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YELLOW-BROWED BULBUL

(Acritillas indica)

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Editorial:**Social Media Trends**

The recent verdict on the Djokovic controversy can be seen as the result of public anger from overall social media platforms in Australia over the player's attempt to enter the country without being vaccinated against Covid-19. Though the federal government has repeatedly said people must comply with the strict laws in place to deal with the pandemic as no one is "above the law"- the public anger throughout the world is palpable. The influence of social media on different wings of the governance of a country is surfacing in every democratic country -even when the judiciary is involved in a decision. The government acknowledged the power of the social media by countering the ruling against a revocation order by a judge on Djokovic's visa, openly declaring, it was in the public interest.

Across the globe, social media plays a big part in people's lives. Social media is a way for people to connect through many popular platforms including blogs (web feeds), RSS Feeds (RSS stands for Really Simple Syndication like *Wired*, *Slashdot*, personal blogs etc.), Podcasts, Mobile Media etc. There are thousands of Social Media Sites (streaming included), and Wikipedia has a running list of 212 major active social networking sites and it is growing.

Facebook has more users than the U.S., China, and Brazil population combined. The other important sites are -YouTube, WhatsApp, Messenger, WeChat, Instagram, Q.Q., Tumblr, Qzone, Tik Tok, Sina Weibo, Twitter, Reddit, Baidu Tieba, LinkedIn, Viber, Snapchat, Pinterest, Line, Telegram, Medium, Quora etc. In addition to these biggest social media sites, there are thousands related to one country or region only, like V.K. for Russian speakers, Viadeo for France, Wer-kennt-wen for Germany, NK for

Poland etc. As per an estimate, 3.80 billion people are actively using social media now.

All these social media sites have become a day-to-day routine for people. Social media is facilitating anyone to publish and access information, collaborate on a common effort, or build a relationship". Social media is a platform for people to discuss their issues, opinions that allow them to share or exchange information, ideas, images, videos, and even more through a particular network on business, education, society, youth, politics etc. These media platforms are now graduated to affect the community broadly and sometimes are deciding the issues too.

It is an accepted fact that many social media sites are most popular on the web. Some sites have transformed how people communicate and socialize on the web. Some sites render the opportunity for people to reconnect with their old friends and colleagues apart, helping people make new friends and share content, pictures, audios, and videos. Now, social media also is changing the lifestyle of a society.

According to the survey conducted by the Pew Research Center, "52% of the online adults use two or more social media sites. More than half of the online adults of age 65 and above use 60% of Facebook, representing 31% of all seniors. Half of the internet-using young adult's ages 18-29 use 53% of Instagram, and half of the Instagram users (49%) use the site daily. The share of internet users with college education using LinkedIn reached 50%."

Social media provides awareness among society through campaigns, advertisement articles, promotions which helps the community be up to date with the current information. Social media helps

meet people they may not have met outside to share ideas beyond geographical boundaries. It provides an open opportunity for all writers and bloggers to connect with their clients. In the process, the sites unite people on a massive platform to achieve specific goals. This brings positive change to society. No one can deny the service rendered by online meeting sites world over in the current pandemic that has revolutionized the data transfer protocols for the benefit of the society.

We cannot rule out the adverse effects of social media on society either. Like any other habit, it makes people addicted. People spend lot of time on social networking sites, which can divert concentration and focus from a particular task. It also abuses society by invading people's privacy. The news of swindling money from various sources and hacking have become a routine phenomenon. Social media can easily affect the kids as some shared photos, violent videos, and negative things can affect the behaviour of kids or teenagers. Even the elders found spending considerable time connecting or sharing information with new people, thus neglecting their family members. The cyber-crime rate is increasing day by day depending on society's grab of earning fast money.

As always, the younger generation is caught up with social media and their lives are woven by social media. Unlike elders, they are very conversant with different media and devices every day. The youngsters are in contact with known friends and unknown people through social networking sites, instant messaging, etc. Throughout the world, teenagers frequently use the web, mobile phones, online games to communicate and gather information. Social media helps youngsters stay connected with each other, sharing helpful information. Some sites help the students in critical development and career advancement with relevant advice and information, which is lacking in some societies in the world for

various reasons.

But there shall be a cautious approach on the strangers in social media as kidnapping, murder, robbery can be quickly done by sharing personal details. Criminals target young children and lure them into anti-social activities. The young waste lots of their productive time on social sites like chatting affecting their health. Some blogs extremely influence youth to become violent and take some inappropriate actions.

As technology is growing, social media has become an essential tool for every civilian to get day-to-day services in banking, travel, civic amenities, education, business, entertainment, etc. Social media has increased the quality and rate of collaboration for students. Now every business is using social media for accomplishing their objectives and to enhance its performance. But on the flip side - social media can abuse any society by not only invading people's privacy, but its established values in the long run unless controlled by proper laws.

Another current bizarre trend is - every political party started its own I.T. wings to communicate with their cadre and to spread their ideology which within no time has been converted to target their opponents with manipulated misinformation and sometimes even with false information in many forms by polarizing sections to spread communalism, regionalism, and hatred encashing the sentiments. The intention is to brainwash the unsuspecting public and the intellectuals alike. It's a pity that the most responsible persons, intellectuals and even the senior citizens fall prey to these political parties and have become trolls in the dispersal of false, concocted information and morphed videos for the benefit of political parties world over. Some do it for the sheer joy of remaining in public, and some for earning a few bucks at the cost of their credibility. Spreading different health fads and quackeries (often synonymous with health

frauds) through social media by these so-called pseudointellectuals are seen during the current pandemic to promote fraudulent or ignorant medical practices that have increased health problems in society. There is a feeling among the public to control such fads being circulated. The I.T. Act shall be made more stringent with severe punishments to deal with such “intellectuals”.

The need of the hour is -people should behave responsibly while forwarding the information they get from various sources by checking the facts with the websites certified by International Fact-Checking Network (IFCN). For India: **Alt News, BOOM, WebQoof: The Quint, Vishvas News: Fact Crescendo, You Turn: India Today: Fact Check, Factly, NewsMobile, Newschecker.in: THIP Media**: For U.K.: **BBC Reality Check, Full Fact, FactCheckNI, The FactCheck blog, Ferret:**

For USA: **AFP Fact Check, FactCheck.org, Fact Checker (The Washington Post); Lead Stories: Media Bias/Fact Check; Our.News; PolitiFact; Snopes: Real Clear Politics’s Fact Check Review.** Every country has many certified fact-checking networking sites for intellectuals, though some may remain as trolls for monetary or personal benefits. Thus, the culture of healthy postings on social media should prevail for the benefit of the netizens.

Every generation has a concern that the next generation is going the wrong way.. always. But every generation has got a right to look ahead and try to move forward from where the previous generation has left them. This evolutionary, progressive, and adaptable process is apt for social media too, and we should all welcome this with open hands for the benefit of society.

- Mohd. Thayyab.

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Do you know - There are a lot of excellent, published authors in the world that did not start writing until they retired. But regardless of your age, you may have a great narrative in you. Some people write for the sheer joy of writing, and most just post the work online for the world to enjoy. You may be one among them; please check.

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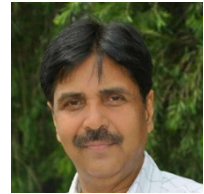
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Climate Migration In India

UMA SHANKER SINGH, IFS(R), DSc.,



INTRODUCTION

As rising temperatures and changing rainfall patterns increase competition for food and water supplies and threaten public health, global heating will likely exacerbate these existing social tensions and act as an accelerant for instability. Teamed with accelerating population growth, poverty and poor governance, climate change will not only lead to changes in refugee flows, but increase the risk of violent conflict and terrorism. This is also true and apparently looks unbelievable that in Syria, some 1.3-1.5 million people were on the move from drought-stricken regions before a single gunshot was fired. As many research papers explore, while global heating is not the only cause of conflict in Syria, it is increasingly viewed as a 'threat multiplier'. While no country is safe from climate impacts, it's the poorest and most vulnerable communities, those who did the least to cause the climate crisis are hardest hit. This is ironical and extremely disappointing that they account for just 1% of global emissions, the world's Least Developed Countries have seen 99% of the deaths from climate and weather related disasters. The intensification of ecologically negative human activity is resulting in overconsumption and overproduction linked to unsustainable economic growth, resource depletion and biodiversity collapse, as well as ongoing climate change. Broadly grouped under the heading of "human supremacy", there is growing recognition of the extremely negative consequences of human activities that are not preserving the planet's ecological systems. In several key areas, analysts report that the world is at or nearing "breaking point", including on climate change, biodiversity collapse

and mass extinction of thousands of species, while pollution is at record levels, altering ecosystems globally. COVID-19 has dampened human activity in key spheres (e.g. transportation/travel, construction, hospitality) enabling a mini environmental recovery, as well as a space to reflect on the ability of humans to achieve extraordinary things during times of crisis. However, there is a strong sense that this is merely a pause and that human activity will rebound once the pandemic is over, wiping out the pandemic-related benefits (World migration report 2022).

DEFINITION OF CLIMATE REFUGEE

At present, international law fails to provide a clear definition of climate refugees. The United Nations' 1951 Refugee Convention or its 1967 protocol had defined the term "refugee" following the Second World War. Consequently, the status of refugee was defined upon the consideration that "the realities of conflict, violence and persecution continued to cause displacement" and thus, fell short of recognising the displacement catalysed due to climate change. In 2002, United Nations Environment Programme (UNEP) expert Essam El-Hinnawi had offered a definition of environmental refugees and termed them as "people who have been forced to leave their traditional habitat, temporarily or permanently, because of marked environmental disruption (natural and/or triggered by people) that jeopardised their existence and/or seriously affected the quality of their life". There is no clear definition for this category of people although the phenomenon of environmental migration has been in public discourse for quite a long time. In other words, climate refugees are the people who are displaced within their country or outside it, due

to catastrophic weather and natural events that may be climate-change driven. Data on climate refugees is limited, which is why they are called the “forgotten victims of climate change”. As early as 1990, the Intergovernmental Panel on Climate Change (IPCC) noted that, “The gravest effects of climate change may be those on human migration as millions are uprooted by shoreline erosion, coastal flooding and agricultural disruption.” There is a clear protection gap of ‘climate refugees’, who are not mentioned in the 1951 Convention relating to the Status of Refugees. The Convention only covers people who have a ‘legitimate’ fear of being oppressed on racial, religious or national grounds and membership of a particular social group or political opinion, and are unable or unwilling, owing to fear of persecution, to seek protection from their home countries. There is a clear protection gap of ‘climate refugees’, who are not mentioned in the 1951 Convention relating to the Status of Refugees. The Convention only covers people who have a ‘legitimate’ fear of being oppressed on racial, religious or national grounds and membership of a particular social group or political opinion, and are unable or unwilling, owing to fear of persecution, to seek protection from their home countries. This definition is not applicable to people displaced for reasons related to the climate crisis. This means, climate refugees cannot easily appeal for resettlement in another country. It also means that they cannot be classified as refugees, even though those who remain are ‘trapped’ in worsening environmental conditions. So, the question that arises is where they would settle and how they would survive. What will be their identities and legal statuses? It is high time that the issue is carefully looked into and discussed in detail to reach an effective solution.

INTERNATIONAL REACTIONS

So far, the national and international response to this full-blown humanitarian issue has been limited, and protection for the people affected remains inad-

equate. Estimates for international migrants worldwide have continued to rapidly increase in recent years, reaching 258 million in 2017, up from 220 million in 2010 and 173 million in 2000. Recently the World Bank has published a Groundswell report in 2021 and is very revealing. The report suggests that by 2050, more than 216 million people in the six world regions could be forced to migrate within their own countries if a concrete climate and development action plan for climate change is not devised. The two reports’ combined findings provide a global picture of the potential scale of internal climate migration across the six World Bank regions. Given below are the projected statistics of internal migration as per the report:

- **Sub-Saharan Africa** could see as many as 85.7 million internal climate migrants (4.2 percent of the total population)
- **East Asia and the Pacific** – 48.4 million (2.5 percent of the total population)
- **South Asia** – 40.5 million (1.8 percent of the total population)
- **North Africa** – 19.3 million (9.0 percent of the total population)
- **Latin America** – 17.1 million (2.6 percent of the total population)
- **Eastern Europe and Central Asia** – 5.1 million (2.3 percent of the total population)

Therefore, Climate change is a powerful driver of internal migration because of its impacts on people’s livelihoods and loss of liveability in highly exposed locations.

CLIMATE MIGRATION VERSUS CLIMATE REFUGEE

We have plenty of evidences to show on how climate change and environmental degradation affect human mobility is growing and is uncontested but the current focus is on a deliberate effort to establish a debate on the concept of climate refugee status so

that it leads to a biased debate and ultimately ending to provide only partial solutions to address the complexity of human mobility and climate change. Many developed countries and sponsored media are pushing again and again for features on “climate refugees” and request projections on how many climate refugees there will be in twenty years. In contrast, some emblematic small island States, among others, speak out that they do not wish to become climate refugees; they want to be able to stay in their homes, or to move in dignity and through regular channels without abandoning everything behind. The image of “climate refugees” resonates metaphorically to all as it mirrors the current images we see of those escaping wars and conflicts. With the threat of climate change we imagine millions becoming refugees in the future. Yet reducing the issue of migration in the context of climate change to the status of “climate refugees” fails to recognize a number of key aspects that define human mobility in the context of climate change and environmental degradation.

MAGNITUDE OF CLIMATE MIGRATION IN INDIA

There are innumerable reports which suggests that close to 1.5 million people in India are classified as internally displaced every year, mostly for climate change reasons and this is for sure that without a proper legal or policy framework in place, dealing with such a crisis would be challenging, and politicisation of the issue cannot be ruled out. Climate change poses a significant threat to the socioeconomic stability and population health of India and the countries that border it. From several studies and research reports, it is clear without doubt that climate migrants as a phenomenon exist and is growing considerably, affecting countries worldwide including India. Climate change might induce two types of displacement and migration in India. Firstly, increased migration is likely within India due to the effects of climate change such as drought,

desertification, sea level rise, water scarcity, low food productivity, and melting glaciers. Secondly, climate change might lead to increased inflow of migrants from neighbouring countries due to the accelerated effects of environmental crisis. If the sea levels in Bangladesh rise, as it has been predicted, there will undoubtedly be large-scale migration from the country towards India seeking refuge. At present, more than 50 million people are affected by climate disaster events every five years. An inevitable event like climate migration has to be addressed by legislative and policy measures, making sure that the refugees get their due rights of settlement and rehabilitation. The rights of indigenous people over the land and resources must also be ensured so as to avoid future conflicts between the groups. Furthermore, the global community should endeavour to expand the definition of a “migrant” to encompass the evolving dimensions of the term. In December 2020, a report titled ‘Costs of climate inaction: displacement and distress migration’ assessed that over 4.5 crore people will be forced to migrate from their homes in India by 2050 due to climate disasters including floods, droughts, and cyclones. The report further says that 1.4 crore people in India are already displaced due to environmental disruptions.

NEW DISPLACEMENT DUE TO CONFLICT AND CLIMATE

| YEAR | CONFLICT | CLIMATE CHANGE |
|------|----------|----------------|
| 2011 | 53,000 | 15,03,000 |
| 2012 | 5,00,000 | 91,10,000 |
| 2013 | 64,000 | 21,45,000 |
| 2014 | 3,45,000 | 34,28,000 |
| 2015 | 1000 | 36,55,000 |
| 2016 | 4,48,000 | 24,00,000 |
| 2017 | 78,000 | 13,46,000 |
| 2018 | 1,69,000 | 26,75,000 |
| 2019 | 19,000 | 50,18,000 |
| 2020 | 3,900 | 38,56,000 |

The report talks about “new displacements” which refers to the number of displacement movements in a year, with figures including individuals who were displaced more than once. In this way, new displacement does not directly correspond to the number of people displaced. However, the report also demonstrated that while 473,000 people were internally displaced in India due to conflict as of December 2020, over 9 lakh (9,29,000) people were living in internal displacement due to environmental disasters such as flooding, earthquakes, tsunamis, cyclones, storm surges and drought. In India, over 38 lakh (3,856,000) new displacements took place due to environmental disasters in 2020, which is 989 times more than the 3,900 displacements by conflicts. This is extremely important to understand that recently the aftermath of the cyclones which ravaged Maharashtra and West Bengal, and widespread flooding that ensued with the onset of monsoon led to the large level of evacuation of local population in two inhabited islands in the Sunderbans namely, Mousuni and Ghoramara on account of rising sea levels and cyclones, which were rapidly leading to the submersion of habitable lands. Unfortunately, there is no mechanism to recognise, record and register forced migrants, let alone a comprehensive plan to rehabilitate them. With victims of climate change being denied the status of refugee even today, one of the most pertinent issue that arises is of different dimension. India might witness a large-scale influx of migrants from neighbouring countries (such as Bangladesh) as sea levels continue to rise and without comprehensive national and international policies, the human cost of the climate crisis will not only be exacerbated owing to mismanagement, but will be in danger of being entirely overlooked (Forbes report 2021). The other example could be Uttarakhand where climate migration could be beyond management unless it is planned well in advance. It has a population of 10.11 million (Government of India

2011). The state is divided into two main geographical zones: hill districts in the Himalayas that are mostly rural, and plains districts which include large urban centres. The world has seen disaster displacement in Uttarakhand due to heavy precipitation leading to bursting of glacial lakes and causing a disaster in Kedarnath in 2013 (Asian Development Bank 2013). Climate change and co-stressors like deforestation, unplanned housing on hill slopes, lack of road connectivity, add to the pressures on households displaced by disasters or forced to migrate in the state. On the basis of climate models the annual maximum temperature is projected to increase for all seasons across all 13 districts of Uttarakhand. Under a warming scenario in which states fail to comply with the Paris agreement, RCP4.5, the average annual maximum temperature in Uttarakhand would increase by 1.6°C (2021-2050), 2.4°C (2051-2080) and 2.7°C in (2081-2099) (Ashutosh Mishra 2017). Under an extreme, business as usual global warming scenario RCP8.5, temperatures in Uttarakhand could rise by 1.9°C, 3.8°C, and 5.3°C respectively for the same time periods. Warm and very warm days are projected to increase across all districts under both RCP4.5 and RCP8.5. This has been predicted that the average annual rainfall is increasing, projections show an increase in consecutive dry days, thereby indicating an increase in heavy rainfall events, (INRM2016) which are projected to increase between 7% and 17% across Uttarakhand. A number of studies attribute the unusual decline in population of Uttarakhand to out-migration (Bhagwati Joshi 2018). A variety of reasons – among them, increasingly severe climate impacts – motivate people to migrate from hill to plains districts. Similarly, in the year 2018 over the last couple of months, a large section of Northeast India was severely ravaged by flash floods for a couple of months during rainy seasons and this is estimated to have impacted more than 100,000 people in Assam alone. The situation was equally

bad in the states of Tripura, Meghalaya, Manipur and Mizoram. In what is now increasingly being seen as the norm rather than the exception, extreme weather events like cyclones, droughts and tropical storms are wreaking unimaginable havoc in disaster-prone regions and a large section of the population find their lives uprooted and livelihoods destroyed. On August 29, 2017, the day that Mumbai received 331.4 mm rainfall, the highest in a decade, the migrant labour population living in squatter communities was one of the worst affected. With buildings often constructed out of salvaged materials, wall collapse and drowning was identified as the most common reason for injury and death. In the aftermath of disasters like these, contamination of drinking water further results in the incidence of water-borne diseases that lingers on for several months. Forced to adapt, climate migrants move to big cities in the quest of a better and more stable life. However, poor and untenured housing conditions, absence of social protection schemes like medical insurance and inadequate resource supplies leave these people equally vulnerable to nature's fury in the city.

