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Climate Change: Pushing towards Noah's Ark :

India's wildlife has been facing an existential crisis. On one hand their habitat is usurped by Government for infrastructure creation and industrial promotion and on the other hand the remain few wildlife are hunted down by people.

While the leaders of many countries are busy rabble rousing and erecting walls across their borders, the fact that the future of mankind is in grave danger is virtually forgotten.

59 scientists from 17 countries sieved through past data on temperatures of earth from three warm periods in the previous three and half million years in which the temperature of earth was anywhere between half to two degrees above the pre-industrial revolution temperatures of the 19th century and have projected that sea levels can rise by six meters more than what the current climate based models have predicted for 2100. This research findings have been published in Nature Geoscience (*Palaeoclimate constraints on the impact of 2 °C anthropogenic warming and beyond*, Fisher Hubertus et al., *Nature Geoscience* volume 11, July 2018)

The scientists found that during the sustained warmer periods in the past the impact on the ice sheets in Greenland and Antarctic was massive. Our current models had got this data wrong and the sea levels during that time was much higher.

The researchers now closely examine three documented warm periods viz the Holocene thermal maximum, the last interglacial and the mid-Pliocene phase. These periods were 5000-



Artic Forest Fire

(Image credit: TT News Agency/Maja Suslin via REUTERS)

Cover Page Photograph:

Forest Fire
by Sabyasachi Patra



9000 years ago, 1.16 lakh to 1.29 lakh years ago and 30 lakh to 33 lakh years ago respectively.

According to scientists the Holocene thermal maximum (5k-9k yrs ago) and last interglacial (1.16lakh to 1.29 lakh yrs ago) were caused by changes which occurred to the earth's orbit. The mid-Pliocene era had witnessed carbon concentrations in the air which is comparable to modern era. However, it would also be pertinent to mention that all the three eras had witnessed slower rate of global warming with the greenhouse gas emissions by our modern lifestyles being the differentiator.

The fact that sea level will rise by 6 meters (19.68 feet) means most of our coastal areas and cities like Mumbai, Kolkata, Chennai etc will be drowned. Many countries in the Pacific will be completely submerged. So this is really shocking news because the debate about containing the temperature rise to 2 degrees has made a lot of people believe that it is just a small number and mean nothing much. Some Government leaders even mistakenly believe that the 2 degrees rise means fiddling with some buttons more in the indoor Air conditioners. The complexity of the impact across ecosystems and the magnitude of the impact on the melting of sea ice and the final rise in sea levels is mind numbing and clearly needs to be told to the leaders like Trump who either don't believe Climate Change or other leaders of developed countries who are simply shirking away from their responsibility.

There would be a few conglomerates who are dependent on fossil fuels and they will try to protect their interests by denouncing this study. However, it would be foolish to do that. The Arctic is literally burning. In July, 2018 there have been confirmed reports of 11 wildfires in the Arctic Circle. The Scandinavian countries of Norway, Sweden, Finland and parts of Russia are also witnessing forest fires. They are resorting to using planes for dropping water to contain the forest fires.

Several years ago my trip to Arctic Circle in Finland had got derailed due to delay in winter and very less snow. Still it was unthinkable for me to take off my gloves and shoot. In a few years the same places getting wildfires shows how bad the situation has been. Scientists may argue over their models, however, for the people living there the signs are unmistakable.

The spectre of climate change is already impacting USA whose political leadership is now discrediting it. Already many coastal towns in USA are feeling the impact of rising sea levels. The challenge is that this rising sea levels will hit us in unexpected manner. For eg. many internet data cables were rolled out in USA along the coast roads which were never imagined to go undersea. Now with this huge rise in sea levels, the first impact would be massive disruptions to the data cables which will immediately hit the internet. With our lifestyles so integrated and dependent on internet, the disruption will just bring us to standstill. There is no Option B

which have been planned at that time. So consequences will be severe.

So the global leaders should urgently call a new post-Paris summit to take these numbers into consideration and admit that the carbon budget to avoid 2 °C warming of earth is completely inadequate. So a new framework and responsibilities need to be drawn on an urgent basis. Unfortunately, who will educate these leaders who simply refuse to protect our tomorrow?

Closer home: A Tale of Three Cities - Blinkered vision

Whereas one may lead to believe that the global leaders, especially those of the developed world, are to be blamed. However, our homegrown leaders too have blinkered vision as far as climate change and its impact is concerned.

Our current Prime Minister Mr Modi may have joked about climate change being felt only by the elderly people and laughed off such a serious issue. However, it is the scant attention paid by the Chief Ministers of various states and the authorities which is making the impact worse.

Climate change is like AIDS. It hits based on whichever area/systems/process is weak. In his seminal book *The Great Derangement: Climate Change and the Unthinkable* (<https://www.indiawilds.com/diary/the-great-derangement-climate-change-and-the-unthinkable/>) Amitav Ghosh correctly points out that the modern planning is exacerbating the impact of climate change. Man always had a degree of fear and reverence for the sea. Though people used to go to the sea for fishing or for traveling to distant lands, they never built large settlements very close to the sea. *“The great old port cities of Europe, like London, Amsterdam, Rotterdam, Stockholm, Lisbon and Hamburg, are all protected from the open ocean by bays, estuaries, or deltaic river systems. The same is true of old Asian ports: Cochin, Surat, Tamluk, Dhaka, Mrauk-U, Guangzhou, Hangzhou and Malacca are all cases in point. It is as if, before the modern era, there had existed a general acceptance that provision had to be made for the unpredictable furies of the ocean – tsunamis, storm surges and the like”*. However, today, a number of our major cities are built close to the sea and further expansion happens by reclaiming land. To make matters worse the cities like Bombay, Calcutta, Madras etc. were designed to cater to a far less number of people. Unfortunately, due to lack of planning as well as lopsided growth of our country, our cities are becoming bigger and bigger. So the civic infrastructure is crumbling. The drainage system which was originally designed for a far lesser number of people has to cater to a much larger number of residents. And the green areas have all been concretised. The wetlands have been reclaimed. So when there is rain the water can't simply drain into the river or sea or absorbed through percolation into the ground in the marshy areas.

