day in Vishakhapatnam we returned back to Delhi. A big thanks to the officers and staff of undivided Andhra Pradesh, in general and to Mr. Kalaghatgi in particular.

(The writer is retired Uttar Pradesh care officer and can be contacted over mobile: 9868277666 and email: dckhanduri@rediffmail.com)

“Some men are born mediocre, some men achieve mediocrity, and some men have mediocrity thrust upon them.”

- Joseph Heller



Climate Change and Food Security in India

Dr Uma Shanker Singh, IFS (Retd), Dsc.,

Climate change has a profound impact on the food security of this country and this has been amply demonstrated in the sharp rise in the prices of lemon. This fruit is being sold nowadays at a very high price across the different parts of the country despite multiple attempts from the different sectors to bring it down to the level of affordability to the common citizens of this country. In most of the country's wholesale market, a 10-kg bag of lemon is selling at Rs 1,750 at present and a 10-kg bag normally comprises of 350-380 lemons, therefore, the price of a single lemon should cost Rs 5/lemon but a single lemon is retailing between Rs 10 and Rs 15 in most of the Indian markets as shown in the following table. The unprecedented rise in the price is on account of a big gap in the demand and supply of this fruit. In markets such as Mumbai, Hyderabad, Kolkata, the fruit is selling at wholesale rates of Rs 120, Rs 60, and Rs 200 respectively per kg, up from Rs 100, Rs 40 and Rs 90 a kg a month ago.

Prices of Lemon In Some parts of the Country

Name of cities	Price of one Lemon (In Rs.)
<i>Delhi</i>	10-12
<i>Mumbai</i>	10-15
<i>Kolkata</i>	10-12
<i>Lucknow</i>	10-12
<i>Ahmedabad</i>	10-13
<i>Panji</i>	10-12

Botanical Characteristics of Lemon:

The lemon was introduced into Spain and North Africa sometime between the years 1000 and 1200 CE. It was brought to different parts of Europe. The lemon

was thought by 18th-century Swedish botanist Carolus Linnaeus to be a variety of citron (*Citrus medica*), though it is now known to be a separate hybrid species. The lemon plant (family Rutaceae) forms an evergreen spreading bush or small tree, 3–6 metres (10–20 feet) high if not pruned. Its young oval leaves have a decidedly reddish tint; later they turn green. In some varieties the young branches of the lemon are angular; some have sharp thorns at the axils of the leaves. The flowers have a sweet odour and are solitary or borne in small clusters in the axils of the leaves. Lemon trees usually bloom throughout the year, and the fruit is picked 6 to 10 times a year. Full-sized fruit for commercial purposes is about 50 mm (2 inches) in diameter. The fruit is usually picked while still green and, after curing, may be kept three months or more in storage. The fruit is known as nimbu in Hindi and has two broad categories: lemon and lime. The small, round and thin-skinned kaagzi is the mostly commonly grown variety in the country. Lime, on the other hand, refers to the dark green fruits that are grown commercially in North India and the Northeast.

Area under Lemon Cultivation in India

This is one of the very important horticultural species grown across the country. Andhra Pradesh is the largest grower of lemon and estimated to have 45,000 hectares of land under lemon cultivation besides Maharashtra, Gujarat, Odisha and Tamil Nadu are the other major lemon-growing states. In India 3.17 lakh hectares of land has been put under lemon cultivation. Annually, India produces over 37.17 lakh tonnes of the fruit, which is consumed domestically. Neither we export nor do we import this fruit despite of the fact that India has immense potential to earn foreign exchange while exporting this to western and Middle East countries.

Harvesting Cycle

Farmers take fruits round the year through a horticultural system called "Bahar Treatment" and lemon growers take three "bahars" in India and they are named as Ambe, Mrig and Hasta based on the season when the flowering is induced. In the Ambe bahar the flowering is induced in January-February with a view to harvesting fruit in April. During Mrig bahar the flower blooms in June-July and harvesting is done in the month of October. In Hast bahar flowering blooms in September-October and fruits are harvested in March. These bahars overlap, and thus farmers have fruit round the year to market. Almost 60% of the crop that feeds the market is harvested from the Ambe bahar, while the Mrig bahar contributes 30% and the Hasta bahar the rest. Most of the Mrig bahar fruit is initially sent to cold storage, while fresh fruits from the other two bahars are retailed.

Climate change destroyed the productivity

Last year, however, the withdrawal of monsoon began

only on October 6 against a normal of September 17th therefore, despite the monsoon season was over but several parts of the country were still receiving rainfall and this was because combination of many climatic factors playing together namely, delayed monsoon and development of low-pressure areas at multiple places which ultimately resulted in these rainfall events at several places. Lemon orchards are extremely sensitive to excess moisture and thus, due to the heavy rainfall, the bahar treatment failed and flowering did not happen. This fruit is normally kept in cold storage and marketed until the next fruit from the Ambe bahar arrives. Due to a significantly lower harvest this time, farmers had lower yields to store. The other reason is the failure of the Hasta bahar and the subsequent Ambe bahar on account of untimely rain. This is one of the unluckiest years when all the three bahars have failed consecutively and this led to prices of lemon gone record high levels.

(Reference: Britannica, the Editors of Encyclopaedia. "Lemon". Encyclopaedia Britannica, 19 Mar. 2021)

(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



Real Life Experiences:

You Hit with Lathi We Strike with Leaves

Dr. K.Tirupataiah, IFS (Retd.)

The Context

Summers in North Telangana districts can be deadly. Unfortunately, for human beings, Tendu likes the heat more the heat better the leaf emergence. Over the years people in general and Forest officials in particular, adopted a method to beat the heat. Get on to work with Sun rise and come back by about 11 am. This method suited the beedi leaf collectors as well.