CLIMATE CHANGE HAS LED TO INEQUALITY

It has been seen that wealthy countries have benefited disproportionately from the activities that have caused global warming, while poor countries suffer disproportionately from the impacts. The studies show that, the direct benefits of fossil fuel use has led to many rich countries becoming richer whereas the energy deficit poor countries have become poorer.

SOCIAL IMPACTS OF CLIMATE MIGRATION

In India the impacts of climate change induced extreme weather events on the lives and livelihood of people, particularly belonging to the poor and vulnerable sections of the society, are increasing alarmingly with each passing year. The remote Sunder ban delta (UNESCO world heritage site) in

Eastern India's West Bengal is accessible mostly by boats. Surprisingly, this remote region has become a hub for human traffickers who manage to prey upon the gullible villagers, mostly dependent on fishing, agriculture, collection of fire wood and honey for a living. The combined effects of climate change, erosion, flood, sea water inundation and extreme poverty, make it relatively easier for traffickers to lure women and children into forced prostitution, marriage and child labor. In 2019, the Supreme Court of India had directed the National Crime Records Bureau (NCRB) to "analyze the data on missing persons (especially on women and children) so that areas prone to persons being trafficked could be identified and action taken". The NCRB study was based on the annual Crime in India Report compiled by the agency for the years 2017, 2016 and 2018. According to the report, the three states where the highest number of women went missing in the three years are Maharashtra, West Bengal and Madhya Pradesh. In 2016, as many as 28,316 women went missing in Maharashtra, followed by 29,279 in the year 2017, and 33,964 in 2018. In West Bengal, the number of missing women for the years 2016, 2017 and 2018 was 24,937, 28,133 and 31,299, respectively. Madhya Pradesh recorded 21,435, 26,587 and 29,761 missing reports of women in the three years.

MAN ANIMAL CONFLICT

There are crocodiles in the inland lagoons of Sunder bans, poisonous snakes, the world famous Royal Bengal Tiger, River pirates and now, to top it all, human traffickers. In recent years there has been a spurt in man-animal conflicts with climate change and manmade ecological disasters in the garb of development projects inside the world's largest mangrove forests. As a result of this habitat destruction, there have been more Tiger attacks in the villages and adjoining forests killing many people who roam the forests in search of honey,

wood and shrimps for a living. Regular flooding is not only eroding people's land and livelihoods, but the social fabric of these communities too. The dire circumstances force most families to send their young children away, to work in factories or in cities. With the Sundarban coastline retreating about 650 feet a year and the land being at an average elevation of only three feet above sea level (MSL), scientists predict much of the Sundarban could be submerged in 15 to 25 years.

CONCLUSION

Climate refugees are people who are displaced within their country or outside it, due to the effects of climatological factors including extreme temperatures, widespread floods, droughts, rises in sea level, tsunamis, aggravating coastal erosion, desertification, and other natural calamities. There are evidences which show that climate change was a major cause of the end of many civilizations and at present, climate change is the most significant factor in the creation of climate refugees. Globally, 19.3 million people are reportedly displaced due to climate change, with this subcontinent being identified as one of the most vulnerable regions in this regard. The Precise data to show the exact number of 'climate refugees' is difficult to get due to the lack of recognition by legal regimes of the existence of this specific type of refugees; there are no laws or international conventions recognizes the people who are displaced internally or externally due to the effects of climate change as 'refugees'. The lack of figures can further be attributed to a lack of clarity even among scholars and policymakers in defining refugees of climate change or environmental disaster. Climate change poses a significant threat to the socioeconomic stability and population health of India and the countries that border it. Pakistan, Bangladesh, Bhutan, southern Nepal, Myanmar (Burma), and northern territories in the Himalayan mountain range are experiencing increasingly

frequent and severe climate events. In the absence of adequate national response systems and resources to mitigate the impacts of climate events in the Himalayan region, environmental disasters and slow-onset climate impacts on agriculture and livelihood create push factors that prompt large scale migration, both within countries of origin as well as cross-boundary migration. In the case of Bangladesh, which cannot accommodate internal migration on such a large scale, India will be the natural choice for many climate migrants because it has already absorbed millions of Bangladeshi migrants both legal and illegal since Bangladesh first came into being in 1971, with the numbers increasing every year. In India people have been displaced due to unplanned developmental activities, such as the construction of dams, bridges and railways which have taken place without consideration of scientific and environmental implications. Various developmental activities do cause climate change and thereby result in the creation of climate refugees. The fact that development projects are usually located in remote villages, hills and forests means that those displaced tend to be the indigenous people who have been the traditional agents of conservation. Here displacement has meant a loss of livelihood, habitat and assets, social disruption and disorder and severance from an ecosystem which had sustained them. Most critically, these displacements threaten the poor and the weak with even greater impoverishment. It is only in these situations of so-called 'involuntary resettlement' which have come to the attention of social and environmental activists, and are thus highlighted, that lead to some measure of state intervention. In most cases total displacement with loss of home and livelihood has resulted and gone unnoticed by the state. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 is the law dealing with providing compensation in cases of acquisition of land by Government in order for developmental

activities to take place in the state. Another piece of legislation which deals with rehabilitation in case of climate events is the Disaster Management Act, 2005, which prepares disaster plans, prevents or mitigates against effects of disasters, and coordinates and manages responses. However, these laws do not address the rehabilitation of climate refugees who are coming from other nations. Adding to the existing laws in order that they respond to the needs of climate refugees would be a great achievement from India's side.

INDIA'S NEEDS DIFFERENT APPROACH

India does not have any specific domestic law for dealing with refugees. Although-Article 21(Right

to life) and 14(Right to equality) of the Indian Constitution states that right to life and right to equality should be ensured to non-citizens which means that they could apply to climate refugees. While refugees are referred to under the Passports Act, 1967 and the Foreigners Act of 1946, defining a person of non-Indian nationality as a "foreigner, independent of his/her specific legal status", there are no laws for the protection of refugees. In the absence of international, national, or regional-level legal and policy frameworks to manage migration, India is likely to experience a substantial increase in the unplanned immigration of climate migrants. So it is high time to take up some serious step in this regard.

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Spread the Stupidity!

Only in This Stupid World do we leave cars worth thousands of dollars in the driveway and put our useless junk in the garage.

Only in This Stupid World do drugstores make the sick walk all the way to the back of the store to get their prescriptions while healthy people can buy cigarettes up front.

Only in This Stupid World do banks leave vault doors open and then chain the pens to the counters...

Only in This Stupid World do we buy hot dogs in packages of ten and buns in packages of eight...

Only in This Stupid World do they have drive-up ATM machines with braille lettering.



Impressions after an extensive tour of Punjab and Visit to Wagah Border

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

PREAMBLE

As there was an invitation to be a part of some social functions (and to participate in a few events) in several places in Punjab, spread over a week's duration, we (viz., my doctor daughter's family & me) availed the direct flights to Amritsar and back, (between 6th & 12th of December, 2021), to make it.

As we were taught History and Geography at the High school level, it was still British India. Punjab was one of the subcontinent's largest provinces (of the size of modern-day Germany), covering the present-day States of Punjab, Haryana, Chandigarh, Delhi, Himachal Pradesh (on the Indian side); and Punjab Capital territory of Islamabad, Sargodha, Lahore, Multan, Rawalpindi, Khyber Pakhtunkhwa (on Pakistan side). Earlier to 1901, NW Frontier Province (to the west of Indus River, which had Peshawar as the main city) too was part of Punjab. The British annexed such an extensive territory of Punjab in 1849, dividing the Province into five administrative divisions (of Delhi, Jalandhar, Lahore, Multan, Rawalpindi) with the provincial capital as Lahore (which had additional jurisdiction over several princely states within its territorial boundaries). The summer capitals had been Murree (1873-1876) and Shimla (1876-1947).

The Govt Motto of Punjab from 1849 to 1947 was "Crescat e Fluvii", meaning "Let it Grow from the rivers". This land of 5 rivers had Sutlej (most significant of the five & backbone of the Province), Beas, Ravi, Chenab & Jhelum (on its banks, the famous battle between Alexander & Porus having taken place in 326 BC)----all becoming tributaries to the mighty Indus. In fact, four rivers converge together and flow to Sutlej, which joins Indus after traversing a further distance of 71 km (as Panjnad). Only the

first three rivers now flow in today's Punjab, the other two being in present-day Pakistan. All these rivers (together with Indus) are considered Indus Valley River System. Therefore, the region was known as Pancha-nada (in ancient Puranas & Mahabharata) and Pentapotamia (by ancient Greeks).

FACT FILE

Punjab as of now, a token of remembrance (a requiem): I went with a preconceived notion of that Punjab which boasted of its fields and rivers, its warriors and beauties, its ballads and battles, all of which would make the head 'lift' and the heart 'throb'. Not minding the blame of living and dwelling too much in the past, I went to have a 'feel' of its past glory of the Sikh Gurus, of Shaikh Farid, of Bulleh Shah, of Maharaja Ranjit Singh's exploits (that held British and Afghans at bay), of freedom fighters, and of a region, that time and again continues to give the flower of its youth to defend India's borders. I had also not forgotten that this land of five rivers was, until not long ago, a thriving breadbasket of the country, the home of the famed 'Green revolution'!

But to my utter dismay, what was found and experienced, was only an idea of Punjab that cannot stand daylight, the fact being that Punjab had lost pride in itself by trading with its glorious past at a discount, for the instant thrill exacerbated with the politics, which had become comically absurd to the extent that newspapers can dispense with the obligatory front-page cartoon! What we find now is a countryside which is on the verge of desertification ---- indiscriminate paddy cultivation having drained the water-table to desperate levels: 80% of the water being pumped presently by electricity-guzzling tube-wells! The once-mighty Sutlej (along with Indus

River, formed the two sides, up to their confluence) --- as & when it has any water --- stinks and froths with industrial waste & uranium-levels in the soil have become far & beyond acceptable levels. Industries are found to struggle to go beyond the hosiery, agro-processing and cycle-parts traps. Throughout our stay, nobody was come across to boast of 'start-up culture' or talk of a 'sparkling cybercity'. The most popular educational institutes mainly teach 'how to get a Canadian visa'! The overwhelming percentage of youth (not abroad) is learnt to be in a state of drugged-stupor or found gyrating on screens, or both --- justifications being aplenty: drugs coming from across the border, Centre-State relations being so unfair (to Punjab), years of militancy & security crackdowns which had broken the social fabric. Migrations had become inevitable when jobs & landholdings had shrunk in addition. Unfortunately, after the partition and subsequent trifurcation, a slow-motion suicide appears to be now in progress of the remainder of the State of Punjab.

B) Attari-Wagah border: It is located on the India-Pakistan border in Amritsar district, manned by India's Border Security Force and Pakistan's Rangers. As India erected a flagpole of 360' (110m) on its side of the border in Attari (in August 2017), a flagpole of 400' (122m) was installed on the Wagah side! The pole in Attari, however, is still the tallest in India. The towns are famous for border-ceremonies while also serving as good transit-terminals, which are just 24 km (15 miles) from Lahore and 32 km (20 miles) from Amritsar--- and some 3 km (1.9 miles) from the border-village of Attari. The perfect ceremony of 'coordinated-lowering of flags' of the two Nations takes place every evening (immediately before sunset) as a military exercise, jointly followed since 1959---the drills being characterized by elaborate and rapid dance-like manoeuvres, and raising legs as high as possible (described as "colourful"), alternatively as the symbols of rivalry as

well as a brotherhood (and cooperation) between the two Nations. The pomp and pageantry of the Beating Retreat (and the Change of Guard) occurs within the handshaking distance of the Indian and Pakistani forces. Wagah, an army outpost between Amritsar and Lahore (on Grand Trunk Road), is an elaborate complex of buildings, roads and barriers.

As the sun sets, the iron gates at the border are opened, and the two flags are lowered simultaneously --- the ceremony ending with the 'folding of the flags', and a 'Retreat' that involves brusque handshakes between soldiers from either side, followed by 'the closing of the gates' again. The said spectacle of the ceremonies attracts many visitors from both sides of the borders and international tourists.

CONCLUSION

Concludingly, however, it must be stated that Punjab has one of the oldest and richest cultures of the world---its diversity and uniqueness being evident in its poetry, philosophy, cuisine, music, military warfare, traditions, values and history. Punjabis are high spirited and liberal ---being soft-natured & endearing, vibrant & lively, they celebrate every event and festival with zest. They enjoy liquor and revelry as much as they enjoy Lassi & folk music. Punjabi songs are melodious while energetic dancing styles have more flavour, with bhangra, giddha, jhoomer, kikli & sammi, bhangra being most famous. The people are brave, helpful and hospitable---they love everything over the top, be it colourful dresses or foot-tapping music or undying love for food & drinks. The villages of Punjab were full of greenery, and people did farming, usually to make their ends meet while conversing in their mother tongue, Punjabi. Punjabis are tall & well built, perhaps because of their genes---they appear to belong to the Indo-Aryan race. In addition, their upkeep can be attributed to following a balanced diet and undertaking physical exercises while busying themselves with some work. They have a happy mindset & always appear cheerful.

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



The Life of a Python

Mohammad Ahsan, IFS (Retd.)

The life of a python is not a very glamorous one. Lying like a hefty log of wood in an agricultural field or a nook of a forest in a sunny winter morning, sluggishly, unmoving, is a boring sight for the onlookers too. One looks at it with some keenness, and after a while ceases to look at. One becomes so bored at the sight.

I and my wife Rani came across on such a sight way back in the winters of 1982 at Tedhighat Forest Rest House where we were camping for carrying out my duties as Working Plan Officer, Gorakhpur. In one of the chilly winter mornings, when we both were enjoying a warm sun after a satisfying breakfast, the chowkidar asked us whether we would like to enjoy the sight of a python which was lying a little distance away under a bush. We rushed to the sight in a state of excitement and found a huge python, about eight feet long, basking in the sun, all-stationary, as if comatose. We watched it for some time, and then Rani rushed back to Rest House to fetch her Yashika Electro-35. With an animal as stationary as a log, photographic ventures being a costly affair in those days of scant salary, one snap was as good as another. The python made no sign of any movement for a long time and we came back to Rest House utterly bored. Later we discovered, the python was a regular visitor to this spot each morning, here it basked in the sun till the sun receded in the afternoon, and then it slid back to some nearby hole or hallow.

For any python waiting tirelessly in ambush under some scanty bush- its body all coiled up for hours on end and sometimes for days - to pounce upon some small animal at the right moment with sufficient element of drama and surprise, wind round

it, strangulate it by crushing its bones, gulp it down super slowly at a pace that even a snail be ashamed of, must really be a tiresome way of getting a morsel. I really pity them on this count. Once the morsel is inside it, through its gullet to stomach, with a huge protrusion in the belly, it becomes ugly too to look at. It looks like an oddity defying even somebody's worst aesthetic sense. Now with a stomach full of food, hunger gone, its life is as stationary as a rock; and now anyone can take liberties with it - a bird, a rodent, or an urchin. It does not mind the world around or the happenings therein. I saw in the zoos the guinea pigs and rabbits jumping over its body with contempt, once its stomach was full. The same creatures were terror struck when it was hungry.

That way lifestyle of a python is very simple – most of the times basking under the sun or smarting under a shade, trying to work out a living only under real hunger. Unlike other snakes pythons do not torment birds, beasts or humans without any solid reason which is hunger. I would call it a virtuous life.

However, pythons must be jealous of their cousins like king cobras, the common cobras, the banded kraits, trinket snakes and such dreaded reptiles. Life of a snake without fangs, poison, speed, color, hood, spindles, is not much worth living. Without these resources, no human is terrified or charmed of them, and people take them lightly. A snake has to have a charisma to inspire awe in human beings.

In other words, in absence of a charisma, life of a python is sometimes pathetic. In my tenure as Director of Kanpur Zoological Park, I found people working in their agricultural fields in the rural areas

quite often came in contact with them, and then without much ado and fanfare they dumped them into some gunny bag and transported them to Zoo with a Good Samaritan spirit. And on one of such occasions, an agriculturist fellow dumped a huge Russell's Viper into a canister mistaking it for a baby python and deposited it right on my office table.

Pythons generally lead a colorless, dull, sedentary life. There is not much thrill or romance in their lives, except, maybe, when they mate. They do not have a photographic film in their eyes to carry the pictures of their perpetrators to seek vengeance at the right moment, as they believe in movies – although the privilege generally belongs to the tribe of cobras. They do not dance to the tune of the Been of snake charmers, although snake charmers do carry pythons along to impress their audience / spectators by their size.

Pythons are great champions of conservation of energy. Their entire life is given to lethargy except when they catch their prey by ambush with an electrifying speed under acute hunger, the phenomenon is more worth to be watched than believed. Once that prey is converted into a single morsel after a long assiduous maneuvering of jaw muscles and peacefully rests into their belly, they return back to the state of exalted lethargy.

Occurrence of stupidity under the conditions of hunger is not very uncommon among pythons. Sometimes they fall upon the prey in such a rush and hurry without taking the actual estimation of the prey's appendages that it proves fatal to them. I have known pythons ambushing blackbucks with steel hard horns, cheetals with full grown antlers and porcupines with long lethal quills, strangulating and engulfing them, but in turn getting their soft stomach and entrails punctured by the appendages, thus hugging the death, and dying a mortal's life, all the same giving a field day to wildlife photographers.

During winters, they go to hibernation for about four months, renouncing food like hermits. And their prey feel much relieved. In Kanpur Zoological Park we had dug some earthen pitchers in the ground with lot of straw into them for pythons to enjoy their hibernation and a life of earthy comfort. Once the winters were over, they slowly came out of these pitchers, feeling hungry. We welcomed them back with a lot of live guinea pigs and rabbits which they ambushed upon at their convenience. We had no say in that. On examination of their skin we found they always carried some parasites with them, and I don't know what caused some kind of mouth infection to them after winters.

Pythons, as I said, like old aristocrats, do not like to move around and waste energy, yet they do so sometimes under some unknown necessity. Once while driving my jeep on the roads of Kanpur zoological Park in night, along with Rani, my wife, and young Sana, my daughter, I had to suddenly stop my vehicle. There was a big python, crossing over the narrow metallic road, and it took him for about fifteen minutes to give us a free pass. We kept sitting in our jeep, waiting patiently for the clearance of road.

And in the end, about an important aspect of their life...

Way back in the summers of 1985, while one day I was driving my jeep in the forests of Pilibhit, going from Mahof to Surai, at a spot about 30 km away from Pilibhit, all of a sudden an accompanying Forest Guard asked me, 'Sir, would you like to see a big python.'

These are the kind of offers I really cannot refuse. I stopped my jeep and asked him to take me there. Forest Guard took me to a spot into the forest, off about a furlong from forest road. There was a natural

pit into the ground, about four feet deep and three feet wide, its walls covered with grass and small bush, and in the bottom of that pit there was a big python, its body heavily coiled. I kept looking at it for some time, felt bored after initial thrill, and asked Forest Guard to go.

After two or three days of this I proposed to Rani to come along to forest to watch a python. Once again we watched this sluggish python, got bored and got back home to Pilibhit. Few more days passed, and we had some guests. We brought these guests too to watch this python as an additional source of entertainment for them, besides some other outings we had provided to them.

After a week or so, I was once again on the spot watching the beast. What irritated me most was the inertia of this python. It was still there as we had left it, inert, static, and rooted to the ground, with hardly any signs of movement. I picked up a dry stick, and despite Forest Guard's warning to be cautious, I poked it little hard. Python felt irritated and angry, made some small movement, and in the process, what I saw beneath it struck me with great awe. The python was sitting, or who knows! lying, on six or seven cream colored eggs looking like boulders,

elliptical in shape, each about five inches long and four inches wide.

