

ISSN: 2584-2633

VANA PREMI



Nav Se Navvey Saal Tak Ke Bachhon Ka Saathi

Life Time Subscription - Rs. 7500/-

Published Since 1994

Single Copy Rs. 75/-

Vol.26

NOVEMBER - 2025

No.11



**Arashiyama bamboo grove, Kyoto Japan,
Photo-Sri. Pramod Merkap, IFS (R)**



**Muli Bamboo (Melocanna baccifera) at Chessa,
Arunachal Pradesh
Photo-Sri. C.Achalender Reddy, IFS (R)**



TELANGANA FOREST DEVELOPMENT CORPORATION Ltd



- ❖ A wholly-owned, financially robust State Government enterprise, engaged in the large-scale establishment of plantations to meet the demands of the wood-based industries.
- ❖ A watershed approach has been adopted for the development of plantations, ensuring ecological sustainability, social acceptance, and commercial viability, with the long-term objective of enhancing the site quality of plantation areas.
- ❖ A major cultivator of Eucalyptus clonal plantations and Bamboo, covering a substantial area of 32,951.39 hectares. The operations are certified by the Forest Stewardship Council Forest Management / Chain of Custody (FSC FM/COC).



- ❖ The TGFDC has undertaken the ambitious task of developing Eco-Tourism activities within the State. Existing attractions open to the public include the Botanical Garden, Vruksha Parichaya Kshetram, Virtual Wildlife Safari and Pala Pitta Cycling Park in Kondapur, the Mahavir Nischalvan Eco-Tourism Centre in Vanasthalipuram, Aranya at the Shameerpet Deer Park, and Mrugavani at the Chilkur National Park. These initiatives are proving to be highly appealing, resulting in a growing influx of visitors.
- ❖ The TGFDC has also developed urban parks at Lalgadi Malakpet (Vanadrushyam), Thumkunta (Veduru Vanam), Gowdelli (Chandanavanam), and within the Chilkur Reserve Forest (Forestrek Park).
- ❖ The TGFDC has introduced new commercial species within the Regional Ring Road region, including Seethaphal, Sandalwood, Red Sandalwood, Rosewood, Teak, and *Casuarina Junghuhniana*, among others.
- ❖ Corporate Social Responsibility (CSR) Initiatives 2021–2025: Empowering lives through the distribution of three-wheeler scooters to the differently-abled, support to schools with sports kits and furniture, and establishment of modern pre-fab health sub-centers — driving inclusive growth with care, commitment, and compassion.
- ❖ Eco-Tourism projects have been launched at various locations under the brand name of “Deccan Woods & Trails”.

Smt. Sunita M. Bhagwat, IFS

Addl. Principal Chief Conservator of Forests
Vice Chairman & Managing Director (FAC)
Telangana Forest Development Corporation Ltd.,
(A Government of Telangana Undertaking)

An English monthly on forestry, wildlife, environmental issues, and topics of general interest that blends in-depth knowledge with engaging content for all age groups.

Editor : **Dr. Kota Tirupataiah**

THE ASSOCIATION OF RETIRED FOREST OFFICERS
Telangana & Andhra Pradesh (Regd. No.557/1990)

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

Mobile: 98499 04774

Vice President: Sri G. Krishna Murthy

Mobile: 88977 28528

Secretary : Sri B.M. Swami Das

Mobile: 90008 17781

Jt. Secretary : Sri A. Shankaran

Mobile: 94940 19595

Treasurer : Sri M.J. Akbar, IFS(R)

Mobile: 94408 10006

Executive Committee Members

1. **Dr. Kota Tirupataiah**, IFS(R), 88855 32021
2. **Sri J.S.N. Murthy**, IFS (R), 9494993939
2. **Sri M.A. Waheed**, IFS(R), 80080 79190
3. **Sri D. Nagabhushanam**, IFS(R), 80965 11200
4. **Sri A.V. Govindarajulu**, 75697 54843
5. **Sri V.V. Hari Prasad**, 78936 73767
6. **Sri G. Raman Goud**, 93914 99119
7. **Sri A. Kishan**, 99633 21321

Permanent Invitees

1. **Sri K. Buchiram Reddy**, IFS(R), 96660 97788
2. **Sri J.V. Sharma**, IFS(R), 94413 19151
3. **Sri Qamar Mohammed Khan**, 98492 33624

Editorial Board

1. **President: Ex-Officio President of Assn.,**
2. **Editor / : Dr. Kota Tirupataiah**, IFS (R)
Convenor Tel: 88855 32021
e-mail: tirupataiah.tsfa@gmail.com
3. **Associate Editor: D.Nagabhushanam**, IFS(R)
Mobile: 80965 11200

MEMBERS

4. **Sri V.V. Hari Prasad**, 78936 73767
5. **Sri K. Pradeep**, 98481 78693
6. **Dr N.V. Jayanth Babu**, 94402 66618
7. **Sri. B.M. Swami Dass**, Ex-officio Secy. of Assn.

DISCLAIMER

The opinions expressed in Vana Premi are those of the author. They do not purport to reflect the opinions or the views of the Association of the Retired Forest Officers of Telangana and Andhra Pradesh.

TARIFF RATES FOR ADVERTISEMENTS

Please consult the Associate Editor.

CONTENTS

1. Editorial4
Dr. Kota Tirupataiah
2. Can extreme Climate events Unite World Leaders? ...5
Sri.B.K.Singh
3. 'Donor Country Stimuli' Vs 'Recipient Country Stimuli'!...8
Dr.Raghottam Rao Desai
4. Pollution from Diwali Crackers11
Sri. BMT Rajeev
5. The Indian Forest Service: Ethics, Responsibility..13
Sri.R.Hemanth Kumar
6. Masts and Mangroves.....19
Dr.Padam Parkash Bhojvaid
7. Notice for 110th General Body Meeting.....21
Sri B.M. Swamy Dass
8. Nurturing Young Guardians of Nature.....22
Dr.D. Nalini Mohan
9. Unlocking Potential of Wood-based Industries24
Sri.R.K.Sapra
10. Great Green Wall Initiative in AP27
Sri B Vijaya Kumar
11. An Ode to Jane Goodall29
Sri.V.V.Hariprasad
12. Migratory Birds of Telangana.....33
Sri C.Ramakrishna Reddy
13. Anthony:The Maestro of the Green Baize36
Dr.Padam Parkash Bhojvaid
14. From Trainee to Leader37
Sri.D V Reddy
15. Funny Goof Ups39
Sri.Anirudh Dharni
16. Green Quiz.....42
Dr.K.Tirupataiah
17. Elder abuse in the world.....43
Sri.V.V.Hariprasad
18. Green News49
19. Birthday Greetings.....53
20. What is the Validity period of Sec 4 Notification...54
Dr.Akula Kishan
21. Legal Notes57
Sri.K.Buchiram Reddy
22. Obituary to Late Sri.D.V.Rao58

Total Pages 60



From the Editor's Desk...

Hello "Vanapremis",

Hope you had a safe and Green Diwali. Do you know that while most parts of India celebrated Diwali on Kartikaamavasya, a few villages in Himachal would celebrate it on Margasiraamavasya (a month later). It's locally called "Budha Diwali or old Diwali". There will be no crackers, only diyas made from Devdar wood, procession and traditional folk dance and songs. That's real GREEN Diwali. Isn't it?

November has a variety of days related to Environment to celebrate: 5th-World Tsunami Day, 6th-International Day for Preventing the Exploitation of Environment in War and Armed Conflict (very relevant in view of the ongoing conflicts/wars in the middle-east and in Russia-Ukraine), 21st-World Fisheries day and so on. November is the month for the NE monsoon as well as cyclones in the Bay of Bengal. This year we already saw an extended SW monsoon and hope we are prepared to brace for the cyclone/NE monsoon season.

We have articles related to immediate current affairs like the pollution effects of Diwali, 'migration' issue, the up-coming CoP30, an ode to Goodall. We also have articles that trace historical connects between the NAVY and the Forests and the Indian Forest Service.

November 14th is Children's' day and involving and nurturing the young guardians/future generation on nature is dealt at length in one of the articles. Greening is going to take giant strides in Andhra Pradesh through the Green Wall approach. An article on the work of WWF and Birders of Telangana who took up a survey of the migratory birds, is quite revealing.

Alertness on part of the forest department in following up on notification under sec4 of forest act for notifying any land as a forest lands is called for to ensure that the original intentions are taken to their logical conclusion. Otherwise, decades of apathy would lead to potential cancellation of the notifications and loss of precious flora and fauna besides the land. An interesting article on this, I think, would be of immediate use for all working foresters.

Nostalgia is ever so enchanting. Articles recalling Mr. Anthony the 'Maestro of the green baize', 'funny goof-ups' and 'From a trainee to a Leader' make for the remembrances and reflections.

Green Quiz, Legal Note, Cartoons (two this time) and Birthday greetings continue. Please don't forget to read the notice and block the day of the next General Body Meeting of the retired forest officers' association of Telangana and Andhra Pradesh.

Happy reading.

Dr.K.Tirupataiah
Editor



CAN EXTREME CLIMATE EVENTS UNITE WORLD LEADERS TO STEP UP EMISSION CUTS?

Sri B.K.Singh, IFS (R)

Frequent and destructive climate events from heat waves to wildfires to drought to heavy downpours causing landslides and flooding across the countries in recent months have disrupted lives and livelihoods resulting in loss of GDP growth everywhere. World leaders have rolled out some actions against Trump's tariff imposition on imports, but none have come up with proper action against his attack on environment. Top economists Catherine L Kling, Stephen Polasky and Kathleen Segerson have called peers around the World to push back against Trump's consistent attack on environmental laws by educating public through local, national and international NGOs. Environmental catastrophes are on course to reduce economic efficiency and are threat to people all round including Americans.

Some of the key reversals by Trump are the withdrawal from Paris climate accord, removing well established effects of climate breakdown on public welfare in any consideration in federal policy, ending research funding on environment and climate as well as collection of data, executive order "drill baby drill" prioritizing fossil fuel energy, reducing investments and regulations that tackles presence of lead and other chemicals in drinking water. His 24th September speech in UNGA, "Climate change is the biggest con job ever", "Renewables are a joke, they don't work", "Wind energy is pathetic, wind turbines rust and rot, they are the most expensive source of energy, the government has to subsidize them, and they are almost all manufactured in China". This did not match with the views of many World leaders in the audience nor did it align with the scientists

observing for long time.

Reacting to Trump's observation in UN GA, Ilana Seid, an ambassador from the island nation of Palau said that she did not expect anything better from Trump and warned that not acting on climate change will "be a betrayal of the most vulnerable". Evans Davie Njewa of Malawi added, "We are endangering the lives of innocent people in the world." Vice-chair of United Nations Intergovernmental panel on climate change (IPCC), Adelle Thomas said that she experienced firsthand climate disaster when Hurricane Sandy hit Caribbean and New-York City in 2012. Millions of people have testified to the devastation and it demands urgent action.

Trump called coal as 'clean' in his address, "Never use the word coal, and only use the words, 'clean, beautiful coal'. Sounds much better, doesn't it?" He also called carbon footprint 'a hoax made up by people with evil intention'. Responding to this observation Texas A&M University climate scientist Andrew Dessler said that the term was coined by Oil companies and it may have been designed to shift the responsibility for combating climate change away from corporations to individuals. Stanford University climate scientist Rob Jackson said that coal kills millions of people a year and added, "The President can pretend that coal is clean, but real people – mothers, fathers, sons, and daughters – will die for this lie."

After Trump reentered White House, Rhodium group forecast reveals that US emission cuts is slowed down by half the rate achieved in last two decades, and is projected to miss Paris targets.

China, the highest emitter of greenhouse gases, in UNGA address during recent discussion on climate crisis, has also announced its future plan to cut emission. The country has planned to cut emissions between 7% and 10% by 2035, whereas it is feasible to achieve at least 30% cut that is also absolutely necessary to slow down warming of the planet. Experts have made scathing response to this and said that the planet cannot stay within relatively safe temperature bounds, and climatic catastrophes and Sea level rise would continue to threaten the humanity. However, Xi Jinping in his oblique reference to US said, "Some countries were not rising to the climate challenge. The international community should stay focused in the right direction. [Countries] must live up to their responsibilities. The rights of developing countries must be fully respected."

China's enormous power has come from willingness to go for polluting industries (Silicon wafers, rare earths etc), which form the bed rock of modern industry and economy. AI, computers, mobiles, EVs, missiles, defense equipment, etc all depend on products of polluting industries. If some of these are unavoidable, burning of fossil fuel must be avoided.

If the two largest economies i.e. America and China compete between themselves in not de-carbonising, the vulnerable countries like global south and island nations are under threat to vanish from the face of the earth. Kaysie Brown, associate director for climate diplomacy and governance at E3G think-tank said, "China's 2035 target falls critically short of what is needed. It's neither aligned with China's economic de-carbonisation, nor its own 2060 carbon neutrality goal. Without stronger near term ambition, China risks undermining its claim to upholding multilateralism and its clean economy leadership, and sending mixed signals to global markets."

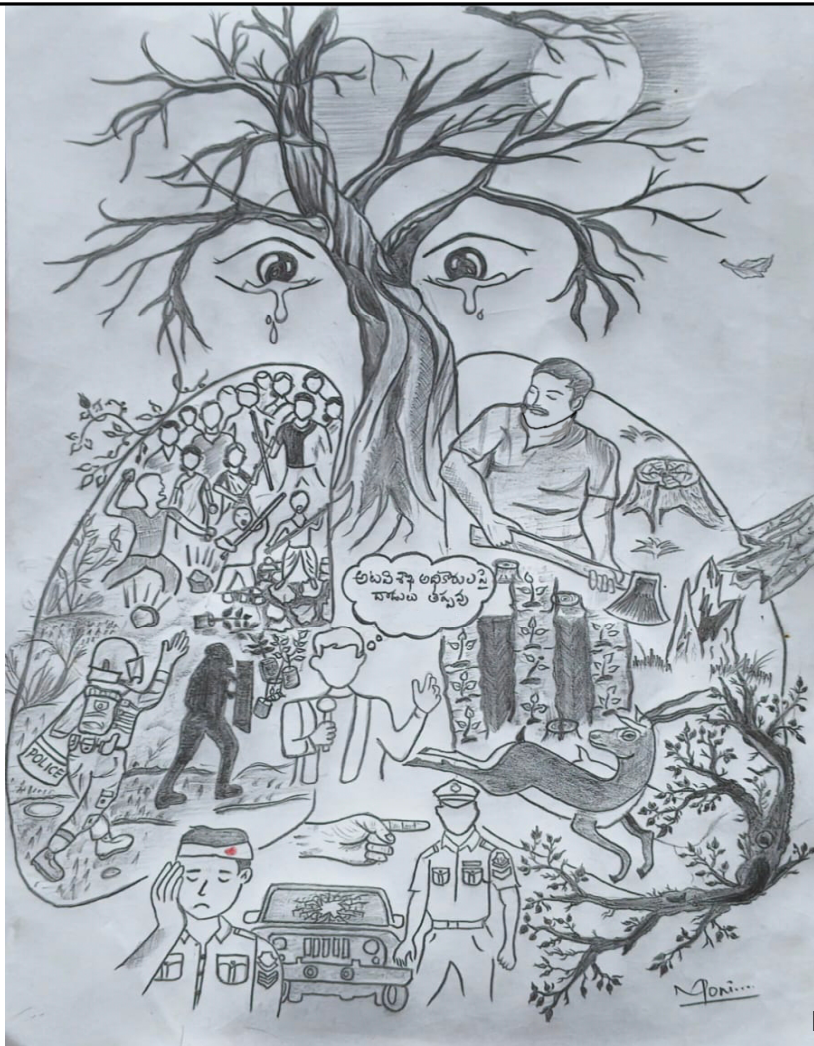
Paul Bledsoe, the former White House climate advisor said, "China must also commit to shut down many of its antiquated coalmines, which are responsible not only for the largest single source of CO2 emission globally, but also 20% of global methane emissions from fossil fuels." On a year basis, Chinese coal consumption has been surging. In 2024 the country's coal consumption has been 4.2 billion tons and this year it is on course to reach 4.5 billion tons. Coal sector in China enjoys strong political support within Xi's government. New coal fired power plants are still being developed, despite a promise made (in Glasgow CoP 26 in 2021) to 'phase down' fossil fuels. Of course, the resolution "phase down" of CoP 26 was modified to "transitioning away from fossil fuel" at Sharm El Sheikh in CoP 27 in 2022.

European and Middle East countries are at war. They are firing drones and missiles at each other, without any consideration for environmental consequences. Ukraine and Russia have been targeting at each other's energy infrastructures. Refineries, oil & gas pipelines, nuclear power plants and coal-fired plants are targeted, leading to additional greenhouse gas emissions. If oil & gas stocks are hit by drones and missiles, they come under flame and obnoxious gases are released that increases the concentration of CO2 in the atmosphere. Both Iran and Russia have to run their war machine by selling oil and gas and when the stocks go in flame, they have to drill more to meet the demand. The economies of the countries involved in war including America and European Union are based on war. A sizable portion of the GDP is from defense manufacturing and sale of fossil fuels. These are highly polluting industries and more the wars prolong, warmer would be the planet that brings frequent and destructive climatic catastrophes. Can World leaders put their might to stop wars to restrict warming of the planet?

Annual climate summit of the United Nations, CoP 30, is scheduled in Belem, a Brazilian city on the Pacific coast in mid- November 2025. The UN climate chief Simon Stiell has been frank enough to admit that the commitments to be made in Belem will fall short of emission cuts needed to contain global warming within 1.5 degree Celsius above pre-industrial levels that has been committed

ten years ago in 2015 in Paris. The task before CoP 30 would be to show how those inadequate national targets can be stepped up to ensure that Paris agreement is fulfilled. Further, CoP 29 at Baku failed, as developed countries did not commit adequate finance for adaptation and climate resilience in global south. Can leaders be more considerate this time?

The author is a retired IFS officer and former Principal Chief Conservator of Forests (Head of Forest Force) Karnataka, M-94498 63501



Assault on Forest Officers

P.Mounika, FBO
Mamda range Nirmal



From the 'Drain' to the 'Gain':

'Donor Country Stimuli' Vs 'Recipient Country Stimuli'!

"India faces the paradox of being both a donor and, at the most: a reluctant recipient."

"I suppose our capacity for self-delusion is boundless" - John Ernst Steinbeck, NL (1902-1969)

(American litterateur, Realistic&Imaginative writer, combining Social perspectives)

Dr. B. Raghotham Rao Desai, IFS (R)

Introduction:

One of the missed opportunities, chronic structural lapses, and complex stimuli happen to be India's saga with intellectual brain drain, that have propelled some of the brightest minds out of the country's research landscape, despite the country commanding global admiration for its prowess in digital technology, frugal innovation, and home grown talent fuelling Silicon Valley (viz., Bengaluru). A bracing reminder of the size of our problem — a high-tech, networked diaspora numbering in the tens of thousands, contrasted with a tokenist attempt to win them back, could be felt when the government recently claimed that the Vaibhav Fellowship Scheme has returned just 36 scientists! This predicament is the cumulative result of deep-seated "donor country" and "recipient country" stimuli — forces shaping the flows of global expertise.