The Incident

Unfortunately, forest staff also had to deal with another issue i.e Left-Wing Extremism. This beedi leaf season is also the season for the LWE for resorting to extortion on various counts. This story is one of many such instances. Bhimgal is one of the key sections in Kammarpally sub-division of Nizamabad forest division. It has areas like Bheemnagar, Manal that were heaven for the LWE. And given the nature of their job, forest staff often ran in to the LWE activists.

On a fine day, the Police of Nizamabad district came in a horde and took a Beat Guard away to a police station (outside their own district) and tortured him to give details of LWE activists that he came in to contact with a few days earlier (as per their intelligence).

The incident came to our notice. We tried to get the Guard released by talking to the local police. But, they didn't relent. Issue took a totally different turn. The whole section staff, sub-division staff, Division staff and then the whole Circle staff struck work and went on strike in front of District Police Office and other places. This incident went up to the state level.

What was interesting was the conversation between the Sub-DFO and the SP (Well known for his aggressive approach to LWE). The SP said, "You people are in constant touch with the Naxals. You eat with them. You sleep with them. You don't report it to us. So, you

are in nexus with naxals". The sub-DFO replied, "Our job is in Forests. Our quarters are in Forest areas. We work alone. We too fear for our life. We work within the given conditions. Even if we know who the naxals are, we cannot give details because the next day we will be gone". The Sub-DFO further asked the SP, "You have a 1000 force. I have never seen a Police officer anywhere near Bhimnagar or Manal in my tenure. If you make your force stand hand-to-hand, they can cover the entire forest stretch end to end. Why don't you try it? Why not make your Police sleep in the forest villages as our staff does?"

The SP was really angry and seemed to come to a conclusion that pressurizing forest staff was the only way left for them to tackle naxalism.

The Result

But, as the Police beat the arrested forest staff with lathi, the Forest staff decided to strike back with boycotting beedi leaf collection, in the peak of the season. They even threatened to court jail enmass. This went on for a couple of days and the matter went to the top bureaucrats and Elected leaders. The SP got his instructions to immediately release the Forest Guard and stop all further actions against the department. He didn't like it.

It was one of the occasions that spurred everyone in solidarity to express the great risk (to life) that forest staff took to discharge their legitimate duties. What happens around them cannot and should not be attributed to them.

PS: One of the deadliest encounters took place a few years later at Manal.

(Saluting all the forest staff who took that bold decision to support their brother/colleague and all those who risked their lives, every day, to work in such places like Manal, Bhimnagar, during those tumultuous years).

(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)

Padma Shri Dr. G.V. Chalam – Father of High Yielding Rice Revolution

Akshaya Kumar Nayak



“Rice for All Forevermore” relates to the multi-faceted personality, Dr. Guduru Venkata Chalam (Chalam in short), a celebrated agricultural scientist, a writer and philosopher, who played a key role during the Green Revolution in India.

Childhood and Early Education :

Dr. Chalam was born to Venkata Subamma and Kommuri Sambasivam of an affluent family on November, 09, 1909 in a small town, Gudivada in Krishna district of Andhra Pradesh. At the time of his father's death, he was only 8 years, brought up by his paternal uncle Guduru Ramachandra Rao – a Gandhian and a pioneer social reformer who convened the first “Adi Andhra Mahajana Sabha” in 1917 for emancipation of the untouchable castes (Malas and Madigas – known now as “Dalits”). Chalam's early education was in Gudivada and Rajamundry and later continued his undergraduate studies in P.R. Raja College in Kakinada. Being inspired by his uncle he became involved in contemporary social reforms and came out as a leading member of a society (known as Sodara Samajam) which aimed at establishment of an egalitarian society transcending caste, creed, and religion. Fired by patriotic zeal, Chalam threw himself into the freedom struggle against the alien rulers. As a graduate student, Chalam was caught distributing seditious and anti-British pamphlets by the police and imprisoned for 14 months in the Vellore jail. Due to set back (for imprisonment) he did his PG at Benaras Hindu University and awarded first class Master's Degree in Botany. Following a short stint at the newly formed Indian Agricultural Research Institute (IARI) he joined as Research Asst. in Agriculture in Govt. of Orissa, Cuttack and was responsible for evolving several

varieties of high yielding strains of rice. He carried out special work on the Taxonomy of rice and obtained his Doctorate from Patna University in 1943 (the first Ph.D. on Anatomy of rice in agricultural Botany in Bihar and Orissa States). He evolved T-1145, T-141 and T-1242 and a Saline Resistant variety of rice SR 26 B which occupies the entire East Coast, part of West Coast of India, Ceylon, and some SE Asian countries. As Asst. Director of Agriculture for Land Reclamation and Seed Multiplication he established two large sized Farms after reclaiming forest areas – known as “Sukinda Farm” and “Deras Farm” – contributed about 50% of total seed production in Orissa in 1967 and 1954 a Paddy Specialist of Odisha Govt. He was the first Prof. of Agricultural Botany in Orissa Agricultural College (now Odisha University of Agriculture and Technology). He handled the Japonica / Indica Hybridization Scheme sponsored by the FAO under which some promising hybrids were evolved, and a comprehensive monograph called “Rice in Orissa” was published by Govt. of Orissa which was presented to the International Rice Commission. Several new varieties of raising of second crop which was unknown to farmers was undertaken in the Command Area of Hirakud Dam.