After this slight movement, python resettled on its eggs, and I exclaimed to myself, 'Ah, here is a lady python sitting on its eggs, going through the pangs and pleasures of intended motherhood.' And then I felt a sudden surge of respect for this she-python. I told Forest Guard. 'Look, now onward you will not tell anyone about this python, just leave it here as such, undisturbed, all to its fate, and tell others too that no one should come near it.'

After about a fortnight the rains set in, and it became difficult to drive through forest. I could not make another visit to the spot.

I really do not know what happened to that python thereafter. Whenever I think of Pilibhit, I think of that she-python too. I am not sure whether she could bring about her baby pythons into this world successfully, make them real denizens of jungle or not, or even if she could, how many of them survived the odds and ends of this cruel competitive world. Are they still alive in the jungle or lost to the endless expanse of time and space of this universe?

It is now almost thirty years.

-November 2014

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"I saw a study that said speaking in front of a crowd is considered the number one fear of the average person. Number two was death. This means to the average person, if you have to be at a funeral, you would rather be in the casket than doing the eulogy."

— Jerry Seinfeld

Dealing With Agony After Cloud Bursts

B.K. Singh, IFS (Retd.)



Three days after a powerful hurricane Ida struck US coast along Gulf of Mexico and made landfall in Louisiana (United States), 150 to 200 mm rains at the rate of 80 mm per hour were received causing flash floods and killing at least 50 people in four Northeastern states. The torrential rains that swept cars, submersed New York City's subway lines and grounded Airline flights last week brought misery to the people. Residents in New York, New Jersey, Pennsylvania, and Connecticut had to cope with water-logged basements, power failures and damaged houses. People died in basements of the buildings, inside cars and public housing complex flooded by more than 2.5 meter deep water. Roads were transformed into flowing rivers within minutes, trapping the inmates of cars and forcing them to abandon in quickly flooding water.

Similar tragedies had also struck in Henan province and in other regions in South Western China, European countries namely Belgium and Germany and in almost all regions in India. The destruction in Himalayan region of the country especially in Himachal Pradesh and Uttarakhand due to flash floods has been too much and too frequent. Landslide near Kannur has brought down the hill along with the road and moving vehicles and buried under earth more than 200 feet deep inside Sutlej River. It took weeks to look for survivors in the debris. Many places on steep slopes could not be even reached for collecting human remains. Hydroelectric projects and the Power house under construction on Rishi Ganga River in Uttarakhand few months earlier had also washed away causing a very big human tragedy. Nearly 100 workers on the construction site perished and even a bigger number were untraced.

At the time of writing this article IMD has issued alerts for heavy rains to continue on 8th September in Mumbai. Widespread rains in many parts of the country on 7th September have severely disrupted the life of the people. A bridge on Dehradun Rishikesh alternate road has been washed away by flash flood. People should be educated not to cross the cause way/ bridge, when water level is more than 2 feet. It is not only the depth of the water, but the speed of the water is more dangerous. The person can get washed away by the shear speed of the water, even if one is sure of wading through.

Like New York, New Jersey, Germany, Zhengzhou in Henan province of China, flash flood has been unsettling the life of people in the cities like Mumbai, Delhi, Gurugram and also in rural areas of Uttar Pradesh, Bihar, Maharashtra, Karnataka, Telangana and Andhra Pradesh etc. Of course global rise in temperature has been triggering evaporation from Sea, giving rise to increased water vapor in the atmosphere. Studies have revealed that the rainfall increases exponentially with increase in water vapor in the atmosphere. The latest report of United Nation's intergovernmental panel on climate change (IPCC) has sent out stern warning against fossil fuel based economy and suggested World leaders to show concrete action for transition towards clean energy.

In the mean time, some governments are taking adhoc steps to mitigate the impact of the climate change. Civic Body of Mumbai had earlier designed storm water drains and related infrastructure to take care of 25 mm of rains in an hour. Severe flooding repeatedly occurring during past several years has forced them to remodel their drainage system to take

care of more intense rains up to 50 mm per hour. However places like Mumbai, Ratnagiri, Satara, Mahabaleshwaram and in many other regions 80 to 100 mm of rains per hour has been recorded. It is also true for places in some other regions of the country.

All Civic authorities in cities like Mumbai, Chennai, Hyderabad, Bengaluru, Delhi, Gurugram etc should remodel their drainage system to take care of 100 mm of rains per hour. The encroachments on storm water drains as well as on lake beds should be removed. Further the drains should be regularly cleaned up so that plastics, polythene bags and silts etc are removed and disposed off at far off places. The lakes in the cities are balancing reservoirs where water level should be regulated by opening the sluice gates. De-weeding and de-siltation of lakes are also required to be done periodically to ensure that the water reservoirs are kept clean up to maximum flood level. All the inlets of the lakes are monitored to ensure that none carry untreated sewage into it. There is possibility that lake water may enter people's houses at the time of flash flood; let it not be the sewage water.

Civic bodies while working on drainage system for storm water as well as sewer line must take enough precautions and keep the drains and man-hole covered, so that no person accidentally falls into it and perishes. When the road is flooded and becomes a flowing river, uncovered drains and sewer line cannot be identified by people wading through.

People in Mumbai, Delhi, Gurugram and many other metropolitan cities find flood water trapped in the basements of the houses. Often they resort to pump it out, which requires time and energy. It is advisable to construct a sump underneath so that the rain water can be effectively harvested and later used for various purposes. If the basement is kept clean, then

flood water collected would be of drinkable quality. Several Civic Bodies mandate water harvesting structures along with new constructions while approving Plans. At implementation stage however, such structures generally take care of harvesting water from the rooftop and ignore basements, prone for flooding during cloud bursts. Water harvesting for basements should be made compulsory and must be seriously implemented.

While large part of the country is reeling under severe flooding, Indian Institute of Technology Gandhinagar reports that 29% agriculture areas of the country is facing drought. The crops there are wilting and farmers are crying. In Gamoh district of Madhya Pradesh, two little girls below 10 years were paraded around the village naked to please rain God. They carried flail over their shoulders and led the procession of village women along with their mothers. The women sang bhajans to seek blessings of the Gods to save crops drying in the field. Drought looms large in Bundelkhand region of the state, where Damoh had 47% rain deficit, Panna 38% and Chhattarpur 25% this year.

Floods and drought are simultaneously occurring in different regions and both are attributable to climate change, the consequence of global warming. Water harvesting at individual level and also at societal level must be in place in flood prone areas. Even the drought prone areas like Bundelkhand should have water harvesting structures and farm ponds to supplement water for standing crops, when needed.

Long term solution to the problem would come when carbon emissions are slashed. World leaders are showing seriousness and concern to become Carbon neutral by 2050. Till then we have to follow the suggestions indicated in this article to minimize our sufferings.

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Real Life Experiences-2

Tiger calling Cheetah, Frightening with Torch lights and We are the Weapon



Dr Kota Tirupataiah, IFS (Retd.)

TIGER CALLING CHEETAH

Once The Field Director of Nagarjuna Sagar Tiger Reserve (NSTR) and his deputy, an ACF, came to Velugode range with two purposes: a. to check whether the recently installed Very High Frequency (VHF) towers and the receiving sets are functional or not, and b. to conduct a preliminary survey on suitability of Gundla Brahmeshwaram (GBM) for a Tiger Sanctuary.

As territorial Range Officer (i/c) of Velugode, I accompanied the team. The team travelled along the Central Nallamala Road (CNR) checking signals along the way. The FD was in the lead vehicle with the DFO and I was in the second one with the ACF. The code name given to the FD was "Tiger" and the one for the ACF was "Cheetah". So along the way, the two vehicles were moving at a certain distance and Tiger was calling Cheetah and checking for signals and clarity of communication. At a certain point, Tiger was calling Cheetah but Cheetah was not responding. Repeated calls from Tiger didn't get response. Cheetah couldn't respond because a young Leopard came out on to the road, walked ahead of the second vehicle and sat on the road for a while before saying good bye. Probably it wanted to remind that instead of Cheetah we could have used Leopard for a code. When the lead team came walking back to check what happened and learnt about the incident, everyone heaved a sigh of relief. I thought it was a good sign for including GBM as a Tiger Sanctuary.

FRIGHTENING WITH TIGER BRAND TORCH LIGHTS

Rainy season in Nallamala is commonly used to cut,

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transport and hoard timber before it was used during the Tadthoor Jathra. One of the days, we received information that a large number of bullock carts went in to the forest to get teak poles. Generally the modus operandi is get in to the forest by evening, do the cutting, eat, sleep and come out in the wee hours next day. We searched and found cart tracks (estimated to be around 12) in the wet muddy track. We were hardly six in strength and didn't have enough time to seek additional staff. We designed a method to frighten the men and take over the carts. It included flashing torch lights and shouting like hell as though large number of people is there. Tiger brand torches did the trick. Fellows ran away and we took hold of the carts. Of course, the bullocks didn't easily listen to us but somehow we managed.

WE ARE THE WEAPON

Forest protection in 80s was mostly based on personal commitment, confidence, integrity, etc. On one of the days of patrolling in the forest, we (three people) came across around 20 people with cycles carrying Bamboo, Poles and other material. They didn't show any fear on seeing us. Each one had either a big Sickle or an Axe. We don't know how we gathered our wits and managed to take over the cycles and the produce. The enormity of the effort was realized only after a few days. One of my colleagues, who went on to get into IAS, hailed from a village very close to Velugode. My colleague's brother came to know about what happened and said, "How did you people do it? You didn't have any weapons. The whole area is talking about this incident. Do take care. This is Kurnool district". I said, "I don't know how we did it. But we thought we are the weapons".



A Father's Visit To Son's Karm Bhoomi & Battle On Two Fronts

Paresh Kumar Sharma, IFS (Retired)

In the 3rd and final year of my stay at Karim Nagar, my father decided to pay a visit to my place. He had taken voluntary retirement by then at the age of 53 with a view to do social service. It was his first visit to me after I had joined the Forest Service. He came by the same train on the same route, from Bhilwara (Raj) by Meenakshi Express. Only his destination was different. I had got down at Purna Jn., he travelled up to Kamareddy in Nizamabad District. I had no wherewithal to arrange a Taxi for him from Kamareddy to Karim Nagar over a stretch of about 100 Km. I could not dare to send my official jeep to fetch my father, as DFOs & for that matter all the Officers, were not allowed to take the official vehicles outside their jurisdictions. Unaware of all these, my father took the AP State Roadways Corporation's Bus from Kamareddy. There were no Cell Phones in those days and getting connected on public phones was very difficult. Hence, I too could not know his exact travel schedule. He faced problem in purchasing bus ticket due to no knowledge of the Telugu language but managed to get it. He did not understand even a single word of the colloquial Telugu being uttered by the co-passengers. However, he remembered one word very well which the Conductor had to utter every time the Bus used to make a start. He narrated hilariously that this word was "**Nad-nad**". I explained that it was a slang of Nadu-Nadu. **Nadu/ naduta or nadvatam** is a verb meaning move and hence nad-nad meant move-move or "chalo-chalo". My father had a hearty laugh.

I took my parents (mother had come to Karim Nagar little earlier) to Mahadevpur, Kaleshwaram, Bhopalpalli and Azam Nagar. He walked into the

forests of this type for the first time. Besides I took him to certain plantations and nurseries. He came to know about the functioning of the forest department during his short stay. He had thoroughly enjoyed the trip. We also had a visit to the famed Ramappa Temple. The architecture and floating bricks of Ramappa really impressed him. I took them to Kaleshwar temple, located on the confluence of R. Godavari and R. Pranahita. This temple is unique in having two Lingams on the same pedestal, one representing Kaleswar and the other Mukteswar. After darshan, the Executive Officer at Kaleshwar temple made a special request to my father. He informed that a large number of devotees come to have darshan of Kaleshwar-Mukteshwar Swamy from across the R. Godavari from Maharashtra. The temple had literature on the importance of the Lords in Telugu language only and hence requested my father if he could translate the same into Devnagari script as it would immensely help the devotees from Maharashtra. My father said he could and would love to do it provided he knew the Telugu language; which he didn't. The Executive Officer then turned to me for help. I had cleared Telugu Language but was not strong in it literarily. Purohit was however insistent. Hence, I accepted his request and decided to get it done.

On coming back to Karim Nagar, I contacted my Telugu Guru ji Sri S. Raghu Nandan with a request to translate the "Kaleshwar Mukteshwar Mahatmyam" into English. I explained the background for this request. He readily agreed to do it. He had translated the Mahatmyam into English within a week. My father took upon the task of translating it into Hindi with Dev

Nagari script. On completion of the transliteration task, I handed over the manuscript to the Executive Officer of the Temple. He had got sufficient number of copies printed for distribution among the devoted pilgrims. My father had the satisfaction of providing service to the Lord.

My parents returned to Rajasthan in June of 1985, probably not fully happy on seeing the condition of the Department in general and that of the DFO in particular. Probably the status of the DFO was far below his expectations, no glamour, no paraphernalia! The only thing he was happy about and proud of was my reputation as hard working, sincere, committed, and honest Officer. For my father it turned out to be his first and the last visit to my workplace.

After 3-4 months of his departure from Karim Nagar, I came to know that my father had some pain in the ribs below the chest. He was taken to JLN Hospital, Ajmer (earlier known as Victoria Hospital) for consultation and treatment. He was diagnosed as suffering with "Bone TB", a disease I had not heard of. Doctors had advised for a small procedure, an operation involving extraction of pus cells from the affected portion of the ribs. I took leave and reached Ajmer to be with my father during the operation. However, on the appointed day, the Doctors had got some doubt if he was suffering from cancer and advised me to take my father to SMS Hospital in Jaipur. I was surprised as well as shocked. However, they maintained that he was not having malignancy but wanted to rule out the possibility of the same before undertaking the surgery as there was no facility of doing biopsy in Ajmer, they gave the above advice. I took him to Jaipur. Met and consulted the Doctors. When they saw the JLN Doctor's notes & observations, laughed at the preliminary diagnosis and subsequent doubt. After preliminary examination, SMS Hospital Doctors suspected that my father was suffering from Lung Cancer, however wanted to confirm the same with

Biopsy of the lung. Hence Biopsy was done for his lung. When result came, it was in the positive. My father was reported to be in the tertiary stage of cancer. I was shocked and saddened. I was told about the uncertainty and short span of the life of my father. However, I was advised not to break this news to my mother and younger siblings so that they do not suffer from avoidable tension. I was speechless, I felt that the blood had snapped in my veins. At that time, my younger brother was undergoing training at BSF Academy in Hazaribagh (Bihar). My 2nd younger brother was relatively free and was with my parents all through. Youngest brother and the only sister were pursuing P.G. studies in GCA Ajmer. Hence, it was not prudent to reveal the truth and disturb and bring agony among them. Therefore, I had decided to inform them that the father was suffering from acute lung infection which could be cured. As the malignancy was in tertiary stage, chemotherapy was ruled out and radiotherapy was prescribed as palliative treatment. I kept the above revelation to myself. My father was put on radiotherapy. After a week, I returned to Karim Nagar with heavy heart.

Here in Karim Nagar my wife was in the family way. There was no other family member with her except me. Hence. I could not have stayed with my father, howsoever I might have desired. My wife already had a miscarriage and was under treatment of a senior Gynecologist Dr. N. Jhansimani. Looking at my wife's condition she had prohibited all kinds of journeys for her till the birth of child. Hence there was no possibility of sending her to her parents. My two Brothers in laws were school going children, hence my In Laws also could not have come to stay with my wife in Karim Nagar. It would be difficult for common men to understand and realize the travails and agonies undergone by the AIS Officers allotted to a Cadre outside their home States; specially situated more than 1200 Km away with very poor connectivity.

I, as a young IFS Officer with meagre salary, could afford only journey by train which used to take 55 hours to reach Ajmer from Kamareddy. The other route via Bhopal was equally cumbersome, though combined bus journey took little lesser time. Howsoever I travelled, I could spend only 3 days with my father in a leave period of a week. Under these conditions I was going to Rajasthan every month for a week from December of 1985 to March of 1986.

Normally, the end of FY used to be the season for the transfers of the Officers as well as subordinates. It suited everyone as the academic season used to be over by the middle of April, the Beedi Lead season used to commence in April so also the pre-planting operations and of course the new FY from 1st of April. As I was completing a tenure of 3 years by 1st week of April 1986, I knew my transfer was imminent in March/April 86. As I was facing problems on two fronts, i.e., father down with cancer in Rajasthan and wife in family way with complications and without any family support in Karim Nagar; I mustered courage to write to the PCCF explaining my predicament with a request not to transfer me till August or September of 1986 so that my wife could safely deliver the child in the guidance of the known Doctor in Karim Nagar itself. Subsequently, I pleaded that I could be transferred anywhere in the State.

In the mean-time **Sri K.R. Paramhansa, IAS**, had been posted as Collector Karim Nagar on transfer of Sri R. Chandra Sekhar. He came to know about my predicament in one of the unofficial meetings. Without my asking he shot a letter to the PCCF requesting him not to transfer me for a period of 3 months. However, these requests did not have any impact on the PCCF. He had sent proposals for my transfer along with other Officers who had or were going to complete their tenures of 3 years. I received the Govt. orders transferring me to Kothagudem in the 3rd or 4th week of April. I was in a fix as normally

I used to go to Rajasthan to see my father in the last week of the month. My successor was in a hurry to take over the charge of the Division. When the Collector came to know about it, he was disappointed. He lamented that the PCCF could not consider the request of the Collector as well as the Officer concerned even on humanitarian & genuine grounds. I had been posted as DFO Kothagudem. This Division had earned the reputation of being the most notorious Divisions in the State. My friends and wellwishers outside the Department, advised me not to join at this place and proceed on leave instead.

My Sub-DFO Mahadevapur, **Sri K.B. Subhani**, wrote a big letter to me highlighting the mischievous nature of the staff of Kothagudem Division. He informed that one of the DFOs had to be placed under suspension because of the mischief of the Head Clerk who had swindled an amount of Rs. 2.37 Lakh by encashing the Security Deposits fraudulently. Conservator's explanation was called for and he had suffered a mild heart attack because of this. Another DFO was beaten up by the staff. And, to further strengthen his argument he went to the epic Ramayana stating that there is something wrong with the waters of this region that's why in Sat Yug also Sita Mata had doubted the intention of Lakshaman when they were staying in this region during Vanvas (Exile in forest). He connected this with the incident of Lakshaman not going to save Ram when he had heard the call of "save me" given out by Mareech the demon, after Sri Ram had gone to hunt and fetch the golden Deer. It is widely believed that Sri Ram, Sita & Lakshman had spent considerable time in the forests in this district. There is a place called **Parn Shala**, about 40 Km north of Bhadrachalam, where they are believed to have stayed. From here only Ravan, the king of Sri Lanka is believed to have abducted Sita Mata in the guise of a saint. This forest area is supposed to be a part of the famed Dandak Aranya, FD has named 2 of the Forest Blocks as Bali & Sugreev RFs after



Green Quiz- February 2022

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

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

1. Which Day is celebrated as National Vaccination Day in India?
2. Which Tropical Evergreen Tree closely related to ylang-ylang (*Cananga odorata*) is recently named after Leonardo de Caprio?
3. Which event lead to a campaign to save World Heritage sites that became a movement of UNESCO?
4. Which day is celebrated as Kisan Diwas in India?
5. Which is the Oldest Operational Dam in the World?
6. In which National Park is the Ghariyal going to be reintroduced?
7. In which country is a blazing natural gas crater, called Gateway to Hell (190 feet dia and 90 feet deep), that has been burning since 1971 is causing ecological and health damage?
8. Under which arrangement did Russia send troops to Kazhakistan to quell the unrest there?
9. By what name is the UN celebrating the year 2022?
10. For how long is the Greenland Ice sheet been losing more in melting season than gaining in winter season?
11. Which program of the UNESCO is celebrating its 50th year in 2021 that promotes relationship between Man and nature?
12. What is the Highest Environment Award of the UN?
13. Tellicherry breed is a registered native chicken breed of which Indian state?
14. Which is the only authorized Institution to sell Electoral bonds in India?
15. Who was the First Woman officer to become PCCF in India?