Fact file:

The idea of intellectual migration, or brain drain, had repeated with striking consistency through out World War I, the devastated Balkans — especially Hungary — saw waves of Scientists fleeing war-torn cities for intellectual salons & safely-funded labs in the West. And then fascism strangled academic life in the 1930s in Germany & Central Europe, forcing Jewish scientists to escape rising anti-Semitism and existential threat. Still further, the disenchanting physicists & mathematicians of the Soviet Union in the 1990s — with the demise of state-funded research & a collapsing economy — reinforced the hypothesis

of migration.

The US — already the gravitational hub of science — actively attracted the above brains. India, whereas faces the paradox of being both a donor and, at most, a reluctant recipient — globally feted for its vaccine exports, space missions, and fintech innovations — yet short of creating institutional lures necessary to aspirationally attract, let alone repatriate, its most ambitious scientists. Our diaspora may lead AI-labs at Google or Cancer Centres at Harvard, but the domestic academic ecosystem fails to ignite their return, as our Universities suffer from deep-rooted structural issues: where our professors are typically granted long-term job-security (from day one), institutions in the West — especially in the US — enforce a gruelling tenure-track process, the latter demanding sustained research productivity, success in securing external grants, laboratory leadership, exceptional teaching, and doctoral mentorship over 5-7 year probation! Lacking equivalent mechanisms, Indian academia often breeds frustration or inertia. Unless we introduce differentiated faculty tracks and invest substantially in research capacity, the country's brightest minds will not see academia as a viable career — werequire a foundational overhaul to position ourselves as a true 'recipient' country, by dramatically ramping up financial incentives, and by investing in world-class infrastructure (that matches the standards of the best Western institutions), as also introduce rigorous, transparent and structured career incentives, along with merit-basing research grants, and finally integrate with

global networks seamlessly.

Summary:

For decades, Chinese researchers gravitated towards Western institutions, seeking freedom from bureaucratic inertia, censorship, and underfunded labs. But as China systematically reformed its higher education and research ecosystem — investing billions in R&D, offering competitive salaries (and streamlining career incentives) it succeeded in converting it self into a “recipient country”, began luring home talent (from Stanford & Berkeley), dramatically improving its publication and patent output, and establishing Beijing as a global node for AI and computer sciences. Although our country hosts entrance exams that are among the most competitive in the world, our Universities suffer from deep-rooted structural issues. We should consider establishing a prestigious national programme for “Frontier Fellows” that also attracts international experts, and offer five-year fully funded group leader packages, rapid lab set-up support, and a promise of meaningful influence in shaping national research agendas.

The creation of Special Science Zones within and beyond existing campuses — exempt from bureaucratic and procurement delays, could revolutionise the environment for both local and returning scholars. The tenure process of academics needs to be revamped: contract hiring, serious mid-career review, strong mentorship systems, merit-based promotion, and differentiated teaching and research tracks must become the standard.

The research grants should be disbursed with minimal bureaucracy, and protected from political interference. Empowering University leaders while reducing administrative red tape will allow creative science to flourish. Under participatory governance models in academia, India should pilot “academic senates” within major Universities,

where representatives of returning and local researchers, graduate students, and industry partners have an explicit role in faculty recruitment, research evaluation, and infrastructure planning.

Young researchers will not choose India because of just patriotic sentiment alone; they need the same scale, freedom and recognition as established scientific super powers, finding a haven in our country, with a sort of land-grant University system and insatiable demand for scientific advancement — which is the bane in the West — particularly in the United States of America.

Trivia:

However, one cannot miss to observe and acknowledge a new trend taking place in recent years: students from Europe are increasingly choosing India as their destination—there a sons being both cultural and economic and exchange programmes, collaborative research opportunities, and the rising credibility of Indian degrees having made the country not just an alternative, but in many cases, a first choice! Lower cost does not mean lower quality—Indian Universities over the past decade having invested heavily in state-of-the-art infrastructure, research laboratories, and global standard pedagogy (i.e., Profession, Science, or Theory of Teaching) — moving beyond reliance on tuition fees, by drawing on funding from industry-collaborations and corporate-partnerships: not only strengthening research but also ensuring that graduates are better-prepared for the real-world-challenges they would face.

Equally important appears to be the evaluation from India's long-established reputation in STEM fields to a broader embrace of STEAM (Science, Technology, Engineering, Arts, and Mathematics) — inclusion of the ‘Arts’ reflecting a growing-recognition that ‘creativity and design are as crucial as technical-skills’ in an era driven by Artificial Intelligence, Sustainability, and Cultural

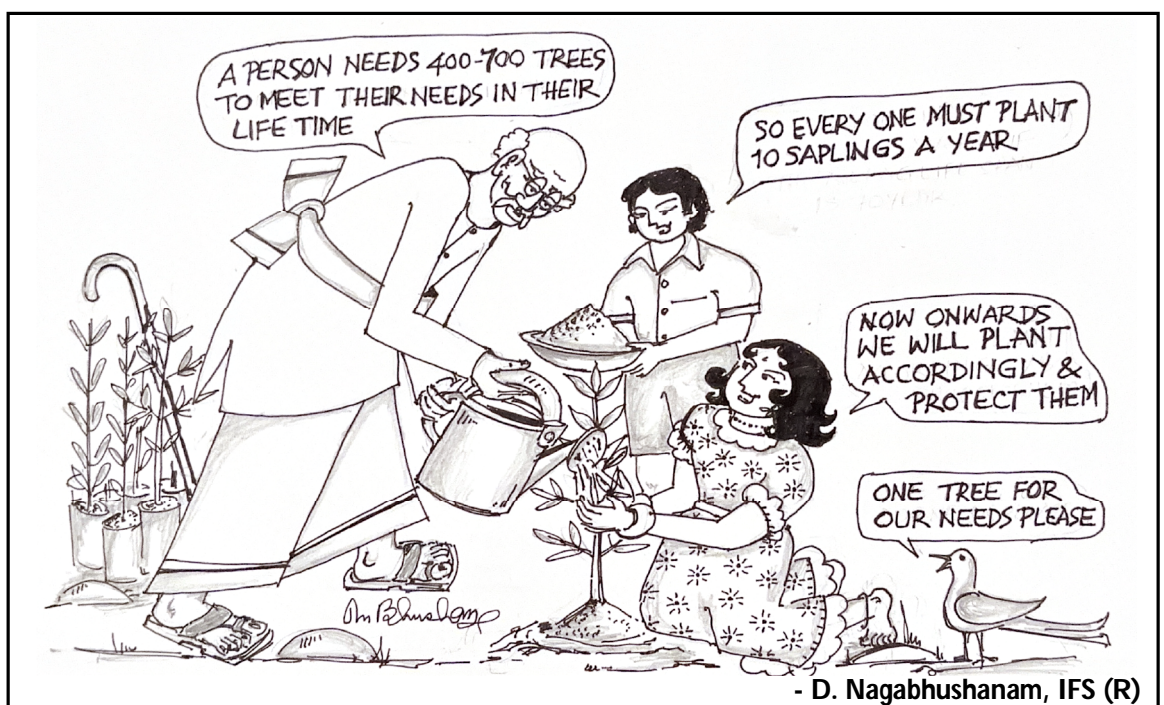
Industries: Universities responding with curricula that fuse technical rigour with creativity, producing graduates who are not just employable but also imaginative and adaptive.

India's diversity further enriches its educational promise —with 140 crore people, 22 official languages, and centuries of knowledge traditions — the Indian classroom is a space where East meets West every day! For international students, the learning experience is much about intercultural exchange, as it is about academic rigour (i.e., severity or strictness)—this diversity being no longer confined, as we find, within our borders alone: but through winning programmes, dual degrees, and faculty exchanges, Universities here are providing students with access to global experiences while remaining anchored in India. Many can begin their degrees here, and then proceed

abroad for a semester or a year, 'at a fraction of what it would cost' to pursue the entire programme overseas — Indian degrees having been recognised internationally, they open pathways to higher studies, work visas, and employment opportunities worldwide!

Lastly, it is perhaps relevant to mention that campus life in India has also transformed in ways that makes especially appealing to international students — the modern Indian University is no longer just a place of lectures and exams: it has become a holistic ecosystem where education, technology, culture, and global exposure come together — entrepreneurship incubators, student clubs, cultural festivals, and international conferences sit alongside academic rigour, creating an environment where students grow in every dimension. Doesn't a rising tide lift all boats?

The author is a retired IFS officer of Karnataka cadre and the Chief Editor of 'VanaVikas', a quarterly magazine of the retired forest officers of Karnataka. M-9886157158.





Diwali: Festival of Lights & Its Pollution

Sri. BMT Rajeev IFS (R)

Diwali is a festival of high spirit celebrated by Hindus, Jains, Sikhs, some Buddhists and the Indian Diaspora worldwide. Its observance differs with region and tradition. It is known as 'Festival of Lights', and commemorates the good over evil and is marked by lighting of lamps, fireworks and creating arts. It is celebrated for 3-4 days with pomp and gaiety. Diwali is a traditional festival celebrated from time immemorial, the 1st day is 'NarakaChaturdashi' a day before new moon day and 'Lakshmi Pooja' on the new moon day and followed by 'Bali Padyami & Diwali' and also to mark the 'slain of Demon king Ravana & return of victorious Rama with Sita to Ayodhya after completing the 14 years exile'. These festivities in combination mark the Diwali for days when bursting of crackers is the pomp for the youngsters and rich to show off the wealth for days in front of their houses making the cities as the combustible chambers for 3-4 days in this era of climate change.

The flavour of Diwali in Rural India still enjoys its gaiety and beauty for a week before preparation for the harvest season. It is an annual festival for business men for profit booking; it is a festival of gifts for favours among friends, rich & industrialists; a best season for all the herbivores in tropical India where the animals will have best of fodder after the monsoon and before flowering, with strong Sun light, to eat and put up fat to face the coming winter. It is a season of mating for many species of animals in wild and captivity...

But the ill of Diwali is bursting of limitless firecrackers in urban areas, a severe and long lasting and dangerous activity for lives and the climate. **Burning firecrackers**, during festivals like Diwali or New Year's celebrations,

releases a cocktail of pollutants that severely impact air quality, human health, wildlife, and ecosystems. These effects are short-term during bursts of activity but can linger for days, exacerbating issues in urban areas with poor ventilation. Types of pollution, their sources, and consequences, drawn from environmental studies and health reports are as follows.

1. Air Pollution

Firecrackers are a major source of fine particulate matter (PM_{2.5}) and gaseous emissions, which can spike air pollution levels by 2-10 times during peak burning periods. Key pollutants include:

*PM_{2.5} (fine particles like soot and ash); Combustion of gunpowder and metals; Enters lungs and bloodstream, causing respiratory issues (e.g., asthma attacks, COPD exacerbations), cardiovascular problems, and increased cancer risk. It can linger in air for hours or days, worsening overall air quality.

*Heavy metals (e.g., barium, strontium, copper); Color-producing chemicals- Toxic to lungs; contributes to long-term soil and water contamination; linked to higher hospital admissions during festivals.

*Gases (SO₂, CO₂, CO, NO_x); Burning of sulfur and charcoal- Irritates eyes and throat; SO₂ and NO_x form acid rain and smog, contributing to climate change via greenhouse gases.

Short-term exposure during events like Diwali can trigger acute respiratory ailments, with studies showing a 20-30% rise in emergency visits for pollution-related issues. Vulnerable groups, including children, the elderly, and those with pre-existing conditions, face the highest risks.

2. Noise Pollution

Firecrackers produce explosive sounds exceeding 140 decibels (dB)-far above the safe human exposure limit of 85 dB-which can cause immediate hearing damage and long-term stress. Effects include:

*On Humans: Temporary or permanent hearing loss, increased blood pressure, sleep disturbances, and panic attacks, especially in urban crowds.

*On Animals and Wildlife: Birds and pets experience disorientation, fleeing habitats, and heightened stress, leading to injuries or deaths. Nocturnal animals like bats are particularly disrupted.

This noise can persist in echoes and vibrations, amplifying urban stress during festivals.

3. Water and Soil Pollution

Residues from burnt firecrackers settle into soil and waterways, contaminating them with heavy metals and chemicals. A single large display can pollute up to 1,000 liters of water. Impacts include:

*Water: Barium and strontium nitrates make water acidic, harming fish and aquatic plants by disrupting pH balances and oxygen levels. This leads to bioaccumulation in the food chain, affecting human consumption indirectly.

*Soil: Alters nutrient levels, reducing fertility and poisoning groundwater. Toxins like perchlorates persist for months, impacting agriculture and biodiversity.

These effects compound during rainy seasons, spreading contamination further.

4. Broader Environmental and Wildlife Impacts

Fireworks contribute to wildfires by igniting dry vegetation, releasing additional smoke and destroying habitats. Wildlife suffers from both noise-induced panic (e.g., mass bird die-offs) and chemical exposure, which poisons insects, birds,

and mammals. Overall, they accelerate climate change through black carbon emissions and degrade local ecosystems, with festival spikes in India showing PM levels rivaling industrial pollution. Pollutants in the air, water and soils are gradually diluted but remain in nature accumulated which will be consumed by plants and animals affecting their health and life and will aggravate the climate change.

Mitigation and Alternatives:

To reduce these harms, experts recommend green crackers (low-emission variants), laser shows, or community events without pyrotechnics. Regulations like India's bans on high-pollution crackers during Diwali have shown AQI improvements of up to 40% in compliant areas. Opting for eco-friendly celebrations protects health and the planet without dimming the festive spirit.

The Supreme Court of India imposed a ban on bursting of toxic crackers in 2018 in Delhi first; and it is being followed in many populated cities in India for Diwali, in spite of it, Diwali's pollution of air, dust and sound in cities is very high; the AQI in Delhi reaches 300-400 mg/m³ during Diwali against the normal AQI of 0-50 for healthy living. It is due to uncontrolled production of crackers and sale at cheaper rates inducing purchase of crackers in large scale and burning them during day/night in front of the houses for fun and show of wealth. This show continues for 3-4 days without any spectators; in some houses 1-2 indulge in bursting crackers for the witness of 2-3 family members and neighbors may look or close the door to avoid smoke and dust and it is a show of fun in cities for a week or more. Most of the restrictions imposed by the courts/governments are ignored since enforcement is negligible.

Unless the people realize the gravity of pollution due to bursting of crackers on air, water, soil and climate affecting the people, animals, plants and the ecosystem and stop the madness in bursting

Contd.. on page No.21



The Indian Forest Service: Ethics, Responsibility, and Environmental Stewardship

Sri. Hemanth Kumar R, IFS (R)

Introduction

The Indian Forest Service (IFS) is one of the three All-India Services, along with the Indian Administrative Service and the Indian Police Service. Its officers are responsible for managing India's forest and wildlife resources — which form the very lungs and watersheds of the subcontinent.

Their work transcends forestry as a technical pursuit; it embodies an ethical calling and an ecological stewardship that integrates science, policy, and compassion.

India's forests are living archives of natural evolution and cultural coexistence. They sustain over 275 million people directly dependent on them, regulate climate, conserve biodiversity, and secure soil and water. The IFS officer must thus act as scientist, administrator, negotiator, and moral guardian — ensuring that the delicate balance between human need and ecological integrity is never lost.

This essay traces the evolution of the Indian Forest Service, examines the ethical foundations and environmental responsibilities that define it, and documents major contributions and case examples that show how the service has grown as a moral and ecological institution.

2. Historical Evolution of the Indian Forest Service

2.1 Colonial Foundations (1860s–1947)

Modern forestry in India started during the colonial period. The Imperial Forest Department was created in 1864 after appointing Dr. Dietrich

Brandis, a German forester and botanist often known as the 'Father of Indian Forestry'.

Brandis introduced the principles of sustained yield, working plans and scientific forest management — establishing the foundation for organized forestry.

In 1867, the Indian Forest Act granted the government the authority to designate forest lands as Reserved or Protected. The Imperial Forest Service (IFS) was officially established in 1867 to enforce these policies. Its officers were mostly trained in Europe (Nancy, Oxford, Tharandt), bringing in continental silvicultural systems.

The objectives, however, were mainly extractive and focused on revenue. The colonial state saw forests as economic resources and managed them to guarantee timber for railways, shipbuilding, and public projects. Communities were alienated, and customary rights were curtailed — sowing long-term socio-ecological tensions.

2.2 The Transition and Nationalization of Forest Governance (1947–1966)

Post-Independence, India inherited both the institutional machinery and the moral dilemmas of the Imperial system. The newly formed Republic recognized forests as national assets, vital to development and ecological security.

In 1950, the Central Board of Forestry was constituted to advise the Government on national forestry issues — a precursor to coordinated forest governance.

The Forest Policy of 1952 redefined forestry as a public welfare service rather than a purely

commercial enterprise. It emphasized soil and water conservation, the protection of wildlife, and meeting the needs of rural populations. However, the administrative machinery was largely provincial. Forest departments functioned under State Governments, leading to uneven capacity and policy implementation. A national cadre with professional uniformity was deemed essential.

2.3 The Birth of the Indian Forest Service (1966)

Under the All-India Services Act, 1951, the Indian Forest Service (IFS) was constituted in 1966, replacing the Imperial Forest Service. This marked a philosophical and administrative watershed — the shift from colonial extraction to environmental stewardship.

The IFS was designed as an All-India Service:

- Officers are recruited by the Union Public Service Commission.
- They undergo foundational training at the Indira Gandhi National Forest Academy (IGNFA), Dehradun, with specialized field training across India.
- They serve under State Governments but are liable for central deputation to national and international assignments.

The objectives were clearly defined:

“To implement the National Forest Policy, to ensure the ecological stability of the country through protection and sustainable management of forests and wildlife.”

2.4 Post-1966 Growth: From Forestry to Environmental Stewardship

Year	Milestone	IFS Role
1972	Wildlife (Protection) Act	The creation of protected areas led IFS officers to become custodians of sanctuaries and national parks.
1973	Project Tiger	IFS-led initiative; introduced core-buffer zonation and ecological planning.
1980	Forest (Conservation) Act	Central oversight on diversion of forest land; IFS officers vital in scrutiny and compliance.
1988	New National Forest Policy	Shifted focus to environmental stability and people's participation.
1990s	Joint Forest Management (JFM)	IFS officers pioneered community co-management across millions of hectares.
2006	Forest Rights Act (FRA)	Brought social justice to the centre of forest governance; IFS adapted to new legal realities.
2010s—present	Climate & Biodiversity Commitments	IFS engaged in REDD+, restoration, carbon accounting, and biodiversity action plans.

From the late 1960s onward, India witnessed a series of environmental turning points that expanded the IFS mandate:

Thus, the IFS evolved from a service managing timber to one managing ecosystem integrity and human well-being.