Agricultural Revolution:

Dr. Chalam joined as Dy. Agricultural Commissioner in the Union Ministry of Food and Agriculture and organized several Seed Production and Training Programmes in the country in collaboration with the Rockefeller Foundation and Ford Foundation. He was the main draftsman of Seed Law for India known as National Seed Act (1966) in 1963. He was appointed as the first General Manager of National Seeds Corporation and established the Certified Seed Farms



in India to produce high quality seeds to farmers which played a key role in ushering the Green Revolution in India in the late 60s. Dr. Chalam was the first Member Secretary of the Central Variety Release Committee – the forerunner of the statutory Central Seed Committee. After the term of G.M. he was appointed to the Indian Council of Agricultural Research (ICAR) in 1964. He attended the International Seed Testing Seminar in New Zealand, visited the International Rice Research Institute at Manila. At his own initiative and expense selected the TAICHUNG NATIVE-1 (TN-1) as one of the most promising indica varieties that could thrive in India. Chalam could get only one Kg of seed of this variety and with the approval of the ICAR he carried trials at 4 places which gave outstanding results beyond all expectations which brought new vistas in rice production in India. Despite criticism by many Indian agricultural scientists and scepticism of UN agencies and World Bank officials relating to the characteristics of the variety and abilities of Indian farmers to embrace the new cultivation techniques Dr. Chalam was undeterred in carrying out the trials of TN-1 in Orissa, A.P., Punjab, West Bengal, U.P., Haryana it proved as an outstanding variety. Yield came to 6000 to 7000 lb. (3,200 kg) per acre – a rare occurrence. He sponsored the release of TN-1 before the Statutory Central Variety Release Committee in January 1966. His second trial in the 2nd crop season of 1965-68 was in 11,000 acres (45 km²) made it possible for planting one million acres (4,000 Km²) for Kharif season.



He introduced high yielding Mexican Dwarf Wheat variety and hybrid Maize and Ground nut in India. He was a member of the co-opted team on Agricultural Implements of the Planning Commission. He produced 40 scientific papers. He had a flair of writing and fluent in Telugu, English and Odia. He was awarded "Kavikokila" prize for extending scientific agriculture to farmers through his popular book on rice cultivation styled "VARI SAGU" in Telugu appreciated by farmers in A.P. He gave away the prize money to the National Defence Fund.

In recognition of his enduring contribution in the field of agricultural development and for the stewardship of Green Revolution in the country Dr. Chalam was honoured with Padma Shri in April 1967 by the Govt. of India. Unfortunately, a month later, on 8th May 1967 he passed away leaving behind him his wife and 8 children.

As long as rice is the staple diet in India Dr. Chalam will be fondly and thankfully remembered as a doyen who waged relentless battle for "Freedom from Hunger" for the poor of the country.

The Department of Posts, Govt. of India issued a postage stamp with a denomination of Rs. 5.00 on 08.05.2010 to honour Dr. Chalam. Also, a special cover was released on 9th November 2009 on occasion of his Birth Centenary held at Bhubaneswar.

(The writer is retired DFO and President, Kendujhar Philatelists' Association & Vice-Chairman, Utkal Vikash Parishad, Odisha. Feed back: Mobile : 9437001212)

Captive Breeding of Asiatic Wild Dogs at Indira Gandhi Zoological Park, Visakhapatnam

Dr. G. Ramalingam, IFS.,

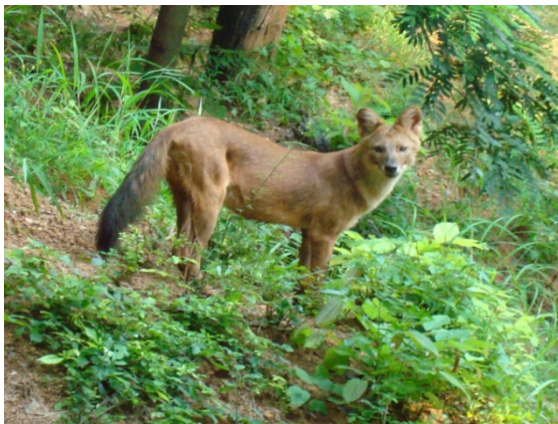


Introduction:

Indira Gandhi Zoological Park is one of the finest and modern zoos in India located in unique natural settings in the fringes of sprawling coastal city of Visakhapatnam amidst the vast expanse of Eastern Ghats. It came into existence in the year 1972 as per G.O.Ms.No.579, Forests and Rural Development (For-III) Department Dt. 10.11.1972 and it was inaugurated and opened to on 19-05-1977. It has a total area of 250 Ha (625 acres) carved out from Seethakonda Reserved Forest, encompassed by hillocks, natural catchment areas, streams and sea shore of Bay of Bengal on the eastern side. The zoo being in the fringes of the city is a destination for about 8.00 lakh visitors annually from the city as well as visitors from all over the country. At present there are more than 850 animals and birds live in open, large moated areas surrounded by natural vegetation. This gives the animals a feeling of living close to their natural habitat.

Dhloes:

The Asiatic Wild dog called as Dhole, a member of the family Canidae, is a threatened wild animal species is being reared in captivity at Indira Gandhi Zoological



Park. The population of this species is dwindling due to biotic pressure and prey base habitat reduction. Dhole is listed as Endangered by IUCN and listed under Schedule II (threatened) in the Wildlife Protection Act of India 1972 and in the Appendix II of CITES.

Captive breeding of this threatened species in zoos to a stage of viable population and reintroducing them into the wild is a challenge because of their complex social structure, free ranging nature, the need for space and privacy and the untamable wildness. Despite the above constraints, Indira Gandhi Zoological Park is the only zoo in Andhra Pradesh and also in the country where successful breeding of dholes in captivity is in progress since 2007.

History: In Indira Gandhi Zoological Park, Visakhapatnam the wild dog pack of 5 animals were rescued in 2004 which fell into an open moat and are being reared in captivity.