Despite the Mumbai rains of 2005 leading to lot of planning, the projects have failed to be completed. So every year during rains, Mumbai cries. Amitav Ghosh in his book correctly raises the bleak scenario of the city facing a major storm, as storms are becoming the norm due to climate change. He asks *“What might happen if a Category 4 or 5 storm, with 240 kmph or higher wind speeds, were to run directly into Mumbai?” “Many of Mumbai's tall buildings have large glass windows; few, if any, are reinforced. In a cyclone, these exposed expanses of glass will have to withstand not just hurricane-strength winds but also flying debris. Many of the dwellings in Mumbai's informal settlements have roofs made of metal sheets and corrugated iron; cyclone-force winds will turn these, and the thousands of billboards that encrust the city, into deadly projectiles, hurling them with great force at the glass-wrapped towers that soar above the city”*.

However, the Government in this State in the West Coast of India as well as Central Government doesn't seem to be overtly concerned as there is more discussion on creating the worlds tallest statue in the middle of Arabian Sea by reclaiming land. The statue of Shivaji riding a horse with sword in hand is hoped to be a more emotive issue for the state and influence vote banks rather than securing the future of the residents of Mumbai.

For the last few years the hashtags #MumbaiRains along with #ChennaiRains trend during the rainy season. Despite a few thousand kilometres separating these two metros and both lying in different coasts, life in both these two cities come to a standstill during the rains. The Government in this southern state of Tamil Nadu too has other pressing things in mind than climate change as the Government is trying to somehow hold on to power. When survival of the Government is at stake who cares for Climate Change?

A month or so ago heat waves were killing people in Odisha in the eastern Coast of India and now its capital city Bhubaneswar is drowning. Such rapid change of climate from one extreme to another is throwing life into tatters. On 22nd July morning, people in Odisha woke up to the news that Odisha had recorded an average rainfall in the state of 81.3mm in 24 hours with the highest being in the town of Burla in western Odisha where it rained 622mm. This had broken the 36year old record of Odisha, reminding many of us of a time when Odisha had witnessed massive floods in the rivers with trains and road traffic disrupted and many lives and livelihoods lost forever.

Unlike some other states Odisha has got a stable government with Chief Minister Naveen Pattanaik ruling the state for 4 terms. His Government had shown admirable efficiency in handling the super cyclone Phailin a few years ago. However, when a few days ago the city was flooded with cars being washed away, it was not a sign of a smart city.

Like all other State Governments, the Odisha State Government too hasn't focused on urban planning. The capital city of Bhubaneswar has grown in all directions and have virtually touched Cuttack and Khordha. The 26 km distance between Bhubaneswar and Cuttack was divided by river and wetlands. However, there have been rapid land reclamation and concretisation. Many years ago when the National Highway between Bhubaneswar and Cuttack was four-laned there were reports of hyenas found in the area and beaten to death by the road workers. There were also reports of leopard, jackals etc. Now all we see is concrete jungle on both sides of the road. Earlier the wetlands used to absorb the rainwaters. Now when it rains, there is no place for the water to go. So flooding is the natural consequence.

With Climate Change, the incidences of sudden heavy rainfalls will be more frequent. Since human greed, lack of planning coupled with authorities often turning a blind eye to the real estate mafia encroaching and reclaiming wetlands, the channels for rainwater is closed. The State Government will have uphill task to recreate a drainage system. We don't have much hopes given the pace at which the bureaucracy works and the corruption and lack of planning in the system. The situation in other cities and states in India is similar. So urban flooding is there to stay. Soon there will be time when people will be forced to abandon the big cities and start moving away to smaller places. Not everyone can take that option. There will be mayhem.

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Inter-state Tiger Relocation to Satkosia faces headwinds:

A male tiger (*Panthera tigris tigris*) have been relocated to Satkosia tiger reserve from Kanha Tiger Reserve on 21st June 2018. This is the first incident of tiger relocation across states. Till date tiger relocation has been within a particular state. This is the first instance of a state agreeing to relocate its tigers to another state. The male tiger code named MB-2 is reported to have settled in well. So a week later on 28th June, a 27 month old tigress code named T-412 have been sent from Bandhavgarh to Satkosia.

The plan was to relocate three pairs of tigers to Satkosia in two years time. However, the future of this relocation project is not known as the locals have staged a massive protested in Angul in front of the district collectors residence under the banner of Satkosia Khatigrasta Surakhya Samiti. The locals fear that their livestock will be destroyed by the tigers. They accuse the authorities of closing certain roads inside the forest. They have even threatened to kill the tiger if their demands have not been met. These fears have been partially fuelled by vested interests who have spread the rumours that these tigers are known to attack people. The villages in and around Satkosia are used to hunting. Even today one can get Sambar meat is sold in Balanga, Tikarpada, Purunakote and a few other villages. Introducing tigers also leads to a fear element for the poachers who enter into the forest to set traps. The forest department has to up their game to prevent poaching and nabbing the culprits.

Taking note of the demonstrations by people, the Madhya Pradesh Government has reportedly put the relocation project on hold. The third tiger which was to be shifted to Satkosia from Kanha is now being shifted to Sanjay Duburi National Park instead.

Though Satkosia has been declared as a Tiger Reserve, there are number of villages inside the forest. Earlier the preybase had depleted due to rampant poaching and anthropogenic pressures. In 2013 during an all night vigil in the labangi watch tower in core area resulted in sightings of a grand total of three herbivores and that too one each of Sambar, spotted deer and barking deer. Later a tiger from Satkosia wandered faraway from its home and entered into the Nandankanan Zoo where it was trapped and kept despite protests from conservationists.

The preybase in Satkosia now has reportedly bounced back. Nevertheless the grazing of cattle still continues and the villages are there. Relocation of villages is a time consuming affair and it needs money and will power. These days there is a concerted effort to grab land. The cost of land is increasing. The villages also have schools and other facilities inside the forests. So the villagers want to remain within the forest. Unlike the past when the number of people in each village was less and people used to coexist with wildlife, today the population of people has grown exponentially. The standard of living has also increased and the way of life has changed. So has their beliefs in peacefully coexisting with wildlife. So conflict is inevitable. If the Satkosia Tiger Reserve authorities and the Odisha Government back down then this will be the end of Satkosia as a tiger reserve.

The authorities have to do a massive PR exercise to educate people the benefits of having tigers in a forest as that would

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attract more tourist revenue. There is already a programme to have tourists inside the reserve with the participation of local people. However, people need to be told that the number of tourists will increase and the income of people is likely to go up. If there is any livestock killing then the forest department will immediately provide compensation. More of local people should be taken under contract as watchers. That would provide them employment as well as help in securing the forests.

The Odisha Government have to assure the Madhya Pradesh Government that the safety of the tigers will be ensured and the tiger relocation programme should be restarted.