3. Ethics in the Indian Forest Service

3.1 Administrative Ethics

IFS officers are governed by the Central Civil Services (Conduct) Rules and departmental codes. These set standards for integrity, impartiality, and devotion to duty. Yet, forestry ethics go well beyond bureaucratic codes — into the realm of ecological conscience.

3.2 Ecological Ethics

A forester's ethical duty encompasses non-human life forms. Ecological ethics emphasizes:

- Respect for the intrinsic value of forests and wildlife.
- Precautionary principle in uncertain interventions.
- Intergenerational justice — ensuring ecological inheritance.
- Restorative justice — repairing past ecological damage.

3.3 Ethics of Equity and Inclusion

India's forests are inhabited by people whose survival depends on them. Ethical forestry incorporates social justice — ensuring rights recognition, equitable benefitsharing, and participatory decision-making. This balances ecological integrity with human dignity.

3.4 Virtue Ethics of the Forester

A good IFS officer embodies virtues like: courage to resist pressure, humility before complexity, empathy toward communities, scientific curiosity,

and moral imagination. Ethics in forestry, ultimately, is a way of being.

4. Responsibilities toward Environment and Stewardship

4.1 Stewardship Defined

Stewardship means responsibly guarding the shared natural heritage. It involves managing forests not as mere commodities but as living systems with inherent ecological and cultural importance.

4.2 Key Domains of Responsibility

(a) Conservation and Protection

The IFS oversees 20% of India's land under formal forest cover and manages over 900 protected areas. Responsibilities include:

- Anti-poaching and law enforcement
- Species recovery programs
- Habitat restoration
- Control of forest fires and invasive species

(b) Sustainable Use

Balancing livelihood needs with conservation through:

- Sustainable extraction of timber and NTFPs
- Value addition and cooperative models
- Certification and forest-based enterprise development

(c) Ecological Restoration

India's degraded landscapes require large-scale ecological healing. IFS officers design and implement:

- Native species reforestation
- Wetland and mangrove restoration
- Urban forestry and green infrastructure

(d) Climate Stewardship

Forests as carbon sinks position IFS at the heart of climate policy. Officers manage REDD+, carbon inventories, and adaptation projects that enhance resilience.

(e) Governance and Community Partnership

The IFS has pioneered participatory management frameworks, integrating communities into forest governance — converting conflict into collaboration.

5. Major Contributions of the Indian Forest Service**5.1 Expansion of the Protected Area Network**

IFS leadership expanded India's protected area coverage from <3% (1970s) to over 5% of total land area, with systematic planning, anti-poaching squads, and habitat corridors.

5.2 Species Recovery and Management Programs

IFS officers conceptualized and implemented programs such as:

- Project Tiger (1973)
- Project Elephant (1992)
- Crocodile Conservation Project (1975)
- Vulture Recovery Programs
- Red Panda and Snow Leopard Conservation Initiatives

Each combined habitat management, monitoring, and public engagement.

5.3 Community Forestry and Participatory Management

The Joint Forest Management (JFM) program, initiated in 1990, was a game changer. By 2000, it covered more than 20 million hectares involving 80,000 village committees. IFS officers served as facilitators, ensuring shared benefits and collective

protection.

5.4 Watershed Development and Ecosystem Services

IFS-led watershed projects integrated forestry, soil, and water conservation — transforming drought-prone regions into productive landscapes. This helped recharge aquifers, reduce siltation, and stabilize agriculture.

5.5 Policy and Legal Frameworks

IFS officers contributed to drafting and implementing the National Forest Policy (1988), Wildlife Protection Act (1972), and Forest (Conservation) Act (1980) — embedding ecological values into law.

5.6 Research and Technological Innovation

IFS-supported institutions such as the Forest Survey of India (FSI) and Wildlife Institute of India (WII) have advanced India's forest science, particularly in remote sensing, GIS, and wildlife monitoring.

6. Case Studies in Stewardship**6.1 Revival of the Gharial and Crocodile Populations**

In the 1970s, India's crocodilian populations were on the verge of extinction. IFS officers, in collaboration with UNDP/FAO, initiated the Crocodile Conservation Project (1975). Through breeding centres, river protection, and community awareness, populations of *Crocodylus palustris*, *Gavialis gangeticus*, and *Crocodylus porosus* were revived. By the 1990s, several breeding populations were self-sustaining — a global model of species recovery led by a forest service.

6.2 The Tiger Conservation Ethic

Under Project Tiger, IFS officers pioneered the core-buffer model, scientific monitoring, and anti-poaching networks. Despite pressures, the tiger

population rebounded — reflecting professional resilience and ethical dedication to an apex species symbolizing ecosystem health.

6.3 Mangrove Protection in the Sundarbans

The Bengal cadre of IFS has been instrumental in integrating mangrove conservation with community resilience. Post-cyclone restoration, livelihood diversification (honey, crab farming), and education programs were integrated to protect both people and ecosystems.

6.4 Forest Rights and Collaborative Management in Odisha

Post-2006, IFS officers in Odisha and other states facilitated the recognition of Community Forest Resource rights under the FRA, ensuring conservation integrity and demonstrating how law and ecology can coexist.

6.5 Urban Forestry and Ecological Infrastructure

In cities like Hyderabad, Bengaluru, and Delhi, IFS officers have developed urban biodiversity parks, revived lakes, and created green lungs that reconnect citizens with nature.

6.6 Watershed Restoration in Semi-Arid India

IFS-led watershed programs in Maharashtra and Rajasthan employed contour bunds, check dams, and native plantations. The results — revived streams, increased crop yields, and reduced migration — underline forestry's human dimension.

6.7 Reintroduction and Monitoring Programs

The releases of red pandas in Singalila, bustard conservation in grasslands, and translocations of swamp deer and Rhinos in Dudhwa demonstrate how IFS integrates science and empathy in practice.

7. Legal and Policy Frameworks Guiding the IFS

7.1 Constitutional Mandate

The 42nd Amendment (1976) placed “forests” and “wildlife” under the Concurrent List, enabling shared responsibility between the Centre and States.

Article 48A and 51A(g) impose a constitutional duty on the State and citizens to protect the environment.

7.2 Core Legal Instruments

- Indian Forest Act, 1927
- Forest (Conservation) Act, 1980
- Wildlife (Protection) Act, 1972
- Environment (Protection) Act, 1986
- Biological Diversity Act, 2002

IFS officers are key implementing authorities under these laws — ensuring procedural compliance, mitigation, and enforcement.

7.3 Policy Frameworks

The National Forest Policy (1988) remains the cornerstone — emphasizing ecological stability, participatory management, and non-timber forest values.

A revised draft forest policy (2018) continues this lineage, integrating climate goals and ecosystem services.

8. Challenges and Ethical Dilemmas

IFS officers often operate amid conflicting pressures:

- Development projects vs. ecological integrity
- Local livelihood demands vs. wildlife protection
- Political expediency vs. professional ethics
- Short-term revenue vs. long-term sustainability

Such dilemmas test the moral fibre of the service.

Officers must balance law, empathy, and scientific prudence — knowing that inaction or compromise can have irreversible consequences.

Emerging challenges include:

- Climate-induced Forest fires
- Invasive alien species
- Urban expansion and land diversion
- Weak enforcement mechanisms
- Erosion of public trust in institutions

Ethical courage — to say no when ecological limits are crossed — remains the defining trait of true stewardship.

9. Strengthening the IFS for the Future

9.1 Training and Capacity Building

Forestry education must evolve to include climate science, social anthropology, environmental economics, and ethics. Continuous in-service training should build cross-sectoral skills.

9.2 Integrative Governance

Collaboration with departments of rural development, agriculture, water, and energy is essential. Forests cannot be managed in isolation.

9.3 Science-Based Decision-Making

Empirical monitoring and data-driven policies can reduce arbitrariness. The Forest Survey of India's remote sensing tools must be complemented by field ecology and citizen science.

9.4 Empowerment and Accountability

IFS officers need both autonomy and accountability — protection from undue interference, coupled with transparent reporting and audits.

9.5 Recognizing Social and Cultural Dimensions

Tribal knowledge, sacred groves, and community traditions should be integrated into management. Conservation thrives when local people are partners, not subjects.

10. The Human Spirit

Every IFS officer carries with them a personal moral universe — forged by wilderness, solitude, and the weight of responsibility. Long nights in tiger reserves, negotiations with angry villagers, or facing political pressure to clear forests test not just competence, but conscience. Stories abound of officers who risked careers and lives to protect forests — who refused illegal clearances, rescued wildlife, or stood up to corruption.

Their courage reaffirms that ethics is not an abstract concept but a lived experience.

People like Dr H.R. Bustard in crocodile conservation, Dr M.K. Ranjitsinh in wildlife legislation, or S.P. Yadav in global tiger initiatives exemplify how one person's integrity can influence an entire nation's ecological destiny.

11. Conclusion: The Moral Frontier of Forestry

The Indian Forest Service is more than an administrative institution; it is the conscience of India's ecological civilisation.

From the colonial forests of teak and Sal to today's climate-stressed landscapes, the evolution of these forests' mirrors India's growing environmental consciousness.

Ethical forestry today means:

- Listening to forests as living entities.
- Respecting the rights and wisdom of those who dwell in them.
- Applying science without arrogance.
- Acting for posterity rather than profit.

The author is a retired IFS officer and former PCCF of UP cadre. He is member, REC Chandigarh & Member, Expert Committee of CZA. M-94157 86586, Email: hravivarapu@yahoo.com



Masts and Mangroves: The Naval Roots of Scientific Forest Management

Dr. Padam Parkash Bhojvaid, IFS (R)

It was during my visit to the venerable Academy of Forestry in 2008 in Saint Petersburg that the revelation struck me—quietly, like the rustle of a distant canopy in a morning breeze. The Dean's chamber, dignified yet understated, bore on its walls a constellation of plaques and crests—emblems of naval forces from across Europe. Each bore an inscription of gratitude to the Academy for having trained their officers. It was a striking mosaic: anchors and trees, ships and leaves, waves and roots, bound in a brotherhood of purpose.

As I stood there, surrounded by maritime symbols within a temple of forestry, an idea began to take shape—an understanding that the science of forestry and the art of naval power had long been entwined. Long before sustainability became a slogan, the survival of empires depended on the survival of forests. For every ship that sailed to conquer oceans, a forest had first surrendered its giants. For every mast that touched the sky, a seed had once sought sunlight in the soil.

The Tale of the Tall Pines: How Ships Shaped Science

History's earliest fleets were not forged in shipyards alone—they were born in forests. In the 17th and 18th centuries, the British Empire's naval might owed its existence to the forests of North America. Among those forests stood the Eastern White Pine (*Pinus strobus*)—straight, tall, and patient. Its perfect form made it the ideal mast timber for ships that carried the Union Jack across the seas.

To mark these trees for the Crown's exclusive use, the British stamped them with the "King's Broad Arrow." A single arrow carved into the bark could condemn a giant that had stood for centuries. The colonists watched in resentment as the best of their forests were claimed for distant wars, and soon the wilderness began to thin.

The very efficiency of this enterprise became its undoing. By the dawn of the 19th century, entire pine stands had been decimated, and the scars of over-harvesting grew impossible to ignore. From these wounds, however, a new wisdom sprouted—the need for scientific forest management. Foresters began to study growth rates, yields, and regeneration. They developed the idea of sustained yield—that one must harvest only what the forest can replace. Thus, the science of forestry was born not from a philosopher's pen but from the creak of ship masts and the cries of a vanishing forest.

The Teak Chronicles: Chatu Menon and the British Raj

The echoes of that maritime-forestry alliance resounded even in India. The Malabar teak (*Tectona grandis*) became the timber of destiny for British shipbuilding—strong, water-resistant, and regal in grain. On the banks of the Chaliyar River in Kerala, the Nilambur plantations rose as one of the earliest examples of organized forestry in Asia.

At their helm was Chatu Menon, an Indian forest professional whose quiet diligence would outlast the empire he served. Tasked with ensuring a

steady teak supply for the British Navy, Menon saw beyond the imperial ambition. He visualized forests as living entities, not timber mines. His plantations were not merely administrative experiments but acts of faith—meticulous, measured, and ecological. He introduced practices that preserved canopy cover, retained biodiversity, and ensured natural regeneration.

In nurturing these forests, Menon sowed the seeds of sustainability in Indian forestry long before the term existed. Ironically, the British quest for naval dominance had inadvertently set the stage for India's first scientifically managed plantations—a legacy that still stands tall in the Nilambur teak groves.

Peter the Great's Larch Legacy

But the true grandeur of this forest–fleet connection bears a relationship with 'Peter the Great' of Russia. In the late 17th century, the young czar dreamt of transforming his landlocked empire into a naval power. Ships were his symbols of modernity; forests, his only shipyard.

Peter understood that naval supremacy began not in shipwrights' yards but in forestry maps. He turned the flat plains near Saint Petersburg into plantations of Siberian larch (*Larix sibirica*)—trees as enduring as his vision. Each sapling was a soldier in his maritime army, each stand a future fleet.

When those trees matured decades later, they became the bones of Russia's first great ships, their timber unyielding to rot and salt. Those larch forests were not merely sources of wood—they were statecraft written in green. The sound of axes in those woods was the overture of an empire rising from the soil to the sea.

Today, when one walks through the remnants of those plantations, a strange reverence fills the

air. The wind through the larches still whispers of Peter's audacity—a reminder that even empires are rooted before they can sail.

Forestry and the Navy: Two Sciences from One Seed

As I looked again at the plaques in Saint Petersburg, it all made sense. The naval officers trained in forestry were not accidental guests in this discipline—they were its early apostles. To them, a forest was not just land under trees; it was a living dockyard, a renewable armory. The Academies of Forestry in Europe, from Prussia to France and Russia, were as much about timber geometry as about empire geometry. The students who passed through those halls learned that to rule the seas, one must first respect the soil.

The French school at Nancy, the Saxon academy at Tharandt, and Russia's own Saint Petersburg Institute became crucibles where naval engineering met silviculture. These academies birthed the first professional foresters—men trained not only to measure girth and volume but to anticipate the needs of shipyards decades ahead. Each felling plan was a naval strategy; each regeneration scheme, a promise to the future.

Colonial Exploitation: The Double-Edged Axe

Of course, the story is not one of pure enlightenment. The empire's appetite for ships led to ruthless deforestation across continents. The same logic that built fleets also emptied forests. The axe, after all, cuts both ways—building civilization on one edge, and erasing wilderness on the other. Yet, from this exploitation arose the earliest glimmers of ecological awareness. Humanity began to realize that unlimited growth leads to uninhabitable shores.

Lessons from the Leaves

Standing in that chamber in Saint Petersburg, surrounded by symbols of ships and seas, I felt a forester's pride and humility intertwine. The connection between naval might and forest science was not accidental—it was elemental. It taught us that every empire, every industry, and every civilization is only as strong as the forests that sustain it.

The masts that once pierced the sky have long turned to dust, but the science they inspired still stands tall. In their grain lies a message as relevant

now as it was in the age of sail: that progress without balance is merely conquest, and conquest without stewardship is loss.

The next time one sees a forest swaying in the monsoon winds, it is worth imagining that within those trees lie the blueprints of human history—the dreams of emperors, the ambitions of nations, and the roots of an enduring science that learned, at last, to navigate not just the oceans, but the soul of the earth itself.

The author is a retired IFS officer and former PCCF (HoFF), Haryana. M-70879 56657

NOTICE

The 110th General Body Meeting of the Association of Retired Forest Officers of Telangana and Andhra Pradesh will be held on 14th December 2025 (Sunday) at 10:30 AM in Mahaveer Harina Vanasthali National Park VANASTHALIPURAM, HYDERABAD. There will be a live Snake Show & Safari Drive inside the National Park. All the members of the Association are requested to make it convenient to attend the meeting with their families. - SECRETARY

Continuation from page No. 12

crackers in front of their houses, the urbanites of India are bound to suffer with the pollutions of the Diwali Crackers.

The bursting of crackers should be limited to a day's night for 5-6 hours in front of the houses or if possible in a community place in each Mohalla / locality by the Municipal Council or by the people's organizations as done in the developed countries during new year/ independence day celebrations or stop or ban for the good of the peoples' health. The Spirit of the Diwali/festival of lights should not

become a Nightmare for the young, aged, sick and animals and a catalyst for climate change.

Conclusion: The learned, foresters-who toil to nurse & conserve trees, horticulturists, teaching/ agriculture/ medical/nursing professionals, scientists, veterinarians and administrators etc and aged should visualize the problems of the firecrackers burning and stop buying & bursting firecrackers to ensure other humans/ animals/ plants should not suffer by their acts and accelerate the climate change.

The author is a Retired IFS officer, an Author & a Freelance Columnist, Bengaluru, M-96327 18110



Nurturing Young Guardians of Nature: Involving School Children in Forest and Environmental Conservation

Dr. D. Nalini Mohan, IFS (R)

Children's Day, celebrated on 14th November is a tribute to the nation's future—its children. As we honour their potential, it is imperative to empower them as stewards of our planet. Forest and environmental conservation are no longer optional pursuits; they are urgent imperatives. Schools, as foundational spaces of learning and values, can play a transformative role in cultivating eco-conscious citizens. By involving children in practical, hands-on conservation efforts, we not only educate but inspire lifelong commitment to sustainability.

Why Children Matter in Conservation

Children possess curiosity, creativity, and a natural affinity for the outdoors. When engaged meaningfully, they become powerful advocates for change—within families, communities, and institutions. Conservation education at a young age fosters empathy for nature, critical thinking about human impact, and a sense of responsibility toward shared resources.

Practical Ways to Engage School Children

Here are several actionable strategies schools can adopt to involve children in forest and environmental conservation:

1. Nature Clubs and Eco Brigades

Schools can establish nature clubs that organize regular activities like tree

planting, biodiversity walks, and waste audits. For instance, the Eco Club at Tagore Public School in Gurgaon conducts weekly sessions on climate awareness and organizes clean-up drives in nearby green spaces. National Green Corps (NGC) has been involved in this type of activities and they have to be intensified and their activities have to be documented for guidance to others.

2. Adopt-a-Tree or Patch Programs

Encouraging students to “adopt” a tree or a small patch of greenery instils a sense of ownership. Children can monitor growth, water the plants, and document seasonal changes. In Bengaluru, several schools collaborate with local NGOs to maintain urban mini-forests under the Miyawaki method, where students help plant and care for dense native species.

3. Butterfly Gardens and Bird Habitats

Creating butterfly gardens with nectar-rich flowers like hibiscus and marigold on school premises offers a living lab for pollinator conservation. Similarly, students can build bird feeders and nesting boxes using recycled materials. These activities, popularized by initiatives like those featured in The Better India, teach children about urban biodiversity and habitat restoration. Schools and forest departments have to organize visits to these gardens frequently to build bondage between children and nature

based parks.

4. Forest Visits and Citizen Science

Organizing field trips to nearby forests or protected areas—such as the Araku Valley in Andhra Pradesh or the Western Ghats—can be deeply impactful. Partnering with forest departments or conservation NGOs allows children to participate in citizen science projects like bird counts, tree mapping, or water quality testing. Andhra Pradesh Forest department had a nature visit programme in the past and there is need to revive such activities to continue to involve school children in it.