Enclosures: The present enclosures where these dogs kept are very spacious having an area of 2662.74 sq.mt. and 2323.06 sq.mt. with naturally grown Bamboo, Neem, Jamun, Sisso and Acacia sp. and whelping dens and water pools. New off-display moats (old primate vacant enclosures)–two numbers were developed for the four (4) breeding pairs viz., Moat A, B, C and D and scientifically monitored daily activities – behaviour of adults and pups after delivery.

Breeding facility: For the purpose of breeding, the moats have been designed with earthen dens with sandy cushion stratum as a place for hiding and to deliver pups. The night Kraals are spacious divided into cubicles and are provided with water tubs. The hygiene of the enclosures is maintained by cleaning the kraals twice every day.

MOATS	MALE	FEMALE	PUPS
A	5	3	-
B	2	2	6
C	2	2	-
D	2	2	3

Moat wise distribution of animals

Right:

Large open-moated enclosure of Wild dogs



An appropriate off-display moat has also been selected to prevent from human interference (visitors) and to facilitate breeding of the wild dog. This moat is also designed with whelping dens and water pools in the day kraal. The selected breeding pairs with other dholes (as they live in a group) are kept in the moats to facilitate breeding. Now, the Zoo has four moats that facilitate 29 wild dogs.

DIET:

The adult dholes are fed twice daily with chicken (0.5 kg/animal) in the morning and beef meat (3-5 kg/ animal) in the evening. The pregnant female's diet is supplemented with vitamins along with 1.5 kg chicken, one litre milk and eggs in their regular feed. Once in a week, it is also given 1 kg of male sheep (Ram) meat along with bone as a source of calcium and to gain more nutrition to growing pups. After the pups wean off from their mother, small pieces (Kheema) of chicken meat/ beef supplemented with vitamins may be provided as their regular diet up to 4-6 months.

Reproductive Biology:

Breeding season commences between mid-October and January. The female become sexually mature at the age of two years and the males mature at three years of age. Dholes have a gestation period of 9 weeks. The size of the litter may range from 3-8. Special care is taken by the zoo management in feeding and veterinary aspects of the wild dog during this season. The Wild Dogs exhibit typical mating behavior of canids. After a successful mating, the animals whelp

in an underground den. After delivery, the female wild dog comes out of the den occasionally to check for predators and for feeding purpose. If there happens to be death of any pup they are rejected and are brought out of the den. Only after one month of delivery, the pups come out of the den which is under parental care until they are six months old. This shows their strong social behavior.





Den for pup delivery and rearing



Pups of 30-35 days old

Year-wise Statistical Data of Indian Wild Dog Breeding in Indira Gandhi Zoological Park, Visakhapatnam

Year	Opening stock				Births			Acquisitions			Disposals			Deaths			Closing stock			
	M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
2007-08	3	3	6	12	0	0	0	0	0	0	0	0	0	0	0	3	5	4	0	9
2008-09	5	4	0	9	1	0	0	0	0	0	0	0	0	1	0	0	5	4	0	9
2009-10	5	4	0	9	1	3	0	0	0	0	1	1	0	0	0	0	5	6	0	11
2010-11	5	6	0	11	2	2	0	0	0	0	1	1	0	1	1	0	5	6	0	11
2011-12	5	6	0	11	4	3	0	0	0	0	0	0	0	0	0	0	9	9	0	18
2012-13	9	9	0	18	3	3	0	1	0	0	1	0	0	0	0	0	12	12	0	24
2013-14	12	12	0	24	2	1	0	2	0	0	0	0	0	0	0	0	16	13	0	29

Parental care by Dam and Sire



Successful Breeding of Dholes:

- ❖ Keeping a compatible male and female together prior to the breeding season.
- ❖ During the breeding season no person other than the animal keeper is allowed inside the enclosure.
- ❖ The concerned keeper is advised not to go very often near the whelping den so as to minimize disturbance.
- ❖ Once mating is confirmed the female's diet is supplemented with the following:
 - a. Proviboost 10cc /animal/day,
 - b. Syr Osteocal vet 10cc/animal/day,
 - c. Syr Polybion 10cc/animal/day,
 - d. Tab Vitafit one tablet /animal/day
 - e. along with 1.5 kg chicken, one litre milk and eggs in their regular feed . The female wild dog is also given 1 kg of mutton meat along with bone during its pregnancy as a source of calcium and to restore its activity.
 - f. After delivery the female is given Syr Vimeral 10ml/day, and Osteocal vet 20 ml/day in its regular diet.
- ❖ After the pups wean off from their mother, small pieces (Kheema) of chicken meat supplemented with vitamins may be provided as their regular diet up to 4-6 months. The physical examination

of the pups should be under the supervision of the veterinarian.

Veterinary Care of Dholes:

The Veterinary aspects are taken care by the Veterinary Assistant Surgeon, duly following the Prophylactic measures like:

- ❖ Vaccination with Combined Freeze-dried canine Distemper, Hepatitis, Parvovirus and Para-influenza vaccine once in a year,
- ❖ Deworming with Drontol plus, Neomec, and Dectomax (inj) once in 3months
- ❖ Sol. Butax, 2-2.5ml/day is sprayed topically for De-ticking.

Conclusion:

By taking precautionary measures at each and every point right from moat designing, hygiene, diet, veterinary assistance, Indira Gandhi Zoological Park management is successful in breeding these threatened species to a viable number. Initially the zoo had only 5 individuals in the year 2004 and now the number has increased to 29 that show the environment created in Indira Gandhi Zoological Park is congenial for breeding of Dholes.

To avoid inbreeding and to infuse new blood (heterozygosity), wild dogs were exchanged between Sri Venkateswara Zoological Park, Tirupati and they are also breeding in the Zoo atmosphere.