Plan to Kill Jackals in Kolkata Airport:

The Kolkata airports authority plans to kill the jackals found in the Kolkata airport. The Jackals are protected species under the Wildlife Protection Act 1972 and any such move needs to get prior approval from the wildlife board. However, in the past few years getting approval to kill wildlife under the pretext of crop depredation or threat to humans have been easy and leopards, tigers, nilgai, monkeys, wild boars etc have been routinely killed.

There are an estimated 100 jackals in the airport. Given the porous walls of the airport, it is easy for them to sneak in. Jackals also can dig burrows under the wall and enter into the airport. Jackals are intelligent animals and the traps laid in the airport have failed to capture them. They are highly territorial and if they are captured and relocated, then they will increase the conflict in the area where they were relocated and will always try to come back.

The noise and vibration due to flights taking off or landing will ensure that the jackals will not be on the runway. However, the jackals have been reportedly sighted close to the runway areas so the airport authorities want to remove them. Till date there have been no behavioural studies done on jackals. Instead of killing them it would be important to radio collar a few of them and study their movement patterns and interpolate with the flight take off and landing. That will give a very good idea about the jackals and if they are going to be a potential threat to flight operations in the airports.

Massive Ground water depletion in India:

Many civilisations have perished due to lack of water. Entire cities had been deserted by people when suddenly a river changed its course or dried due to successive droughts. Our modern cities and towns have grown exponentially and the water harvesting structures are not a focus area these days. The various municipal corporations allow extraction of ground water and charge the industries accordingly. However, the efforts to replenish the ground water levels is few and far between. This has now shown up in the data of Central Ground Water board (CGWB).

While answering a question in the Lok Sabha the Arjun Ram Meghwal, Union Minister of Water Resources has replied that the water levels in close to 61% of wells in India has fallen between the 2007 and 2017 levels. The CGWB had studied the

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water levels in 14,465 wells out of which the water level fell in 8785 wells. The water levels rose only in 5609 wells and there was no change in 71 wells. Pondicherry and Chandigarh showed maximum reduction in ground water levels with 90-100% of wells showing decline. Tamil Nadu wells showed 87% reduction which was followed by Punjab with 85% reduction and Kerala, AP and UP showed atleast 70% decline.

Though the number of wells surveyed is a miniscule percentage of the total number of wells in this vast country, it is a good indicator of the overall health of the ground water level in India.

The minister had said that extraction of ground water for irrigation is the major reason for the groundwater depletion. The Minister for Water resources, Mr Meghwal then went on to blame the individual states “While regulation and conservation of ground water is a state subject, the central government is carrying out awareness camps at locations where over exploitation has been identified, both at the urban and rural levels through several schemes. We are telling citizens to harvest rain-water through traditional means”.

Unfortunately, there is little synchronisation between the Agriculture Ministry and the Water resources ministry. The Agriculture Ministry’s expert panel had earlier found that though the States like Punjab, Haryana are supposed to have high per acre productivity of rice, when their productivity vis-à-vis water use is compared they are found to be water guzzlers.

The **Commission for Agricultural Costs and Prices** in its report titled “**Price Policy for Kharif Crops, The Marketing Season 2016-2017**” clearly states the fact that Paddy Cultivation in Punjab is not water efficient. (page 33)

*“Land productivity, i.e. production per unit of area, reflects only one dimension and ignores natural resource like water, which is becoming scarce. Punjab has the highest rice productivity (39.29 qtl/ha), followed by Haryana (32.12 qtl/ha) and Andhra Pradesh (30.45 qtl/ha). The per hectare water use by irrigation in these states is 161.78 lakh litre in Punjab followed by Tamil Nadu (137.50 lakh litre) and Uttar Pradesh (102.00 lakh litre). As against these states, per hectare water use by irrigation in Assam, West Bengal and Bihar is 50 lakh litre, 59.86 lakh litre and 66 lakh litre, respectively. If water consumption is measured in terms of per kilogram of rice, West Bengal becomes the most efficient state which consumes 2169 litre to produce one kg of rice, followed by Assam (2432 litre) and Karnataka (2635 litre). The water use is high in Punjab (4118 litre), Tamil Nadu (4557 litre) and Uttar Pradesh (4384 litre). It shows that the most efficient state in terms of land productivity is not necessarily the most efficient if irrigation water is factored into. This is because of high rainfall in the eastern region. **Given that water tables in various states are depleting very fast, there is an urgent need to improve water use efficiency.***

The country’s farm sector alone accounts for 83 percent of total water use. It is, therefore, imperative to augment the water productivity. Subsidizing electricity for agriculture in some states leads to its over use. The Commission in its previous report recommended metering electricity/water for their efficient use and reward farmers through cash incentive equivalent to unused units of water/power at the rates of their domestic resource costs. The Commission reiterates direct interventions in order to encourage the farmers to adopt water efficient practices like drip and sprinkler irrigation.” (For

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more check: <https://www.indiawilds.com/diary/deadly-delhi-smog-agricultural-policy/>)

The Union Government has to wake up to this massive groundwater depletion and immediately implement water harvesting as well as bring out changes in agriculture by ensuring that procurement of water guzzling crops will only be done based on water efficiency and from climatically suitable states. That will put an end to arid or semi-arid areas using water from canals and groundwater to grow water intensive crops and go back to crops that are more suitable to their own areas. A mix of legislation, awareness, change in cropping pattern will be a big help.

Fishponds and Excavation work threatening Chilika Lake:

Chilika lake which has a minimum surface area of 900 sq. kms is India's largest brackish water lake and also it hosts the largest number of migratory birds in winter. It is also a wetland of international importance under the Ramsar convention. Unfortunately, the fragile ecosystem of Chilika lake is now threatened due to the large scale construction of fish ponds and other excavation work in the villages dotting its shoreline.



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These fish pond constructions are supposed to increase the fish production and hence expected to enhance the livelihood options of people living in the area. However, these largescale excavations have a huge impact on flora and fauna species of Chilika lake and no systematic studies or impact assessments have been conducted.

It would be pertinent to mention that there had been interventions in Chilika lake earlier like opening of a second mouth to

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the sea primarily from the perspective of increasing fish productivity. So smaller excavations at many locations in the villages may have either gone unnoticed or may have been dismissed as trivial without examination. There has been no studies done to examine the impact of these largescale excavations.

