

IndiaWilds THE.LAND.OF.THE.TIGER

World Elephant Day brings no cheer for Elephants:

World Elephant Day is celebrated on August 12th 2020 as an international annual event, dedicated to the preservation and protection of the world's elephants. The goal of World Elephant Day is to create awareness on elephant conservation, and to share knowledge and positive solutions for the better protection and management of wild and captive elephants. However, every year despite these celebrations, elephants are facing huge challenges for survival.

Asian elephants are listed as "Endangered" on the IUCN Red List of threatened species. This has been done most of the range states except India, have lost their viable elephant populations due to loss of habitats & poaching etc. The current population estimates indicate that

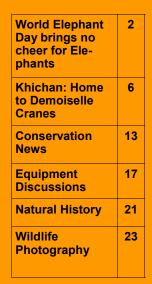
there are about 50,000 -60000 Asian elephants in the world. More than 60 % of the population is hold in India

tion is held in India.

Indian Elephant has also been listed in the Appendix I of the Convention of the Migratory species in the recently concluded Conference of Parties of CMS 13 at Gandhi Nagar, Gujarat in February 2020. A few years ago, Elephant was declared as the Natural Heritage Animal of our country and India also celebrates this day to spread awareness towards conservation of the species.

This year, a few people participated in the official celebration and most of the participation as well as celebrations happened online. Speaking on the world Elephant Day even in New Delhi, the Union Minister for Environment, Forests and Climate Change asserted that Government is

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Cover Page Photograph:

Tiger by Sabyasachi Patra





committed to find a lasting and robust solution to end human-elephant conflict. He said "Efforts are in full swing to provide food and water to the animals in the forests itself to deal with the growing human-animal conflict cases". The minister said that the solutions have to be practical and cost effective.

He also stressed on capacity building and training of the forest staff. A pictorial guide of a variety of management inventions successfully adopted by the elephant range states was released in the event. This booklet is expected to serve as a reference manual for adoption of the best possible site specific mitigation measures that can be adopted to reduce human – elephant conflict.

Minister of State in the Environment Ministry, Shri Babul Supriyo expressed satisfaction over the growing number of elephants in the country. He said, there is a need to save Elephants and deal with the Elephant-Human conflict firmly. He said, killing of innocent animals will not be tolerated by the Government and the Central Government is adopting the best practices to deal with human animal conflict.

These statements clearly shows that the ministers and Government simply doesn't understand the problem and is not keen on taking concrete steps to resolve the core issue of human-elephant conflict.

It would be really beneficial if the Central Government can adopt best practices for resolving the challenges of human-elephant conflict. Too often the so called best practices are simply limited in scope.

Several state Governments are also talking about planting more fruit bearing trees in the forests so that elephants can remain within the forests and find food. This is partially correct. It is a fact that the biodiversity of our forests have gone down. Invasive weeds like lantana, parthenium etc are outcompeting native vegetation in many forests. So it is difficult for our herbivores to find food. If forest department gets funds to do regular removal of invasives then native vegetation can regenerate and help the elephants and other herbivores find better food.

The Government and people also need to realise that there is a major challenge to our forests due to collection of NTFP (Non timber forest produce). Historically forest dwellers have been collecting NTFP for their own use. However, with increased commercialization it is becoming very tough as everyday thousands of people are entering into the forests. Since the last one and half decades there has been increased demand for ayurvedic products. Ayurvedic juices like aamla juice, aloevera juice etc have become very popular. Historically people used to collect aamla from forests and gardens. These days we hardly have any land where we grow fruit

bearing trees. So most of the aamla collection is from the forests. With 140 crore people in this country the pressure on forest is huge. This leads to paucity of forest produce like aamla, other fruits and berries and medicinal herbs. A lot of adulteration is being reported in the ayurvedic medicines due to high demand and lower availability. So the Government should realise this and ear mark more lands around forests for growing these fruit bearing trees. Instead of community plantations of invasive eucalyptus fruit bearing trees should be considered so that the anthropogenic pressures on the forest is less.

The fruit bearing trees like aamla, wild mangoes, jack fruit etc grow in different seasons. So mega herbivores like elephants visit these areas in different seasons or in times when there is fruit. On other times the elephants have to move out of the specific wildlife sanctuary in their age old migratory corridors.