(Answers on page no:28)

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

"Too bad that all the people who know how to run the country are busy driving taxicabs and cutting hair."

- George Burns

Sustainability On Planet Earth

- Chandan Mitra, IFS (Retd.)



Every life on earth is interdependent and man is only a strand in this delicately balanced web of relationship. Every time a strand is snapped, and a species becomes extinct, man, the destroyer himself moves closer and closer to his own destruction. This is not only applicable to all living species but to all inanimate objects of the Nature.

Sustainability of the planet is closely associated with the proper utilisation of its resources i.e.; the resources utilisation should not exceed the resources generated. But man's desire is dominated by the peril of greed than the wisdom of need. Today the resources utilised by Human being is 1.74 times than that generated. There is an unending thirst for encroachment of land for urbanisation, cultivation of crops, hydel power generation, extraction of timber, mining and bio resources leading to massive destruction of flora and fauna all around the world. Added to the above, there is huge demand of power for industrialisation and development of infra sector of which coal based power generation provides two third of total requirement. In the entire process, the inalienable requirement of sustainable development versus conservation of Nature is totally lost as the above human actions result in huge release of greenhouse gases into the air leading to increase in temperature which in turn has cascading effect in the form of glacier melting, thereby leading to rise in sea level, thus increasing the vulnerability of the coastal population to inundation. Recently; only few months back large scale wild forest fire was reported from Many countries of the world i.e., Greece, France, Australia, Brazil, USA, etc.

This was nothing but an offshoot of the man-made climate change. Voluminous increase in greenhouse gases which act as the catalyst for Climate change results in extreme floods and droughts, drying of water sources including ground water, creeping in of new diseases and the list is endless. In the name of green revolution there has been enormous use of chemical fertilisers to increase per acre yield without realising the amount of atmospheric pollution and the decline in the soil nutrients they cause. There is already projection that the crop yield would go down by 30 percent as the temperature goes up by 1.5 degree centigrade with reference to the base year 1951. It may not be out of place to mention that for increasing the agricultural yield there has been indiscriminate tapping of ground water resulting in the use of the ground water in most unsustainable manner.

Climate change affects the vulnerable group the most. The UN estimates its Sustainable Development Goal (SDG) 2 - zero hunger by 2030 - will be missed by a huge margin of 660 million people.

Economic disruption world over with Covid-19 pandemic along with Climate Change is resulting in the rise of Global hunger. As unseen weather conditions make crops fail, conflicts results with the scarcity of food. For the first time in History four simultaneous famines in Nigeria, Somalia, Sudan and Yemen could be driven by conflict. This is a warning bell for the entire planet which faces the climate change.

However multiple mitigations are possible. Long term mitigations include crop diversification to more

resilient plants and changing supply chains to lower the prices of nutritious food. Currently, healthy diets are simply out of reach for 3 billion people. Nature gives us enough to feed everyone. The prevalence of hunger shows damaged systems restricting the food.

Not only the air is polluted; but also water, the compliment of air for human survival is equally polluted because of huge discharge of industrial and household sewage into water resources. The sea water is largely affected due to plastic pollution. Almost 8 to 10 million tons of plastic is pumped into the sea every year and is set to outnumber the marine population by 2050. The marine population growth is also badly affected because of the above factor.

Because of high level of pollution and consequent climate change triggered by high POPULATION growth, there has been unsustainable development all round the World .

Not to miss, Urban flood has become another phenomenon because of unsustainable growth of the cities. Solid waste management in urban and rural areas have become a matter of concern because of non-availability of the land fill areas. Unscientific disposal of biomedical waste and electronic goods contaminates the ground water and affects the sustainability of the planet.

There has been accelerated growth in the number of vehicles on roads and with the swelling population

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in big cities, despite of umpteen number of flyovers and traffic regulations, not only the environmental pollution has reached beyond all limits , but traffic management is becoming unsustainable, particularly so in developing countries, like India.

To address the issues relating to Climate change and ensure sustainable growth, there has been international conferences starting from Rio meet to Paris Agreement and recently the COP 26 in Glasgow. But now the panic button is pressed because of the forecasts and risk assessments made in the report of the Inter-Governmental Panel on Climate Change (IPCC) and every country has a mandate to reduce the carbon footprint by way of carbon sequestration and reducing the emissions of greenhouse gases. As almost 2/3rd of the pollution is caused by the coal based power producing units, a lot of emphasis is given to the production of renewable energy including green hydrogen energy and non-fossil fuelled energy.

It is heartening to note that Bhutan has a development parameter known as ‘ Happiness Index’ and the secret behind this happiness is that Bhutan is the only country to have Negative carbon footprint. To make the planet sustainable one has to follow the principle of ; Vasundharaaen Kutumbakam (World is one family) and aim at environment friendly inclusive growth; otherwise with the mad race of countries competing for GDP growth at the cost of environment, Nature May put its icy hands on the human beings sooner than later.

Answers for the Green Quiz in Page no:26

1. March 16, 2. Uvariopsis decaprio, 3. Aswan Dam construction, 4. Dec 23, 5. Lake Homs Dam, Syria, 6. Orang National Park, Assam, 7. Turkmenistan, 8. Collective Security Treaty Organization (CSTO), 9. International year of Glass, 10. 25th consecutive year, 11. Man and Biosphere Program, 12. Champion of the Earth, 13. Kerala, 14. SBI, 15. Veena Sikri, UP

Mother Tongue is Dying

(On The Eve Of International Mother Tongue Day On 21st February)

Konda Mohan, Dy. CF.



My Language is my Life
 My dialect is my Deity
 My mother tongue is everything
 Shaping my behavior and Personality !!

An oldest language and literature abundant
 With specific idioms, metaphors and accent
 Sweetest of the Sweet languages on the Earth
 Telugu is the " Italian of the East " !!

Nannaya Pothana Vemana SriSri
 Gurajada, Gidugu, Cnare and Udayasri
 Rayalu, Brown and many linguists and poets
 Developed the language with their sweat and blood !!

Don't hesitate and hate foreign languages
 Learn the culture and traditions of other societies
 But don't forget mother tongue Telugu language
 It is the culture, tradition flown from the Umbilical cord !!

For " bread and butter" choose any language
 But Mother Tongue only express emotions heart to heart
 " Mummy - Daddy " words are plastics and lifeless
 " Amma - Nanna " have love, affection and life !!

Speak and write Telugu, our pride Mother tongue
 At home, office and work place always
 Life line of our Telangana and Andhra brethren
 Our Mother tongue Telugu is dying
 Let us all determine to save our Telugu language
 To handover safely to our future generations

(The writer is Dy Conservator of Forests, Telangana State and presently working on deputation with HMWSSB Hyderabad.
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Salient Experiences of The Finland Tour

Dr Triveni Prasad Dubey, IFS (Retd.)

We believed that we were fortunate enough to get the option of Finland for the foreign module of the Mid Term Career Training for officers of Indian Forest Service (PHASE IV) organized for officers of years of allotment 1992 to 1995, in the year 2011. After immensely extensive and elaborately profound lectures at the **INDIRA GANDHI NATIONAL FOREST ACADEMY, Dehra Dun** was punctuated by a few field visits to **Sariska**, the day of Departure for Helsinki arrived. We were already equipped with too much knowledge. There were few curiosities in our hearts and several questions and queries in our minds.

Our arrival in Helsinki on the twenty-fifth of September was welcomed by several dignitaries of the country. We enjoyed a gracious entry into **Hotel Sokos Presidentti**, one of the best hotels in the city. The moment we checked in, our observations commenced. We were guided to the conference room. The welcoming address and introduction to the course delivered by Professor Tahvanainen, Professor Pelkonen and Mr Arevalo provided the much-needed introduction. All the vegetarians amongst us were on incessant vigil over the food laid out in our honour as the Welcome Dinner in Sevilla Restaurant located on the second floor of the hotel. They tasted the food with a note of caution. The night of the day saw most of us relaxing our bodies after having tasted the nocturnal preparations.

The city lay exposed to our sight and vision in the morning. The weather appeared to be pleasant and friendly. Conversations with few indicated that the residents were punctual and polite. Road travel

during the afternoon and the evening assertively conveyed the salient truth of the aesthetic landscape of the country's capital, having a cleanliness par excellence. The town planners, as well as the citizens, deserved full credit for the desirable blessing.

THE SITES AND THE CITIES:

HELSINKI: Its mornings had a meditative calm while evenings were experienced with a phenomenal buzz. The riverine view was found to possess a magical charm. The prevalent flora indicated a prominence of maple and silver birch. Visits to several locations and random talks with few conveyed that the city's economy was under the predominance of multinationals.

JOENSHU: It was our second halting venue in the tour of the country. It is the internationally reputed headquarter of the University of Eastern Finland. The premises and the faculty were observed to possess symbolic positivism in their attitude. We loved to converse and interact with the highly qualified faculty members who were deeply devoted and pragmatically courteous. We got the opportunity of visiting the Finnish Forest Research Institute. It proved to be educative and informative.

KOLI NATIONAL PARK: The visit to the park was an eye-opener for most of us. The well-planned labels and signboards, the proper maintenance of paths and the meticulously carved out landscape of the park captivated our thoughts. We felt the elation and the thrill as we moved beside the various mosses and lichens. Few over-inquisitive members of our group intricately viewed the ant-hills along with several herbs and shrubs. It all appeared to be a microscopic

familiarization with nature. It was a concrete example of tourism in forests away from the lure of sighting of carnivores, emphasizing vegetative wonders and lovely land transitions.

“KYMI”(UPM PAPER AND PULP MILL)

We had the privilege and facility of catching a glimpse of the amazing automation and intrinsic efficiency that prevails within the paper and pulp mill located at Kuusankoski. The environment-friendly atmosphere prevalent within the mill campus that is known to have about eight hundred and fifty employees signified a matchless boon for the victims of industrial pollution. The samples of printing papers, label materials, wood products, magazines, fine and speciality papers and newsprint stood as specimens. We found management at its optimum and regulations at their best.

PIELINEN MUSEUM: We were provided with the precious privilege of associating our ideas with the priceless antiques of the museum in Lieksa. The rare pieces and articles displayed therein acquainted us with the primary essence of Finland's history and culture.

RUUNAA HIKING AREA: It exposed us to a unique arena of thrill and adventure. Our dynamic inclinations resonated with the celestial music of the rapids as we moved down and on to return with rejuvenated hearts.

ST. PETERSBURG: As we entered the city, our hearts were purely flabbergasted by its characteristic ambience. A glorious river flowing through the heart of the city loomed as visual nectar laid over the earthly realm. During the evening hours, as we stood in excitement over its stabilized banks, we cherished in our memories the historical memories of **Peter The Great**. It constituted a fragrance of unrestrained festivity. One of us could not resist the temptation of dancing with female beauty. The natural act that

lasted for just a few minutes was destined to remain in our memories.

THE SPECIALITIES: The tour exposed us to select specialities of the country. The first and foremost amongst them is the significant emphasis on private forestry and private forests. We could easily appreciate the provision of innovative utilization and sophisticated mechanized mode of harvesting. We were breathless while seeing the machine operating in a particular forest patch. It performed selection, felling, picking, and heaping with graceful ease. The activities and voices of the local people conveyed their inherent love for nature and trees. The plants located en route displayed their consciousness regarding Bio-Energy. The vast cattle farms and the well-organized fodder production was profusely spread out beside the roads. The documents distributed carried ‘Every Man's Right’ in the true vein. The properly managed even-aged forests bore a pleasing presence. The supply of drinking water was found to be adequate. The road travel remained convenient throughout. The herbivore Moose was expected to terrify us on the way. We had heard much of it but it could not be sighted. With ease we could make out that the demography constituted of the **Finnish, Russian** and the **Swedish**. Apart from the forests the tour was highlighted by the gulf, the lakes, and the gardens. Most of the markets carried Chinese goods. The standard of living appeared to be high. Even the cleaners were observed to be financially well placed. We were told that rafting and hunting were the major hobbies of the people. We saw several individuals engrossed in rafting over the rapids. The books and magazines available in bookshops indicated that the literature of the country emerging.

THE UNFORGETTABLE ONES:

Each tour is expected to deliver some unforgettable memories and lessons. It would remain meaningless

without their presence. Let us begin with the Harvesting Machine that we saw in operation in the Private Forests. We surely cherish it in our dreams. We can hardly ever forget the act of the owner cum driver of the machine having rapid lunch seated upon the driving seat in order to save time. The hunted moose cooked and served to us at lunch during our visit to the private forest was a shocker for most while delight for few ultimate non vegetarians. The positive ambience prevalent in the premises of the **University of Eastern Finland** augmented the positivism nascent in our minds. The group of students from India, Bangladesh and Sri Lanka we had met in a marketplace of Joensuu persist as pleasant realities. We have forgotten their names but remember their words and sayings.

The welcome dinner at Helsinki overwhelmed us with feelings of emotions and sentiments akin to Indian Hospitality. The grand reception and dinner hosted at the residence of the Indian Ambassador in Finland (Helsinki) **His Excellency Aladiyan Manickam** was not at all an occurrence to be obliterated out of our minds. The homely Indian food he provided to us lay as nectar and bliss upon the tables. His congenial message **“eat and drink at your own free will, it is all yours”** still resonate with our dreams. The innovative exploration of food for vegetarians and soft non-vegetarians was a lesson to be sustained. Often, we had to surpass the language barriers by tireless display of silent expressions of the faces and the fingers.

The curiosity of receiving our entire check-in luggage at the end of the flights continued till the end. Reading, writing, speaking, thinking, and exploring kept us busy along with the majestic feel of the rare landscapes. Not one of us would wish to miss even a glimpse of our group presentations at Joensuu.

The tall pines of Russian Forests standing erect as immortal emblems of vegetative grace, still grace our

dreams. The Scot pine, Norway spruce and silver birches of Finland thrive in our memories.

The Russian Folk Dance was enjoyed by us with lull and calm at Petersburg. The unique mixture of emotive actions, cultural thoughts and aesthetic values has mingled with our desires.

The tour brought us face to face with several unforgettable personalities. The most prominent amongst them was **Professor Paavo Pelkonen**. He appeared to us as a live emblem of modern forest science, possessed of a saintly dedication, profound knowledge, and an endearing simplicity. Next to him was **Professor Lisa Tahvanainen** who symbolized knowledge and dynamism coupled with perpetual bliss upon her countenance. We can never be oblivious of the memories of **Mr. Kamrul Hasan** and **Mr. Maxim Trishkin**. The former cared for us till the end while the latter (always a live packet of positive energy) accompanied us from Joensuu. Last but not the least, our hearts can never dispense with recollections of the ever-vibrant **Julia**, the lady who guided our visits in St. Petersburg on the seventh of October. She was projected as a professional guide to Russian art and antiquity. The evening conversation that had disclosed that she had English Literature as her subject of specialization had surprised most of us to the core. Her selective counsel at the marketplace bus stop, advising us to be beware of potential lady robbers, reels our brains even this day.

THE CONCLUDING NOTE : We have to strike a concluding note in spite of the realization that conclusions are merely fictional and frictional forces of purely human origin. The tour augmented our knowledge about nature and of specific foreign strands. It rejuvenated our innovative capabilities and introduced us to significant technological and mechanized marvels and the cultural roots of Finland and Russia. It also vindicated and displayed the

Contd.. on page No.38

We produce black - But our views are Green



Cultivation near Reclaimed Dump



Settling pond / Summer storage tank

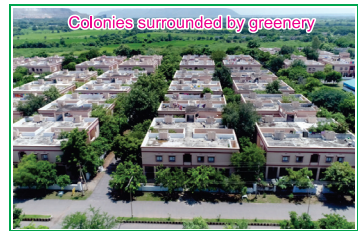


Eco-Friendly Park



Award in recognition of eco-friendly measures

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



Colonies surrounded by greenery



Reclaimed OB Dump



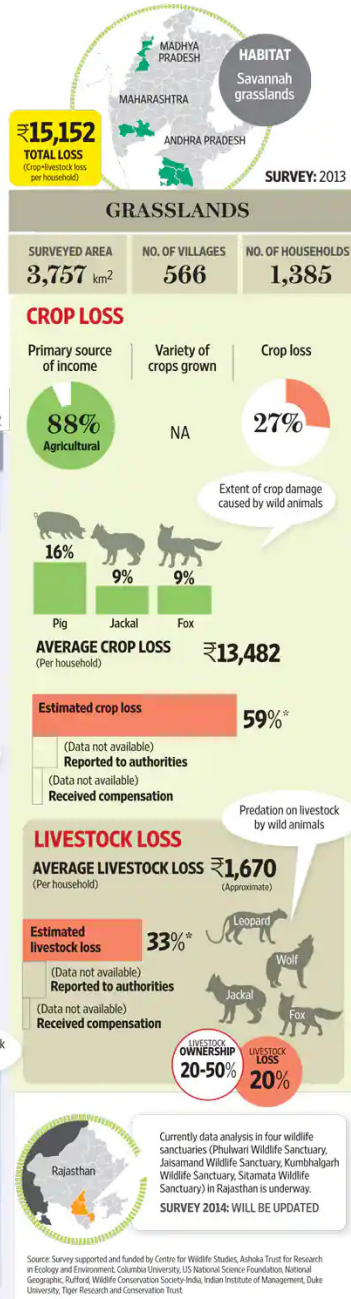
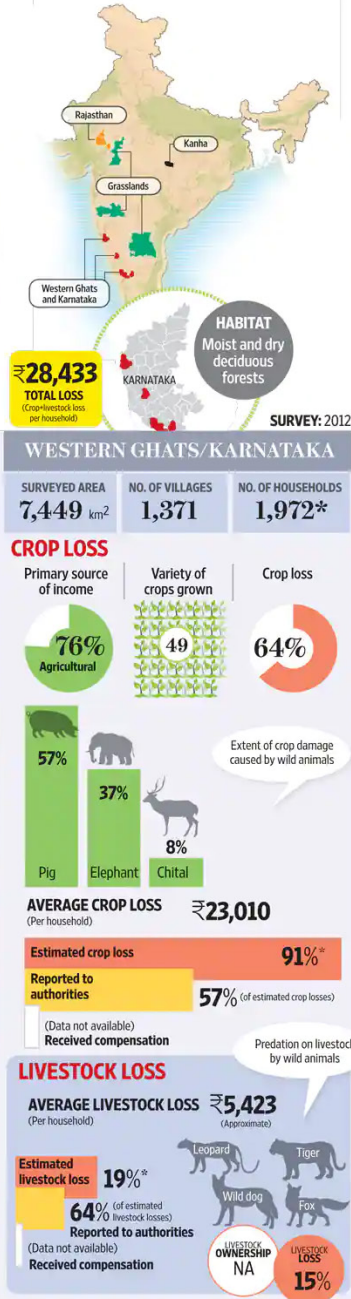
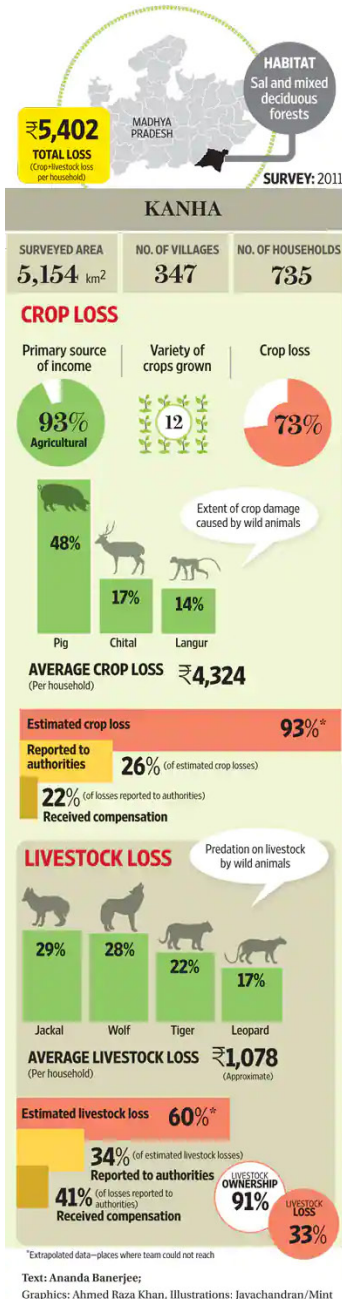
THE SINGARENI COLLIERIES COMPANY LIMITED