5. Waste Segregation and Composting Projects

Schools can set up compost pits and teach students how to segregate biodegradable and non-biodegradable waste. In Kerala, the HarithaVidyalayam program integrates waste management into school routines, with students leading composting and plastic-free campaigns. Haritha haram in Telangana also attracted a lot of students into its fold. The issue is continuity of such activities and the schools; parents and the government officials have to be committed to this cause.

6. Bilingual Environmental Storytelling and Podcasts

Leveraging storytelling in regional languages like Telugu, Hindi, or Kannada can make conservation relatable. Students can script and record podcasts or skits on topics like forest folklore, climate change, or water conservation.

This not only builds communication skills but also bridges cultural wisdom with modern science.

7. Green Celebrations and Eco-Friendly Events

Children's Day itself can be reimagined as a "Green Day," where celebrations include planting saplings, showcasing eco-projects, and pledging sustainable habits. Schools can replace balloons and plastic decorations with natural materials, reinforcing the message through action. Awareness creation towards adopting nature friendly life styles right from young ages has to be promoted systematically.

Examples of Impactful Initiatives

- **Van Mahotsav Celebrations:** Many schools across India participate in Van Mahotsav (Forest Festival) by planting trees and organizing awareness rallies. In tribal districts of Odisha, students are involved in community forest protection through school-led campaigns.

- **Young Rangers Program:** In Madhya Pradesh, the forest department runs a Young Rangers initiative where students learn about wildlife tracking, forest laws, and conservation ethics.

- **Green Schools Program by CSE:** The Centre for Science and Environment's Green Schools Program audits schools on their environmental practices, engaging students in evaluating water use, energy efficiency, and biodiversity.

Conclusion: Cultivating a Culture of Care

Children's Day offers a poignant
Contd.. on page No.32



Unlocking the Potential of the Wood-based Industry in India-A Policy Perspective

Sri R. K. Sapra, IFS (R)

As per the National Forest Policy of 1952, Indian forests were the primary source of raw material for the wood-based industry, while domestic needs were largely met through nearby forests and village woodlots. However, with the introduction of the National Forest Policy in 1988, the industry was encouraged to establish direct partnerships with farmers to fulfill its raw material requirements. During the 1980s and 1990s, the State Forest Departments (SFDs) implemented externally aided social forestry projects, which included provisions for promoting wood production in the private sector by popularizing agroforestry practices. Following economic liberalization in 1991, the demand for wood and wood products grew rapidly. To meet this surge, the import of wood and related products was liberalized in 1996, resulting in a significant rise in imports.

Import and Export of Wood and Wood Products

The landmark 1996 judgment of the Hon'ble Supreme Court in the Godavarman case ordered restrictions on felling of trees in government forests and the deemed forests not covered under approved working plans. This led to a sharp decline in wood production, which currently stands at approximately 2.3 million cubic meters annually (ICFRE, 2025). At present, most of the timber demand is met through Trees Outside Forests (TOFs), particularly from agroforestry, contributing around 124.6 million cubic meters (ICFRE, 2025). To bridge the gap between supply and demand, imports have risen significantly and currently amount to 56.1 million cubic meters in roundwood equivalent (RWE) terms (ICFRE, 2025). India imports a wide range

of wood-based products, including panels, wooden products, pulp, wood chips, wastepaper, newsprint, paper & paperboards, and furniture. While India also exports many of these products—excluding pulp, wood chips, wastepaper, and newsprint—the export portfolio includes value-added items such as antique furniture, wooden handicrafts, toys, and swings. The current export volume of wood and wood products stands at approximately 14.9 million cubic meters RWE (ICFRE, 2025). Although both import and export of wood products have shown an upward trend, the value of exports remains significantly lower than that of imports. This indicates that India is predominantly a net importer of wood and wood-based products. In 2022–23, imports were valued at ₹771,690 million, accounting for 1.5% of the country's total imports (Dhiman, 2025).

Demand for Timber in the Wood-based Industry

The wood-based industry in India can be broadly classified into three categories: (1) sawn timber (e.g., construction, furniture, handicrafts), (2) composite wood panels, and (3) paper and pulpwood. The sector is predominantly unorganised, with a significant share of enterprises falling under the Micro, Small, and Medium Enterprises (MSME) category. The pulp and paper industry, which directly employs over 0.6 million people and indirectly supports around 1.6 million, comprises about 759 paper mills nationwide (Kant et al., 2021). Their combined projected demand for wood is estimated at 21.7 million cubic meters (RWE) (ICFRE, 2025). The demand for wood in the handicrafts and miscellaneous sectors is projected

to be 13.4 million cubic meters. According to the Federation of Indian Plywood and Panel Industry (FIPPI), the plywood sector is highly fragmented, with 80% of production in the unorganised sector and the remaining 20% in the organised sector. This sector comprises 3,132 units and provides direct employment to over 1 million individuals. As per the same report, the projected demand for plywood and related wood-based products is about 70.5 million cubic meters. In addition, there are 47 particle board (PB) and 12 medium-density fibreboard (MDF) manufacturing units in the country, which together consume around 9.1 million cubic meters (RWE) of wood (ICFRE, 2025). The projected demand for wood in the construction industry currently stands at approximately 6.0 million cubic meters (RWE).

Promoting Integrated Models of Agroforestry and Wood-based Industry



To address the shortage of raw materials, WIMCO Seedlings Ltd. (formerly in Uttar Pradesh, now in Uttarakhand) pioneered the promotion of poplar farming in 1984. This was achieved by supplying quality planting material, facilitating loan arrangements, developing scientific packages of practices, and offering assured buy-back agreements. Encouraged by these efforts, progressive farmers in Uttar Pradesh, Punjab, and Haryana adopted poplar cultivation, finding it more profitable than traditional agricultural crops. Research and development efforts

by the Forest Research Institute (FRI), Dehradun, further strengthened the foundation for large-scale cultivation of poplar and eucalyptus (Sapra, 2025). Similarly, ITC Bhadrachalam Pvt. Ltd., has played a key role in South India since 1989, promoting the cultivation of clonal eucalyptus, casuarina, and subabul. These initiatives not only helped meet the company's raw material needs but also encouraged widespread adoption of clonal eucalyptus plantations across the country (Sapra, 2025).

The relatively high returns from farmland plantations have created healthy competition with conventional agriculture. However, the area under agroforestry continues to fluctuate based on the comparative profitability of timber versus agricultural crops. Due to high domestic wood prices, India has increasingly relied on imports of poplar, pine, eucalyptus, and other species. This has helped stabilize domestic prices and improve raw material availability. To strengthen the wood-based industry, India must adopt an ambitious vision of doubling timber production to 250 million cubic meters by 2047. Achieving this goal will require a two-pronged strategy: (1) expanding the area under agroforestry, and (2) increasing the average productivity of timber crops. Currently, agroforestry covers approximately 3.9% of India's geographical area (FSI, 2023). Therefore, promoting integrated models that link agroforestry with wood-based industry development is essential to realize this vision and ensure long-term sustainability.

Policy Initiatives Required

Leading global furniture manufacturers such as IKEA, Hettich, and Casa Shamuzzi have already made significant investments in India, establishing furniture manufacturing clusters near ports to optimize logistics. IKEA has launched retail outlets in major metropolitan cities, while domestic online furniture brands like PepperFry, Urban Ladder, and FabFurnish have entered the market. E-commerce

giants Amazon and Flipkart have also expanded into this segment. Additionally, numerous plywood factories have emerged in port-adjacent areas such as Kandla (Gujarat), leveraging easier access to imported raw materials. The entry of foreign players has positively impacted the sector by aligning with the aspirations of India's growing middle class and enhancing exports of wood products. In support of these developments, the Government of India has launched the Aatmanirbhar Bharat Abhiyan to reduce import dependency and promote the export of indigenous products. To further accelerate growth and promote self-reliance in this sector, the following policy initiatives may be considered for inclusion in the Union Budget 2026–27:

Encourage large wood-based industrial units by extending the benefits of the Production Linked Incentive (PLI) Scheme.

Constitute a dedicated Agroforestry Development Board to coordinate agroforestry promotion and policy implementation across states.

Promote investments in tree plantations through incentives such as **discounted loans**, **capital subsidies**, and **risk mitigation measures** for farmers and industries.

Revise the EXIM Policy to support the goals of Aatmanirbharta in wood and wood products by discouraging non-essential imports and promoting exports of value-added wood-based goods.

The wood-based industry is labour-intensive and provides employment primarily to school dropouts. It

relies on wood—a renewable resource—as its raw material. Cultivating trees for wood production offers farmers higher income compared to traditional crops, while also generating employment in rural areas. Additionally, tree crops offer several environmental benefits: they protect agricultural crops, sequester carbon, mitigate climate change, and contribute to groundwater recharge. Given these multifaceted benefits, there is a strong case for large-scale promotion of the wood processing industry. A strong policy thrust for the rapid development of wood-based industry will have far-reaching benefits. It will boost rural and urban employment, stimulate entrepreneurship, increase foreign exchange earnings, and reduce pressure on natural forests—ultimately contributing to environmental conservation.

References

1. Dhiman, R. C., 2025: Pramaan to Parinaam, The Ply Reporter, August 2025
2. FSI, 2023. India State of Forest Report 2023, Forest Survey of India, Dehradun
3. ICFRE, 2025. Assessment of Demand and Supply of Timber, Fuelwood and Fodder in India (AICRP-12), ICFRE, Dehradun
4. Kant, P., Nautiyal, R., 2021. India Timber Supply and Demand 2010–2030, International Tropical Timber Organization, Yokohama
5. Sapra, R. K., 2025. India's Forest and Tree Cover: A Decade of Change and Challenges (2013–2023), Van Premi, February 2025

The author is a retired Indian Forest Service Officer , M-98762 00784

A virus can change the fate of the world; power has nothing to do with being tiny or giant

-Mehmet Murat ILdan, Turkish writer

Great Green Wall Initiative in Andhra Pradesh - A Way Forward

Sri B. Vijaya Kumar, IFS

Executive Summary

The Great Green Wall Initiative can be a transformative project for Andhra Pradesh, enhancing ecological health, combating desertification, and promoting sustainable development.

Objectives

- Restore degraded lands and improve ecological health
- Prevent land degradation and desertification
- Enhance biodiversity and ecosystem services
- Promote sustainable development and livelihood opportunities
- Contribute to India's commitments under international conventions like UNCCD, CBD, and UNFCCC

Key Components

1. Afforestation: Plant native species, promote agroforestry, and restore degraded forests

Water Conservation: Rejuvenate water bodies, improve water management, and promote water harvesting

2. Soil Conservation: Implement soil conservation measures, reduce erosion, and improve fertility

3. Community Engagement: Involve local communities in planning, implementation, and maintenance

4. Livelihood Generation: Promote sustainable livelihoods, provide training, and support entrepreneurship

Funding Sources

1. Government Schemes: Utilize funds from

government schemes like:

- Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

- Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)

- State-specific schemes like Andhra Pradesh State Forest Department's afforestation Programs

2. International Funding: Explore funding opportunities from:

- Green Climate Fund

- Global Environment Facility

- International NGOs like World Wildlife Fund (WWF) and The Nature Conservancy

3. Public-Private Partnerships: Collaborate with private sector companies, NGOs, and community organizations to leverage resources and expertise

Implementation Plan

1. Conduct Baseline Studies: Assess the current ecological and socio-economic conditions in the target areas

2. Develop a Comprehensive Plan: Create a detailed plan, including objectives, strategies, and timelines

3. Establish Institutional Framework: Set up a dedicated project implementation unit, involving government agencies, local communities, and NGOs

4. Capacity Building: Provide training and capacity-building programs for stakeholders, including local communities, NGOs, and government officials

5. Monitoring and Evaluation: Establish a robust monitoring and evaluation system to track progress

and impact

Potential Areas for Implementation

1. Eastern Ghats: Focus on restoring degraded forests, promoting sustainable land management, and improving livelihoods of local communities in districts like:

- Visakhapatnam
- East Godavari
- West Godavari

2. Coastal Regions: Implement mangrove restoration, coastal afforestation, and sustainable fishing practices in districts like:

- Krishna
- Guntur
- Prakasam

3. Degraded Lands: Restore degraded lands, promote agroforestry, and improve soil conservation in districts like:

- Anantapur
- Kurnool
- Kadapa

Key Partners

1. Government Agencies: Ministry of Environment, Forest and Climate Change, Andhra Pradesh State Forest Department, and other relevant government agencies

2. NGOs: Partner with NGOs experienced in afforestation, livelihood generation, and community development, like:

- World Wildlife Fund (WWF)
- The Nature Conservancy
- Local NGOs like Andhra Pradesh Forest

Department's partner NGOs

3. Local Communities: Involve local communities in planning, implementation, and maintenance to ensure sustainability and ownership

4. Private Sector: Collaborate with private sector companies to leverage resources, expertise, and funding, like:

- Corporate Social Responsibility (CSR) initiatives

- Private sector companies involved in sustainable development and environmental conservation

Dimensions

Length: Determine the length based on specific coastal regions targeted

Width: Determine the width based on local conditions and objectives

Species Selection

Native Species: Choose species adapted to local conditions, ensuring resilience to climate variability

Drought-Resistant Species: Incorporate species that can thrive in water-scarce conditions, reducing maintenance needs

Way Forward

1. Short-term (0-2 years): Conduct baseline studies, develop a comprehensive plan, and establish institutional frameworks

2. Mid-term (2-5 years): Implement afforestation, water conservation, and soil conservation measures, and provide capacity-building programs

3. Long-term (5-10 years): Monitor and evaluate progress, scale up successful initiatives, and ensure sustainability and ownership among local communities

The author is an IFS Officer presently serving as the Director, AP State Forest Academy, Rajamahendravaram, AP. M-62810 72815



The perseverance of a determined Primatologist

Sri V.V. Hariprasad, DyCF (R)

In anthropology, Primatology is the study of non-human primates (like monkeys and apes) and is a sub-branch of physical anthropology that seeks to understand the biological and behavioural patterns of these close relatives to humans to gain insights into human evolution and our place in the natural world. Anthropological primatologists examine primate behaviour, ecology, social structures, genetics, and evolution to draw parallels and contrasts with human traits and behaviours. Primatology primarily focuses on the study of monkeys, apes, and other non-human primates. By studying our closest living relatives, anthropologists gain crucial insights into the evolutionary history and development of human behaviours and characteristics. Primatology draws on various disciplines, including biology, zoology, and psychology, but within anthropology, it's considered a part of the study of human origins and biological variation.

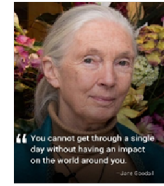
Jane Goodall, a renowned primatologist, was born on April 3, 1934, in London, England—and died on October 1, 2025, in Los Angeles, California, U.S. She was a British ethologist known for her exceptionally detailed and long-term research on the chimpanzees of Gombe Stream National Park in Tanzania.

Goodall, who was interested in animal behaviour from an early age, left school at age 18. She worked as a secretary and as a film production assistant until she gained passage to Africa. Once she was there, Goodall began assisting palaeontologist and anthropologist LOUIS Leakey, and her association with Leakey led eventually to her establishment in June 1960 of a camp in the Gombe Stream Game

Reserve (now a national park) so that she could observe the behaviour of chimpanzees in the region. In 1964 she married a Dutch photographer Baron Hugo van Lawick who had been sent in 1962 to Tanzania to film her work; the couple had a son in 1967 and later divorced.

Jane Goodall revolutionized primatology by discovering tool use and complex social behaviours in chimpanzees, demonstrating their shared characteristics with humans, such as emotions and family bonds. She founded the Jane Goodall Institute to protect chimpanzees and their habitats, shifting conservation to a community-centred model, and created the "Roots & Shoots" program to empower youth to become environmental stewards. Her work broadened scientific understanding and challenged the human-animal boundary, establishing her as a leading advocate for conservation and the natural world.

Goodall's most famous discovery was that chimpanzees use and modify tools, such as using stems to extract termites from mounds. This challenged the long-held belief that tool-making was a unique human trait. The University of Cambridge in 1965 awarded Goodall a Ph.D. in ethology; she was one of very few candidates to receive a Ph.D. without having first possessed an A.B. degree. After her divorce, she married Derek Bryceson, who was then member of Tanzania's parliament and director of the Tanzanian national park system. He helped establish Gombe Stream National Park before his death because of cancer in 1980. Except for short periods of absence, Goodall remained in Gombe until 1975, often directing the



fieldwork of other doctoral candidates. In 1977 she cofounded the Jane Goodall Institute for Wildlife Research, Education and Conservation (commonly called the Jane Goodall Institute) in California; The centre later moved its headquarters to the Washington, D.C., area. She also created various other initiatives including Jane Goodall's Roots & Shoots (1991), a youth service program.

Over the years Goodall was able to correct a number of misunderstandings about chimpanzees. She found, for example, that the animals are omnivorous, not vegetarian; that they are capable of making and using tools; and, in short, that they have a set of hitherto unrecognized complex and highly developed social behaviours. Goodall wrote a number of books and articles about various aspects of her work, notably, *In The shadow of Man* (1971). She summarized her years of observation in *The Chimpanzees of Gombe: Patterns of Behaviour* (1986). Goodall continued to write and lecture about environmental and conservation issues into the early 21st century. In 2002 she became a UN Messenger of Peace. The recipient of numerous honours, Goodall was decorated with Dame Commander of the Order of the British Empire (DBE) in 2003. She also was awarded the Templeton Prize (2021), the Stephen Hawking Medal for Science Communication (2022), and the Presidential Medal of Freedom (2025). *Jane: a documentary* about her life and work, appeared in 2017. The determined primatologist kept on going until her last breath.

The chimpanzee (*Pan troglodytes*), also simply known as the chimp, is a species of great ape native to the forests and savannahs of tropical Africa. It has four confirmed subspecies and a fifth proposed one. When its close relative, the bonobo, was more commonly known as the pygmy chimpanzee, this species was often called the common chimpanzee or the robust chimpanzee.

The chimpanzee and the bonobo are the only species in the genus *Pan*. Evidence from fossils and DNA sequencing shows that *Pan* is a sister taxon to the human lineage and is thus humans' closest living relative.

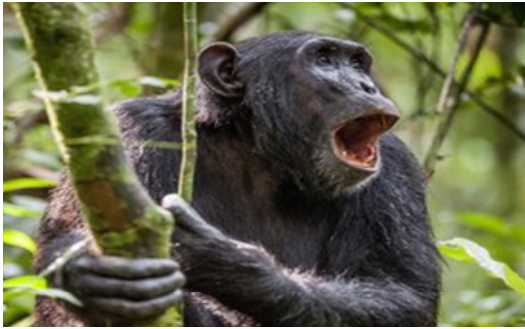
Chimpanzees are an endangered species; their population in the wild has been reduced by hunting (primarily for meat), destruction of habitat from logging or farming, and commercial exportation for use in zoos and research laboratories. The International Union for conservation of Nature (IUCN) noted that, despite having one of the largest geographic ranges of the great apes, chimpanzee populations have fallen significantly since the 1980s. Lions and leopards also prey upon chimpanzees. Unfortunately, all chimps are listed as endangered by the International Union for the Conservation of Nature (IUCN). It is estimated that there are approximately 170,000-300,000 chimpanzees left in the wild, but some populations, such as the Nigeria-Cameroon chimpanzee, are down to as few as 6,000 individuals.