According to Wild Orissa, an NGO working to save the fragile ecosystem of Chilika lake as well as other wilderness areas of Odisha, *“the Northern Sector is the largest and also the shallowest area in Chilika with diversified flora of both emergent and submergent types. It is primarily a freshwater zone and the abundance of phytoplankton is comparatively poor here. In the Northern Sector, the major macrophytes weighed for biomass studies were Phragmites karka, Potamogeton pectinatus, Potamogeton natans, Eichhornia crassipes, Schoenoplectus littoralis, Hydrilla verticillata, Vallisneria sp. Among them Phragmites karka was the most dominant species. In 43 species, the number of birds recorded exceeded their 1% biogeographical population. The role of Chilka in maintaining the global population of major wintering waterfowl and wader species of India was recognized through population estimates of individual species.”*



The role of waterfowl in the fisheries of Chilika is often not understood and hence goes unappreciated by people. Birds feed on the plants and their guano helps in nutrient recycling. Birds feed on the vegetation and this helps to maintain the fresh sprouting of tender shoots and leaves with rich proteins and also control the excessive growth which in turn decomposes faster. This fresh growth benefits the fish and invertebrates. Thinning of vegetation by the waterbirds also enables the free movement of fish in dense vegetation area as well. The guano of the birds helps to recycle the nutrients back to the ecosystem. The amount of guano deposited into the Chilka ecosystem by the waterfowl (ducks and geese) is estimated to be around 33.8 tons of Nitrogen and 10.5 tons of Phosphorus, which could be the major factor for the high biomass production of macrophytes and the lucrative fisheries of Chilka.

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This delicate balance of vegetation, birds, fishes and other invertebrates is going to be destroyed due to the large scale excavations. Since many bird species nest in these vegetation and/or use these thickets for resting, the excavation work is going to immediately threaten their numbers as well as their breeding. There have been previous instances of large scale fishpond constructions in Krushnaprasad and Brahmagiri Blocks of Chilika Lake in Puri District which had resulted in loss of habitat for birds and many other species including Fishing Cat, Otters, etc. Recently construction of "fish ponds" and excavation works is happening in Bhusandpur, Sundarpur, Mangalajodi, etc. areas of Chilika. Large scale machinery is being used for excavation and other earth works.

Alarmed by these large scale excavations Wild Orissa has petitioned the Hon'ble Chief Minister to immediately order the constructions to be stopped. Permission for any such fishpond construction should be given only after conducting a through Biodiversity impact assessment. This should be a wakeup call for the Government to set up minimum norms for conducting fisheries and aquaculture in Chilika lake so that the delicate ecosystem is not harmed. The Government should also support long-term multi-disciplinary research on the overall biodiversity of Chilika so that any emerging threat to this fragile ecosystem can be tackled before it reaches alarming proportions. We hope the Odisha Government will immediately take action to protect the Chilika lake from this big threat.

High Pollution Levels in Delhi forgotten as it starts raining

In June the Union Environment ministry had issued a statement that the high pollution Levels in Delhi was mainly due to the dust storms from Rajasthan. Rajasthan in June was facing extremely dry weather conditions, with high temperatures and wind speeds.

The wind direction in Delhi since June 10 has changed to West and North West and then since June 12 to West and South West, due to which hot air, along with dust from Rajasthan has started moving into Delhi. According to Indian Meteorological Department (IMD), the current surface winds in Delhi are in the range of 5-6 m/sec and wind direction is West to South West. So expecting that the dusty conditions will prevail in Delhi over the next three days, the Ministry had alerted major construction agencies, municipal corporations and Delhi Pollution Control Committee (DPCC) to ensure water sprinkling, as required. Within a month the situation has changed with the advent of rains. Now Delhi is grappling with traffic jams due to the waterlogged roads.

So the high pollution level of the previous month has been forgotten. Since it is the rainy season the Government should take the opportunity to plant more trees to augment the green cover. Earlier the green cover in Delhi used to stop the dust storms from entering delhi. Unfortunately the Delhi ridge forest is virtually destroyed. A lot of farm houses as well as industries have come in. There is illegal mining as well. So the tree cover required to stop the dust storms is not there. If the Delhi Government along with the Union ministry doesn't take long term view then this problem will continue every year.

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Climate Change is a Moral & Ethical Responsibility: Dr. Harsh Vardhan

Action on climate change is a moral and ethical responsibility for India and the country is working to achieve its obligations as per Common but Differentiated Responsibilities (CBDR) principles. This was stated by Dr. Harsh Vardhan, Minister for MoEF&CC while inaugurating the 16th Workshop on Greenhouse Gas Inventories in Asia (WGIA16). He stressed that while efforts of experts are necessary, there is also a need for an active involvement of people in the fight against climate change. “We have committed to achieve 175 GW of installed capacity of renewable energy generation by 2022. We are firmly on path to achieve these targets. Other policy initiatives of the government include increasing penetration of LEDs, 5-10% Ethanol blending in petrol, increasing efficiency of coal power plants, and more efficient public transport”, Dr. Harsh Vardhan said. He also referred to the decision to leapfrog from Bharat Stage IV (Euro IV) to Bharat Stage VI (Euro VI) standards for vehicular emissions by 2020. The Minister stated that as per the Paris Agreement, there is a need to enhance transparency in reporting, which is possible only through adequate finance and capacity building. “This workshop is a right step in that direction”, he added.

The Minister underlined that India is concerned about climate change and is committed to global action aimed at mitigating the adverse impacts of climate change. He referred to two more meetings on climate change scheduled for this month - India-Japan Climate Change Policy Research Workshop and India-Japan Joint Credit Mechanism Meeting.

The Environment Minister outlined Green Good Deeds, Green Good Behaviour, Green Good Practices and Green Social Responsibility being promoted amongst different stakeholders and accepted at various international forums, including BRICS Environment Ministers meeting recently. Dr. Harsh Vardhan urged the participants to perform one Green Good Deed every day and become its strong messenger and votary in transforming individual Green Good Deeds into a mass movement in all the participating countries.

Speaking on the occasion, Director General of Forests and Special Secretary, MoEFCC, Dr. Siddhanta Das, said that India is well poised to meet the target of creating an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by the year 2030. In this context, he pointed out that one of the efforts undertaken by the Ministry is to undertake plantation activities in areas outside forest and in river catchment areas.

Charge d'affaires ad interim, Embassy of Japan in India, Mr. Hideki Asari said that India has emerged as a leading voice in the field of environment, especially after the announcement to achieve 175 GW renewable energy capacity by 2022, setting up and coordinating International Solar Alliance, hosting of World Environment Day 2018 and a number of similar initiatives. He also shared recent climate change policy initiatives undertaken by Government of Japan.