Lot of money is spent in creating barricades and raising solar fencing to stop elephant moving into agricultural fields. Several incidents have happened where villagers have chased elephants and to escape elephants have tried to climb over barri-



cades and have got stuck and died. Simply prohibiting an elephant by erecting barricades or solar fencing results in pushing the problem away to another place. So instead of feeding in one village agricultural field the elephants are pushed away to another. Also, this approach of erecting barricades is difficult for elephants as these are blockages in their traditional migratory corridors. So elephants will always try to follow their age old migratory corridors and hence wherever possible they will push the barriers. So this approach of erecting barriers doesn't solve the human-elephant challenge.

The Government has to look at the core issue that results in humanelephant conflict. Elephants are designed by nature to feed 13-14 hours a day. Much of the vegetation that an elephant eats comes out semi-digested or undigested out of its gut. So many seeds get dispersed by the elephants as they come out intact in the elephant dung and also gets enough manure in the form of the dung to grow after germination. To feed through out the day, elephants have to keep on moving. If elephants are confined to a small sanctuary, then there

will be no forage left. Also, elephants feed on a variety of plants, fruits, leaves etc which grow in different seasons and in different locations. So elephants need to travel. Unfortunately, the Government hasn't realized this fact and hence wants elephants to be confined to a few National parks and wildlife sanctuaries. Much of the elephant habitat is outside the protected area network.

The Elephant Task Force report had done a good job in identifying the key issues in human-elephant conflict. In the elephant task force report, experts had concluded that it is important to secure the elephant habitat that falls outside the ambit of protected area network. With increase in price of land, it would be difficult task to acquire land later. Government has to immediately take steps to acquire land contiguous with the forest so that the elephant habitat is protected. The government

should start acquiring land in high conflict areas so that there is a safe passage for elephants during their migration.

Elephants to survive have to visit the areas that they have been visiting since ages. However, once human habitations come up in these areas, the conflict starts because settlers who haven't seen wildlife before don't know how to react. Their immediate reaction is fear and aggression towards elephants. So elephants too charge at people and conflict starts.

The settlers also grow crops that are suitable for elephants. Crops like paddy and other cereals are highly nutritious and hence elephants prefer those. Farmers will easily resent when they see elephants feeding on their **crops and start chasing** the elephants using flames, firecrackers and bombs. In conflict zones, the level of stress in the elephants are high. Same elephants who charge at people in conflict zones become silent and tolerant of humans in other places.

Forest department has to immediately do survey of crop loss and quickly give compensation to farmers. This will help farmers keep quiet and not retaliate. If fair compensation is provided then farmers would infact be happy because their cost of harvesting and transporting their produce to markets will be saved. Also, due to the archaic APMC act, farmers can only sell their produce in mandis (local markets) in a limited radius. So the price they get from middlemen for their farm produce is very less. Compensation for crop loss should be built-in while preparing the annual forest department budgets.

In USA, around Bosque Del Apache National Wildlife refuge and other places landowners grow corn to help sandhill cranes who arrive in huge numbers. Photographers turn out to photograph them and the landowners make more money from tourists. So forest department in India should partner with various NGOs and train locals living in elephant habitat and they can help report about elephant movement and also benefit from any tourism activity. This has the potential to increase the economic activities.

If more tourists move around these fields in search of elephants and other herbivores, then the tourism pressure on the main forests would reduce.

The Central Government should also coordinate between different state Governments that when elephants try to move from one state boundary to another the state forest departments and people should not do anything to hinder their movement. Trying to push them away creates more conflict and more loss of life of humans as well as elephants. Government should in the short term be ready with quick compensations to people for loss of property, crop and life and in the long-run elephant habitat should be bought acquired by Government. These days various National Parks have made foundations and hence can accept donations. These foundations along with NGOs can collectively act in raising resources apart from the Government budget support and then buy and secure the elephant corridors and habitat. Securing of the elephant habitat along with adequate protection will result in long lasting peace between humans and elephants. Else, we will continue to celebrate World Elephant Day but elephants will continue to die.

Khichan: Home to Demoiselle Cranes

By Mrs.Shakti Bishnoi and Mr.A.S Bishnoi

From late August or early September to the end of March, one can witness the extraordinary and amazing sight of hundreds of Demoiselle cranes (*Anthropoides virgo*) wintering near Khichan. This wintering population sometimes increases to several thousand by midwinter. Around sunrise and in the late afternoon, the birds circle overhead, then make a dramatic descent for consumption of grains that villagers spread for them at the Birds Feeding Home locally known as Chugga Ghar.