(A Government Company)

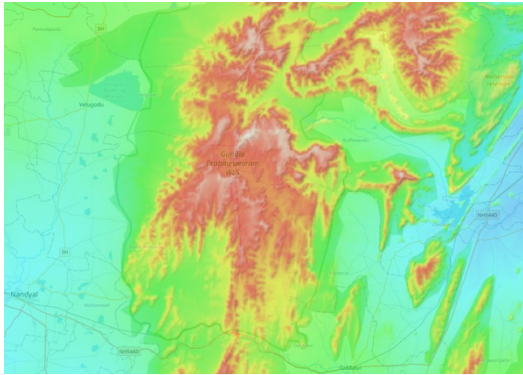
ZONES OF CONTENTION

A survey of human-animal conflict across India

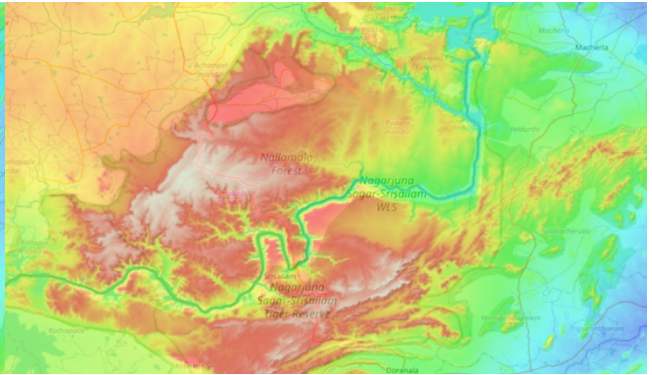
Mitigating human-wildlife conflict is a priority in wildlife conservation and management, particularly in a country like India where wildlife and high densities of people coexist. People living across landscapes have remained tolerant towards species due to cultural and social factors but as natural cover and resources shrink, humans and wildlife are increasingly getting trapped in shrinking spaces, pushing tolerance levels to the tipping point. In a pioneering study, Krithi Karanth, executive director, Centre for Wildlife Studies, and her team analyse the current scenario. "Our observational study model self-reported crop and livestock loss and compensation access by households. We identified conflict hot spots and factors to improve current management efforts directed at conflict prevention and mitigation," says Karanth.



See Man-Animal Conflict (Page:39)



GBM Wildlife Sanctuary

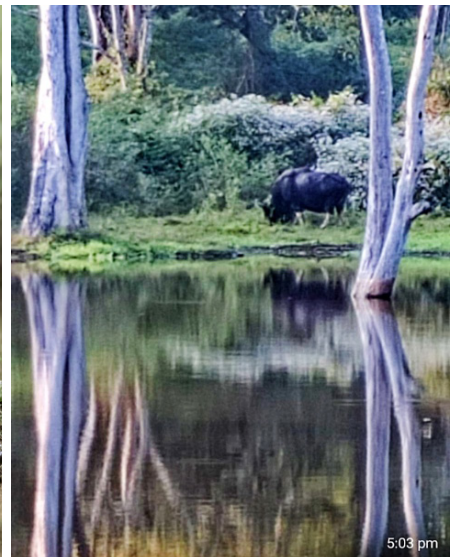


Nagarjuna Sagar Tiger Reserve (Page: 52)



Gaur - Kabini's Pride

Photo: T.S. Prasanna Kumar



Beauty of Bandipur

Photo: Dr Raju. V

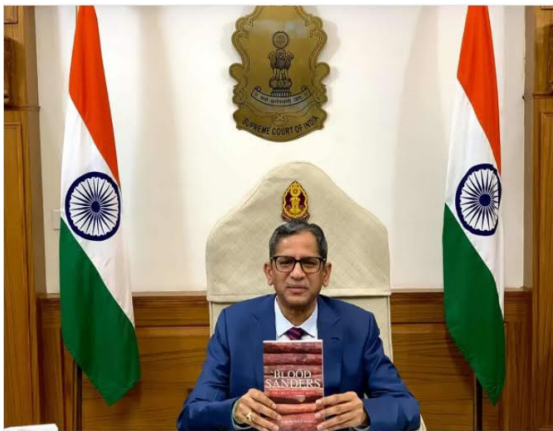


Uvariopsis dicaprio (Family: ylang-ylang) is a Tropical Evergreen Tree named after Leonardo de Caprio is four meters tall, and has bouquets of yellow and green flowers on the trunk.



Photos and article: G. Ramakrishna Rao

Above and Right: YELLOW-BROWED BULBUL and its distribution in India and Srilanka. (Page:56)



Chief Justice of India Justice N.V. Ramana releasing "Blood Sanders: The Great Forest Heist" authored by Sudhakar Reddy Udumula on 15th Dec, 2021. (Page:58)



A male Red-billed Quelea (Quelea quelea) is the most Common Bird. (Wikipedia image) For your Tiny Tots (Page:37)

BackRub

Google

The Search engine Google was originally named BackRub (1995 -1997)

For Your Tiny Tots

1. The red-billed quelea is the most common bird on Earth. (There may not be any red-billed queleas in your neighborhood, but that's not because there aren't an abundance of them. These birds, which live in sub-Saharan Africa, are considered agricultural pests because their massive flocks can obliterate entire crops. Although their numbers fluctuate, there are around 1 to 10 billion queleas, which leads scientists to believe that there are more of them than any other bird on Earth, according to Audobon).
2. A single strand of spider silk is thinner than a human hair, but also five times stronger than steel of the same width. A rope just 2 inches thick could reportedly stop a Boeing 747.
3. Rafflesia grows over three feet in diameter and is the largest flower in the world
4. Canada has 9% of the world's forests. (It has 396.9-million hectares of forests, or 9% of all of the forest area in the entire world, according to Natural Resources Canada).
5. The coldest temperature ever recorded was -144 degrees Fahrenheit. (You might think you're accustomed to frigid air and blustery winds, but the average winter day has nothing on the coldest day ever recorded, which was -144 degrees Fahrenheit. The temperature was recorded in Antarctica during a span of research between 2004 and 2016. Just a few breaths of air at that temperature would induce hemorrhaging in your lungs and kill you).
6. Whale songs can be used to map out the ocean floor. (Fin whales are basically the Barry White of the ocean. The deep, bellowing songs that males use to attract mates are considered to be the loudest of all marine life and can be «heard up to 1,000 kilometers (600 miles) away,» according to Scientific American. They can also be used to sonically map out the ocean floor thanks to the fact that the sound can reach depths of 2.5 kilometers (1.6 miles) under the water, which bounces back and provides researchers with accurate measurements. Beyond that, a 2021 study in Science showed how using a fin whale's song can be far more useful and have less of a negative impact on sea life than using a large air gun, which is the typical tool researchers rely on).
7. Japan records the most earthquakes of any country in the world; but the most earthquakes actually occur in Indonesia.
8. Are you scared of thunderstorms? Relax! Each year, 16 million thunderstorms happen around the world, and at any given moment, there are about 2,000 thunderstorms in progress!
9. Avocados and tomatoes are actually fruits!
10. More people speak Mandarin Chinese than any other language. (With around 950 million native speakers and an additional 200 million people speaking Mandarin Chinese as a second language, it's the most widely spoken language in the world).
11. There's a website (worldometers) that tracks the world's population in real time. (As of 2021, the overall human population is estimated to be more than 7.8 billion people. And if you want to watch that increase in real time, you can tune into the World Population Clock, which shows the upticks and downticks as babies are born and people die. You can also see the current populations of different countries).

12. It's widely believed here's only one country in the world that doesn't use the metric system. Simply putting -most of the more than 200 countries in the world use the metric system when describing things like length or mass. However, there were recently three countries that stood out: Liberia, Myanmar, and the United States.
13. North Korea and Cuba are the only places you can't buy Coca-Cola. (No matter where you go, it's comforting to know you can always enjoy a Coca-Cola. Well, almost anywhere. While this fizzy drink is sold practically everywhere, it still hasn't (officially) made its way to North Korea or Cuba, according to the BBC. That's because these countries are under long-term U.S. trade embargoes.
14. At 8,848.86 mts (29,031.69 feet) tall, Mt. Everest is the highest point on Earth, but it doesn't compare to the deepest point on Earth, the Mariana Trench, which is over 36,000 feet deep—nearly seven miles—in the Pacific Ocean.
15. The original name for the search engine Google was Backrub. It was renamed Google after the googol, which is the number one followed by 100 zeros.

“The whole of life is just like watching a film. Only it's as though you always get in ten minutes after the big picture has started, and no-one will tell you the plot, so you have to work it out all yourself from the clues.”

- Terry Pratchett

Continuation from page No. 32

importance of acting and reacting as a group. It also served to refine our modes and modalities of asking relevant questions. The final farewell indications of Mr. Kamrul and Mr. Maxim was something breathing of a specific communication. It appeared akin to a noble message **“COME AGAIN, WE SHALL MEET AGAIN.”**

THE FEEL AND THE TRUTH: Human life oscillates between the extremes of prose and poetry. The latter is believed to be more primitive and natural than the former. The tour came, began, and appeared to culminate in an end. In a natural way we choose to

conclude thus:

**We hardly notice the flow of time,
Nights glitter and the days rhyme;
Moments of ecstasy on our ways,
Kept us lively for fourteen days;
Adventure, knowledge on the rise,
Innovations, inventions sure to arise.**

We choose to conclude with the assertion that **the end always denotes a new beginning.** Memories of the tour sustains as **lively landscapes, praiseworthy cleanliness, and optimistic vision,** graced by few unforgettable personalities.

(The writer is retired Conservator of Forest, U.P, presently residing at Lucknow and can be contacted over mobile: 9452242469 and Email: trivenidb@gmail.com)



Management of Human–Wildlife Conflict (HWC): Working Towards Peaceful Co-Existence

Dr G. Ramalingam, IFS.,

Human-wildlife conflict can occur when human and animal populations overlap. These conflicts can take on many dimensions, from *livestock predation*, *harassment*, *property damage*, *crop damage*, attacks on humans and livestock to interpersonal conflict over wildlife issues and many different species may be involved. Many innovative methods have been developed to limit human-wildlife conflict, including the use of natural barriers, electric fences, disguises, and early warning systems. You can avoid conflict with wildlife by keeping food away from animals, by keeping a safe distance from wildlife, and by learning about potentially dangerous species before venturing into their habitat.

Human-wildlife conflict isn't a tiger specific issue. Without proper management, conflict can arise wherever abundant wildlife and expanding human populations overlap. Issues often arise with large predators such as tigers, lions, leopards, bears, wolves, hyenas and crocodiles, as well as large and potentially dangerous herbivores such as elephants, nilgai and even deer.

HUMAN VIEW OF CONFLICT

- a. Human Deaths
- b. Human Injuries
- c. Loss of livestock
- d. Loss of crops
- e. Loss of houses /assets
- f. Loss of productivity / Man-hours (Traffic, Tea/ Coffee Estates, Factories, Schools)
- g. Social and psychological costs

HWC SCENERIO IN INDIA

- Wild animals (except snakes) kill 500-600 persons every year.
- Wild animals kill 20,000-25,000 livestock every year.
- Wild elephants damage 18,000-20,000 houses / huts every year.
- Crops over 7-8 million ha of agricultural land are subject to depredation by wild animals (excluding birds) every year. Many farmers in HP and Uttarakhand have allegedly given up cultivation due to damage by wild boars and monkeys.
- Central Government and State Governments spend ₹150-200 Cr every year on measures for controlling depredation by wild animals and payment of compensation to the victims of depredation.
- About 10,000-12,000 wild animals (mammals) are killed in retaliation by villagers or in accidents involving vehicles/ trains / electricity every year.

Loss to human life and economy by wild animals is insignificant as compared to other factors. But it is significant for the wild animals because:

- It is a politically sensitive issue in most parts of the country.
- It brings retaliation against the wild animals and forest staff.
- Retaliatory killings pose a serious threat to many endangered species.
- People tend to develop an anti-conservation attitude on account of HWC.

How serious is the HWC in the Indian Context

- One lakh people commit suicide every year.
- About 20,000 persons die every year while crossing railway tracks.
- 1.50 lakh persons die and over 5 lakh persons injure in road accidents every year
- Tobacco causes 10-11 lakh human deaths every year.
- About 20,000 persons die of rabies every year.
- About 50,000 persons die of snake bites every year.
- Food grains worth Rs.1,00,000 Cr is destroyed every year due to poor storage facilities.
- Fungus and rodents damage about 20 million MTs of food grains every year.

Some special features of HWC Management

- HWC often has inter-state connotations (e.g. Jharkhand elephants affecting SW Bengal, Bihar, Chattisgarh & Odisha; Corbett tigers affecting UP).
- HWC also sometimes has international ramifications (e.g. Elephants from West Bengal impacting Nepal, Bhutan and Bangladesh; Elephants & Rhinos from Nepal impacting Bihar & UP).
- HWC often becomes a proxy war between different stakeholders:
 - Animal right groups and wildlife managers.
 - Pro-development lobbies and conservation groups.
 - Scientists and wildlife managers.
 - Tribal right activists and conservation groups.



MANAGERS OF HWC IN INDIA

- **MoEFCC** (Law & Policy; Authority under WPA-1972; Financial Support).
- **State Forest Departments:** Wildlife Wing headed by Chief Wildlife Warden [Implementation of law (IFA-1927, FCA-1980, WPA-1972), habitat management, framing & implementing strategies; engaging hunters; payment of compensation].
- **District Administration & Police** (Law & Order; occasional relief, use of delegated powers).
- **Local Governments:** Municipalities & Panchayats (Use of delegated powers; monkey-management in urban areas; garbage management).
- **Veterinarians** (Chemical immobilization; treatment of injured / sick animals; post-mortem).
- **Researchers / Scientific Institutes** (R&D; training, chemical immobilisation, radio-collaring, monitoring).
- **NGOs** (Helping FD and People).
- **People** (Informers, driving, and traditional knowledge).

LAWS FOR DEALING WITH PROBLEM ANIMALS**A. WILDLIFE (PROTECTION) ACT-1972:**

S.11(1): CWLW can permit hunting of Schedule-I Animals (Only when posing threat to human life)

- Capture and translocation
- capture and keep in captivity
- elimination by death
- CWLW/Authorized Officer can permit hunting of animals in Sch.-II to IV (When posing threat to human life, crop and property).

S.11 (2): Hunting of wild animals permitted in SELF DEFENCE.

S.12: Hunting permitted for SCIENTIFIC MANAGEMENT which includes Population Management without killing. Permission needed from Central Govt. (Sch. I Animals) & State Govt. (Others).

S.62: Central Govt. can declare animals from Sch-II to IV animal as VERMIN over a specified area for a specified period.

B. PREVENTION OF CRUELTY TO ANIMALS ACT-1962:**POLICIES, GUIDELINES AND MANUALS FOR MANAGING H.W.C:**

- National Forest Policy-1988 & State Forest Policies.
- National Wildlife Action Plan (2002-2016).
- MoEFCC (2011): Guidelines for Human-Leopard Conflict Management.
- NTCA (2007): Guidelines for Declaring Big Cats as Man-Eaters.
- NTCA (2013): SOP to deal with Straying of Tigers in Human-Dominated Landscapes.
- MoEFCC & MoA (2012): Advisory for Management of Blue Bulls.
- MoEFCC: Advisories issued on 24.12.2014 and 1.6.2015.
- WCCB (2012): Advisory against use of Langurs for Managing Macaques.
- CZA (2011): Protocol for Veterinary Care & Safety of Wild Animals during Transportation.
- CZA (2012): Protocols for Transportation of Wild Animals.

FACTORS OF HW CONFLICT

1. HWC: Socio-economic Factors

- ❖ Conflict is often for resources: Space (Habitat & Corridor), Food and Water.
- ❖ Wildlife habitats are also the source of food, fodder, water and NTFPs for millions of people (Specially Tribals) and their livestock.
- ❖ Wildlife habitats are degraded / disturbed / fragmented on account of developmental activities:
 - Mining
 - Hydro-power Projects
 - Linear Developments (Rails, roads, canals)

2. HWC: Ecological Factors

- Deforestation / Degradation
- Weeds
- Monocultures
- Reckless Fire
- Fragmentation of Habitat
- Disturbance of predator-prey balance (due to excessive hunting, epidemics, etc.).

- Intra-specific competition among tigers.

3. HWC: Biological Factors

- Adult bull elephants coming into 'musth'.
- Old / injured tigers and leopards indulging in human-killing.
- Rabid jackals attacking humans.

4. HWC: Psychological Factors

- Human Perceptions
- People generally tend to exaggerate the damage.
- More visible wild animals are blamed more.
- The bigger and more dangerous wild animals are blamed more.
- Nocturnal animals are blamed more than diurnal animals.
- Religious beliefs / superstitions also impact human reaction to conflict.

5. HWC: Climatic Factors

- Elephant families straying out due to climate change?
- Black bears and brown bears coming to lower altitudes /hibernating for a lesser period due to climate change?

AT THE WRONG END

SEVERAL ANIMALS HAVE BEEN FORCED TO ENTER HUMAN HABITATIONS FOR VARIOUS REASONS

TELANGANA



LEOPARD
Enters habitations in RR, Mahbubnagar, Warangal and Karimnagar.



WILD BOAR
Found across the state, mostly in the southern districts. Mainly destroys crops of maize, peanut, sorghum, paddy and pulses.

SLOTH BEAR
Karimnagar, Mahbubnagar, and Nalgonda. Sloth bears are regularly rescued from dry wells in human habitations.





BLACK BUCK
Nizamabad



MONKEY
Active in many places in the state especially Adilabad, Warangal, Khammam and parts of Hyderabad

- Obnoxious weed spread and growth affecting wildlife habitats due to climate change?

MANAGEMENT OF CONFLICT

Optimum Foraging Theory:

- Animals would tend to feed in a manner that maximizes their nutrient intake in the minimum possible time.
- Crop-raiding by elephants or predation on domestic livestock by tigers can be thought of simply as an outcome of their foraging strategy shaped by evolution.
- A certain level of depredation would still persist even if wild animals have sufficient food resources in the wild. (Sukumar 1994).

HUMAN DEATHS ARE MOSTLY ACCIDENTAL AND AVOIDABLE

Most of the victims are:

- People not familiar with wild animal behaviour.
- Intoxicated persons.
- Tourists / photographers / pilgrims
- Security persons camping inside forests
- NTFP collectors / graziers
- Persons chasing elephants
- Persons running in panic
- Persons entering forests for relieving themselves.
- People injured / killed when a building is damaged by an elephant.

CONFLICT CAN BE MINIMISED BY A COMBINATION OF STRATEGIES:

1. ANIMAL ORIENTED STRATEGIES

I. Immediate Measures:

- Measures to drive away the animal from the problem spot.
- Quick Response Teams (Anti-depredation squads, Kunki elephants);
- Distribution of crackers, kerosene, search-

lights, etc. to villagers

II. Long Term Measures:

Creating conducive habitat for the animals and maintaining carrying capacity by population management.