Pups in group showing the social behavior



A separate breeding centre is under progress with an initiative to conserve Dholes. From the present number, founder stock will be selected by genetic profiling with the help of LaCONES, Hyderabad and these will be translocated to the newly constructing Conservation Breeding Centre to breed as per CZA guidelines with intensive monitoring and management. We will also plan for rehabilitation of packs in the natural habitat in Eastern Ghats where the wild dog population had come down drastically.

People involved:

1. Sri. A.V. Joseph, IFS, PCCF(wildlife), Andhra Pradesh
2. Dr G. Ramalingam, DyCF and Curator, IGZP, Visakhapatnam.
3. Dr. V. Srinivas, VAS, IGZP, Visakhapatnam
4. Mr. K.L.N. Murthy, Biologist, IGZP, Visakhapatnam.

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Continuation from page No.35

N.R.Sangeetha, Deputy Directors; faculty members; K. Shiva Jyothi, P.Sunitha, Y .Subhash Chandra Yadav, M.Ram Mohan, Asst. Directors; Uma Rani, Deputy Range Officer, Praveen Kumar, A.Saritha, Forest Section Officers; Physical Training Instructors, Kondal Rao, Ashok Reddy, Rafiullah, Dr T. Dharma Chandra Kumar, CAFE coordinator, 8th Batch Range Officer

trainees, 31st batch Beat Officer trainees and other staff of the Academy participated. The parents and relatives of the passing out officer trainees from various states also participated in the convocation ceremony.

- M. Ram Mohan, Asst. Director,
(TS Forest Academy, Dulapally, Hyderabad.)



Osteoporosis (Porous Bones and Joints)

Dr. N. V. Jayanth Babu

Osteoporosis is a disorder in humans, wherein, the bones and joints become degenerated, less dense, thin, brittle, porous and weak that could be damaged or broken very easily. The term 'Osteon' means Bone and 'Porous' means holes (bones develop pores to become honey bee comb like). Osteoporosis means porous bones and joints. Osteoporosis is also defined as a progressive, systemic, skeletal disease characterised by low bone mass and micro architectural deterioration of bone tissues with consequent increase in bone fragility susceptible for fracture. Osteoporosis in males largely remains under diagnosed and untreated. It is revealed only after the occurrence of a fracture.

Bone loss is a continuous process which commences around 45 years of age and progresses throughout the life. In a cross sectional study conducted in Delhi, basing on B.M.D. and the criteria of T- score, it was estimated that, the prevalence of osteoporosis was to be 24.6 % in men above 50 years and 42.5 % in women in their post-menopausal stage. In U.S.A about 54 % of the adult population above the age 50 are suffering from osteoporosis. According to recent statistics from the International osteoporosis foundation, worldwide, more than 200 million people are suffering from osteoporosis. Osteoporosis has no clinical manifestations until there is a fracture. Fractures cause important morbidity. In men, in particular, they can cause mortality.

With an increased awareness, early diagnosis, early treatment, osteoporosis can be managed and its progression towards deterioration can be arrested. Osteoporosis can neither be cured nor completely reversed.

Hence this article is meant for the benefit of all the people above 45 years of age, the senior citizens in particular, for keeping a vigilant watch on the progression of osteoporosis further. For adopting

all the required precautions in advance, to prevent fractures occurring frequently in the hip joints, forearm, wrist, or spine, being resulted when they fall often.

Osteoporosis occurs when there is an imbalance between new bone formation and old bone resorption. The body may fail to form enough new bone or too much old bone may be reabsorbed or both. Osteoporosis starts progressing from middle age and often seen in elderly people. A stooped posture in the body can be seen. Severe back pain is experienced due to spinal compressions and collapsed vertebrae. The other joints like wrist and hip are also affected. Osteoporosis can cause stress fractures. In the old age, if the disease is in acute stage, even if the patient coughs heavily, bone fractures occur.

Causative factors responsible for Osteoporosis:

1. Menopause stage in women – Decreased secretion levels of Oestrogen Hormone.
2. Menopause stage in Men – Decreased secretion levels of Testosterone Hormone.
3. Prolonged usage of steroids, drugs for treating Cancer, Arthritis & Asthma.
4. Progression in Age, Rheumatoid arthritis or Multiple sclerosis.
5. Vitamin deficiencies, Intake of diet containing less Calcium, Vitamins-A, D,C, E&K Phosphorous, Zinc, Magnesium, Copper etc.
6. Addiction to Alcohol, Smoking, nicotine, caffeine, and drugs.
7. Improper functioning of Kidneys, liver and lymphatic system.
8. Irregular gastro-intestinal conditions such as IBS OR I.B.D.
9. Imbalance in secretion of hormones in the body.
10. Intake of unwanted or unhealthy diet and more salt in your diet.
11. Constipation - chronic in nature.
12. Accumulations and piling up of unwanted wastes, Free radicals, Toxins and other harmful substances in the body for longer periods.
13. Lack of Physical exercise, Inactive Life style and obesity.
14. Genetics.

SYMPTOMS OF OSTEOPOROSIS:

1. Receding of Gums of teeth. 2. Decreased grip strength 3. Cramps and bone pain 4. Occurrence of Fractures 5. Loss of Height 6. Brittle finger nails 7. Widow's Hump (bend in spine)

ANATOMY, STRUCTURE, FORMATION, COMPOSITION OF BONES & FUNCTIONS:

BONE HEALTH: Bone health is very much important for the complete and overall health in humans. Bones are mostly made up of the protein - collagen fibers. The major minerals of bone are calcium and phosphorous. Human bone is a modified form of Hydroxyapatite (HA). The chemical formula of bone is $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$. In human bones, the calcium and Phosphorous ratio in general is 5:3 and it also contain additional ions like silicon, carbonate and zinc.