WGIA is an initiative of Government of Japan to improve the quality of Greenhouse Gas Inventories of Asian countries by building capacities through training and exchange of experience. A reliable and robust inventory is the backbone of climate action. Such efforts will contribute towards meeting the requirements towards enhanced reporting and transparency as required under the Convention and its Paris Agreement. 15 countries including Brunei, Cambodia, China, India, Indonesia,

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Japan, Republic of Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand and Vietnam are WGIA members and around 100 GHG inventory experts from these countries participated along with representatives from UNFCCC, IPCC, FAO and other specialized agencies. India is hosting WGIA for the first time.

High end tourism to start in Lakshadweep Islands:

Indian Government is planning to develop 12 islands in Lakshadweep and is planning entry to these islands to only high-end tourists. The number of tourists will be contained to ensure that the tourism pressure doesn't harm the ecologically fragile islands. The tourists who can only visit these islands on prior bookings will be given unrestricted access to the entire islands. Parts of the islands will be cordoned off to ensure segregation of locals from the tourists.

The Government is reportedly planning to create capacity of 150 rooms in the first phase in association with Private partnership. These will come up both in human habitated as well as uninhabited islands. A majority of this ie 84 rooms would be in the islands of Bangaram and Suheli. The work in the first phase will start in Minicoy, Kadmat, Agatti, Chetlat, Bitra, Bangaram, Thinakarra, Cheriyan, Suheli and Kalpeni island.

According to the plan resort owners who exceed their allocated quota of rooms would be penalised and their licences would be cancelled to ensure that there is no crowding of resorts in the islands. However this is easier said than done. Especially since these islands are so far from the mainland, any violations of rules as well as destruction of the fragile ecosystem of the coral islands is difficult to monitor. A seaplane service is also reportedly in the offing.

Equipment Discussions -

Nikon Launches 24-3000 mm superzoom compact camera :

The Nikon Coolpix P1000 has a massive 125x zoom corresponding to 24-3000mm in 35mm terms. As a wildlife filmmaker and photographer we are always limited by our focal length. At times despite our longest telephoto lens and TCs the subject is far away and something interesting is happening or identification of the species is difficult. Nikon P1000 promises to resolve that problem. That is the single most important reason to keep this camera in your bag. We haven't tested this camera to know how good the quality of the files are. Nevertheless, it would be an interesting bet for specific situations.



Massive 125x Zoom:

With an incredible 125X optical zoom (24-3000mm equivalent) powered by high performance NIKKOR optics; the P1000 is the ideal companion camera for birding, sports, wildlife and celestial-photographers seeking superior performance from extreme distances. Beyond its incredible zoom range, the versatile 16-megapixel COOLPIX P1000 captures 4K UHD video and offers a myriad of manual controls, as well as user-friendly functions including built-in Wi-Fi and Bluetooth connectivity, letting photographers of all levels explore and share their creativity.

“The COOLPIX P1000 is the first of its kind for a compact digital camera,” said Jay Vannatter, Executive Vice President, Nikon Inc. “It raises the bar for superzoom cameras and is a testament to our commitment to delivering innovative tools that offer creative freedom to capture and allow users to share their unique visions of the world.”

Equipment Discussions -

Powerful Optics:

The COOLPIX P1000 incorporates state-of-the-art NIKKOR technology, designed with ED and Super ED lens elements, boasts the world's most powerful 125X optical zoom lens (24-3000mm f/2.8-8) and 250X Dynamic Fine Zoom⁴, equivalent to a staggering 6000mm from macro to extreme distances. This powerful zoom range gives the P1000 the versatility to chronicle an adventure filled vacation, capture a favorite ballplayer from the top tier of a stadium or fill the frame with celestial objects like the moon, that normally only a telescope could reach.

To handle such extreme distances, the camera is equipped with the latest Nikon EXPEED image processing system and Dual Detect Optical VR technology for 5-stops⁵ of camera shake compensation that help capture sharp images and reduce blur. Featuring a 16-megapixel back-side illuminated (BSI) CMOS sensor and expanded ISO range up to 6400, the P1000 affords users the versatility to capture superior image quality even under challenging lighting conditions. The COOLPIX P1000 also boasts a variety of high-speed features including a quick start-up and fast Autofocus (AF) system, making it an ideal choice for capturing action from the sidelines of your kid's soccer game or from an adventure-packed safari. Additionally, whether capturing a ballplayer sliding into home plate or photographing a bird in flight from afar, users will feel confident finding, tracking and capturing these far-away subjects using the camera's snap-back zoom feature which temporarily expands the field of view for super-telephoto shots.

Versatility Ignites Creativity

The COOLPIX P1000 makes it easier than ever for photographers to express their personal creativity. Through its host of manual functions and RAW (NRW) image output, the P1000 is great for advanced users seeking precise control from point of capture to post-production. The COOLPIX P1000 offers an innovative control layout complete with a function button, command dial and mode dial to bring frequently used functions to a photographer's fingertips.

Additionally, the camera includes a focus mode selector that can be used to change the focus mode and a control ring that allows for the adjustment of settings such as the white balance and manual focus. Photographers will find the camera's built-in 2.3-million dot OLED electronic viewfinder (EVF) helpful when composing their shot, while the Vari-Angle 3.2-inch 921K-dot TFT LCD display is ideal for capturing challenging angles like framing a performer on a concert stage.

The COOLPIX P1000 offers numerous picture controls, creative modes and filter effects to help photographers bring their creative vision to life. Whether capturing the night sky or a bird perched on a tree branch, users can take advantage of the camera's designated scene modes, such as Moon Mode and Bird Watching Mode, to automatically adjust settings to deliver brilliant results in a variety of environments. While amazing for extreme zoom, the COOLPIX P1000 also supports versatile shooting scenarios like capturing macro images from as close as 1 cm away. Beyond mastering still photography from both near and far, the P1000 is also capable of incredible 4K UHD video with stereo audio recording and time-lapse effects to further expand artistic expression. Lastly, with built-in Wi-Fi and Bluetooth connectivity, images will transfer automatically to a photographer's compatible mobile device so family and friends can view stunning vacation moments or epic shots of the

Equipment Discussions -

night sky in real time.