A. Habitat Management

- Exclusive Protected Areas (National Park, Sanctuary, Conservation Reserve, Community Reserve) for wild animals
- Habitat improvement (Food, Water, Cover)
- Corridors for wild animal movement (for linking fragmented habitats)
- Acute anthropogenic pressures (e.g. grazing, fodder collection, fire etc.) and developmental pressures (roads, railways, canals, mining, hydro-power projects, etc.) put constant pressure on wildlife habitats.

B. Population Management

Population Management (based on Carrying Capacity or the Degree of Conflict)

• Fertility control

- Mechanical and surgical techniques
- Endocrine disruption
- Immuno-contraceptives
- MGA (melengestrol acetate) Implants
- PZP (Porcine Zona Pellucida)
- GonaCon (A Ganadotropin releasing hormone GnRH) and SpayVac (PZP+Liposome+adjuvant) (Single shot immunocontraceptive vaccines – under trial)

Examples:

- 1,10,000 Rhesus Macaques sterilized in HP till June 2016. Criticized by AWBI and many scientists.
- WII and Project Elephant contemplating projects for use of immuno-contraceptives on monkeys and elephants.

III. Special Measures:

Measures based on understanding the nature and limitations of the target animals and exploiting the same.

a. Guard Animals & Kunkis

- Need to encourage traditional knowledge about guard animals.
- The ban by WCCB (2012) on use of Langurs against macaques needs to be reviewed.
- Shortage of trained kunkis and mahouts.

b. Repellants & Bluffs

- Sporadic trials with chilli-pepper sprays / smoke, chemical repellants (Capsaicin-based formulations, tiger urine etc.), ultrasonic sound devices, animal bluffs etc.
- More inputs in R&D required.

c. Bio-Fences

- The traditional knowledge about bio-fences need to be encouraged.
- Further trials needed to ascertain the efficacy of bee-hive fences.

d. Traditional chain link fencing and pulsating power fencing

- Effective world wide
- Eight strand power fencing effective in containing Nilgai.

IV. Punitive Measures:

- Identify and remove a problem animal when it becomes a liability.

Pulsating power fencing

a. Dealing with problem animals

i. Capture (By Traditional methods):

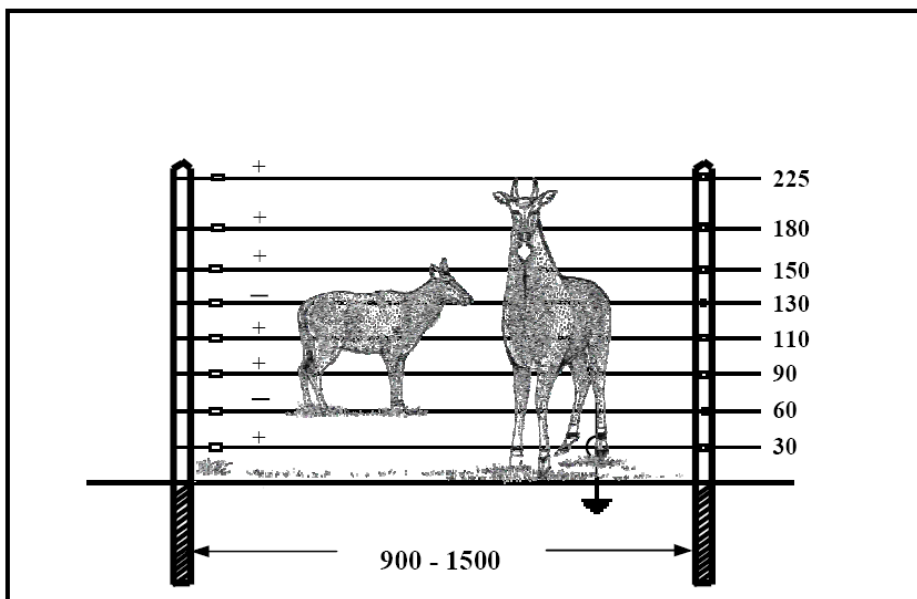
- FD generally use trap cages for capturing animals.
- Drop nets
- Net gun
- Rocket gun

ii. Capture (By Chemical Immobilization):

- Tranquillizing of problem animals

iii. Translocation:

- Translocations often fail as the problem animal



returns to its original habitat.

- SFDs lack experience and resources for mass translocation of problem population – Black buck in Kurnool district.
- Criticized by researchers on the ground that it shifts conflict.
- Lack of monitoring after translocation.

iv. Elimination:

- Elimination of confirmed problem animals done under S.11 with due permission of the CWLW/ Authorized Officer.
- MoEFCC has notified Macaques/Wild Boars/ Blue Bulls as vermin under S.62 to enable their culling in Bihar, Uttarakhand and HP.

2. MANAGING PEOPLE

Human-management strategies aim at:

- Increasing tolerance of human-beings for wild animals.
- Reducing competition between wild animals and human-beings for resources (space, food and water).
- Minimising interface (Contact) between wild animals and human-beings.
- Encouraging 'wildlife-compatible' lifestyles.

Enhancing people's tolerance:

- What should we pay, Compensation or Ex-gratia Relief?
- Are there better alternatives to Compensation / Ex-gratia Relief?
- Publicity and Awareness (Social, cultural, religious & ecological values of wild animals). Wildlife Week.
- Rewards & Recognition (Hon. Wildlife Warden)
- Developing people's stake in wildlife-conservation (e.g. JFM, Eco-development, Eco-tourism, Employment)
- Partnership with District Administration, NGOs, Relief Organisations.

Reducing competition for resources

- Promote Eco-development of the fringe population:
- Reduce biotic pressure on forests (Alternative fuel, fodder, water and grazing facilities)
- Create alternative sources of income for forest-dependent people.
- Promote animal-proof varieties/Alternative Crops; improve storage system.
- FDs lack resources for initiating eco-development and livelihood projects.
- Help of agricultural scientists required for promoting alternative crops.

Reducing interface (Contact) between people and wild animals

- Relocate people and livestock
- Identify and secure wildlife corridors; remove obstacles.
- Discourage incompatible land-use (e.g. Sugar-cane)
- Set up barriers

Electricity and toilets can save lives:

- Electricity is a great deterrent for most wild animals.
- Electricity can guide people to run away from wild animals.
- Toilets can substantially reduce risks to rural folks from wild animals.

Garbage disposal:

- Garbage dumps invite and encourage not only cattle and dogs, but sometimes also leopards, jackal, bears, wild boars, monkeys, etc.

Agricultural practices:

- Shifting cultivation (Jhum) is not only a cause



of forest-degradation and soil-erosion, but a source of Human-Elephant Conflict.

- The cultivation of sugar cane close to forests is an open invitation to elephants, tigers and leopards.
- Farmers, in the conflict areas, need to be persuaded to choose alternative crops as are not relished by wild animals (e.g. Chillies, Citronella).

Conflicts with Leopards in human dominated landscapes

- Leopards being generalist occupy niches of all kind ranging from scrub to forested habitats
- Conflict is mainly due to loss of wild prey species by poaching, degradation of habitat; dependency of forest resources by the local people.
- Conflict is due to loss of livestock or human life.

Suggestions/Measures:

- Immediate intervention and provide relief for loss of livestock or human life
- Most of the suggestions are site specific and need has been felt for construction of toilets for

each household especially located in remote areas

- Withdraw gun licenses in areas of high to medium conflict zones
- Conduct Conservation Education program for the ways to reduce the conflict with leopard and consequences of poaching of wild prey species

IN NUTSHELL:

1. Human-Wildlife Conflict cannot be fully eliminated, but it can be brought within tolerable limits.
2. Effective management of conflict calls for:
 - A proper mixture of strategies
 - Capacity building in the State Forest Departments
 - Efficient use of the available traditional and modern tools
 - Adequate financial inputs
 - Adequate scientific inputs
 - People's cooperation
 - Coordination among various departments, stakeholders, states and countries.
 - Policy and legal support

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Analysis of wild tree diversity in Andhra Pradesh and Telangana

Dr. N. Chandra Mohan Reddy, I.F.S. (Retd.)

(Continued from the previous issue):

Tree species used in making high economic value products:

The heart wood of the tree species viz. *Pterocarpus santalinus*, *Santalum album*, *Dalbergia latifolia* and *Tectona grandis* is prized for carving of sculptures, turnery work, musical instruments and furniture making. In addition, *P. santalinus* has multiple uses locally and abroad, as dying agent and in medicinal preparations. *S. album* on the other hand is the primary source of the sandal wood and scented oil.

Fibre yielding trees:

The plant fibres are generally composed of cellulose, often in combination with other components such as lignin. They are classified according to their source in plants, viz. Bast or Stem fibres, Leaf fibres, and Seed-hair fibres.

1. *Antiaris toxicaria*
2. *Bauhinia racemosa*
3. *Bombax ceiba*
4. *Borassus flabellifer*
5. *Careya arborea*
6. *Caryota urens*
7. *Cochlospermum religiosum*
8. *Cordia dichotoma*
9. *Erythrina suberosa*
10. *Ficus auriculata*
11. *Ficus benjamina*
12. *Ficus hispida*
13. *Ficus semicordata*
14. *Firmiana colorata*
15. *Grewia asiatica*

16. *Grewia rothii*
17. *Grewia tiliifolia*
18. *Hardwickia binata*
19. *Helicteres isora*
20. *Holarrhena pubescens*
21. *Kydia calycina*
22. *Lansea coromandelica*
23. *Miliusa tomentosa*
24. *Mitragyna parvifolia*
25. *Pandanus odorifer*
26. *Phoenix sylvestris*
27. *Polyalthia cerasoides*
28. *Sterculia villosa*
29. *Thespesia populnea*
30. *Trema orientalis*

Trees that produce edible products:

Trees yield many products which are relished by humans. Most common edible parts of the tree species are fruits, seeds, flowers, leaves, roots and stems.

1. *Aegle marmelos*
2. *Aglaia elaeagnoidea*
3. *Alangium salviifolium*
4. *Antidesma acidum*
5. *Antidesma ghaesembilla*
6. *Artocarpus heterophyllus*
7. *Bauhinia malabarica*
8. *Bombax ceiba*
9. *Borassus flabellifer*
10. *Buchanania axillaris*

11. *Buchanania cochinchinensis*
12. *Careya arborea*
13. *Carissa carandas*
14. *Cordia dichotoma*
15. *Dendrocalamus strictus*
16. *Dillenia indica*
17. *Diospyros malabarica*
18. *Diospyros melanoxylon*
19. *Diospyros vera*
20. *Drypetes sepiaria*
21. *Ficus auriculata*
22. *Ficus racemosa*
23. *Ficus semicordata*
24. *Flacourtia indica*
25. *Garcinia xanthochymus*
26. *Gardenia gummifera*
27. *Grewia asiatica*
28. *Grewia flavescens*
29. *Limonia acidissima*
30. *Madhuca longifolia*
31. *Madhuca longifolia* var. *latifolia*
32. *Mangifera indica*
33. *Manilkara hexandra*
34. *Mimusops elengi*
35. *Morinda coreia*
36. *Murraya koenigii*
37. *Oroxylum indicum*
38. *Phoenix sylvestris*
39. *Phyllanthus emblica*
40. *Polyalthia cerasoides*
41. *Shorea robusta*
42. *Spondias pinnata*
43. *Syzygium alternifolium*
44. *Syzygium cumini*
45. *Tamarindus indica*
46. *Ziziphus jujuba*

Trees from which alcoholic beverages are made:

Alcoholic beverages can be made from wood, flowers, and sap from unopened inflorescences of certain tree species; by enzymatic saccharification, and alcohol fermentation with yeast.

1. *Borassus flabellifer*
2. *Caryota urens*
3. *Madhuca longifolia*
4. *Madhuca longifolia* var. *latifolia*
5. *Phoenix sylvestris*
6. *Vachellia leucophloea*

Fodder trees:

Fodder trees are important feed sources for livestock especially for sheep and goats, in dry areas.

1. *Albizia lebbek*
2. *Anogeissus latifolia*
3. *Azadirachta indica*
4. *Bambusa bambos*
5. *Bauhinia variegata*
6. *Bombax ceiba*
7. *Bridelia retusa*
8. *Dalbergia latifolia*
9. *Ficus auriculata*
10. *Ficus benghalensis*
11. *Ficus religiosa*
12. *Ficus rumphii*
13. *Ficus virens*
14. *Firmiana colorata*
15. *Gmelina arborea*
16. *Grewia flavescens*
17. *Hardwickia binata*
18. *Kydia calycina*
19. *Madhuca longifolia* var. *latifolia*
20. *Prosopis cineraria*
21. *Pterocarpus marsupium*
22. *Schleichera oleosa*

23. *Syzygium cumini*
24. *Vachellia nilotica*
25. *Ziziphus jujuba*
26. *Ziziphus xylopyrus*

Trees which yield green manure:

Green manure is the green undecomposed material (especially leaves and twigs) of trees which are mixed into the soil while still green. It acts mainly as soil-acidifying matter to decrease the alkalinity of soils by generating humic acid and acetic acid, besides gradual addition of nutrients and improvement of soil structure.

1. *Albizia amara*
2. *Albizia lebbeck*
3. *Azadirachta indica*
4. *Madhuca longifolia* var. *latifolia*
5. *Pongamia pinnata*

Trees which yield pulp:

A variety of hardwoods in mixture in varying proportions are used in pulpwood industry. The length of the cellulose fibre is the most important parameter of the pulpwood.

1. *Albizia lebbeck*
2. *Anogeissus latifolia*
3. *Bambusa bambos*
4. *Borassus flabellifer*
5. *Bridelia retusa*
6. *Buchanania cochinchinensis*
7. *Butea monosperma*
8. *Careya arborea*
9. *Chloroxylon swietenia*
10. *Dendrocalamus strictus*
11. *Garuga pinnata*
12. *Helicteres isora*
13. *Lagerstroemia parviflora*
14. *Lannea coromandelica*

15. *Mitragyna parvifolia*
16. *Pandanus odorifer*
17. *Polyalthia cerasoides*
18. *Pongamia pinnata*
19. *Schleichera oleosa*
20. *Schrebera swietenoides*
21. *Soymida febrifuga*
22. *Terminalia arjuna*
23. *Terminalia elliptica*
24. *Trema orientalis*
25. *Xylia xylocarpa*
26. *Ziziphus xylopyrus*

Trees with medicinal value:

Many of the native tree species offer cure for certain diseases and relieve physical suffering of humans and livestock. The active principles found in these plants may be Alkaloids, Glycosides, Flavonoids, Phenols, Vitamins, Minerals, Tannins, Oils or other similar compounds.

1. *Aegle marmelos*
2. *Alangium salviifolium*
3. *Antiaris toxicaria*
4. *Atalantia monophylla*
5. *Azadirachta indica*
6. *Bauhinia racemosa*
7. *Bombax ceiba*
8. *Borassus flabellifer*
9. *Bridelia montana*
10. *Butea monosperma*
11. *Capparis grandis*
12. *Cassia fistula*
13. *Cochlospermum religiosum*
14. *Commiphora caudata*
15. *Crateva religiosa*
16. *Dalbergia lanceolaria*
17. *Diospyros malabarica*

18. *Embelia tsjeriam-cottam*
19. *Ensete glaucum*
20. *Euphorbia nivulia*
21. *Ficus benghalensis*
22. *Ficus religiosa*
23. *Gardenia gummifera*
24. *Holarrhena pubescens*
25. *Limonia acidissima*
26. *Litsea glutinosa*
27. *Maerua apetala*
28. *Mallotus philippensis*
29. *Memecylon edule*
30. *Mitragyna parvifolia*
31. *Morinda citrifolia*
32. *Moringa concanensis*
33. *Naringi crenulata*
34. *Nyctanthes arbor-tristis*
35. *Ochna obtusata*
36. *Oroxylum indicum*
37. *Pandanus odorifer*
38. *Phyllanthus emblica*
39. *Pongamia pinnata*
40. *Prosopis cineraria*
41. *Pterocarpus marsupium*
42. *Pterocarpus santalinus*
43. *Putranjiva roxburghii*
44. *Salacia chinensis*
45. *Salvadora persica*
46. *Santalum album*
47. *Sapindus emarginatus*
48. *Saraca asoca*
49. *Schleichera oleosa*
50. *Semecarpus anacardium*
51. *Shorea robusta*
52. *Solanum erianthum*
53. *Soymida febrifuga*
54. *Strychnos nux-vomica*
55. *Strychnos potatorum*
56. *Suregada multiflora*
57. *Syzygium alternifolium*
58. *Tamilnadia uliginosa*
59. *Terminalia arjuna*
60. *Terminalia bellirica*
61. *Terminalia chebula*
62. *Vitex negundo*
63. *Woodfordia fruticosa*
64. *Wrightia tinctoria*
65. *Zanthoxylum rhetsa*
66. *Ziziphus glabrata*

Trees with known toxic constituents:

Some plant parts contain toxic chemical substances which include tannins, alkaloids, polyacetylenes, terpenes, phenolics, essential oils, etc. These may cause harmful reactions in humans and livestock, such as allergic reactions, skin irritation, internal poisoning, gastroenteritis, diarrhoea, vomiting, nervous disorders, respiratory and cardiac distress etc. However, the toxic chemicals in the plants are often diluted and made into medicines to treat certain ailments.

1. *Alstonia scholaris*
2. *Antiaris toxicaria*
3. *Antidesma bunius*
4. *Calophyllum inophyllum*
5. *Cerbera odollam*
6. *Cleistanthus collinus*
7. *Cleistanthus patulus*
8. *Euphorbia tortilis*
9. *Excoecaria agallocha*
10. *Falconeria insignis*
11. *Semecarpus anacardium*
12. *Strychnos nux-vomica*

Trees which yield dyes and tannins:

Dye is a coloured substance that chemically bonds to the substrate to which it is being applied. Natural dyes are obtained from roots, wood, bark, fruits, leaves, flowers, nuts and seeds of certain plant species.

Tannins are a group of polyphenolic biomolecules that are widely distributed in many species of plants, where they play a role in protection from predation and might help in regulating plant growth. Tannins are important ingredients in the process of tanning leather. Tannins also used in natural dyeing of cellulose fibres such as cotton.

1. *Aegle marmelos*
2. *Anogeissus latifolia*
3. *Artocarpus heterophyllus*
4. *Avicennia officinalis*
5. *Bauhinia malabarica*
6. *Bauhinia purpurea*
7. *Bischofia javanica*
8. *Boswellia serrata*
9. *Bridelia retusa*
10. *Bruguiera gymnorhiza*
11. *Butea monosperma*
12. *Careya arborea*
13. *Cassia fistula*
14. *Erythrina variegata*
15. *Ficus religiosa*
16. *Ficus tinctoria* subsp. *gibbosa*
17. *Firmiana colorata*
18. *Garcinia spicata*
19. *Garcinia xanthochymus*
20. *Hymenodictyon orixense*
21. *Limonia acidissima*
22. *Lumnitzera racemosa*
23. *Magnolia champaca*
24. *Mallotus philippensis*
25. *Memecylon umbellatum*
26. *Mesua ferrea*
27. *Mimusops elengi*
28. *Morinda coreia*
29. *Oroxylum indicum*
30. *Phyllanthus emblica*
31. *Prosopis cineraria*
32. *Pterocarpus marsupium*
33. *Pterocarpus santalinus*
34. *Rhizophora apiculata*
35. *Schleichera oleosa*
36. *Semecarpus anacardium*
37. *Senegalia chundra*
38. *Shorea robusta*
39. *Syzygium cumini*
40. *Tamarindus indica*
41. *Tectona grandis*
42. *Terminalia arjuna*
43. *Terminalia bellirica*
44. *Terminalia chebula*
45. *Toona ciliata*
46. *Trema orientalis*
47. *Vachellia leucophloea*
48. *Wendlandia tinctoria*
49. *Wrightia arborea*
50. *Wrightia tinctoria*

(To be Continued.)