The hallow cavities of bones are filled with a spongy viscous tissue called bone marrow. Bone marrow is of two types. 1. Red Bone Marrow And 2. Yellow Bone Marrow.

RED BONE MARROW contains Hematopoietic stem cells, the blood forming stem cell, which are responsible for production of R.B.C., W.B.C., Platelets, lymphocytes, Monocytes, Neutrophils, Eosinophils, Basophiles etc., Mesenchymal stem cells are found in the bone marrow for the purpose of performing various functions in our body. Mesenchymal stem cells as per the need and requirement, differentiate themselves and converted into 1. Chondrocytes (responsible for cartilage generation) 2. Osteoblasts (for bone formation) 3. Osteoclasts (for bone resorption) 4. Adipocytes (for formation of adipose tissue) 5. Myocytes (for formation of muscles) 6. Fibroblasts (Formation of extra cellular matrix, collagen, connective tissues for wound healing) 7. Endothelial cells (Filtration of fluids in kidneys and to form linings of inner surface in all blood vessels and circulatory system) 8. Macrophages (Forms an integral part of our immune system and for removal of dying or dead cells and cellular debris in the body).

YELLOW BONE MARROW produces cartilage, store fats, and provides sustenance and maintenance of the correct environment for bone functioning. As the body grows older i.e., beyond the age of 7 years, Red bone marrow slowly converts into yellow bone marrow. In adults, red bone marrow is present in skull, spine, pectoral & pelvic girdle, femur and Ilium bones. Yellow bone marrow is present in long bones of body i.e., hands and legs. It is estimated that an adult human possesses, about 2.6 Kgs. of bone marrow on an average.

Bones are modeled and remodeled by the concerted activities of 3 types of cells within the bone tissue.

1. **OSTEOBLASTS:** are the cells responsible for formation of new bone found on the top of or next layer to existing bone and produce extra cellular matrix, and its mineralization for making the existing bone stronger. The main function of osteoblasts is being the endocrine activity through secretion of Osteocalcin, which regulates fat and energy metabolism in the body.
2. **OSTEOCLASTS:** are the multi nucleated bone cells, responsible for renewal, re-modeling, repair and replacement of the bones already formed.
3. **OSTEOCYTES:** are the cells found in the fully formed bones that are responsible for maintaining the bone matrix and the density in bones.

Bone loss in osteoporosis is due to the death of Osteocytes.

The research conducted at Montreal University and also the latest research revealed that, a non-collagenous protein produced from osteoblasts of bone and dentin, called osteocalcin released in blood stream, is responsible for proper bone metabolism, increasing bone density, controlling the production of insulin, testosterone and several metabolic functions.

- The dynamic nature of bone means that, collagen in bones renews constantly and old bone is subjected to resorption or diluted for repair or release of calcium, so that, over a period of every 7 years, you have completely a new skeleton.

- The cells responsible for bone resorption or break down are the osteoclast cells.
Bones continue to grow in length up to an age of 25 years only.
- In the absence of Vitamin D, Magnesium, Zinc and copper our human body cannot absorb and utilise Calcium directly. (From the gastro intestinal track). The calcium thus left unutilised is stored in the Liver and kidneys and subsequently excreted from the body.
- When sufficient quantity of calcium is not provided to the body through the individual's diet, the body inevitably draws the required amounts of calcium from the bones and cartilage through the process called BONE RESORPTION by utilising multi nucleated osteoclast cells, resulting less density in bones and erosion of cartilage over a period of time.

DIFFERENT STAGES IN O.P., AS MEASURED & CONFIRMED THROUGH DENSITY TESTS

1. STAGE – I. At the age of around 30 to 35, when old bone resorption and new bone formation are in equilibrium ie., at the same levels and rate. Whereas, the new bone formation stops or becomes very slow. In this stage bone density score ie., T-score would range between 1 to 1+ .
2. STAGE –II. This would be around 40 to 45 years of age. Bone loss or resorption happens faster than new bone formation. Bone density scores become lower . T-score would range 1 to 2.5, indicating Osteopenia stage - a precursor stage to osteoporosis. Still you won't have any symptoms. If diagnosed in advance, one can overcome and stop further loss of bone resorption by following appropriate measures and treatment.
3. STAGE – III. This would be around 50 years of age. Bone loss far exceeds your bone growth resulting low bone density. T- score would be less than - 2.5 when tested. Unless you experience

a fracture you will not experience any other symptoms. If diagnosed in advance, one can overcome and stop further loss of bone resorption by following appropriate measures and treatment.

4. STAGE–IV. Generally occurs beyond 55 to 60 years of age. This is the severe stage of Osteoporosis, with a risk of more number of fractures. Severe bone loss leads to changes in spine, such as stooped posture, loss of height and visible bend in spine.

DIET CONTAINING VITAMINS MINERALS INDICATED FOR OSTEOPOROSIS

Intake of Foods containing gamma-linolenic acid, Glucosamine sulphate, Chondroitin sulphate and Glycol reduce inflammation in joints and are useful for the health of cartilage and bones. Omega-3 fatty acids (available in fish like salmon, cod, Fish oils, canola oil, Flax seed, dry fruits or food supplements) and all the vitamins & minerals in required quantities, have anti-inflammatory effect and improve mobility of joints.

INTAKE OF VITAMINS & Nutrients on daily basis, for addressing the problem at the early stages. 1. Vitamin E 400 IU – (Three times a day). 2. Vitamin K, 100 mcg per day, 3. Vitamin C 3000 mg as against 1000 mg. per day 4. Calcium 1000 to 1200 mg per day. 5. Vitamin D3 5000 IU as against 600-800 IU once in a week, if there is deficiency. 6. Magnesium chloride 500 mg. 7. Zinc 15 mg to a maximum of 50 mg 8. Phosphorous 700 to 1250 mg are given for addressing the problem at it's early stage.