Chimpanzees are highly intelligent and are able to solve many kinds of problems posed to them by human trainers and experimenters. A number of researchers have taught chimpanzees to use sign language or sign languages based on the display of tokens or pictorial symbols. The implications of these language studies have been contested. However, critics charge that apes have not acquired true language in the sense of understanding "words" as abstract symbols that can be combined in meaningful new ways. Other investigators maintain that more recent language training has resulted in the chimpanzees' acquiring a true recognition of "words" as abstractions that can be applied in novel. Communication between chimps in the wild takes the form of facial expressions, gestures, and a large array of vocalizations, including screams, hoots, grunts, and roars. Males

display excitement by standing erect, stamping or swaying, and letting out a chorus of screams. Chimps use louder calls and gestures for long-distance communication (such as drumming on tree buttresses) and quieter calls and facial expressions for short-distance communication. Chimpanzees “fish” for termites and ants with probes made of grass stalks, vines, branches, peeled bark, leaves and midribs of leaves.

Leaves are used hygienically in wiping the mouth or other soiled body parts. Chimpanzees also

use different tools in succession as a “tool set.” For example, chimpanzees of the Congo basin first dig into termite mounds with a stout stick and then fish for individual termites with a long, slender wand. Tools are also used in combination as “tool composites.” Chimpanzees in the Guinea region push leafy sponges into hollows of trees containing water and then withdraw the wet sponges by using sticks. Chimps thus differ locally in their repertoire of tool use, with younger animals acquiring tool-using behaviours from their elders



Such cultural differences are also seen in food items consumed and in gestural communication. Young chimpanzees can become very attached to their human trainers and their expressions of feeling resemble those of humans more closely than any other animal.

Gombe Chimpanzee War

Gombe Chimpanzee War, also known as the Four-Year War, was a violent conflict between two communities of chimpanzees in Gombe Stream National Park in the Kigoma region of Tanzania between 1974 and 1978. The two groups were once unified in the Kasakela community. By 1974, researcher Jane Goodall noticed the community splintering. Over a span of eight months, a large party of chimpanzees separated themselves into the southern area of Kasakela and were renamed the Kahama community. The separatists consisted

of six adult males, three adult females and their young. The Kasakela was left with eight adult males, twelve adult females and their young. During the four-year conflict, all males of the Kahama community were killed, effectively disbanding the community. The victorious Kasakela then expanded into further territory but were later repelled by two other communities of chimpanzees. The chimpanzees roamed across these hills in territorial communities numbering from one to 40 members. The central valley was divided into three research areas: Kasakela in the north, and Kakombe and Mkenke in the south. Goodall followed the chimpanzees in their feeding, noting their aggressive territorial behaviour. Violence during these patrols usually occurred against isolated females and infants; the male patrols would mostly avoid each other or, if they met in equal numbers, limit themselves

to noisy shows of force instead of seeking battle. Accordingly, Goodall did not foresee the upcoming full-scale conflict between the two communities in Gombe in the years prior to the four-year war. Gombe Stream National Park was the Gombe Stream Research Centre, founded and directed by primate researcher Jane Goodall. The park is located in the lower region of the Kakombe Valley, and is known for its primate research opportunities. The site has steep slopes of open woodland rising above stream valleys lush with riverine forest

Conclusion: A 2022 study reported that chimpanzees crushed and applied insects to their own wounds and the wounds of other chimpanzees. Chimpanzees have displayed different behaviours in response to a dying or dead group member. When witnessing a sudden death, the other group members act in frenzy, with vocalisations, aggressive displays, and touching of the corpse. In one case chimpanzees cared for a dying elder, then attended and cleaned the corpse. Afterwards, they avoided the spot where the elder died and

behaved in a more subdued manner. Mothers have been reported to carry around and groom their dead infants for several days. Experimenters now and then witness behaviour that cannot be readily reconciled with chimpanzee intelligence or theory of mind (**Wolfgang Köhler**).

In this connection, on the passing away of eminent primatologist Jane Goodall on 1-10-2025 I quote the message I have received from Sri.M.Harikrishnan IFS (Retd), former HOFF of Tamilnadu, our former instructor at SFRC during 1975-1977 (son of Late Madhavaiah Krishnan an artist, writer, eminent wildlife photographer and one of India's finest naturalists of his times) which reads, "May the soul of the great lady rest in peace. May be she found that chimps could be some times as vicious and petty minded as many self-trumpeting humans are."

The author is a Retd. Deputy Conservator of Forests, a practicing Advocate in Hyderabad, and a guest faculty in The central university of Hyderabad who can be accessed at vvhp53@gmail.com or 7893673767)

Continuation from page No. 23

opportunity to align celebration with purpose. By embedding forest and environmental conservation into school life—not as a one-off event but as a sustained practice—we nurture a generation that values nature not just as scenery, but as legacy. Practical involvement—rooted in local ecosystems,

cultural narratives, and hands-on learning—ensures that children grow not only as scholars but as guardians of the Earth.

Let us sow the seeds of stewardship today, so that tomorrow's forests may flourish under the watchful care of informed, inspired young minds.

The author is a retired IFS officer and former Principal Chief Conservator of Forests, Andhra Pradesh and can be reached at dnmohanifs87@gmail.com and 94408 10003)



MIGRATORY BIRDS IN TELANGANA STATE

Sri. C. Ramakrishna Reddy, DFO (R)

1-0 :INTRODUCTION:

Telangana State was a haven for migratory birds once upon a time. But Alas! Now Telangana is facing enormous decline in migratory birds. There is noticeable decline in numbers with particular reference to Hyderabad City. This alarming shift is mostly due to habitat disruption and also due to the increased urbanization resulting in creating concrete jungles in Hyderabad city. The lakes are disappearing at an alarming rate due to heavy encroachments from mounting population explosion in the city. Recent HYDRA activities and its drastic measures in demolishing illegally constructed buildings on a massive scale clearly exhibit that colossal encroachments have taken place on lakes, Musi River coast and in all reservoirs in Telangana, in astronomical proportions.

1-1 :MIGRATORY BIRDS : Birds are migrating to other suitable surroundings of Hyderabad city where better environment is prevailing for its safe living. On the one hand there is a lack of suitable nestling sites in the city and on the other hand, all the lakes are filled with water to its capacity owing to heavy rains during last three to four years. There is no room for nestling along the banks of the lake as well as Musi river adjoining sites due to heavy encroachments. Heavy pollution of Musi river is also preventing the fish survival creating food deficiency for migratory birds. Birds require both water and accessible nestling grounds along the banks in addition to adequate food. Without these, the birds are compelled to move elsewhere leaving Hyderabad city seeking suitable surroundings conducive to its survival.

2-0 : HABITAT DISTURBANCES :

Moreover, increased human interference in the city's lakes has further exacerbated the situation. Popular lakes such as Ameenpur, were once a hotspot for water birds, have seen a decline in species such as migratory ducks. "Though forest birds, such as the red-breasted flycatcher, still make occasional appearances, the numbers of bush as well as forest birds have diminished due to habitat disturbances," as noticed by bird friendly people.

2-1 :As Hyderabad's habitats struggle to sustain avian populations, surrounding areas are emerging as promising sites. Regions like Narasapur forest, Anantagiri Hills, Manjeera wildlife sanctuary and Dammagundam forest always had substantial bird populations being less disturbed.

3-0 : SCARCITY OF NESTLING GROUNDS :

Eye witness accounts reveal that bird watchers have shifted focus to exploring new locations due to changing dynamics of Hyderabad city lake Ameenpur. Once a thriving birding spot, Ameenpur is now less viable for bird waders as the water remains consistently full leaving little habitat for the birds. The waders are now frequenting Kistareddypet and Kodakanchi since they are buzzing with numerous bird species like whiskered terns, Jacobin cuckoos and Siberian stonechats. Hundreds of ducks including lesser whistling ducks can be seen whose presence is fleeting with different species appearing for only few days whereas Ameenpur received more diverse birds.

3-1 : DISTURBED ENVIRONMENT :

When there is scarcity of food, nestling spaces or increased human disturbance the birds are forced to move to other habitats. The shift of migratory birds is a grim reminder of the rapid shift that Hyderabad City's environment is undergone.

4-0 :ENDANGERED BIRD – INDIAN SKIMMER:

A flock of endangered Indian skimmers have been spotted between Mid-Manair and Lower Manair Dam (LMD) in Karimnagar. These rare birds, typically found migrating to Kakinada in Andhra Pradesh during winter from Mahanadi in Odisha, have never before been recorded in the state.

Among the flock of 119 birds, three skimmers bore identification tags marked 4T5, 4T8, and 2R0-indicating ongoing conservation efforts to track their movements. "However, these are not satellite trackers but simple black-and-white strips used by researchers and bird watchers to recognise and monitor the birds. They were spotted in Telangana here and there before as well, but were never documented and never seen in such high numbers," Parveen Sheikh of Bombay Natural History Society (BNHS), which is conducting research on the species, revealed.

She further said that Indian skimmers are riverine species, which breed on coastal areas, wetlands, backwaters, etc. Their migration has sparked both excitement among bird watchers and concerns over habitat loss. "The Indian skimmer is known for its distinctive foraging technique, where its elongated lower mandible skims the water's surface to catch fish. Despite this specialized adaptation, this species has suffered a dramatic decline, with fewer than 3,000 mature individuals estimated to

remain worldwide," Sriram Reddy from Hyderabad Birding Pals said.

The International Union for Conservation of Nature (IUCN) has categorized it as 'endangered', citing habitat destruction, pollution, and human disturbances as key threats to its survival. Bird conservators are calling this sighting both an encouraging sign for biodiversity and a concerning reminder of habitat degradation.

Abdul Raheem, a bird conservator from Andhra Pradesh, noted that while the twin Telugu states once saw frequent visits from migratory birds, their numbers have declined sharply due to environmental changes. "Human activities such as dam construction, extensive sand mining, and modification in river flow for irrigation, encroachments, water contamination have disrupted natural habitats. These activities cause fluctuating water levels and inhabitable ecosystem, which either submerge nesting sites or leave them exposed to predators and human disturbances," Raheem said, adding, "In the past, birds like Red-crested pochards, flamingos spoonbills, and more migrated to the region in large numbers, but due to un-favourable habitat conditions, their presence has dwindled over the years".

Experts believe that the appearance of Indian skimmers in Telangana in large numbers might be a direct response to environmental degradation in their traditional nesting grounds. "This shift suggests that birds are seeking alternative sites that provide suitable conditions for feeding and breeding. This highlights the urgent need for targeted conservation efforts in Telangana. Our state's climate and diverse eco-systems have the potential to support migratory birds, but only if we take steps to preserve key habitats like Manair Dam", Reddy added.

4-1 : BIRD ATLAS TO MAP FEATHERED FRIENDS :

In a significant move to understand and conserve the city's urban biodiversity, the World Wide Fund for Nature (WWF), in collaboration with Hyderabad Birding Pals and Deccan Birders, is curating a Bird Atlas. This citizen-driven initiative aims to systematically map the distribution of bird species across Hyderabad and its surroundings, creating a vital database to support conservation efforts. The project brings together birdwatchers, researchers, and citizen scientists in a collective effort.

Bird surveys twice yearly:

"Participants will conduct bird surveys twice a year—once in winter (February) and once in summer (July) over a span of three years. These surveys will cover diverse habitats within the Outer Ring Road, including woodlands, grasslands, wetlands, open natural ecosystems, and urban areas. By collecting detailed data on bird presence, abundance, and breeding status, the project will offer a comprehensive picture of Hyderabad's avian life," explained Farida Tampal from WWF.

She added that the Hyderabad Bird Atlas follows the bird atlases in Coimbatore, Mysuru, and Kerala with the goal of replicating their impact in

India's expanding urban centres. "Bird atlases are invaluable tools for scientists, conservationists, and policymakers. They help monitor changes in bird populations and identify key habitats such as breeding grounds, migration stopovers, and wintering sites," said Sriram Reddy from Hyderabad Birding Pals.

'Protect critical habitats':

Reddy also highlighted that the Bird Atlas will play a vital role in land-use planning and urban development. "By identifying biodiversity hotspots, the atlas can inform urban development decisions, ensuring that human activity minimizes its impact on bird habitats," he added. Sudhir Moorti K from Deccan Birders said, "The atlas will provide insights into how urbanization is affecting bird species."

5-0 : CONCLUSION :

Birds are tiny creatures with immense intelligence. Migratory birds visit only ideal grounds in lakes, reservoirs for stay, nesting, breeding and rearing the young ones. There is need to create this environment. Otherwise, they migrate to other areas. The sooner it is done the better for their visit to Hyderabad City.

The author is a retired DFO of combined Andhra Pradesh. Mobile No 8125325399, and 9347593393.

Mother Earth: You are the vessel, the mother of the people, the fulfiller of wishes, far extending. Whatever is wanting in you is filled by Prajapati, first-born of eternal order. May those born of thee, O earth, be for our welfare, free from sickness and waste. Wakeful through a long life, we shall become bearers of tribute for thee

-Atharva Veda



Anthony: The Quiet Maestro of the Green Baize

Nostalgia

Dr. Padam Parkash Bhojvaid, IFS (R)

The story of Indian forestry is layered with histories that go beyond silviculture and surveys. When the British established the Imperial Forest Service in the early 1900s, they imported not only German foresters and Oxbridge recruits but also their lifestyle. Aristocratic young officers of the Raj carried with them habits of the clubs — evenings of polished etiquette, mess dinners, and, unmistakably, the slow, hypnotic roll of balls across a green baize. Billiards was not just a pastime; it was a social exercise, a rehearsal of composure, a metaphor for order in life itself.

It is no accident, then, that the Forest College at Dehradun — now the Indira Gandhi National Forest Academy — came equipped with a state-of-the-art billiards table. And with the table came its guardian: a multipurpose butler who doubled as marker, mentor, and master of the game. In our time, that figure was none other than Mr. Anthony.

Anthony entered our lives in 1983, already weathered by years of service. He was not tall, nor did he cut a figure of strength; his body was frail, his fingers bent by rheumatism, his gait slowed by a longing for drink. Yet there was something commanding about him — the weight of his large, melancholy eyes, the quiet assurance in his posture, the dignity in his silence. He seemed like a relic of another age, perhaps descended from a box-wallah father and a hill-tribe mother, his broad shoulders and immense hands carrying the inheritance of both.

But it was on the billiards table that Anthony revealed his artistry. Those gnarled fingers, unpromising at first glance, transformed into instruments of precision when they gripped the cue. He guided us probationers into the subtleties of the game: how to hold the cue with poise, how to strike cannon with delicacy, how to master the gentle in-off, and above all, how to build patience

into every shot. He was not merely a coach but an *ustad ji*, initiating us into a ritual of refinement. Under his quiet instruction, many of us discovered not just how to pot a red but how to carry ourselves with composure.

Anthony's world extended beyond the billiards room; as a seasoned butler and an accomplished cook, he orchestrated the mess with an elegance that went unnoticed only because it was so seamless. Meals were always orderly, service unobtrusive, and the dignity of the mess maintained like a cathedral of discipline. His presence stitched together the life of the academy — invisible, yet indispensable.

What made Anthony extraordinary was not flamboyance but restraint. He never sought attention, never raised his voice, never claimed authority — yet he commanded respect. We admired him for his quiet mastery, his loyalty to duty, and his gift of teaching without pretension. In his unassuming way, he embodied the very virtues the game of billiards had once symbolized for the British officers who brought it here: patience, precision, and poise.

Looking back, Anthony was more than a butler or billiards coach; he was the quiet custodian of a tradition, a living bridge between the colonial past and our own probationary days. In his sad eyes lay stories untold, in his careful hands lessons eternal. He left no plaques, no medals, but every time we pick up a cue or recall the discipline of the mess, his legacy surfaces — polished, precise, and quietly enduring.

Anthony taught us that true respect is never demanded; it is earned in the silence of service, in the perfection of small acts, in the dignity of presence. He was, in every sense, 'the maestro of the green baize'.

The author is a retired IFS officer and former PCCF (HoFF), Haryana. M-70879 56657

“From Trainee to Leader: My Journey as a Forest Officer”^{Nostalgia}

Sri.D V Reddy, Dy.CF

I take this privilege to share my experiences during my long and fulfilling journey as a Forest Officer.

My career began in 1992, when I appeared for the APPSC Forest Range Officers' Examination. Out of 33 selected candidates, our batch of 18 members, mostly from Telangana districts, was deputed to undergo training at the Gujarat Forest Rangers College, Rajpiplai April 1993. The training was a turning point in my life. The campus, set in the historic Wadia Palace, offered excellent facilities—well-structured classrooms, individual hostel rooms, and vast grounds for physical training.

The leadership of Shri Siddiq Ahmed, Deputy Conservator of Forests, our Principal, left a lasting impression on me. Although yet a visionary officer, he instilled in us discipline, practical knowledge, and leadership skills. I was surprised when he directly nominated me as the General Secretary of the Trainee Association, recognizing leadership potential that I myself had never intended to project. Along with his able faculty team—Mr. Sunkeshwar, Mr. Shah, and Mr. Jain (all ACFs)—our batch was trained rigorously to take on real-world challenges.

After passing out, I underwent one year of training as an Assistant Range Officer at Dhammapeta Range, Khammam Circle, during which I participated in the Grid Survey work under the guidance of Shri Pratap Bahadur, IFS, the then Addl. PCCF. These surveys in the dense forests of East and West Godavari exposed me to natural forests, tribal communities, and the accuracy of old Survey of India maps, which were still highly relevant.

Field Postings and Early Challenges

My first posting as Forest Range Officer was at Kummaram Range, Kothagudem Division, under DFO Shri Khajuria. Here, I faced the dual challenges of encroachment control and the presence of extremist groups, which tested my courage and commitment.

Later, in Palvancha Division, under the guidance of Shri Vidhya Sagar, IFS, and Shri

S.S. Sridhar, IFS, I gained immense exposure in forest protection. I achieved the distinction of collecting the highest Compounding Fees in the circle, seizing multiple four-wheelers used in teak smuggling, particularly from notorious areas like Pandurangapuram and Vengalrao Colony. My five years in Palvancha are among some of the most challenging yet rewarding years of my career.

Subsequent postings included:

- Urban Forestry, HMDA: Gained valuable experience in raising block plantations in non-forest lands.
- State Vigilance Wing: Worked with Shri Nagabhushanam, IFS, touring across Andhra Pradesh and learning diverse forest management practices.
- Karimnagar Range : A large jurisdiction with numerous sawmills, where I seized several illegal sawmills, collected substantial compounding fees, and was honored with the State-Level Award for Best Performance by Hon'ble CM Dr. Y.S. Rajasekhara Reddy on the State Formation Day (Nov 1).