Demoiselle Cranes in Khichan

The Demoiselle cranes are Brown-grey birds with a black chest and throat, demoiselle cranes stand about 75 cm tall, and have a long neck and a short beak. It was the 18th-century French queen Marie Antoinette who dubbed the cranes 'demoiselle', for their grace, when some were taken to France from the Russian steppes. In Khichan, they are known as *kur-ja*. In traditional Marwari songs, women beseech the cranes to bring back messages from their loved ones when they return from distant lands.

Khichan:

Khichan is a village in Rajasthan state of India. It is located in the Phalodi tehsil of Jodhpur district. It is known for a large number of demoiselle cranes that visit very winter. This annual bird migration began with around a hundred cranes in the 1970s, when a local couple started feeding pigeons. In the recent years, this particular village is pulling a lot of native and

foreign tourists because it has established successfully a tradition of feeding and taking care of wild birds, mainly the Demoiselle cranes that migrate to this particular region during the winter season every year.

The sight of these wonderful birds in such large numbers descending on the feeding ground is truly awe-inspiring, and the noise of the assembly is amazing. It's an experience that shouldn't be missed if you're in the area. We visit every year since



2002. During the day, many of the cranes can be found around a small lake on the east side of Khichan. The demoiselle cranes also winter in Pakistan and Africa. To migrate they must cross the Himalaya from their breeding range, which extends over a wide belt spanning eastern Europe, Central Asia and eastern China.

Rajasthan is home to large numbers (and many species) of these winter migrants, and draws bird lovers and ornithol-

ogists from around the world. Kichan, with a few open fields and a couple of small ponds, is on the face of it an unlikely destination for either birds or birders. There are plenty of large water bodies throughout Rajasthan, and the state itself has

become greener over the past several decades. And yet it is *Khi-chan* that boasts, perhaps the most spectacular display of feeding birds.

The little lake near Kichan has other residents - lapwings, stilt, shovellers, godwit, kingfishers, little grebes - but of course the cranes were the big attraction for us. Birds, Demoiselle Cranes mostly, have been coming here for centuries. About a century and a half back, some local Jains began



leaving grain in the fields for the avian visitors. Over the years the numbers of birds grew, and today Kichan is home to over 20,000 (approx...) demoiselle cranes every winter.

Our Journey:

We started our journey from Pune (MILIT) on 22 Dec 2019 and with two halts (Ahmedabad, Jodhpur) reached Jaisalmer. Jaisalmer, the city of golden stones mesmerized us and we stayed there for two days and visited SAM desert/Tanot Mata ka Mandir. After our excursion, we left Jaisalmer on 31 Dec 2019 the last day of the year and arrived at Khichan an hour and a bit more before sunset, just in time to see the last of several flocks finish their evening feed near a small lake before taking off for the night. There were plenty of other birds busy in their chores - going about their business in the lake: pintails, grebes, stilts, lapwings, herons and many others, but the cranes, congregated by the opposite shore, caught our attention. We caught our first glimpse of their behavior as a flock and our daughter Kanan was enthralled with the mere sight and numbers. She was awed, but this was the merest appetiser for what we were to see the next morning. She began throwing questions about them and I kept on answering and clicking photos.

During my childhood days we used to visit Kichan by bus costing Rs 2/- and today I was with family and leisurely watching them. We headed to our ancestral village Lohawat which is just 40 km away en-route Jodhpur. When we met relatives, cousins and village elders, they were ecstatic as well as nostalgic as I had left this village in 1999 and had had become a part of the urban jungle. I told them that still my roots are there. In villages late night conversation are considered normal. With the lovely view of unpolluted sky and constellations listening to our conversations, these conversations often extend till wee hours in the morning. I had to get up early so I had to request my cousins and sleep. It was chilling cold. We entered our quilt and soon it was only the snoring sounds that broke the sounds of silence.

Kurja

It was first day of 2020 and after half an hour drive from Lohawat we reached Khichan at 6 am in the morning. All of us including my little daughter and cousins were equally excited with the sight of cranes despite the temperature dipping to 7 degree C early morning. It did not matter as the very excitement to see cranes mellowed down the bone chilling cold.

The sun was yet to show its gold-



en colour, but the sharp cries of the cranes was very evident and as we looked up, we saw flock after flock wheeling overhead as if we were welcomed by them. Somehow I took out my camera despite the freezing cold and positioned it on tripod and started clicking photos. But the sight with naked eye was beyond comparison and we all enjoyed their movement in the sky and nearby lake. Even my daughter with her small camera was excited and managed to click wonderful photos.