New Accessory: Bluetooth Connected Remote

The new COOLPIX P1000 is equipped with an accessory terminal and an accessory shoe that supports a wide variety of compatible devices, including external Nikon Speedlights. To bring more capabilities and creative control to photographers, Nikon also announced the new ML-L7 Bluetooth connected remote as another optional accessory available for the COOLPIX P1000. The ML-L7 Bluetooth connected remote control expands the shooting possibilities of the P1000 by enabling users to trigger various camera functions, including video start and smooth zoom control, remotely.

Price and Availability

The COOLPIX P1000 will have a suggested retail price (**SRP**) of **\$999.95** and will be available in September 2018. The new ML-L7 Bluetooth connected remote control will also be available in September 2018 for a **SRP of \$49.95**.

Equipment Discussions -

Nikon Announces Development of Full-frame Mirrorless Camera:

Nikon has gone ahead and announced that it is developing a Full-Frame mirrorless camera with a new mount and new lenses to go with it.

It had long been speculated that Nikon will enter into the fullframe mirrorless camera market as the mirrorless camera segment is increasing spectacularly. Simultaneously the compact camera market is rapidly shrinking and DSLRs are also taking a hit. So it was speculated that Canon and Nikon will enter into the mirrorless market with full force.

According to Nikon *“The new mirrorless camera and NIKKOR lenses that are in development will enable a new dimension in optical performance with the adoption of a new mount. The system is the result of Nikon’s unsurpassed optical and manufacturing capabilities gained through more than a century of imaging expertise. Proven reliability and trusted performance are core traits of Nikon Digital-SLRs, and decades of feedback from professional creators around the world has further contributed to the development of this system.”*



Nikon has also announced that all existing F mount lenses will be capable of being used in the new mount by using an F-mount adapter. Nikon hasn’t announced any further details of the camera or lenses that are going to be launched or the launch date as well.

Nikon has launched a teaser video called Travel of Light <https://www.youtube.com/watch?v=akZZkw8d5a4> and further details will come at this site <https://www.nikonusa.com/en/nikon-products/mirrorless-is-coming.page>

Equipment Discussions -

PRESS RELEASE

Nikon Announces Development of Next Generation Full-Frame Mirrorless Camera and NIKKOR Lenses—Featuring a New Mount—That Pursue a New Dimension in Optical Performance

MELVILLE, NY – Nikon Inc. is pleased to announce the development of a next-generation full-frame (Nikon FX-format) mirrorless camera and NIKKOR lenses featuring a new mount.

The new mirrorless camera and NIKKOR lenses that are in development will enable a new dimension in optical performance with the adoption of a new mount. The system is the result of Nikon's unsurpassed optical and manufacturing capabilities gained through more than a century of imaging expertise. Proven reliability and trusted performance are core traits of Nikon Digital-SLRs, and decades of feedback from professional creators around the world has further contributed to the development of this system.

Through the development of this new mirrorless camera, Nikon reaffirms our commitment to providing photographers with the ability to capture images that are richer and more vivid than ever before.

Additionally, an F-Mount adapter is being developed that will enable the use of a wide variety of F-Mount NIKKOR lenses with the new camera.

Nikon will continue to lead imaging innovation with the launch of the new mirrorless camera and the continued development of Nikon Digital-SLR cameras as well as the impressive NIKKOR lens lineup. Soon, Nikon users will have two industry-leading camera systems to choose from, giving consumers the choice to enjoy the unique values that each system offers.

The camera will be launched on 23rd August, 2018 at Tokyo.

Equipment Discussions -

FUJIFILM announces XF10 Premium Compact Camera:

FUJIFILM has announced that it will launch a premium compact digital camera “FUJIFILM XF10” (XF10) as the latest model in the X Series known for superior image quality with proprietary color reproduction technology. The XF10 features an 24.2 Megapixel APS-C sized sensor and comes with a high quality FUJINON 18.5mm f2.8 lens.

It will be launched on August 2018. XF10 features an approximately 280g compact. It also features an enhanced Bluetooth® connectivity for seamless transfer of images to a smartphone after shooting by using simple touchscreen operations.

“We are excited to introduce the XF10 as a premium, ultra-lightweight compact camera that delivers high quality images and new features in a body small enough to travel with, and possesses functionality to instantly transfer images to your phone to share,” said Yuji Igarashi, General Manager of the Electronic Imaging Division & Optical Devices Division at FUJIFILM North America Corporation.



XF10 Champagne Gold



XF10 Black

The XF10 has wide dynamic range and produces sharp, high resolution images. Combined with Fujifilm’s proprietary color reproduction technology, its 24.2 megapixel APS-C sized sensor allows the XF10 to produce high quality images in a wide range of settings. In addition, both 4K movie and Full HD high speed video are available on the XF10.

The new FUJIFILM XF10 is the first X Series camera to offer the new “SQUARE MODE,” which allows users to switch to a 1:1 format with a single flick of the touchscreen. Combined with a method for seamless transfer of images to a smartphone, this camera enhances compatibility with social media where the 1:1 format has become a popular image format for posting photos. Available in Black or Champagne Gold, the XF10 is a stylish and portable tool for everyday creatives.

High Quality FUJINON Lens Covers a Wide Range of Subjects from Landscapes to Snapshots

The XF10 features an 18.5mmF2.8 FUJINON lens (equivalent to 28mm on 35mm format) that ensures every image is sharp from center to edges. The optical design of the lens is perfectly matched to the sensor in the XF10, to ensure there is no compromise in quality due to the camera’s compact size. With the Digital Teleconverter function, the camera is capable of taking photos with equivalent focal lengths of 35mm and 50mm on a 35mm format.

Equipment Discussions -

Enhanced Creativity with Unique Film Simulation and Advanced Filter Modes

The XF10 offers 11 unique FUJIFILM Film Simulations and 19 Advanced Filters, providing photographers with the ability to enhance their creativity. The camera also introduces two new Advanced Filters – “Rich & Fine” and “Monochrome [NIR]” – to easily add artistic flair or film-like color tones to photos. The new “Rich & Fine” filter provides brighter and more vivid color at the center of the image, and a slight shadow at the corners in order to emphasize the subject, perfect for food and other tabletop photography. The “Monochrome [NIR]” filter simulates a monochrome effect as taken by near-infrared cameras.