- KBR National Park: Acquired expertise in wildlife management and urban park maintenance.

Growth in Responsibilities

Promoted as Assistant Conservator of Forests, I served in the Legal Section, Aranya Bhavan, where I ensured timely filing of counters, liaised with Government Pleaders, and secured favorable judgments for the Department.

Later, as DFO Medak and Mahaboobnagar (Social Forestry Division), I worked extensively on nursery development and plantations under Telangana kuHaritha Haram, raising 200 nurseries across 64 mandals—a task that gave me immense satisfaction.

At the Forest Academy, Dulapally, as Deputy Director, I trained Section Officers and Beat Officers. My focus was on imparting practical knowledge and instilling courage to curb illegal activities while promoting forest development.

Leadership and Mature Phase

One of the most fulfilling phases was my tenure as DFO Yadadri-Bhongir District (5 years). With the support of my team, I made the district a model in:

- Encroachment control,
- Survey and demarcation of forest blocks,
- Raising plantations under Haritha Haram.
- Construction of excellent District Forest office complex in 2 acres pan.

Later, as DFO Vikarabad, though only for 6 months, I successfully closed long-standing illegal quarries operating in forest areas—a feat many considered impossible.

I also served as Forest Utilization Officer at Head Office, contributing key proposals, before being

posted as Chief General Manager, Telangana Forest Development Corporation Ltd. (TGFDC), where I currently oversee the entire jurisdiction under the leadership of the VC & MD.

Service Beyond Postings

Apart from my official roles, I actively served the Forest Range Officers' Association and State Forest Officers' Association, taking them to new heights of recognition. I have also addressed several critical issues directly with senior-most authorities, demonstrating my commitment beyond my designated responsibilities.

Conclusion

Looking back, I can proudly say that the zeal, enthusiasm, and commitment with which I started my career in 1992 remain intact even today. Every minute of my service has been dedicated to the protection, development, and welfare of forests and forest personnel.

I feel deeply satisfied with my journey, both as an officer and as a representative of my fraternity, having contributed meaningfully to forest conservation, administration, and institutional growth.

Suggestion:

During my tenure, I have observed that individuals at all levels of the organization possess talent and caliber. However, their ideas and contributions are often overlooked unless endorsed by those at the top. To ensure fairness and inclusiveness, it is important that every good suggestion, regardless of the cadre from which it originates, is given due consideration. Moreover, the structure of the organization should not be rigidly vertical but rather horizontal in spirit, providing equal opportunities for every member to contribute and grow.

The author is a Dy.CF presently working as the Chief General Manager, TGFDC, M-94408 10158

FUNNY GOOF UPs

Sri Anirudh Dharni, IFS (R)

It may come as a surprise to young foresters, who are now dealing with human-wild animal conflict on a daily basis, that it has taken just one generation for the problem to reach its present frequency and intensity. It was only once in a blue moon when forest officers of my time had to deal with such issues. It will be a big understatement to say that we were not then very well trained to handle those situations

I remember one occasion during my first field posting when I was wildlife warden in Parambikulam, Kerala. I got a wireless message from the Conservator of Forests, Central Circle, Shri T M Manoharan, informing that a leopard had strayed in to the town of Thrissur and I was directed to reach there with the tranquilizing gun and the drugs.

Parambikulam was at least three hours away from Thrissur and I immediately set forth in my Maruti gypsy, with determination, after loading the tranquilizing gun, vials of ketamine used for doping wild cats, its antidote and the hand gloves in compliance to the wireless instruction. However, during my entire journey I mulled over the role I was expected to play at the scene of action. It was causing me great anxiety because I had absolutely no clue how to tranquilize a wild leopard and the pressure, to live up to my official designation and be the saviour of the people in the crisis, was immense. I was visualizing in my mind the strayed leopard in some confined space locking eyes with me in the impending encounter and wondered who, between the two of us, would be more perplexed or scared in that thorny predicament.

On reaching Conservator's office in Thrissur I was informed that in the intervening time the police had already shot the leopard dead to avoid any mishap instead of waiting for doping the animal and transporting it. The news brought a mixed feeling- extreme relief that my wardenship skill was not going to be under public scrutiny plus a sad feeling for having lost a rather beautiful animal for none of its fault. It also made me realize how inadequately equipped the forest officers were to handle situations when wild animals strayed into human habitations.

Sometimes ignorance or lack of skills and sometimes legal provisions brought embarrassing moments in professional life that I can now look back amusingly. I was told about another anecdote by my Range officer but I cannot vouch for its authenticity; yet it is worth retelling to hammer the point I made earlier about the challenge of handling wild animals.

Mr. Winston Suting, an IFS officer of 1982 batch and hailing from Meghalaya, was posted as Warden in Wayanad Wildlife Sanctuary. He was a perfect gentleman with a very disarming smile and I never heard him speaking harshly to anyone throughout his service. Most of the time his small eyes would disappear when he smiled from ear to ear, and that was very often. He had trouble learning Malayalam but was able to barely manage the language with his ever obliging staff who would derive meaning from his conversations by painstakingly guessing the context rather than from his verbal skills. Once he shared his anguish with me about learning Malayalam that required many contortions of one's tongue, akin to oral acrobatics, to produce

the difficult sounds not found in other languages: "How can I learn this language when I am told that there are three different sounds corresponding to alphabet T when all my life I learnt to produce only one! (as in പട്ര, പാട്ര, പാറ്റ) Same is true for the sound of alphabet R. (as in രാമ, രൂക്ഷ). No wonder Malayalam needs fifty-six alphabets against twenty-six in English." I must add that this was a common challenge faced by all North Indians too.

One day a wild elephant entered a tribal settlement from the surrounding forests within Wayanad Sanctuary. Obviously, there was a lot of commotion among the people as the elephant was probably in musth and therefore, in a particularly irritated mood causing anxiety even among the tribals who otherwise also had frequent encounters with wild animals. The Range officer and other staff had already reached the colony and they were busy pacifying the people. They assured that the warden had been informed and he was on the way to tackle the situation because, unlike the subordinate staff, he was trained in wildlife management. However, the people remained unconvinced and tense.

After a brief interval Mr. Suting arrived in his jeep, much to the relief of the staff and the colony residents. He got down from the jeep in a very calm and composed manner as if conveying through his body language that the situation at hand was a child's play. He took out the necessary equipment from the back of the jeep while the crowd looked at each move expectantly. With the tranquilizing gun in his one hand and the drug vial in another he declared rather confidently, "This is the equipment for capturing the elephant." The people were hanging on his words with bated breath for the next course of action to follow and the giant elephant to fall down or walk away meekly. "However, I do not know how to dart the elephant!" It is left to your imagination as to what effect that announcement

would have had on the crowd when spoken in his heavily North-eastern anglicized Malayalam.

During my early Parambikulam days there were a couple of poaching gangs who were active throughout Kerala and many times a lot of elephant death cases were being reported in the press too - much to our embarrassment - though few of them were due to natural causes too. There was a standing instruction from the forest headquarters to get the post mortem report after each elephant death by a qualified veterinary doctor irrespective of the cause of casualty so that poaching cases could be neatly segregated and disease outbreaks, if any, could be identified well in time.

One Sunday after-noon when I was planning to have a post lunch nap, a forest range officer came to me and reported that a dead elephant had been sighted. The location was not accessible by road and needed a trek of forty- five minutes. I visited the site in the hot after-noon with him and other staff immediately and saw the animal which had been dead for more than two days. There was intense and unbearable bad odour all around and when we approached near the body we could see it infested with maggots while flies and other small insects buzzed around. It was an ordeal even to stand there briefly. It was a female elephant therefore poaching was ruled out (only males are hunted for tusks) but bound by protocol I directed the Range officer to arrange for the post-mortem.

A veterinary doctor was fetched in the Range vehicle from the bordering town. He came straight first to my official residence even before going to the site and asked me timidly the probable reason for the death. My full sympathy was with him because I wondered whether the poor fellow, who normally dealt with domestic cattle in his usual routine, had ever conducted such a task in his life. I replied, adding unintentionally to his

discomfort, that we had called him precisely for answering that question- to find out the cause of death after a detailed post-mortem. I could visualize his pickle considering what was in store for him- the nauseating sight of decomposing elephant body with maggots and the fact that he would be required to open the decayed body to give a semblance of a post-mortem.

After performing the perfunctory post-mortem, probably his first for an elephant, the veterinary doctor returned promising that he would prepare the report in his hospital and the same could be collected the next day. After his departure we burnt the carcass on the spot using firewood and diesel.

When the postmortem report was brought to me the next day it was in handwritten Malayalam which was difficult for me to read at that time. However, somewhere the word 'tusk' was mentioned in English and it was reported that one tusk was recovered during the post-mortem. I was utterly confounded because it amounted to saying that one tusk was missing and therefore it was an incident of a male elephant death and by implication a possible case of poaching – a fact that would add to our woes.

I looked at the Range officer with a grim face and was stunned at the turn of events. I almost boiled with rage when he said sheepishly that he had not read the report properly at the hospital. Seeing my anger he beat a quick retreat with the report tucked in the file cover to tackle the novice veterinary officer for reporting about tusk recovery after mentioning that it was a female elephant

death in the opening sentence.

The Range officer returned after couple of hours with a relieved look and informed me that the report did not actually mention about the recovery of a tusk. What I had read as tusk was in fact scribbled as tush in the shaky handwriting! Female Asian elephants have small tushes, barely an inch or two long, unlike males that have longer tusks. These rudimentary growths do not have pulp inside the dentine cavity and many females drop them off naturally too in the course of their life. Neither the range officer nor I had known about tushes earlier! I realized that the two inch piddly tush in our possession would be our biggest defense weapon against any probable negative press coverage wishing to sensationalize that elephant death as a poaching case.

Epilogue:

- 1) Now we have one veterinary doctor posted on deputation from Animal husbandry department in each district in Kerala. They have reasonable experience of dealing with wildlife issues today.
- 2) The standing instruction today is to get the postmortem done for all Scheduled I animals and not only for elephants.
- 3) I sought Mr. Winston Suting's permission over phone to use the anecdote related to him. It was a pleasure talking to him after so many years and on hearing my request the gentle soul replied with his signature laugh, "I do not recall whether such an incident had happened. Nevertheless, you go ahead with your write up."

The author is a retired IFS officer and former PCCF of Kerala. M-82239 94111

**If we rightly consider, every green tree is far more glorious than if it were
made of gold and silver**

- Martin Luther



Green Quiz – November 2025

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

1. Meteorites are classified based on their composition of 'Metal toratio. Fill in the blank.
2. What group of living beings constitutes 95% of planet's species?
3. By what term is the theory that 'life is seeded on Earth from outer space' known?
4. Expand 'RoHS', a compliance in electric & electronic appliances with regard to hazardous material for human health & environment.
5. What is the phenomenon of Production and emission of light by a living organism through chemical reaction most often involving luciferin and the enzyme Luciferase called?
6. Greek word meaning presence of Bear or lack of them gave names to an Ocean and a continent. Name the Greek word.
7. The human waste in submarines is compressed in to 60 pound blocks and ejected in to the Ocean. Jockingly, what term is used to refer to it?
8. Araku coffee is popular across the World. In recent times it is threatened by a pest that could

make Coffee beans unsalable in international markets. Name the pest?

9. The highest and northernmost parts of Himalayas are called?

10. Laboratories in which country brought the Direwolf back from extinction in 2025?

For Students

1. What is the difference between Glacier & Ice shelf?
2. What is the name of the siblings who were abandoned in a forest and fall in to the hands of a witch who lives in a house made of bread, cake and sugar?
3. Sage Agatsya cursed a King to become an Elephant Gajendra. Which King?
4. Wetlands filter water and for this function they are compared with which part of human body?
5. Taylor Swift wore a 30 year old T shirt bearing images of an animal cause she supported. This raised demand for the T shirt again and the Monterey Aquarium in LA, California could raise over \$2.0 million for the conservation. Name the animal on the T.

Answers on page no : 56

Be yourself: To be nobody but yourself in a world which is doing its best, night and day, to make you everybody else means to fight the hardest battle which any human being can fight; and never stop fighting

-e e Cummings



Elder abuse—An anathema for the aged persons

Sri V.V. Hariprasad, Dy.CF (R)

The abuse of older people, also known as 'elder abuse', is a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person. This type of violence constitutes a violation of human rights and includes physical, sexual, psychological and emotional abuse; financial and material abuse; abandonment; neglect; and serious loss of dignity and respect.

- All over the world around 1 in 6 people, 60 years and older, have been experiencing some form of abuse in community settings for the last number of years.
- Rates of abuse of older people are high in institutions such as nursing homes and long-term care facilities, with 2 in 3 staff reporting that they have committed abuse for the last number of years.
- Rates of abuse of older people have increased during the COVID-19 pandemic.
- Abuse of older people can lead to serious physical injuries and long-term psychological consequences.
- Abuse of older people is predicted to increase as many countries are experiencing rapidly ageing populations.
- The global population of people aged 60 years and older will more than double, from 900 million in 2015 to about 2 billion in 2050.

The domestic elder abuse in China

Overall prevalence of elder abuse in China is estimated at 20.29 %. Among the majority of Chinese population, older adults prefer aging at their homes, and the increasing aging population in China raised the risk of domestic abuse. In fact Elder Abuse (EA) can cause multiple serious consequences, including physical injuries, cognitive decline, anxiety, depression, a decrease in the quality of life, and an increase in the risk of premature mortality. Therefore, the prevention and intervention of EA among older adults is of significant importance.

China boasts a distinctive cultural identity. The traditional Confucian filial piety highlights the concept of "raising children to fight against the aging". Due to enormous socio-economic changes and the burden of supporting Chinese older adults which was generated by the "4-2-1 paradigm" (after a pair of "only-children" getting married, the family structure consists of four parents, two of the married ones and their only child) has intensified family conflicts. Consequently, Chinese older adults easily fall into neglect. Another concept of "do not wash your dirty linen in public" leads many EA victims to conceal and tolerate the facts of abuse in order to maintain family harmony and face it. Moreover, due to the influence of long-term anti-sexual ideology discussing sexual issues has become a cultural taboo in Chinese society. This, to some extent, affects the willingness to report sexual abuse. Additionally, the implicit language expression habits of Chinese older adults may hinder the accurate reflection of EA. Some terms used to describe EA may be perceived as too

direct or sensitive, leading to resistance from Chinese older adults and potentially reducing the likelihood of reporting such incidents. Consequently, the development of EA instruments for Chinese older adults must have considered cultural characteristics, which are essential for the accurate identification of EA.

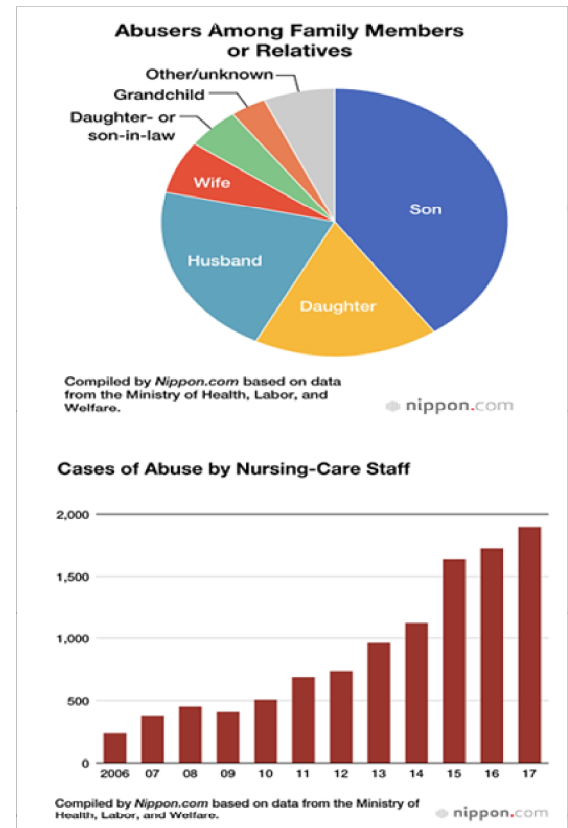
From June 2022 to March 2023 a cross-study was conducted among older adults from mainland China via convenience sampling. The sample inclusion criteria were: (a) aged 60 and older; (b) Chinese citizen; (c) live at home; (d) cognitively intact as determined according to a brief cognitive rating scale (e) were willing to participate in this study, with informed consent. Old adults who were too sick to cooperate with the survey were excluded.

A total of 3725 participants from eight cities in six provinces in China (Anhui, Beijing, Guizhou, Jiangsu, Jiangxi, and Zhejiang) were recruited for the simultaneous face-to-face interviews and online survey. The sample size of this study conformed to suggestion of experts. The online survey was conducted by 'Wenjuanxing' a professional data-collecting platform in China. Each questionnaire reply was anonymous, and participants were required to answer all questions. The primary researchers were responsible for the scales' distribution, recovery, and quality control. This study was approved by the ethical committee of **Wenzhou Medical University**, Zhejiang, China (2022-020). Written informed consent was obtained from all participants. The results made crystal clear of the prevailing elder abuse in China among majority of elders interviewed.

Elder Abuse a Growing Problem in Aging Japan

In Japan Abuse of the elderly by family members or nursing-care staff has been on the rise. Certified

cases of abuse against elderly persons reached a record high in fiscal 2017 according to the Ministry of Health, Labour, and Welfare, rising year-on-year by 4.2%. Among the elderly victims of abuse, 76.1% were women and 23.9% men.



The overwhelming perpetrators of the abuse were sons, at 40.3%, followed by husbands at 21.1% and daughters at 17.4%. The following main reasons for abuse were cited in the MHLW survey (multiple answers allowed): exhaustion and stress from caring for the elderly (24.2%), mental issues of the abuser (21.8%), personal problems with the victim prior to abuse (14.2%), dementia of the victim (13.7%) Recognized cases of abuse by staff at special-care nursing homes and other facilities rose year on year by 12.8% in fiscal 2017, to 510 in total, marking a new record high.

Cases of abuse by nursing-care staff have been rising steadily. Among the 854 elderly persons identified as being abused in fiscal 2017, 59.8% of them were subject to physical abuse such as assault or physical restraint. The second-most common kind of case, affecting 30.6% of the victims, was psychological abuse, such as abusive language, followed by the 16.9% who were subject to neglect.

The main underlying factor of such abuse, in 60.1% of cases, was "problems related to education, knowledge, and nursing-care techniques." The second key factor, in 26.4% of cases, involved "problems related to caregivers' stress and inability to control their emotions."

Elder abuse in India:

The population of our country is passing through the transitional phase. At present more than 50% of the present population comprises of youth and we may hope that our country would develop fast as the responsibility lies on young shoulders. But the remaining population comprises of about 10% old age people or senior citizens whose responsibility is also on young generation. Ageing is a major demographic issue and is faced by all the countries. In 2009, the percentage of old people in the country was 7% and by 2050, it is estimated to increase up to 20% of the total population. As a matter of fact, these senior citizens who have spent their whole life in raising their children or providing them better living, now are subjected to abuse mostly by their own off springs/family members.