Intake of CALCIUM, PHOSPHOROUS, MAGNESIUM, ZINC, COPPER, VITAMIN D AND VITAMIN K together adequately in right proportions A) Arrests bone loss B) Promotes formation of new bone C) Makes C.R.P. (Chronic Inflammatory Reactive protein and Inter Leukin-6) which reduces chronic inflammation. Accordingly, your intake of diet is to be planned wisely.

ZINC is an important nutrient for up keeping the good health of individuals. It plays a major role for increasing

the strength and density of bones and also for strong teeth. It synthesizes Proteins and D.N.A., activates functioning of about 300 enzymes in the body which results in strengthening of immune system in the body. Promotes cell growth, regulates blood sugar levels and aids in warding off chronic ailments like Diabetes and Heart problems. It prevents the risk of respiratory infections. Body cannot store excess and unutilised zinc. It's requirement is to be met every day. Availability of foods rich in zinc are, Pumpkin seeds 2.2 mg in 28 gms of clean seed; Cashew seed - 1.6 mg in 28 grams; Mushrooms - 1.2 mg in 210 gms; Dark chocolates - 3.3 mg in 100 gms, whole grains like kidney beans and lentils - 5.1 mg in 180 gms; Red meat 4.8 mgs in 100 gms; Chicken - 2.4 mgs in 85 gm; Oysters & shell fish 8.5 mgs in 50 gms; Zinc rich fruits are Avocados, Pomegranates, Rasp berries, Kiwi, Guavas, Apricots.

The normal reference range for zinc in the blood is to be between 0.66 to 1.10 mcg / ml. Lower values may indicate ZINC DEFICIENCY and higher values indicate ZINC TOXICITY. Zinc absorbs copper and improves Haemoglobin. Daily intake of 15 to 50 mgs of zinc along with 0.9 mg to 1.1 mg of copper is recommended. Magnesium regulates Zinc levels, while Zinc enables it to absorb Magnesium. Zinc absorbs copper and improves Haemoglobin. Zinc also reduces the higher amounts of copper from our body and intake of higher doses of zinc can cause a copper deficiency.

COPPER: Copper is an essential trace mineral required by the body for production of energy, absorption of iron, production of bone and connective tissues, proper functioning of immune system, synthesis of hormones, and formation of red blood cells. Deficiency of copper can lead to weak bones, anaemia, pain in bone joints, leads to deficiency of Zinc, Vitamin B 12, Iron. Conversely, over-consumption of copper will lead to cramps, diarrhoea, and vomiting and neurological effects in long term. Our daily requirement of copper is to be 900 mcg to 1.1 mg.

COPPER Containing foods: 1. Oysters: 100 g—4.4 mg of copper 2. Shiitake Mushrooms. 100g—0.9 mg. 100g-- 3. Firm Tofu:100g-- 0.4 mg. 4. Sweet potatoes: 100gm.-- 0.3mg, 5. Sesame seeds: 100 g.—2.5 mg:6. Cashews (Dry roasted) 100 g—2.2 mg. 7. Chick peas (Garbanzo Beans)100g—0.4 mg,. 8. Salmon fish. 100g—0.3 mg 9. Dark chocolates.100g—1.8 mg 10. Avocados.100g—0.2 mg. 11. Sunflower seeds— 100g—2.29 mg, 12. Horse gram. 100g--1.81 mg 13. Whole masoor dal (lentil). 100g—1.87 mg.

MAGNESIUM: Magnesium plays a key role in converting vitamin D into its active form. Magnesium helps to absorb calcium, phosphorous, potassium and Vitamin D. Magnesium regulates Zinc levels, while Zinc enables it to absorb Magnesium. Magnesium deficiency has been interlinked to chronic inflammation in Bone Joints. Magnesium, Zinc and Calcium are the 3 minerals that are vital for several processes in the body, especially for enhancing Bone density, arresting bone loss, elevation of mood, enhancing immunity power, controlling blood sugar levels and improving quality of sleep. It also provides relief from Asthma attacks. Calcium, vitamin K2 and vitamin D must be balanced with magnesium.

Best ratio of Calcium : Magnesium is 2:1 ie., 1000 mg: 500 mg. Daily requirement of magnesium for adult women is 320 mg and in adult men below age 30 is about 400 to 420 mgs. The normal range of magnesium levels in blood is to be 1.7 to 2.2 mg/dl (0.85 to 1.10 mmol/L).

Foods rich in Magnesium are, Almonds, Cashews ie., 82 mg of magnesium is available in 28 grams, Legumes – 70 mg in 100 grams; Pumpkin clean seed, Flax seed, Chia seed – 150 mg in 28 grams; Whole grains – 65 mg in 28 grams; FISH :: Salmon, Macreal, Fatty fish have 29 mg of magnesium in 100 g.

(To be Continued)

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LEGAL NOTES

**Sri K.A. Ravi Chengappa and Sri C.C. Devaiah Vs.
The Prl. Secretary to Government of Karnataka Rev. Dept & ORS**

- K. Buchi Ram Reddy, IFS(Retd.)

The PIL W.P. No. 12038 of 2020 was filed by the petitioners against the Prl. Secretary to Govt of Kar. Rev Dept (R1); Dy. Commr. Kodagu dist, (R2); Chief Secy. Govt. of Kar. Forest, Environ. & Ecology (R3); Prl. CCF (R4); Dy.C.F. Medikeri (R5) and Chief Secy. To Govt. of Kar. (R6). The Prayer of the Petitioners is to direct R1 and R2 to transfer the Revenue entries in the name of the Forest Department to the extent of 11,722.29 ha. of C & D category of land in Kodagu dist. to Forest Dept. as per communication of R1 to R2 Letter dated 26.06.2012

It is the case of the petitioners that an extent of land measuring 11,722.29 ha. of C & D category has not been physically handed over by the Rev. Dept. to the Forest Dept. by making appropriate entries favouring the Forest Dept. in the Rev. Records pursuant to a G.O. dated 20.07.1994.