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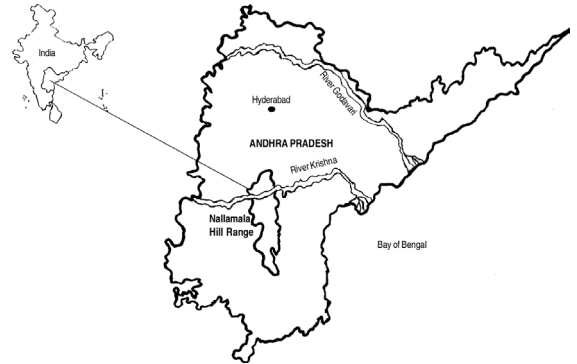
Panther's Paradise and Traveler's Tavern

Vurla Rajendra, M.sc (Tech)



In the retrospect, every human's childhood might be filled with the tales of dense forests where the ants & crows can't be intruded, over time while growing up the man turns more enthusiastic and craves to visit the thickest jungles and to splurge in caliginous night in the mid wood to realize his dream. Nallamala Forest is such kind of an uninterrupted stretches of thickest Forest in South India located in Nallamala hills run in a nearly north-south alignment, parallel to the Coromandel Coast which encloses the glorious Eastern Ghats.

The world's renowned wildlife writer "Kenneth Anderson" exquisitely narrated about his experiences and adventures in this forest. Nagarjunasagar Srisaillam Tiger Reserve (NSTR) is the one of the largest tiger reserves in India with an extent of 3727.82 SqKm including core & buffer areas which spreads over the Parkasam, Kurnool and Guntur districts of Andhra Pradesh State and Nalgonda, Mahaboobnagar districts of Telangana State. Nallamala forest is endowed with tropical mixed dry deciduous and moist deciduous forests with an under growth of bamboo and grass and the best terrain for the Tigers. The alluring and enchanting landscapes of Nallamala forest is repository of biodiversity and an abode for endangered flora and fauna with prepossessing hilly terrains, Plateaus, ridges, gorges and deep valleys and waterfalls. Nallamala constitutes of Rajiv Gandhi wildlife sanctuary and Gundla Brahmeswaram wildlife sanctuary (GBM) which are the famous shelters for Tigers and to increase its progeny.



Apart from the conventional method of pug marking of Tigers in Hallandale forest, adapted to new technology by fixing the infra-red trap cameras to capture the regular wandering spots of Tigers and other fauna. Recently around 1000 infra-red cameras are being installed in Nagarjunasagar Srisaillam Tiger Reserve (NSTR) to easily count the big cats for the "Global Tiger Census-2022". M-STriPES (monitoring system for tigers intensive patrolling and ecological status) is the powerful software being used to analyze the data of the cameras to reckon not only the Tigers but also different carnivores, herbivores, protection activities, illegal activities to conserve the

Contd.. on page No.55

A Heart Touching Incident

K. Pradeep



While functioning as territorial / Flying squad staff, we often ignore the humanitarian approach to the issue we are dealing with, which often results in harsh aftermath. While attempting to attain C Fee targets—the human perception is overlooked—we function too mechanically!

I recall one such incident.... in 1999; I was Sub DFO, Yeleswaram, of Kakinada Division. By virtue of all my postings as RO in East Godavari District—I very was familiar with the staff there and vice versa. Even though I was the Sub DFO, the subordinate staff had an excellent rapport with me, and the administration was always smooth. Yeleswaram Range was a very old Range and was from British times. The Range Office was the old traditional tiled bungalow type - and the Sub DFO's Office was also located in the same compound-but a new block.- On the other side of the main road, the Range Officer Quarters and a cluster of other subordinate staff quarters were sprinkled. And amongst these dwellings, a concrete block of Sub DFO quarters was also located. This scenario is described to make one understand that the Sub DFO, FRO, DRO, FBO etc., were always in constant touch with each other ..and if one is a little attentive, one can perceive the staff's mood.

One day when I was in my office, I could see some commotion in the compound through my office window, and the DRO and some staff were in some argument with an elderly man. He was wearing the traditional Panche and a lalchi (Jhubba), and they were preventing him from coming towards my office. The staff have an unfair attitude, and they always ward off people coming and meeting the bosses.

I was always opposed to this, particularly as I was the Nodal Officer [JANMABHOOMI programme] of Yeleswaram Mandal!

I stepped out of my office and came into the compound, and once the staff had observed me, the atmosphere became hushed. I signalled the elderly man to go and went back to my room. This elderly man came to my office, who was around 50 yrs—and he appeared to be very timid and apprehensive about entering my room. One Data entry Operator- Mr Murty- [who is no more today]- was allotted to me, and he was busy with his Computer- and this elderly man was enquiring whether the Officer inside is in a good mood and whether he is of helping nature! These whisperings were barely audible to me, and I was glad that Mr Murty was crediting me with all the superlative adjectives of my character.

At last, the gentleman stood near the thresh hold of my office and politely asked if he could enter and after my consent-he removed his footwear and entered!! Even when I insisted not to remove his sandals- he was insistent. On my urging, he sat down in the chair at last. As were the standing instructions, the attender gave him a glass of water, surprisingly he had a full swig – and after a few moments, he narrated his issue—

He was a school teacher in a Zilla Parishat School-about 15 km from Yeleswaram. He owns a piece of dry land in which he is residing in a hut with his family. There was an old teak tree adjacent to the hut, and it was leaning precariously towards his dwellings. As he was planning to construct a small house next to the hut, he decided to use this teak

for his new home. Being unaware of the Forest act/ laws, and as the tree was leaning too dangerously, he got it cut and left the cut tree next to the stump and then he started to find out the next step. At this juncture, somebody dashed off a petition to the FRO Yeleswaram- and pronto the staff under the DRO stooped down at the site—and we know the drill !!!!!. The log was measured, the stump was measured, the number was painted on the stump and the log. Statements were recorded, a signature on a blank paper were obtained- all the while this poor teacher was protesting that he was not smuggling any timber etc., Ultimately the staff calculated the volume and arrived at the cost---- and informed him that he had to pay around Rs 15,000 to get the timber back. And he was warned not to touch the timber unless he paid the amount- and he was utterly flummoxed with this unexpected turn of events. While leaving the site, the staff were very courteous and asked him to come to Yeleswaram Range Office and meet the RO.

As a Nodal Officer, I have visited his school earlier, and somehow during the visit, it seemed he developed some positive vibe towards me. He said he had come three times to see me earlier on this issue, but I was not available. When he met the RO, he received a terse answer to bring the amount- and not delay.

Thus this time, he was succeeded in meeting me and presenting his case to me. I was taken aback when he started weeping—a 50-year-old teacher in tears!! It was too much for me to experience such a miserable situation. I took his details—name, address, etc., and told him to go home as I would like to visit his home the next day- I also found out his time of availability.

As soon as he left my office, I went to the RO and enquired—the nonchalant answer was as usual—there was a petition, and it was referred to the DRO- The DRO went to the site and found the timber and

hence the case!

Immediately I called the DRO- he was a very nice and a good fellow, and he confirmed what the teacher stated. When asked for the case records, he admitted he had not yet recorded the case with a stunning face. As was the practice- the case would be registered AFTER the C Fee was paid! Those were the RO's directions- and he was following these orders. I cannot explain how incensed I was. By then, the FRO silently left the office. I told the DRO to be ready with the staff the following day. We proceeded to the teacher's house by 8 am the next day.

We went to the teacher's hut—it was a poor man's hut. He was waiting for us along with his wife and a teenage daughter...the women trying to suppress their tears.. [even now, while I am typing this, I am emotional after 22 years]. The hut is in his own land—with the single felled teak -the log about 3 meters with a girth of 45 cms lying where it fell. Meanwhile, his neighbours—all are lower-middle-class people assembled there observing us. I explained to the teacher not to worry; I assured him he would not pay any C Fee but should not move the log until he heard from me.

We returned to the office, and I asked the DRO to record the case carefully—particularly where the tree is located, and he should submit the case to RO- AFTER LETTING ME SEE THE RECORDS! At that time, the limit of compounding by RO was Rs. 500 value of the seizures- and this was definitely above the RO's purview. Once the Staff and FRO realized my earnest intervention, the cogs started moving at a pretty pace. As stated earlier, the staff know me, and I too know the staff—and they all were aware of my attitude! The next day the RO submitted the case records to me because the case had to be dealt with by the ACF. The statement of the teacher was recorded carefully, elucidating the circumstances. I imposed a fine of Rs 50. for technical violation as it

is in his own land [and there was no RF within 12 km, and the felled log was adjacent to the stump]. I issued the necessary proceedings. And I sent the DRO to the teacher to inform him along with a filled up challan for Rs 50, to be remitted into the treasury. I could not get a Form II permit for him- as it involves lengthy formality- but I let him have a copy of my proceedings of the case with him. I also sent word to the nearest sawmill not to create any fuss while sawing the log. The next day the teacher came to me with the challan, and I informed him not to worry anymore, and he could go ahead with his regular chores. He was delighted and was eloquent in thanking me for such a positive and fast solution. He

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sanctuary in an effective manner. As per the latest studies, there are 63 Tigers in the state of Andhra Pradesh.

In fact, it's a cloud cuckoo land for the green panthers who zeal to stay at jungle camps such as Bairluty, Pacherla, Thummalabailu and Amrabad with an adventurous eco-tourism like jungle safari with the help of local tribal community chenchus, natural trails, trekking and bird watching. It's a haven for not only the Tigers but also viable for the Panther, sloth bear, wild dog, Jungle cat, Langur, Bonnet monkey, Pangolin, Sambar, Nilgai, Chowsinga, Chinkara, Mouse deer, Monitor lizard, Python and Marsh crocodile with dazzling array of smaller wonders like birds, Indian giant squirrel, snakes. The highest peaks of Bharanikonda & Gundla Brahmeswara are situated in north-westerly direction from Cumbum

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came again with a box of sweets- I politely refused and asked him to share it with the staff.

After a couple of months, I saw him again in my office- of course with a cheerful face- this time to invite me for his "GRIHAPRAVESAM"—and insisted that I should attend. I did attend the function—not at the precise muhurta—it was in the early morning—but attended the Puja. The entire family came to me and were ecstatic –and my emotions knew no bounds. Perhaps I may have circumvented some legal procedures- but I WAS, and I AM happy to have delivered Justice. A poor teacher could be helped and could construct his home! THERE IS OFTEN A WIDE GULF BETWEEN LAW AND JUSTICE!

town at an elevation of 1100 meters and 1048 meters from the mean sea level. The primary rocks are Quartzite with overlaid with an irregular slaty formation of kadapa system. The fissured rocks in Nallamala forest prevent any water from percolating underground and hence most of the discharge runs off as mountain streams to join the Gundlakamma River, which is the largest river to arise in these hills. Srisailam is the most popular pilgrimage of Lord Shiva situated on the Plateau of Nallamala hill range. Gundla Brahmeswaram (GBM) Temple is also Lord Shiva's ancient temple near Diguvametta is opened for devotees only 2 days in a year on the occasion of Maha Shivaratri. Indeed, the eco-tourism of the jungle camps replenishes the tranquility and unique adventurous experience which leaves the indelible imprints in every one's heart!



YELLOW-BROWED BULBUL (*Acritillas indica*)

G. Ramakrishna Rao

The Yellow-browed Bulbul is a species of bulbul found in the forests of southern India and Sri Lanka. This is a resident bird, having distribution in western Ghats and Sri Lanka., having bright yellow supercilium and prominent eye-ring, yellow throat and underparts and uniform olive-green upperparts. Black bill and dark eyes are striking. The Iris is reddish-brown. Juvenile is duller green upper parts. The bill is slightly curved. Juvenile is duller and browner than the adult, with a paler bill. The sexes do not differ in plumage. They are easily located by their loud calls but tend to skulk within foliage below the forest canopy. The population in the northern Western Ghats is paler yellow than the populations further south.

The calls include whistle-like calls and sharp "pick-wick" notes. They feed mainly on berries and insects. The breeding season is during the dry spell before the monsoons, specifically January to May. The nest is a cup built in a low fork covered with moss and cobwebs on the outside, making a sizeable White-

eye nest lined with fine root fibres. The typical clutch is three eggs in India and 2 in Sri Lanka. About a week is taken for building the nest, and the eggs are incubated for about 13 days. The eggs are pale pink or white with reddish-brown speckling. The eggs hatch synchronously, and the nestlings fledge after about 13 days. Nestlings are fed with caterpillars, soft insects and berries. Nesting studies are done chiefly in Silent valley National Park, where it is commonly seen.

It is found mainly below the forest canopy of the hill forests and plantations in the Western Ghats and Sri Lanka. They also occur in parts of the Eastern Ghats Nallamalais and parts of Tirupathi and Mamandur regions in Andhra Pradesh. Though it is mentioned in the Nallamalais, it is chiefly seen in Talakona of Andhra Pradesh, where I chanced upon to photograph these beautiful birds near Talakona Waterfalls.



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LEGAL NOTES

Balkrishna Bateshwat Kharade Vs. Tahsiladar, Mohol, Solapur District and ORs

From K.B.R.



This is a case which reflects how the government officials are negligent of their duties and a public spirited person had to highlight their failures. The facts giving rise to the PIL No. 86 of 2014 filed in the High Court of Bombay, which was heard by the Bench consisting of The Hon'ble Chief Justice Sri Pradeep Nandrajog and The Hon'ble Justice Smt. Bharati Dangre and disposed the case on 05.09.2019.

A Wildlife Sanctuary was declared by the Government of Maharashtra with an area of 7,818 Sq.Km. in Nagar and Solapur districts. The area of the sanctuary was extended by adding to it 677. 97 Sq.Km. in 1985. An expert committee constituted under the orders of the Supreme Court in W.P. No. 202 of 1995 to rationalize the land of the sanctuary, suggested to the State Government that an area of 1,222.61 of different classifications be rationalized. The Government accepted the suggestion. The W.P was disposed of in 2011.

The National Highway Authority of India undertook the work of expansion of NH-9. Its concessionaire applied to the Tahsildar, Mohol for granting licence to excavate 'Muram' (Minor Mineral) and paid royalty. The grievance of the petitioner relates to excavation from land which is part of Sanctuary. He requested the court to prohibit the exaction and further, the respondents be fined for their illegal activity.

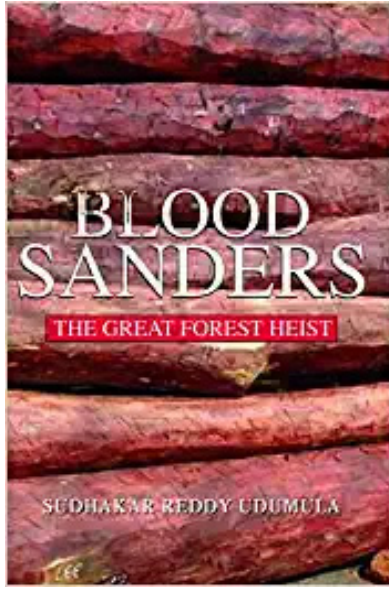
The allegations were denied and the court ordered the Chief Conservator of Forests to depute a senior officer to inspect the area and submit report. The report disclosed that the area where the murum was excavated lies in Gut Nos. and also in the area notified as the sanctuary. The report highlights that part of the road passes through the sanctuary. The court directed that the authorities under the Wildlife Protection Act should look into the issue and initiate action. There has been violation of the Forest Conservation Act and the Indian Forest Act. The report would require appropriate action under the Wildlife Protection Act, Environmental Protection Act read with Forest Act and Maharashtra Land Revenue Cade to take cognizance of the report ad take action as per law.

As there were no interim orders, the activities have continued and the work of expansion of N.H- 9 has been completed. The court thought it fit to direct the authorities under the Wildlife Protection Act, Environmental Protection Act, and Forest Conservation Act read with the Forest Act to take cognizance of the report and proceed ahead by issuing show cause notice to the project proponent keeping in view the respective four legislations and after hearing the project proponent, pass necessary orders. The PIL is disposed of accordingly. By going through the judgment it looks that no orders can be passed any authority under the appropriate law without hearing the parties concerned. For the same reason the court ordered issue of show cause notice. This is the principle enunciated in the phrase, audi alteram Partem (Listen to the other side).

- K.B.R

Book Review

Blood Sanders – The Great Forest Heist



Name of the Author:

Udumula Sudhakar Reddy

Number of pages: 7+189+11, Price: Rs. 399

Publishers:

Millennium Publications & Printers, Hyderabad.

For copies: sudhakarjournalisthyd@gmailcom

REVIEW BY K.B.R. REDDY:

The first thing that came to my mind when I heard of the book is its 'title'. I raked my head and came to the conclusion that the title is a Hybrid. Two popular names of *Ptercarpus santalinus* are: *Raktha chandanam* (Telugu) and Red Sanders (English). Raktha is borrowed from Telugu and Sanders from English to call it "Blood Sanders". Sanders is plural of sander, which means, an electric tool with rough surface used for making wood smooth. (The country made tool in Telugu is called (*Doogada*). In Chinese, the red sanders is called "Zitan" (Page 161). Chinese

craftsmen, thousands of years ago, have been using wood for making beautiful furniture, art pieces etc. During conversion, there must have been carving, chiseling, and smoothening surface of the wood. This would have prompted the Englishmen to popularize the word, "Sanders". This is only my wild guess, probably true. But it must be stated unequivocally that the author has taken elaborate pains to collect the large information which is laudable.

Dr. Shekhar Kumar Niraj, the Additional Principal Chief Conservator of Forests, who formerly worked with TRAFFIC (as recounted at Page 173), said that Red Sanders is one of the most sought-after 'Wildlife Produce'. Some scientists truly refer to the wood as 'biological product'

Sudhakar Reddy has varied accomplished background. After primary and secondary education in Kodad and Nalgonda, he did B.Sc., in Microbiology from Acharya Nagarjuna University. Afterwards, he did LL.B and Masters in Communications & journalism, from Osmania University. He did Post Graduate degree in Computer Application from Madurai Kamaraj University. He is an alumnus of International Visitor Leadership Programme (IVLP 2016) of the U.S. Department of State and has received training in investigative journalism, fact checking and data journalism at agencies like ICIJ in the U.S. He acquired several other qualifications and received many awards and rewards. As journalist, he worked with *Eenadu* (Telugu), Deccan Chronicle, Times of India and presently rose to the status of the Editor Investigation of Times of India. The book under review is the saga of his journalistic investigation and research over a period of 20 years, beautifully described in 10 chapters. It is a compendium of Silviculture, Forestry, Biology, Geology, Geography, History, Wood Science, Crimes and Criminals, Criminal Investigation, Law

and Order, Criminalization of Politics, Customs and Excise, Income Tax, and of course investigative journalism.

The Author's display of sentiment for the Red Sanders is apparent when he calls its wood as 'Red Gold' and he devoted the whole of first chapter for the Red Gold and describes its inclusion in Appendix-II of Convention on International Trade in Endangered Species (CITES) and the concern of the International Union for Conservation of Nature (IUCN). It is further stated that Government took steps for creating Red Sanders Anti-Smuggling Task Force. It is further stated that the heartwood analysis showed concentration of Santalin A and Santalin B which provide the red colour to the wood. Scientists of the Wood Science and Technology, Bangalore on analysis of the wood said that some rare earth elements like cadmium, Zinc etc. are found in the wood; but Bhaba Atomic Research Centre debunked the theory - red sanders produces coolants for nuclear plants. The theory of red sanders wood possessing radioactive elements is also rejected by the BARC.