In the present scenario, there is a need to give serious considerations to the wellbeing of elders with special consideration to socio-economic, financial, health, shelter and emotional needs. It's true that nowadays survival is causing stress, especially in joint and extended families,

as houses are getting congested. Increase in life span, physical functional disabilities creating need for assistance, generation gap etc. are some of the issues challenging the existence of elder people in the country.

In the year 2019, 27,696 cases of crime related to senior citizens were reported in India, which increased from 24,349 and 22,727 cases in the preceding years. The trend shows that there is a constant increase in the number of cases registered for elder abuse in India. As in 2015, the data on elder abuse is available from the perspective of youths and their experience only and it is not collected from the elderly who have been suffering from abusive incidents. A research paper discusses the data of Help Age India's Report 2014 on elder abuse. The survey was conducted on a sample of 1200 elderly households of age 60 years and above (100 from each city {50% males and 50% females}) of twelve cities of eight states (Delhi, Kolkata, Mumbai, Bangalore, Chennai, Hyderabad, Mangalore, Nagpur, Kanpur, Guwahati, Vishakhapatnam and Madurai).

At the national level, it has been found that 50% of the elders have experienced abuse personally while 83% of the elders reported that abusing is prevalent in the society. It is also noticed that 72% of the abused elderly people belong to the age group 60 - 69 years, 25% of them belong to the age group 70 - 79 and only 3% of them are of 80 years or above 80. Females (53%) reported higher percentage of abusing cases in comparison to males. In 2013, only 30% elderly people reported the cases of abusing while 70% people did not report about the abuse that they were facing. This figure explores a high increase in the reporting percentage of elderly abuse from 30% to 59% in the year 2014.

There are various types of abuse, which are

faced by elderly people. Verbal abuse (41%) is the most common type of abuse faced by elderly followed by disrespect (33%) and neglect (29%) reveal this distribution clearly. In 2013, Disrespect (79%) was the most common type of abuse faced by elderly followed by verbal abuse (76%) and neglect (69%). Economic exploitation (53%), beating (39%) and unwelcome sexual contact (3.01%) were also prevailing abuse in the society. In 2015, according to the youth abusive language or talking rudely (72.4%) is the most common type of abuse faced by elderly followed by "being isolated/silent treatment/ emotional abuse" (43.1%) and "denial of basics/medicines/material abuse" (30.1%).

Physical abuse or beating (29.1%), financial abuse (24.7%) and unwelcome sexual contact (1.8%) are also prevailing abuse in the society. It was reported at national level that 46% of elderly have been facing abuse for three to five years, 25% elderly reported for one to two years, 21% stated that the duration is approximate six to ten years. About 4% of the abused elders have been facing the same situation for more than fifteen years and equal percentage of elderly (4%) have been facing the abuse for eleven to fifteen years. The abused elders also stated that 35% of them are abused at least once in a week, 20% elderly face it once in a month, 17% said that they encounter with abusing almost daily, while 15% reported that they come across to abuse very rarely and only 13% of them face the abuse once in few months and depict the picture clearly. Details of various crimes of Abuse all over country are furnished below.

Amongst the states where maximum number of crimes were reported is Maharashtra (21.3%, 3981 cases) (literacy rate: 82.91%), followed by Madhya Pradesh (18.4%, 3438 cases) (literacy rate: 70.63%), Tamil Nadu (11.3%, 2,121 cases)

(literacy rate: 80.33%), and Andhra Pradesh (9.9%, 1,852 cases) (literacy rate: 67.66%). As a whole, on every one lakh elderly population, 18 people are victims of crime under IPC. Delhi has reported maximum rate of crime (89%) (literacy rate: 86.33%), followed by Madhya Pradesh (60.2%) (literacy rate: 70.63%), Andaman and Nicobar Island (47.2%) (literacy rate: 86.27%), Goa (44.6%) (literacy rate: 87.40%), Chhattisgarh (41.6) (literacy rate: 71.04%), Andhra Pradesh (38.3) (literacy rate: 67.66%) and Maharashtra (35.8) (literacy rate: 82.91%).

Out of this data, a total cases of 1115 are murder and in this Tamil Nadu reported 171 cases followed by Uttar Pradesh (170 cases), Maharashtra (167 cases) and Madhya Pradesh (116 cases) etc.

Legal Provisions:

The following provide a glimpse of various legal provisions for elderly people in our country.

Hindu Adoptions & Maintenance Act, 1956 which made provisions for maintenance for aged parents according to the discretion of the court.

Section 125 of the criminal procedure code (1973) which provides maintenance from children and ensures maintenance up to Rs.500/ per month only for those elderly parents who are unable to maintain themselves.

Maintenance and Welfare of Parents and Senior Citizens Act, 2007 which secures fundamental rights of senior citizens who have attained the age of 60 years or more.

In this context it is relevant to mention that Rajya Sabha MP Smt. Jaya Bachchan gave a heartfelt speech about senior citizens in April 2023 in the parliament by stating to 'kill the senior citizens after 65 years' as the government has been allegedly not paying attention to them which is worth to be quoted. She raised a very important

issue in Parliament and for that we salute her for her speech which is quoted below.

"Kill the senior citizens. Government should kill all senior Citizens after the age of 65 because the government is not ready to pay attention to the builders of this nation. Is it a crime to be a senior citizen in India? Senior citizens of India are not eligible for medical insurance after 70 years and they do not get loan on EMI. No driving license issued. They are not given any jobs, so they depend on others for survival and now even after becoming senior citizens, they have to pay all the taxes. There is no scheme for senior citizens in India. The 50% discount on rail/air travel has also been discontinued. Senior Citizens in politics are given all privileges as MLA, MP or Minister and get pension. I cannot understand why everyone else (except some government employees) is denied the same facilities. Just imagine, if children don't care about them, where will they go. If the elders in the country hold an election against the government, it will affect the election results. The government must face the consequences".

Senior citizens have the power to change the government, don't ignore them. They have a lifetime experience of changing governments. Don't think of them as weak! Many schemes are needed for the welfare of the elderly. The government spends a lot of money on welfare schemes but never feels about the senior citizens. On the contrary, the income of senior citizens is decreasing as the interest rates of the banks are decreasing. If some of them receive meagre pension for family and subsistence that too is subject to income tax.

So here are some benefits for senior citizens to consider:

- (1) To provide pension to all citizens above 60 years of age
- (2) All should be given pension according to their status
- (3) Concession on rail, bus and air travel.
- (4) Insurance should be compulsory for all till the last breath & premium paid by Govt.
- (5) Court cases of senior citizens should be given priority for early decision.
- (6) Every city should have senior citizen housing with all facilities.
- (7) Govt should amend the rule of scrapping 10 - 15 years old cars. This rule applies only to commercial vehicles. Our cars are bought on loan & our usages are only 40 to 50000 km in 10 years. Our cars are as good as new. If our cars are scrapped, we should be given new cars.

I request all senior citizens and youths to share this on all social media. Let's hope that this government, which always says "Sab kaSaath, Sab kaVikas" sincerely, will contribute to nation building and do something for the betterment of those who are now mature." Saying thus she wound up her speech.

Legislative measures taken up in Kerala:

Kerala state assembly unanimously passed a bill in March 2025 on establishing an elderly commission. It is India's first elderly commission constituted at the state level in Kerala. The southern state has some 4.8 million people aged 60 years and above. Moreover, 15 per cent of the elderly group is over 80 years old, making it the fastest-growing age group among older people. There are more women than men in the 60-plus category and a majority of them are widows. As the size of the ageing population grows in the state, the rights of the elderly have been repeatedly coming under attack. Many face poverty and maltreatment at the

hands of the younger generations. The "Senior Citizens Commission" is in response to this disbalance, according to government officials of Kerala.

Rights conferred on senior citizens:

The following are the rights conferred on senior citizens

1. Every individual has the right to be defended in court of law by a legal representative of his choice.
2. Under Section 125 section 211 of the Code of Criminal Procedure (CrPC), a person not having sufficient means can claim maintenance from his children and an individual has the right to know charges and cause of accusation against him respectively.
3. Right to a speedy trial according to the section 309 of Code of Criminal Procedure (CrPC).
4. Section 506 can be invoked against individuals who harass senior citizens, categorizing their actions as criminal intimidation.
5. If an individual engages in severe verbal abuse, uses obscene language, and mentally distressed senior citizens, a legal case can be filed under Section 294.

Conclusion: Abuse of older people can have serious physical and mental health, financial, and social consequences, including, for instance, physical injuries, premature mortality, depression, cognitive decline, financial devastation and placement in nursing homes. For older people, the consequences of abuse can be especially serious

and recovery may take longer. Community- and societal-level factors linked to elder abuse may include ageism against older people and certain cultural norms (e.g., normalization of violence). Every senior citizen has to learn lesson after coming to know the case of Bombay based textile billionaire who bequeathed his proprietary and management rights to his only son and who was later forced to lead the life of a common man as his own son disowned him. Here it is worth mentioning that Govt of India started a **Toll free no.14567 to make a call in case of Elder abuse to receive guidance and assistance.** It is established through numerous instances that no parent can be sure that one's affection exhibited and sacrifices made in moulding one's children to become great and financially sound shall invariably be reciprocated at the stage of their advanced age. Under these circumstances '**Telangana federation of senior citizens organizations**' headed by **retired DFO Sri P kanakaratnam** has been striving hard to take the issue to the notice of Hon'ble Prime minister of India through variable sources both Political and bureaucratic with a request to Constitute National elderly commission or Senior citizens commission at national level on the lines of **WOMEN COMMISSION** to prevent and check the elder abuse throughout India. I wish that we should be optimistic in this regard as the benevolent prime minister may act positively in this regard.

(Sri. V.V.Hariprasad is a retired Deputy Conservator of Forests and a practicing advocate in Hyderabad. He is an executive committee member of the Telangana federation of senior citizens organizations with its headquarters in Hyderabad, M-78936 73767)

That which is common to the greatest number has the least care bestowed upon it

-Aristotle, Politics

GREEN NEWS

Renewables surpass coal energy

The world's wind and solar farms have generated more electricity than coal plants for the first time this year, marking a turning point for the global power system, according to research. A report by the climate think tank Ember found that in the first six months of 2025, renewable energy outpaced the world's growing appetite for electricity, leading to a small decline in coal and gas use.

The world generated almost a third more solar power in the first half of the year compared with the same period in 2024, meeting 83% of the global increase in electricity demand. Wind power grew by just over 7%, allowing renewables to displace fossil fuels for the first time.

The milestone represents "a crucial turning point", according to Małgorzata Wiatros-Motyka, a senior electricity analyst at Ember and the author of the report. She said: "Solar and wind are now growing fast enough to meet the world's growing appetite for electricity. This marks the beginning of a shift where clean power is keeping pace with demand growth."

China and India were largely responsible for the surge in renewables, according to the Ember report, in contrast with the US and Europe, which relied more heavily on fossil fuels. A separate report by the International Energy Agency (IEA) found that global renewables could more than double by the end of the decade, with 80% of new clean energy capacity expected to come from solar power. Fatih Birol, the IEA's executive director, said: "The growth in global renewable capacity in the coming years will be dominated by solar PV – but with wind, hydropower, bioenergy

and geothermal all contributing, too." The IEA said China would remain the world's biggest growth market for renewables, with India emerging as the second largest over the rest of the decade.

"In addition to growth in established markets, solar is set to surge in economies such as Saudi Arabia, Pakistan and several south-east Asian countries," Birol added. China added more renewable energy generation than the rest of the world combined, leading to a 2% drop in its use of fossil fuels in the first half of the year compared with the same months in 2024, Ember found.

Over the same period India grew its renewable energy by more than three times its electricity demand – which was significantly weaker this year – causing its coal and gas use to fall by 3.1% and 34% respectively.

By contrast, demand for electricity in the US outpaced its growing renewables sector, leading to a 17% increase in coal generation in the first half of the year. In the EU, demand showed only modest growth compared with the first half of last year, but a weather-related slump in wind and hydro power meant even fast-rising solar power could not prevent gas and coal generation increasing by 14% and 1.1% respectively.

<https://www.theguardian.com/environment/2025/oct/07/global-renewable-energy-generation-surpasses-coal-first-time>

UN Global Shipping Emission talks

Talks at the International Maritime Organization (IMO) on adopting new global rules to cut greenhouse gas emissions from ships ended Friday without agreement, as delegates voted to

defer a decision for 12 months amid sharp divisions over the proposed Net-Zero Framework. The IMO's Marine Environment Protection Committee (MEPC) decided to adjourn its extraordinary session convened this week in London and reconvene in a year's time. Nations meanwhile are expected to continue consultations to bridge differences over the framework, which seeks to align the shipping sector with the global goal of net zero emissions by 2050.

The draft framework – approved in principle last April – would amend the MARPOL treaty to introduce a global fuel-standard and pricing mechanism for greenhouse-gas emissions from ships, which account for nearly three per cent of global emissions. If adopted, it would mark the first legally binding global system to curb maritime emissions.

No winners or losers

In closing remarks, IMO Secretary-General Arsenio Dominguez urged delegates to use the coming year to rebuild trust and seek consensus. "Even though you have differences of opinion, you all spoke in support of the work of this Organization," he said. "There are no winners and losers in this session. Let us take this moment to learn from it and come back ready to negotiate and take the next steps needed to meet the goals you all agreed to in the 2023 GHG strategy." He asked delegates not to celebrate the adjournment. "There are concerns we need to address, let us work with each other," he said.

(<https://news.un.org/en/story/2025/10/1166131>)

Ocean acidification crossed planetary boundary

Ocean acidification: Seventh planetary boundary

now crossed

The latest EU Copernicus Ocean State Report highlights mounting threats to Europe's seas from acidification, plastic pollution, and climate change. A ground breaking global scientific report has revealed a stark truth: we have now crossed seven out of nine critical planetary boundaries that keep life on Earth stable and healthy. The newest boundary breached is ocean acidification — a dangerous shift caused mainly by rising carbon dioxide emissions from burning fossil fuels. This change is altering the very chemistry of our ocean, putting all marine life at risk, but especially fragile coral reefs that are already struggling under the weight of warming temperatures and pollution.

The latest EU Copernicus Ocean State Report highlights mounting threats to Europe's seas from acidification, plastic pollution, and climate change — sounding a clear alarm for urgent and stronger protective actions, while the European Environment Agency (EEA) is warning of the 'deadly trio' of acidification, de-oxygenation and warming temperatures for our seas and ocean.

Scientists warn that crossing planetary boundaries puts the Earth's life-support systems at serious risk. Now, more than ever, coordinated efforts at global, regional, and local levels are critical to protect our seas and ocean — the vital blue heart that sustains life on our planet.

In a historic step forward, the recent ratification of the Biodiversity Beyond National Jurisdiction (BBNJ) agreement creates a global framework to conserve and sustainably manage marine life in international waters. This milestone works hand in hand with the Global Biodiversity Framework (GBF), which sets bold targets to preserve ocean ecosystems and reduce pollution on a worldwide scale.

Closer to home, the Commission is taking action through its EU Water Resilience Strategy, which focuses on integrated water management to boost the resilience of our waters and ocean against acidification and other climate impacts. With its Ocean Pact, the Commission has committed to an integrated approach to the protection of marine ecosystems, including against the impacts of climate change, and the development of a sustainable, decarbonised and circular Blue Economy.

The Commission is also revising the Marine Strategy Framework Directive – one of the most ambitious marine environmental protection laws worldwide. The review will seek to better address the impacts of climate change on marine ecosystems in EU law. With its Plastics Strategy, the EU also aims to dramatically reduce marine litter and will continue global efforts towards an international Plastics Treaty. Meanwhile, ambitious climate policies target cutting CO2 emissions — the root cause of ocean acidification.

Background

The planetary boundaries framework identifies nine essential Earth system processes that regulate the planet's stability, resilience, and ability to support life. These boundaries define safe limits for human activities, beyond which we risk triggering catastrophic environmental changes.

Since its introduction in 2009, the framework has helped spotlight critical areas like climate change, biodiversity loss, land-use change, freshwater use, and chemical pollution — all vital to maintaining a balanced and healthy Earth.

Governing the clouds

In the absence of evidence, replicability, funding

and transparency, cloud seeding languishes as an imperfect science-----

When the fog lifted at 5 a.m. on 23 January 1967, an unmarked US military transport plane landed at Delhi's Palam airport. In its steel belly were disassembled parts of machines and 17 atmospheric scientists from the Naval Ordnance Test Station (NOTS), China Lake, California. This was a secret mission, and no entries were made for the public. A weather reconnaissance and seeding aircraft came with the American 'assistance' of \$300,000 (3 million in 2025). The aid was to alleviate Bihar's persistent drought, what Time magazine called "one of the greatest humanitarian crises of the year." The drought morphed into a famine and brought India-US diplomacy to a critical level.

US President Lyndon Johnson declined giving food aid and offered agricultural technologies instead. Johnson was miffed with India's Prime Minister Indira Gandhi over her criticism of US involvement in Vietnam. He was anxious about India's growing proximity to the Soviets. This technology that arrived was intended to 'make clouds' and drop rain over Bihar's parched land. NOTS was previously tried to bring rain over the Caribbean (codenamed Project Stormfury). It had also attempted to prolong the monsoon season over Laos and Vietnam to disrupt North Vietnam's supply routes (Operation Popeye). The India project was codenamed GROMET.

In 1967, Bihar's monsoon had been deficient and had low winter cloud cover. To placate Pakistan, the technology was hastily offered to them too. The rain-seeding project began with utmost secrecy in India. To avoid raising false hopes, there were no discussions held in the states or in Parliament. If the rains came, the crops could be saved. India

would showcase this as a scientific breakthrough to the world. If it failed, it would be consigned to vaults of the Central Intelligence Agency.

The clouds did not cooperate. For several days, the skies were cloudless. Spotty 'seedable' clouds appeared only in mid-February. Some large clouds produced heavy rain (but not where they were intended), others brought light rains, but mostly there was no rain at all. The results were, obviously, disappointing. The poor performance of rainmaking in India was less of a disappointment to the US than its utter failure of the "weather weapon" in Laos and Vietnam. In Southeast Asia, the misadventure to fight the communist rebels with rain, leaked to the media and became public knowledge. In India, however, fearing criticism from the scientific community for being a part of the strategy of using cloud seeding (CS) as a weapon, the Indian experiment was hushed up. When rains returned and averted a full-fledged famine in Bihar, scientists went back to the field to continue to tinker with it.

Since the 1940s, scientists on both sides of the Atlantic had made clouds in labs. Clouds form through a process called nucleation. In nature, dust, smoke particles, or sea salt have tiny electric charge which accrete moisture around it and become clouds. Salt, dry ice and silver iodide are some ways to supercool water droplets and make them heavy enough to drop as rain. Armed with this information, American scientists believed they could bring rain when there was none. Or take away clouds to inflict drought over an enemy. Post World War II and in the Cold War years, weather modification was being perfected as a new weapon.