According to petitioners, Harangi Reservoir was built in 1970. The reservoir is in Western Ghat and is at a distance of 9 kms. from Kushalnagar town in Kodagu district. While constructing the reservoir, the State Government had released 900 acs of land from Yadavanadu forest and 3000 acs. from Atur forest Vide G.O. dated 12.05.1972 for rehabilitating the displaced persons. In lieu of the land submerged in the project 18,000 acs. of land of Revenue Department shall be handed over to the Forest Department as disclosed by the order of Government of Mysore vide order dated 12.05.1972. It is the grievance of the petitioners that the Deputy Commissioner of Kodagu has not handed over 11,722.29 ha. to the Forest Department. The Government reiterated its decision in another order dated 20.07.1994 to hand over the land to Forest

Department. The land continued to be under the control of the Revenue department as its possession is not given to Forest Department. The object in the order of the Government was to compensate the forest land lost due to the project. The petitioners submitted that they are in possession of the document issued by the Deputy Conservator, Medikeri to prove their contention. They further submit that they had issued legal notice to the respondents for compliance of the orders of the Government dated 12.05.1972 and 20.07.1994.

The petitioners are seeking directions for the transfer of the land to Forest Department and the transfer should be effected by making entries in the official records and by taking all incidental and ancillary steps for completely handing over the control of the said lands to the Forest Department by the Revenue Department. It is submitted that even after lapse of four decades and nearing half a century, the respondent State and its authorities have not given effect to their own orders.

During the arguments the counsel for petitioners, has drawn the attention of the court to the decision of the Supreme Court in T.N. Godavarman Thirumulkpad Vs. Union of India and Ors (1997-2-SCC 267) and several other decisions which have laid emphasis on the need not only to preserve but also enhance the forest area in the country. When the State Government had taken categorical decision and passed orders in 1972 and reiterated in 1994, to compensate land lost by Forest Department, the second respondent and all other authorities ought to have complied with the orders of the State Government.

The Additional Government Advocate did not contradict the orders of the State Government. It was submitted

that the Forest Department was at liberty to take charge of the land.

Taking into consideration the facts and circumstances of the case, the court felt that unless and until the lands are indicated as forest lands in the official records, the same would not acquire the status of forest lands. The court perused the Government's order dated 12.05.1972 and referred to the judgment in T.N. Godavarman Thirumalkpad under the provisions of the Forest Conservation Act wherein the scope and ambit of the term "forest" to mean not only forest as understood in the dictionary sense but also any area recorded as forest in the Government Record. The court elaborated the need for enactment of Forest Conservation Act. The court further referred to the decision in Ambica Quarry Works Vs State of Gujarat, Rural Litigation and Entitlement Kendra Vs. State of U.P. and the recent order dated 29.11.1996 in Supreme Court Monitoring Committee Vs. Mussorie Dehra Dun Development Authority, State of Bihar Vs. Banshiram Modi. The Court considered it necessary to reiterate the settled position emerging from decisions to dispel the doubt, if any, in the perception of any State Government or authority.

The Hon'ble Supreme Court in the order dated 26.09.2005 while dealing with the conservation, preservation and protection of forest and ecology and the measures required compensating for loss of forest land so as to mitigate the adverse effects on the ecology when the forest land is used for non-forest purpose observed:

"Natural resources are the assets of the entire nation. It is the obligation of all concerned including Union

Government and State Governments to conserve and not waste these resources. Art. 48-A of the Constitution of India requires State shall endeavor to protect and improve the environment and safeguard the forest and wildlife of the country. Under Art. 51-A it is the duty of every citizen to protect and improve the natural environment including forest, lakes, rivers and wildlife and have compassion for living creatures."

In the present case the matter that needs consideration is what measures are required to be taken to compensate for loss of forest land and compensate loss of forest land and compensate effect on ecology.

Dealing with fundamentals of decision, the court analyses to achieve ecological, economic and social goals; it is said that what is said to be broadly kept in view is:

"Ecological and environmental goals are important to forest managers, landowners and their stake holders, we need information how decision alterations affect such goals.

These goals can broadly stated as —

1. Maintaining and enhancing productivity;
2. Conservation of biological diversity;
3. Protecting and enhancing environmental conditions.

Keeping in view the Hon'ble Supreme Court's decisions, Respondent 2 is directed to transfer the revenue entries in the name of Forest Department of Kodagu district within a period of one month from the date of receipt of certified copy of the order. The Writ Petition is thus allowed on 08.04.2021.

(Source: Internet)

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- Douglas Adams,



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8. K. Rameshwar 14-06-1936	14. V. Satish Kumar 13-06-1968
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14. J.V. Sharma 20-06-1932	20. C. Venugopal Rao 20-06-1960
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16. S. Nauratan Singh 22-06-1942	22. Smt. T. Nagamaneswari 22-06-1974
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18. D. Ramnarayan 25-06-1950	24. J. Venkateswar Rao 24-06-1967
19. N. Linganna 01-07-1941	25. Smt. B. Praveena 25-06-1980
20. M. Bullaiah 01-07-1952	26. K. Mohan 26-06-1964
21. Sitaram Gupta 01-07-1952	27. Sm.Ch. Balamani 26-06-1974
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"IT'S DEW TIME"

Photo: Mohammad Ahsan, IFS (Retd.)

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