FUJIFILM XF10 Key Features:

- 24.2MP APS-C CMOS sensor
- 3.0-inch” (approx. 1,040K-dot) color LCD touchscreen, aspect ratio 3:2
- Standard output sensitivity of ISO200 – ISO12800
 - Extended output sensitivity of ISO100 – ISO51200
- Bluetooth® version 4.1 low energy technology
- New “SQUARE MODE” for 1:1 format
- 4K 3840 x 2160 15P, continuous recording up to approx. 30 min.
 - Full HD 1920 x 1080 59.94P / 50P / 24P / 23.98P, continuous recording up to approx. 30 min.
 - HD 1280 x 720 59.94P / 50P / 24P / 23.98P, continuous recording up to approx. 30min.
 - High Speed Movie 1280 x 720 1.6x / 2x / 3.3x / 4x
- Accessories include:
 - Li-ion Battery NP-95
 - AC-5VG AC adapter
 - USB Cable
 - Hand Strap
 - Lens Cap
 - Owner's Manual

Availability and Pricing

The new FUJIFILM XF10 will be available in **August 2018 in the U.S.** and Canada for **USD \$499.95 and CAD \$649.99.**

Equipment Discussions -

FUJIFILM Announces XF200mm F2 telephoto lens:

FUJIFILM Corporation has announced that it will introduce the FUJINON XF200mmF2 R LM OIS WR Lens (XF200mmF2 R LM OIS WR), a large-diameter telephoto prime lens for the X Series of digital cameras. It is priced at \$5999.95. It uses Fujifilm's unique color reproduction technology to deliver outstanding photo quality. The lens will be released in late October, 2018, in a kit that also contains the FUJINON Teleconverter XF1.4X TC F2 WR (XF1.4X TC F2 WR), a high-performance teleconverter that can extend the lens's focal length by 1.4 times.



The XF200mmF2 R LM OIS WR is the X Series' first telephoto interchangeable lens that offers the maximum aperture of F2.0. The lens has the focal length of 200mm (equivalent to 305mm in the 35mm film format.) Tapping into the optical technologies nurtured through the production of FUJINON lenses, widely used in the broadcasting and cinematography industries, it produces advanced sharpness and beautiful bokeh to achieve outstanding descriptive performance. It can be combined with the XF1.4X TC F2 WR, which supports the main lens's maximum aperture of F2.0 and extends its focal length by 1.4 times, to cover the ultra-telephoto focal length of 280mm (equivalent to 427mm in the 35mm film format)**, making it an ideal choice for shooting sports, airplanes and wild birds.

The XF200mmF2 R LM OIS WR is a large-diameter telephoto prime lens, capable of bringing out the full performance of FUJIFILM's X-Trans™ CMOS sensor, used in mirrorless digital cameras including the FUJIFILM X-H1. The lens offers sharpness even when the aperture is wide open, using advanced optical design technology and manufacturing technology that makes it possible to process lens surfaces at micron-level precision, fostered through the development of industry-leading FUJINON lenses including broadcast lenses that support 4K / 8K video. The maximum aperture of F2.0 and the long focal length of 200mm (equivalent to 305mm in the 35mm film format) creates beautiful bokeh for outstanding descriptive performance. The lens also features the new Focus Preset function, which allows you to instantaneously change the focus to a pre-defined position to capture your main subject with ease without having to make focus re-adjustments. The

Equipment Discussions -

lens barrel is made of magnesium alloy to create a lightweight yet robust body. The lens is also dust and weather resistant, and capable of operating in environments as cold as -10°C , making it highly reliable as photo equipment for use by professional photographers.

The XF1.4X TC F2 WR is a high-performance teleconverter that is fitted between a camera body and a lens to extend the lens's focal length by 1.4 times while drawing out the lens's advanced optical performance to the maximum extent. It is specifically designed to control aberration well, while supporting the lens's maximum aperture of F2.0. The combination of the XF200mmF2 R LM OIS WR and the XF1.4X TC F2 WR covers the focal length of 280mm (equivalent to 427mm in the 35mm film format), broadening users' scope of photography.

Offering the total lineup of 34 lenses including the XF8-16mmF2.8 R LM WR ultra wide-angle zoom lens announced today as well as the FUJINON Lens XF16mmF2.8 R WR, FUJINON Lens XF16-80mmF4 R OIS WR and FUJINON Lens XF33mmF1 R WR, featured in the roadmap for developing X Series' interchangeable lenses, Fujifilm covers a wide range of shooting conditions from ultra wide-angle to ultra telephoto, providing photographic pleasure with the X Series.

Detailed Product features:

(1) Large-diameter telephoto prime lens, XF200mmF2 R LM OIS WR

- ◆ Exceptional resolving performance and beautiful bokeh
 - This lens uses large-diameter lens elements, polished at precision finer than $0.1\mu\text{m}$, using outstanding optical design technology fostered through the development of industry-leading FUJINON lenses including broadcast lenses that support 4K / 8K video. The lens consists of 19 elements in 14 groups, including one large-diameter super ED lens element and two large-diameter ED lens elements, comparable to the performance of fluorite elements*6. The design minimizes chromatic aberration to deliver a high resolution.
 - The maximum aperture of F2.0 and the long focal length of 200mm (equivalent to 305mm in the 35mm film format) create beautiful bokeh for outstanding descriptive performance.
 - *6A type of lens element made of fluorite, which is characterized by reduced wavelength dispersion in light transmission and refraction. It facilitates an optical design with minimal chromatic aberration.
- ◆ Variety of functions for easy AF operations
 - The lens features the new Focus Preset function*7, which instantaneously changes the focus to a pre-set position, defined with the SET button in advance. It allows you to focus on your main subject with ease without having to make focus re-adjustments.
 - The lens features the focus limiter function, which limits the shooting distance range for autofocus. This function shortens the lens's operation time to deliver high-speed AF when shooting a subject at the distance of 5 meters or greater. Use the Focus Range Selector switch to activate the function.
 - The Focus Control button*7 is positioned at the tip of the lens barrel. Use the Focus Select switch to assign a function of your choice, making it easy to access operations such as AF-ON and Focus Lock.