India was among the early adopters for rainmaking. Indigenous experiments began in

the 1950s and have been taking place since. India began large-scale field experiments over the Arabian Sea. In 1999, it began Indian Ocean Experiment (INDOEX); and in 2002, the Arabian Sea Monsoon Experiment (ARMEX) — both also provided insights into the mechanics of the monsoons. In 2006, Integrated Campaign for Aerosols, Gases and Radiation Budget (ICARB) was launched. Since 2009 to 2015, the Indian Institute of Tropical Meteorology in Pune led the Cloud-Aerosol Interaction and Precipitation Enhancement Experiment (CAIPEEX) conducted over land and both arms of the Indian Ocean and studied rainmaking. The results get published in highbrow journals about which the public gets to hear very little.

Since 2020, at least 39 countries have tried CS. Only a handful of field trials have been published like those from Australia, China, India, Israel, South Africa, Thailand, and the United Arab Emirates (UAE). These studies confirm that CS can increase precipitation by 10 to 20 per cent. But failure rates can be as high as 60 per cent. Australia's efforts to alleviate drought have failed. Argentina and Austria have tried it to reduce the intensity of hailstorms. Many African countries hire contractors to induce rains for agriculture and drinking water. China, South Korea, and Pakistan have tried it to smother their smog. In 2008, Beijing's air purportedly became breathable before and during the Olympics. Indonesia has attempted it to suppress wildfires. No country has shown repeatable success.

'Expensive, unfeasible, and dangerous'

There can be no fixed model for CS. This is because there are too many moving parts in the process in making rain. Horizontal and vertical wind systems, height and type of cloud, volume

of water held, dust and particulate transport, temperature gradient, among many other factors are at play. Given the many uncertainties, CS is expensive, unfeasible, and even dangerous.

Limited attempts to communicate about the science behind CS have fuelled widespread scepticism. A 2021 Pew Research Centre poll stated that

while roughly half of American adults think cloud seeding could reduce climate change impacts, most oppose it due to its potential downstream impacts.

(<https://www.downtoearth.org.in/science-technology/governing-the-clouds>, Pranay Lal, Oct 27, 2025)



Birthday Greetings

We wish the following born on the dates mentioned

“A VERY HAPPY BIRTH DAY”



S.No.	Name of the Member/ Retired officer	D.O.B	S.No.	Name of the Serving Officers	D.O.B.
1.	T.P. Thimma Reddy	06-11-1956	1.	Alan Chong Teron	08-11-1976
2.	P.S. Sankar Reddy	09-11-1936	2.	Elusing Meru	11-11-1965
3.	C. Sivasankara Reddy	10-11-1951	3.	D. Bheema	15-11-1967
4.	P. Ram Mohan Rao.	15-11-1962	4.	D.V. Reddy	15-11-1964
5.	C. Madukar Raj	19-11-1951	5.	G. Mukund Reddy	16-11-1978
6.	D. Nagagopala Rao	23-11-1952	6.	Anand Kumar Jha	25-11-1969
7.	K. Venkat Ramudu	23-11-1948	7.	V. Prabhakar Rao	26-11-1964
8.	K. Tirupataiah	23-11-1959	8.	K. Damodar Reddy	28-11-1967
9.	K. Murali Krishna Rao	29-11-1940	9.	Anoop Singh	01-12-1965
10.	Solleti Chandra Mouli	30-11-1954			
11.	P.K. Sharma	01-12-1956			
12.	M.S.V. Prasad	01-12-1952			

- SECRETARY

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



WHAT IS THE VALIDITY PERIOD OF SECTION 4 NOTIFICATION UNDER FOREST ACT

Dr. Akula Kishan, IFS (R)

Section 4 of the Indian Forest Act, 1927 and the same words and phrases used in many other State Forest laws, reads as follows:

4. Notification by State Government—

(1) Whenever it has been decided to constitute any land as reserved forest, the State Government shall issue a notification in the Official Gazette—

(a) declaring that it has been decided to constitute such land as a reserved forest;

(b) specifying, as nearly as possible, the situation and limits of such land; and

(c) appointing an officer (hereinafter called "the Forest Settlement-officer") to inquire into and determine the existence, nature and extent of any rights alleged to exist in favour of any person in or over any land comprised within such limits, or in or over any forest-produce, and to deal with the same as provided in this Chapter.

Explanation.—For the purpose of clause (b), it shall be sufficient to describe the limits of the forest by roads, rivers, ridges or other well-known or readily intelligible boundaries.

(2) The officer appointed under clause (c) of sub-section (1) shall ordinarily be a person not holding any forest-office except that of Forest Settlement-officer.

(3) Nothing in this section shall prevent the State Government from appointing any number of officers not exceeding three, not more than one of whom shall be a person holding any forest-office except as aforesaid, to perform the duties of a Forest Settlement-officer under this Act

After issue of a notification under Section 4 of the Act, the Forest Settlement Officer (FSO) comes into being and will cease to operate after issue of Section 20 of the IFA or sec 15 of AP Forest Act, 1967.

The FSO will issue proclamation and receive claims from affected persons, within a period specified, generally not more than one year. And after claims are received, the FSO takes up enquiry and decides the same.

The time period is generally one year for placing claims, but the validity of Section 4 notification is not specified in Forest Acts. In Acts such as the Land Acquisition Act, 1894, the proposal to acquire any land is given under Section 4 of the Act. As per section 11A of the Act, the Collector shall make an award under section 11 within a period of two years from the date of the publication of the declaration and if no award is made within that period, the **entire proceeding for the acquisition of the land shall lapse.**

The Land Acquisition Act, 1894 was repealed and substituted by "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. In the new Act also, the preliminary notification is issued under Section 11 of the Act and as per Section 25 of the Act, the Collector shall make an award within a period of 12 months from the date of publication of the declaration under Section 19 and if no award is made within that period, the entire proceedings for the Acquisition of the land shall lapse.

In Forest Laws, the above mentioned time period is not mentioned, as a result the notification under Section 4 of Forest Laws issued in 1950s is also valid and the settlement process is pending.

Observations of Courts

1. Karnataka High Court

a) Girish HE Vs State of Karnataka (MANU/KA/3488/2013)

The Karnataka High Court held that Section 4 notifications are only preliminary and cannot confer perpetual legal status. If the Government fails to complete the reservation procedure within a reasonable or statutorily implied period (10) years, the notification may be treated as lapsed or invalid.

b) Dhananjay Vs State of Karnataka (Writ Petition No. 54476, 51135 Of 2016)

In this case the Court observed that mere issuance of a Section 4 notification does not make a land a reserved forest. It must be followed by a formal declaration under Section 17, failing which the process remains incomplete and cannot restrict private rides indefinitely.

c) Siddeshwara International Vs State of Karnataka (2008SCOnlineKar 384)

The Court reiterated that Section 4 is an expression of intent, not concluded action. Without timely completion of claim settlement, and issuance of final notification, the provisional status lapses. The Courts have treated prolonged Government inaction as procedural abuse or implied abandonment.

2. Superior Court - Mysore Balakrishna Raovs The Secretary of State for India on 12-03-1915. (Equivalent citations 30 IndCas 355 = <http://indiankanoon.org/doc/846812>) In this case it was held that the notification issued U/s 16 of Forest

Act is not binding on the plaintiff and his rights are not barred by section 17 as no notice was served on the plaintiff and no action was taken U/s 6 of the Act before proceeding to constitute the land in question as Reserve Forest.

3. Bombay High Court -Devkumar Gopaldas Aggarwal and ... vs State of Maharashtra Through Its ... on 27 September, 2018 (WP No.4814/2016). In the batch of (90) cases before Bombay High Court, it was held that the rights existing in the land notified should be decided within a reasonable time. It was found that a show cause notice was stated to be issued in 1957 and no decision was taken till 1975. The Court found it to be unusually long period and held that the show cause notice is to be treated as having become a dead letter. The Court followed the orders of the Supreme Court in Godrej & Boyce Mfg.Co.Ltd. &Anrvs State Of Maharashtra &Ors on 30 January, 2014 [(2014)3 SCC 430]

Study by Down to Earth magazine

In a detailed study taken up by Down to Earth Magazine and published on 18.01.2021 under the title Inside ad hoc forests, the status of notification of forest lands was mentioned. In a typical study of Panasalapadu Village of Vishakhapatnam District, land of Ramanna was included in the proposed reserved forest, and though 50 years lapsed and Ramanna is dead, the Government has neither established the reserved forest nor returned their land. Ramanna's son has become grandfather of two, but the issue is pending

Forest Departments across the country treat the areas notified under Section 4 as their own land without completing the process of reservation.

The study concluded observing that in a country which boasts of one of the top 10 forest covers in the world, it is ironic that the forest

departments and the Union government have not followed its own law for over 90 years. Meanwhile, in many villages across India, like in Panasalpadu, the rights recognition process has not taken place till now..

Implications on delay in Settlement process:

1) As per the Section 4 notification, for the land proposed to be reserved, specification of situation and limits of such land are to be given so as to describe the limits of the land by any well- known or readily intelligible boundaries, such as roads, rivers, bridges and the like.

Due to efflux of time these boundaries are not traceable, and it is difficult to fix boundaries of the Forest Blocks.

2) The Forest Notification mentions boundary only and the area within the boundary may be more or large than that mentioned in the notification

3) The proposed Reserved Forest Land is not

properly recorded in Revenue records.

4) Non availability of Gazette notifications in the Forest Department in most of the cases.

5) Most of the proposed Forest Blocks notified under section 4 have vanished over period of time, as there is no regular verification and survey done.

CONCLUSION

The uncertainty in settling the claims is a problem across the Country, and needs to be addressed immediately, by coordinated efforts of all concerned Departments of Government. A W.P(PIL) No.143 of 2024 is filed in High Court of Andhra Pradesh seeking directions to the Government to take up the pending issues in settlement of claims and issue of final notifications declaring the Forest Blocks as Reserved Forests. The Hon'ble High Court in their interim orders called for reasons as to why the needful has not been done and the timelines within which the process shall be taken to its logical conclusion. The Action on the issue is awaited.

The author is a retired IFS officer/CF, Telangana State. He authored many books on Forest and Allied Acts, the Forest Code and drafted various amendments. He is a practicing advocate in the AP/TG High Courts.M- 70930 06261.

Answers: 1.Silicate,2.Insects,3.Panspermia;4.Restriction of Hazardous Substances (RoHS) directive,5. Bioluminescence, 6.Arktos and anti-arktos, 7.Whole turds, 8.Coffee Berry Borer; 9.Himadri, 10.Colossal Biosciences, USA

For School Students: 1.Solid ice on land is Glacier and when it slides-off in to the Ocean/Sea it is Ice shelf, 2. Hansel and Gratel, 3. King Indradyumna, 4. Kidneys of landscape, 5. Sea Otters

We would all like to vote for the best man , but he is never a candidate

-Kin Hubbard



LEGAL NOTES

Sri K. Buchiram Reddy, IFS (R)

Vinod Shivkumar Vs. State of Maharashtra thro' P.S. Dharni, Dist. Amaravati

(Probe into RFO Dipali's suicide case-bail petition by DCF allowed by High Court)

The petitioner, an IFS officer of the rank of Deputy Conservator of Forests, was alleged to have been responsible for the suicide by the woman Range Forest Officer Ms. Dipali on 26.03.2021, who shot herself with the service revolver. On a complaint to police by her husband, Crime No. 211/2021 was registered by the Police for offences punishable under Sections 306 (Abetting commission of suicide), 312 (Causing miscarriage), 504 (insult intended to prove breach of peace) and 506 (Criminal intimidation) of the Indian Penal Code. It is understood that the investigation is complete and charge-sheet is laid before the court.

During the trial of the case, petitioner V. Shivkumar filed a petition in the Sessions Court at Achalpur for bail; but the Additional Sessions Judge dismissed the petition. Therefore, Shivkumar filed an appeal before the High Court of Bombay in Nagpur Branch. The bail petition was registered as Cri. A. No. 644 of 2021 and the matter was heard by The Hon'ble Justice Shri. Rohit B. Deo.

The hearing was conducted thro' video conferencing. It is in the evidence that in the suicide note that Ms. Dipali mentioned that she had written three letters and in one of them she blamed the petitioner for continuous, systematic, sustained, deliberate persecution. Dipali was insulted and humiliated in the presence of her colleagues and the villagers. She was made to undertake trek in difficult terrain when she was carrying. She was summoned at odd hours, used inappropriate language and a situation was deliberately created as would compel a lady officer to commit suicide.

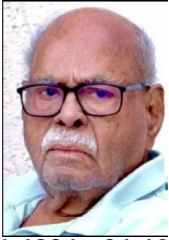
The allegations suggest culpable harm to the Range Forest Officer. The accused however is not charged with an offence punishable with death or life sentence. Gravity of offence, status of accused, propensity or potential to influence the course of trial are some considerations, as also flee from the course of justice or subvert the trial or influence the witnesses need to be kept in view before a decision is taken on the bail petition. It is considered that no purpose is served in continuing him in incarceration.

The suicide note prima facie shows that it is a case of abetment. The applicant is under suspension and would not be in a position to influence the witnesses. The accused is not a flight risk. Bail cannot be denied as a pre-trial punishment. A case is made out for grant of bail. In the circumstances the petition is allowed on 14.07.2021 and the petitioner is granted bail with the following conditions:

1. The petitioner shall be released on bail subject to furnishing a personal bond of Rs. 1 Lakh with two solvent sureties of like amount.
2. He shall not make any attempt to contact the witnesses
3. He shall attend the court on every date of hearing scrupulously and would report at the sadar police station Nagpur on the 2nd and 4th Saturday of every month.
4. Within 72 hours of release he shall furnish to the investigating officer his correct address and phone numbers and shall keep the investigating officer of any updated change of address.
5. He shall deposit his passport with the investigating officer
6. He shall not leave the country without permission of the jurisdictional court.

Source : Internet : K.B.R

The author is Dy.C.F (Rtd). He is on Phone 966 609 7788; and E-mail ID ; keesrabuchiram@gmail.com



OBITUARY

Late Sri. D.V. Rao

09.01.1931 - 21.10.2025

Dasari Vinendar Rao, I.F.S (Rtd), formerly Chief Conservator of Forests, was suffering from old age problems and was unwell for the last few days. He was admitted into AIG Hospital at Hyderabad and given good medical attention. But he could not be saved. He breathed his last on October 21, 2025. He was 94.

He was popularly known as D.V. Rao. His parents were Dr. D.S.R. Naidu and Smt. Lakshmi Kanthamma. He did his M.Sc. from Osmania University and was soon selected for appointment to the Hyderabad Forest Service in 1954. He was deputed to the Indian Forest College at Dehra Dun for undergoing training in forestry. He earned the A.I.F.C. (Associate of Indian Forest College) Diploma in 1956 and returned to Hyderabad and joined the Hyderabad Forest Service. He was first posted as Asst. Conservator of Forest and Sub-Divisional Forest Officer at Asifabad under the Government of Andhra Pradesh. Then he was transferred and posted as Divisional Forest Officer at Palvanha and later as D.F.O. Mahbubabad. He also worked as D.F.O. Mahbubnagar, Warangal and Nizambad.

Sri Rao was promoted and appointed to the Indian

Forest Service (I.F.S) in 1966. He was promoted as Conservator of Forests and worked as Regional Manager in the Andhra Pradesh Forest Development Corporation and later, on promotion became its Vice-Chairman & Managing Director in which post he served till January 1989 before retiring on January 31, 1989.

Sri D.V. Rao was married to Smt. V.C. Devi who predeceased him on Aug 4, 2024. The couple had two sons and a daughter. Sons are Roop Kumar and Swaroop Kumar, and daughter Brunda. All are married and well settled. Sri Rao has 2 grand sons and 3 grand daughters and also 2 great-grandchildren.

Sri D.V. Rao, during the entire life time, has been human and humane. His treatment of the subordinates was extremely kind and courteous. Among the other officials in the districts, he was very popular. His death has created a void which is difficult to fill, particularly to the Association of Retired Forest Officers. Our sympathy and condolences to the bereaved family.

MAY HIS NOBLE SOUL REST IN PEACE!

KBR.Reddy

Your perspective: What is your perception of what you see or feel? "In a rapidly ascending balloon were two men. One watched the earth getting farther and farther away. One watched the stars getting nearer and nearer"

-George J. Nathan



ANDHRA PRADESH FOREST DEVELOPMENT CORPORATION LTD.

Plant a Sapling and Protect the Environment



A fully owned, financially well managed State Government Company. Raising and maintaining massive plantations to cater to the needs of the wood based industries.

- Watershed approach adopted for raising plantations, to make them ecologically sustainable, socially acceptable and commercially viable, with the long-term goal to improve the site quality of plantation areas.
- Largest grower of about 32,000 ha. of Eucalyptus Clonal plantations in the country and is harvesting about 2.50 Lakh mt. of Pulpwood every year. Besides this, it has Bamboo, Cashew, Coffee and Teak Plantations over 13,000 ha.
- The Corporation has bagged "**Flavour of India - Fine Cup Awards**" for producing quality coffee during the years 2003, 2005, 2007 to 2016.
- The Corporation has bagged "**CAPEXIL Excellence in Export Awards (Top)**" for export of Red Sanders wood by earning a total foreign exchange of Rs.852.50 crore during the years 2017-18, 2018-19 and 2021-22.
- Diversifying its activities through promotion of Eco-Tourism.

Vice Chairman & Managing Director,
A.P. Forest Development Corporation Ltd.,
PVS Land Mark, 3rd Floor, Near APIIC Towers,
Mangalagiri, Guntur District.
Andhra Pradesh – 522 503. Ph: 08645-297211, 297221
website: <https://apfdcl.com> e-mail: vcmd_apfdc@yahoo.co.in



Dr. C. Suvarna, IFS PCCF(HoFF) receiving award under RTI from Hon'ble Governor of TG

Registered with RNI R.No. Teleng/2000/2185

Postal Regn. No. D/RNP/HCD-1154/2024-2026

Posting at BPC-IV Patrika Channel, Nampally, Hyderabad-500001

To _____

Venu Graphics, Hyderabad. & 92463 32717

If Undelivered, Please return to: Editor, VANAPREMI, Office of the Principal Chief Conservator of Forests, Aranya Bhavan, 5th Floor, Room No.514, Saifabad, Hyd - 500 004, T.G.

Date of Publication-26/10/2025; Total Pages: 60; Date of Posting: 4th or 5th of Every Month.

Printed & Published by **Qamar Mohd. Khan** on behalf of **Association of Retired Forest Officers,**

Printed at **Venu Graphics**, D.No.2-1-392/1/6, Fever Hospital Signal, Nallakunta, Hyderabad-500044 and

Published from Room No. 514, 5th Floor, Aranya Bhavan, Hyderabad-500004.

RNI Regd. No. Teleng/2000/2185 | **Editor: Dr. Kota Tirupataiah, IFS(R)** | Email: tirupataiah.tsfa@gmail.com | Ph: 88855 32021