The dreaded sandalwood smuggler Veerappan, who is alleged to have killed 2,000 elephants and destroyed the sandalwood forests in Tamil Nadu, Karnataka and Kerala, was shot dead by an IPS officer K. Vijakumar. The abduction story of Film Actor Rajkumar by the brigand is beautifully described in the 2nd Chapter. The Javadi Hills of Karnataka resemble the Seshachalam hills of Andhra Pradesh. After the death of the brigand, the wood cutters of Tamil Nadu turned to Seshachalam forest in Andhra Pradesh and they were paid Rs. 2,000 for a day's labour (P:28).

At the commencement of Chapter-III, a Police Officer's statement is recorded which reads: "Only 10 % of Red sanders logs that are smuggled

are seized, the rest 90 % escape officials". This statement seems true if the reader goes through the material painstakingly gathered by the Author. Dawood Shahul Hameed and Kollam Gangi Reddy are the kingpins of red sanders of smuggling (Their photos are printed on the page next to page32). While the former is hiding in Dubai and he could not be extradited; the latter is deported from Mauritius with the intervention of the Foreign Minister Sushma Swaraj and under the orders of Prime Minister Narendra Modi. We can imagine the enormity of the problem and the effort that has gone into the errand. To contain the harmful effects of the ecocide due to illegal felling of the red sanders selectively, indirect preventive methods were resorted to by arresting the culprits numbering 18 smugglers and sending them to jail under the Preventive Detention Act. These and other details lucidly make the matter gripping to read. The author has given the names of other smugglers including Chinese smugglers operating in India and China. It is interesting to note, (page: 59) that the interrogation of the accused was recorded in 45 CDs by the DFO Ravi Shankar and sent to the Union Ministry of Environment through the Collector.

With the ill gotten money, the smugglers of red sanders wood tend to lead amorous life and stories of such instances are fearlessly mentioned in Chapter-IV under the caption "Love, Sex and Scandal-wood". When such instances of promiscuous life are made public, officers get threat calls. Such unconscionable acts need to be put down with iron hand. In the next Chapter, the author described the modus operandi of different stages from the stage of wood-cutting to the stage of delivery of the wood to international smugglers. After Page 32, the routes to different destinations are depicted by a map. The goods sometimes are passed by the Customs Officials because of their conscious abetment or negligence (P.95). Official patronage must be discouraged resolutely. It is noted by the author that the smugglers

employed ingenious methods smuggling by land, sea, and air.

At Page 119 (Chapter VI), Sudhakar mentioned about 'A Complex Racket' and it is said that red sanders smuggling takes place under a complex racket. Tamil tribals come in large numbers from

Tiruvannamalai to Tirupathi. Local wood cutters work for A.P. smugglers while Tamil wood cutters are employed by Tamil Nadu based smugglers. If a wood cutter brings one log of wood of red sanders weighing about 25 kgs., he is assured of getting payment of Rs. 37,500. It is a 5-day operation.

Chapter-VII describes what is known as 'Chittoor Encounter' of 2015 in which 20 wood cutters got killed. This happened when the Anti-Smuggling Task Force were combing the forest and the Task Force opened fire in self defence. The incident had given rise to a controversy between Task Force Personnel and Social Activists. Chapter-VIII explores the intricate connection among elections, politicians and smugglers. The kingpin Gangi Reddy and his followers joined Naxalites group and attempted to kill the then Chief Minister Sri Chandra Babu Naidu. In Chapter-IX, the author traced the Chinese connection with India. In the last chapter, the author with the experience he gained about the red sanders made some useful suggestions which are worthy of consideration by the State and Central governments.

The book was launched by The Hon'ble Chief Justice of India Sri N.V. Ramana on 15.12.2021. In the course of his speech, he said that "Collective failures of the individuals and institutions with the role of protectors need to be highlighted by the media." The speech was full of words of wisdom and is an advisory to all concerned.

Some parts of the speech are excerpted below:

"The book is the result of diligent research and great amount of hard work put in by Sri Udumula Sudhakar

Reddy. He has been tracking the subject as a professional news reporter for nearly two decades. He travelled extensively in the habitat of red sanders which is a difficult terrain to walk through. He had first hand interaction with the key players of the smuggling racket and also those who struggled to enforce law."

"His book gives an insight into what has gone wrong with the fragile ecosystem spread over Chittoor, Nellore, Prakasam, and Kurnool districts of Andhra Pradesh. Red sanders thrived in this habitat till a few decades ago. Now it is facing the threat of extinction.....Sri Sudhakar explains how the high and mighty fuelled this project of destruction. The destruction is not only of the red sanders species, but also of the ecosystem as a whole."

".....Sudhakar Reddy made some very good suggestions for protection and conservation of red sanders and the Seshachalam ecosystem. It includes creating a conducive atmosphere for the cultivation, harvest and trade of red sanders."

"I have a suggestion to make; local people if involved in conservation efforts, will make a huge difference. Tiger Reserves and Wildlife Sanctuaries have benefited from engaging tribal (who are forest dwellers) as forest guards.....The authorities can try this method in Seshachalam by way of employing tribal and other forest dwellers as forest guards. Possibly the smugglers may find it difficult to attract them for the job of tree felling."

The book contains valuable information; it is worth its price. It may be interesting to read for all forest officers in service or retired. The book may be a valuable addition to all forest-office- libraries and libraries attached to forest schools and colleges in the country.

Rheumatoid Arthritis (R. A.) - III

Dr. N.V. Jayanth Babu



(Continued from the previous issue)

SUCCESSFUL AND PROVEN IN 'ETHNO BOTANICAL MEDICINAL PRACTICES' IN VOGUE FOR CURING RHEUMATOID ARTHRITIS (R.A.) - TO BE ADMINSTERED INTERNALLY / ORALLY-STEP – IV

(Any one of the below indicated formulae can be chosen as per convenience)

1. *Oroxylum indicum* (Bignoniaceae) Dundulim: Hot water infusion is to be made by mixing 5 grams of root powder in 60 ml of water and given twice in a day in 2 split doses for 15 days.
2. *Moringa concanensis* (Moringaceae) Kaarfu Munaga: For severe back pain in RA, 3 ml. of root juice is to be mixed in 50 ml. of goat's milk, add 2 grams of turmeric powder, 3 nos. Peppers powder, garlic cleft paste 1 no, mix thoroughly and given to be administered orally in the morning for 10 days. Only diet to be taken is hot rice with fried garlic and chillies powder.
(Extraction of Moringa root juice—Moringa roots are like tubers. Mud collected from ant hill is to be made wet and applied as a coating on the roots with uniform thickness of about 1 cm. and sun dried and to be kept the centre of dried cow dung weighing about 500 grams and burnt. After cooling the mud coat is removed the roots are squeezed to get juice).
3. *Derris indica* (Fabaceae) Kaanuga/ Gaanuga: 5gms Root bark powder is mixed in 100 ml of water, boiled to get 60 ml decoction and administered orally every day, in two split doses for 10 days.
4. *Alstonia scholaris* (Apocynaceae) Edakula paala: 5 gms Stem Bark powder is mixed in 30 ml. of goat's milk along with peppers 3 nos. powdered + garlic cleft 1 no. paste + a pinch of turmeric powder given orally for 10 days
5. *Zanthoxylumrhetsa*. Rutaceae (Rachhakarara): Decoction is prepared by 5gms mixing stem bark powder, garlic, pepper and turmeric powder in 100 ml of water boiled till to get 60 ml. of decoction, given in two split doses per day for 10 days.
6. *Alpine galanga* (Zingiberaceae) Dumparastam: Decoction is prepared with 5 gms rhizome paste, garlic, pepper, and turmeric powder in 100 ml of water to get 60 ml of decoction and given in two split doses daily, for 10 days.
7. *Albizia lebeck* (Mimosaceae) Dirisanamu: Decoction prepared by mixing 5 gms stem bark powder with garlic, pepper and turmeric powder in 100 ml. of water to get 60 ml and given in the morning and evening for 10 days.

(To be Continued)

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



Birthday Greetings
We wish the following born on the dates mentioned
"A Very Happy Birth Day"



| S.No. | Name of the Member | D.O.B. | S.No. | Name of Serving Officers | D.O.B. |
|------------------|------------------------|------------|------------------|--------------------------|------------|
| Sarva Sri | | | Sarva Sri | | |
| 1. | P. Upender Reddy | 05-02-1942 | 1. | V.S.N.V. Prasad | 10-02-1979 |
| 2. | B. Chandramouli | 08-02-1944 | 2. | Smt. R. Shiobha | 11-02-1962 |
| 3. | Abdul Aleem Md | 25-02-1951 | 3. | Chiranjeevi Chowdhary | 16-02-1965 |
| 4. | Vijay Kumar I | 23-02-1954 | 4. | Smt. A. Soni Bala Devi | 01-03-1974 |
| 5. | Mohd. Thayyab | 16-02-1956 | 5. | Sanjay Gupta | 05-03-1962 |
| 6. | Sultan Mohiuddin | 17-02-1942 | 6. | Smt. P. Shyamala | 12-02-1980 |
| 7. | Sharada Prasad | 20-02-1953 | 7. | P. Ramulu | 14-02-1963 |
| 8. | A. Kishan | 20-02-1952 | 8. | Ch. Suryanarayana | 15-02-1966 |
| 9. | A.V. Ramakrishna Rao | 23-02-1935 | 9. | M.S.J. Vasantha | 23-02-1980 |
| 10. | P. Rajender Reddy | 27-02-1956 | 10. | V. Krishna | 25-02-1966 |
| 11. | M. Anjaneyulu | 01-03-1954 | 11. | N. Kondal Rao | 02-03-1961 |
| 12. | L. Krishna Bhoopal Rao | 02-03-1942 | 12. | V. Saibaba | 04-03-1980 |
| 13. | V.V. Rajam | 02-03-1945 | 13. | S.P. Sultan | 04-03-1989 |
| | | | 14. | K. Vinod Kumar | 05-03-1979 |

- Secretary



OBITUARY**T. KRISHNA MURTHY**

(07.10.1928 – 26.12.2021)

TRIBUTE TO A GREAT FORESTER

Sri T. Krishna Murthy, an upright, honest to the core and straight forward Forest Officer respected for his integrity & professionalism, bade farewell to this world on 26th of December 2021 at the ripe age of 93. He was born on 7th of October 1928 to Sri Anantha Saina Rao and Smt. Rangamma in Hyderabad. His father was a Head Patwari, so also his Grand Father Sri Hanumantha Rao.

He did his schooling from a small village Angadi Raichur of Gulbarga District of the Nizam's Hyderabad State. He did M.Sc. in Botany from Osmania University in 1950 and worked as a Lecturer in Botany for a brief period during 1950-51.

He got into Forest Service in 1951. He had worked as an Assistant Conservator of Forests (ACF) in Tandur and Vikharabad, and as DFO Gulbarga in the erstwhile Hyderabad State, from 1954 to 1956; & after re-organization the States on linguistic basis, he was allotted to the State of Andhra Pradesh. He had worked as DFO of Paloncha, Cuddappah North and Cuddappah South Divisions and Working Plan Officer (WPO) Nizamabad.

He has the distinction of working as Officer in-charge of the Minor Forest Produce in Forest Research Institute & Colleges, Dehradun for almost 10 years between 1961 & 1973. During this period, he was a Member of the Spices & Condiments Committee of the Indian Standards Institution (now renamed as Bureau of Indian Standards); a Member of the Indian Medicinal & Aromatic Plants Committee of the Indian Council of Agriculture Research; the Convener of the Sub-Group on NTFP of the National Council on Science & Technology and Member of The International Union for Conservation of Nature & Natural Resources (IUCN).

He did Post Graduate Training in Forestry in 1966-67 on Commonwealth Fellowship to Commonwealth Institute of Forestry, Oxford University, United Kingdom. On return from Oxford, he worked as DFO Nadyal for a year and again sent on deputation to Forest Research Institute (FRI), Dehra Dun as In-charge Minor Forest Produce (MFP) Department.

On return to the State, he worked as Conservator of Forests of Adilabad Circle, and Warangal Circle till 1982. He was again sent on deputation to the GOI as Conservator of Forests, Eucalyptus Research Centre, Hyderabad in 1983 and worked in this post for a year. In 1984 he was promoted as Additional Chief Conservator of Forests (Head Office). Same year he was promoted to the rank of Chief Conservator of Forest (CCF) and posted as CCF (Social Forestry) and later as the Vice Chairman & Managing Director of the Andhra Pradesh Forest Development Corporation (APFDC).

He was promoted as the Principal Chief Conservator of Forests (PCCF) in 1985, where from he retired in October 1986.

After retirement also he was a very active Forester and his experience was utilized as an Expert & Consultant to National Council Applied Research, Waste Land Development Board, Government of India from 1987 to 1991

for Evaluation of Rural Fuel wood Plantation Projects in Rajasthan & Mizoram and also rendered services as Advisor (Forests) at Tribal Cooperative Marketing Federation (TRIFED). He had worked as National Consultant under UNDP/ICFRE project to review the research and to consolidate the Institute of Forest Genetics & Tree breeding, Coimbatore from 1991 to 1992.

He had authored a book on the “Minor Forest Products of India” published by Oxford & IBH Publishing Co. Pvt. Ltd. The Society of Foresters honoured him for a “Lifetime of Dedicated Service to the cause of Forestry” in 1994 at Dehra Dun. He received the Bharat Jyoti Award in 2011, the Best Citizen of India award from the M/s International Publishing House in 2012 and the Glory of India Award from the Best Publishing House in 2017.

He was fully satisfied with his career and life and grateful to the God for the same. He had a word of advice for the present-day Foresters; that they should work hard with honesty and diligence. Protection of the existing natural forests and re-clothing the denuded forests should be the matter of prime concern and all out efforts be made for the conservation of water.

Truly a great Forester and human being. Following his advice and implementing his wish will be the real tribute to the departed soul! Om Shanti!!

- Paresh Kumar Sharma

OBITUARY



P.V. RAMANA KUMAR

(16.05.1956 – 29.12.2021)

We are deeply grieved at the sad demise of Sri P.V. Ramana Kumar, Divisional Forest Officer (Retd.), who passed away on 29-12-2021 at Eluru. His untimely death has shocked his friends and well-wishers and brought out waves of condolences messages, a sign of his popularity as an officer and a gentleman.

P.V. Ramana Kumar was born to Sri P.Janardhana Rao and Smt P. Seshamani in Eluru. He belongs to the 1976-78 batch of Forest Range Officers trained at SFRC Coimbatore. He was born on 16-05-1956 in Eluru. He had his entire education at Eluru right from schooling to college (Sir C.R. Reddy College) before joining the forest service in 1976.

He was a good artist, painter, and best photographer. While he was in SFRC, he used to exhibit his talent.

After completing Forestry training and practical training, he started his service in 1979 as FRO, wildlife range, Eluru. He had a successful and satisfying career as Forest Range Officer and DFO in the department. Beginning with his career as FRO, Wildlife Range, Eluru, he worked in West Godavari, East Godavari, Krishna and Khammam districts. He worked as FRO in DET Koyyalagudem, Research-Eluru, Yellandu (as Instructor in Forest School), Social Forestry, Machilipatnam and Nuzvid, G.I.S Rajahmundry, Wildlife Kakinada, Territorial Range Mylavaram.

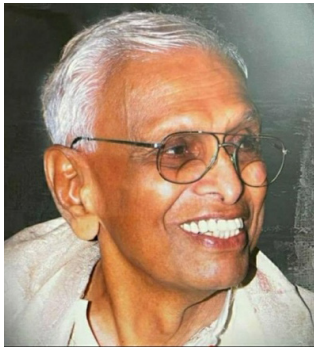
After Promotion as Assistant Conservator of Forests, he worked as Sub DFO, Vijayawada Division. Later he worked as Divisional Forest Officer, Wildlife Management Division Rajahmundry, where he retired in 2014.

Ramana Kumar was loved and respected by everyone because of his good and helping nature. It is strongly believed that no person in the department will think or speak ill of him. He was a calm and generous person by nature. For this reason, it was a shock for everyone when he passed away. He left behind his wife, daughter, and son.

Let us together pray that his soul rests in peace and give his family the strength to bear this terrible and untimely loss.

- D. N. Gopal Rao

OBITUARY



A.V. RAMAKRISHNA RAO

(1935- 2022)

A.V. Ramakrishna Rao was born with the fundamental desire for learning, which shaped his life in every way and allowed him to overcome his humble beginnings. Financial constraints prevented AVRK Rao from realizing his first dream of becoming a doctor.

However, meeting every circumstance with grace and an insatiable thirst to do his best, he deftly switched gears, completing his BSC, Honors at Andhra University with a gold medal in botany. Afterwards, he successfully passed the Indian Forest Service exam and attended Forest College, Dehradun from 1958 – 1961, embarking on an exciting career with a group of batchmates who would eventually become lifelong soulmates.

In 1962, AVRK Rao began his career as a Divisional Forest Officer (DFO) with postings in Nellore, Mancherial, Vijayanagaram, Rajahmundry, and Hyderabad. His work here brought him quick recognition and identified him as the right officer for the newly formed AP Forest Development Corporation (APFDC). He helped formulate good schemes in this area. He continued his career in Delhi in the Ministry of Environment and Forestry. He returned to Hyderabad as the Chief Conservator of Forests, where he was instrumental in drafting the CIDA Assisted Forestry Project. He was also primarily responsible for the computerization of Hyderabad's Forest Department. Finally, in 1992, he retired as the Chief Conservator of Forests, Hyderabad. After retiring he served as a consultant to the World Bank with projects in wasteland management. Throughout this estimable and outstanding career, and long after, he was known for his integrity, sincerity, and the respect he accorded to every individual he met.

During this time, he also pursued many other passions, exploring his love for sports, excelling in tennis, badminton, carroms, billiards and chess. He was also an avid reader with a wide range of literary interests, a love he instilled in his young wife and children. Additionally, he was a wonderful writer, with a lovely penmanship style that often appeared in editorials, commentaries, and obituaries in journals like Forest College over the years. Another hobby of his was drawing cartoons, and over time, he became notorious for his quick caricature of Indira Gandhi. Exercising his quick mind with Sudoku and crossword puzzles was yet another beloved pastime. His wide interests in various fields, including Science, Math, and Computer Science, never ceased to amaze people. His love for technology, gadgets, and everything that indicates progress amounted to legend.

among his family and friends. After he retired, he lived his days traveling with his wife, spending time with his children and grandchildren, and continuing to read, learn, and teach his various interests, instilling his passion for learning into every member of his family. His favorite pastime was to spend long hours playing pool and carroms with his son-in-law and his friends into the wee hours of the morning, even after his mobility became limited. He also loved having long conversations about plants, trees, and animals with his attentive sons-in-law and grandchildren.

On September 7, 2021, AVRK Rao suffered a stroke that left him incapacitated. Through sheer grit and force of will, he survived four more months before succumbing to complications from aspiration pneumonia. He had the fortune to be surrounded by his family, including all three children, during these difficult months. On January 8, 2022, he passed away in great peace at his home in Hyderabad in the arms of his son.

He is mourned by his wife of 60 years, Smt. Anasuya Devi, three children: Murali, Gautami and Geethika, six siblings whose careers and ambitions he helped realize, five granddaughters whose childhood he filled with love and learning, and a slew of other family members and friends who recognized and embraced the stature of a man who never forgot his beginnings or his passion for learning.

- V.J.N. with Murali, Gautami, Geethika

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- **Italo Calvino**



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Painting: D. Nagabhushanam, IFS (Retd.)

Erukala Sani (Tribal soothsayer of AP & TS)

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