Equipment Discussions -

- ◆ Powerful image stabilization performance
 - The lens offers a 5-stop image stabilization performance in accordance with CIPA. This means you can hand-hold the telephoto lens, normally susceptible to camera shake. The lens recognizes shooting conditions such as panning or on tripod, and automatically applies optimum image-stabilization control.
- ◆ Fast, quiet and highly accurate AF
 - The use of lighter focus lens group and linear motors results in fast, quiet and high-precision AF performance. There is also a new mechanism that stabilizes the focus motor group when the camera is powered off or in the playback of photos taken to reduce unnecessary vibrations.
- ◆ Advanced toughness to withstand various shooting conditions
 - The lens's main body is in the new matte silver color, which effectively reduces the increase of its internal temperature under intense summer heat. The application of light-diffusing coating also controls light reflections from the lens body.
 - The use of magnesium alloy achieves a lightweight and robust lens body. The barrel is sealed at 17 places to make the lens dust and weather resistant, and capable of operating in environments as cold as -10°C. The front lens element is coated with fluorine to repel water and dirt, adding extra toughness performance so that the lens can be used outdoors with peace of mind even under showers and dust exposure.
- ◆ Arca-Swiss compatible tripod mount for greater equipment compatibility
 - The tripod mount features an Arca-Swiss compatible dovetail groove*8, and also supports both 1/4-inch and 3/8-inch tripod screw to accommodate professional equipment.
 - *8Supporting the Arca-Swiss Quick Release Plate

(2) High-performance XF1.4X TC F2 WR teleconverter

- This high-performance teleconverter extends the focal length by 1.4 times while drawing out the lens's full optical performance. It is specifically designed to control aberration well, while supporting the lens's maximum aperture of F2.0.
- The combination of the XF200mmF2 R LM OIS WR and the XF1.4X TC F2 WR covers the focal length of 280mm (equivalent to 427mm in the 35mm film format)**, broadening users' scope of photography.
 - <Accessories>
PRF-105 protection filter / FLCP-105 lens front cap (accessories)
- Upon the release of the XF200mmF2 R LM OIS WR, Fujifilm will also introduce the PRF-105 protection filter compatible with the lens's $\Phi 105\text{mm}$ filter threads, and the FLCP-105 lens front cap at the same time.

Natural History -

COUNTRY NOTEBOOK: M.Krishnan: Myths about Snakes - 27 November 1967

The Sunday Statesman (shared by Shri. Saktipada Panigrahi)

Myths about Snakes

" ONE afternoon in September some years ago, I walked two furlongs along a forest road to a hilltop rest house, and in the course of that short walk I saw five different Cobras.

They were all medium sized, but I saw them in different places; in the grass and bushes bordering the road. In every case there was no doubt about the identity of the snake, for on a circumspect approach it raised its head and spread its hood in warning at which point I halted and prudently retreated a few paces. Thereafter the snake just went away, slowly and sinuously disappearing into cover. Two of these Cobras were a dark, olive-grey, two were a lighter olive-brown, and one quite pale, a wheaten brown in colour. I can not tell you their sex -- I did not know, and I do not know.



Cobra

Image Courtesy: Debasis Bose

Encountering an elderly tribesman who knew the ways of the creatures of the place, I asked him if he could tell me why so many Cobras were about that afternoon, resting beside but not actually on the road. His answer was to draw me aside by the arm, swiftly and suddenly, and point to the surface of the earth road; near where I had been standing was yet another snake, a small brown Saw-scaled Viper, a snake with a peevish temper and prone to attack, though less deadly than a Cobra.

I said it was sure to rain. We had been having a spell of very dry weather and though I could see no clouds or other signs of a shower, I remembered that once in a place far from where we were, there had been a spell of dry weather and that one

morning I had seen three snakes in succession and that shortly afterwards rain had come down in torrents. I told my companion of this, and he nodded his head sagely. Naturally, he argued, if a downpour was in the offing, the snakes would come out in numbers, for if they stayed within their subterranean daytime retreats they would get flooded. He wrinkled his aged nose and announced that he could smell the rain, faintly and far off, and I too, could. Neither that afternoon nor that night nor during the fortnight following I spent in the place was there so much as a thin drizzle.

Subsequently I have consulted men wise in the ways of serpents about a phenomenon, but naturally, with so little circumstantial evidence, they could not say why there should have been so many snakes about that day. I asked one expert if it could be that they were moved by a mating urge and he was non-committal, but remarked that the possibility merited examination. Scent perception is subtle and complicated in snake; they "taste" smell, with the aid of their bifid tongues and a special sensory organ they have (the Jacobson's organ) and in this they are probably near-scented, but they also go by normal olfactory smells, and therefore are probably also able to scent from far off.

All this being thus, I asked the expert if what I had seen could not be a number of male snakes, attracted by the scent of a female somewhere near, and he agreed that the possibility needed further examination. In the old days, when people believed in myths about snakes and had not the scientific outlook, no doubt anyone could have told me what exactly the sight of so many snakes in succession presaged, but now we know better and are cautious.

Although this has nothing to do directly with this incident, is it not likely that the story so often told, of the revenge of poisonous snakes (notably the Cobra) has also a scent motivation? It is a fact that at times a male and female snake stay in the same area and keep in touch with each other, it is also a fact that snakes have been known to behave towards a dead mate and encountering a man turn aggressive. Moreover, being in the same area, the snake not killed is likely to encounter the killer by chance.

It is not necessary to presume that this roundabout explanation is the likeliest. I can say from personal knowledge that Cobras are resentful of human invasion of a territory they are used to and if wounded or harassed they turn very aggressive. It could well be that an attack by the survivor of a pair is intelligent or intentional and directed towards the man on the spot specifically. However, I am unable to find any factual basis for the accounts of the revengeful survivor following the very man that killed its mate over a long distance, and exacting retribution."

- M. Krishnan

This was published on 27 November 1967.

Wildlife Photography -

Sub-adult Male Tiger in Ranathambore by Vipin Sharma



Tiger in bush by Jerin Dinesh



Wildlife Photography -

Leopard in Satpura by Shyamala Kumar



Small Blue Kingfisher by Jitendra Katre



Wildlife Photography -

Tibetan Sandgrouse by Sandipan Ghosh



Mantis Laying eggs by Prajwal Ullal



Wildlife Photography -

Roadkill in Kanha, Chilpi Range, NH30 by Sabyasachi Patra





This is the **115th Issue** of IndiaWilds. The photo Forest fire adorns the cover page of this issue. Climate change is going to exacerbate the problem of wild forest fires, which is further going to increase the Co2 burden in our atmosphere.

I look forward to your inputs and support in preserving the last tracts of wilderness and wildlife of our beautiful country. For other interesting articles and images check - <http://www.indiawilds.com/forums/>

To post in the IndiaWilds forums, you can register free of cost using your Full Name as user id at -

<http://www.indiawilds.com/forums/register.php>

If you are already a member of IndiaWilds and have forgotten your user id and/or password you can mail administrator@indiawilds.com

Regards,

Sabyasachi Patra

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