Kurja-Chugga Ghar:

After spending two hours we headed towards Chugga Ghar. We noticed an uniformed man with a stud adorning each ear, *Sewaramji* was spreading birds' feed – Jowar – around the empty plot earmarked as Chugga ghar where every individual spreads Jowar for Crane. We knew him from our childhood days and greeted him with respect. We Congratulated him for his achievements and awards and his eternal selfless task which he undertakes with interest without any returns. This is a substantial task. Twenty thousand and more cranes fly in around late August to mid September and leave for their Mongolian and southern Siberian summer homes only in March.

The flock of demoiselle cranes consume a phenomenal 600 kg of grains each day. This grain feeding activity is funded by local donors from Khichan and surrounding villages. We donate around 1000 kg from our farm for their consumption annually. Donors from other places also contribute on an annual basis to this Chugga ghar. As Bishnois it is in our blood to look after nature and wildlife. Various Jain charities also pay for bird feeding and Sewaramji and his helpers ensure that the food is ready when the birds arrive.



Chugga Ghar

The cranes were everywhere – flying in frenzied circles above us and perching on every empty patch of land all around. We saw an immense fluttering, a huge flock of pigeons flew past, circled the field once and then landed to begin a feeding

frenzy amidst much frantic cooing and clucking. My daughter asked why they came, cranes must eat first. Before I could answer her, Sewaramji like elderly person assured her and told her that the pigeons always feed first and leave and only then do the cranes come for their feed. So daughter waited for a while, and suddenly flock of pigeons took off. After a while, there were thousands of cranes hovering in the sky and landed in the Chugga Ghar. We were awestruck with the sight. This sight was very common to me as we used to observe them with naked eye in 1990s and with fond memories used to return to our villages. In the meanwhile, I forgot, for some time that today I have camera to capture these wonderful creation of God and keep with me forever. That is the mesmerising impact of the sight of thousands of demoiselle cranes. So I took out camera from my car and positioned myself near the fence to have a better view.

There are many houses with terrace near to the Chugga Ghar and locals permit all tourist to have a look from their house. Known locally as *Koonj*, these birds are said to have inspired Valmiki's poetry and are a metaphor for faithful loving couples in the legends and literature of North India. They were clearly social birds. The way they flew in flocks for the feed, the way they congregated as they fed with a minimum of jostling and quarreling but with plenty to say as they fed, they way they left in batches as they finished and the way the entire lot moved from place to place around Kichan all suggested strong social bonds.

My daughter and my wife had never seen anything like this. As each group finished eating, they gathered themselves for the choreographed take-off: standing erect and all facing the same direction much like a military drill in formation before taking off. They fly to the water bodies around Kichan, one of them is our pilgrimage place JAMBHA before flying to their roosting grounds in the fields at dusk.



Co-Existence:

The local people of Kichan take pride in the birds and in-fact are aware of their movements, timings and habits and ensure that they are protected. The birds themselves go about their routine unconcerned about the humans they share their space with. Now a days dog menace has increased a bit and few causalities takes place due to dogs.



Dogs have emerged as a major threat to Demoiselle cranes

Earlier when these beautiful cranes flew, they would come in contact of high tension wires and die. It was - Sevaram Malli Parihar — who took upon himself to get these high tension wires removed. He filed complaints with the Deputy Collector of Phalodi, the Rajasthan High Court and Rajasthan Electicity Board (REB) to remove these wires. In retaliation, a fine of Rs. 4,27,890 was levied against him by the REB. Along with the Rajasthan Forest Department, he fought the fine and won. Finally the poles and high tension wires were removed. He has also worked with the REB to insulate all electricity wires passing through the village of Khichan.

Kichan is not an official sanctuary yet, however the people here have accepted the birds as part of life so the Demoiselle cranes feel safe and visit year after year, increasing in numbers as the years go by. Infact in other places the number of migratory birds are decreasing due to various reasons, however, in Khichan with humane touch, their population is more or less stable if not increasing rapidly. *Khichan* and *Kurja* are synonym and Inseparable. It is a strong message and lesson for all of us: that we can stay in harmony and peacefully as the birds too equally share this earth for their very existence and

they have every right to live.



Demoiselle cranes get caught in the Powerlines

We should support their existence and our existence will be automatically ensured and future generations will be able to see such unique congregation of one of God's wonderful creation - Demoiselle cranes.



Minister claims Government focused on enhancing forest quality and increasing tree cover

India's minister in charge of the environment ministry claimed that "Ministry of Environment, Forest and Climate Change (MoEF&CC) is focused on enhancing forest quality and increasing tree cover for maximizing carbon stock." This happened in the States Forest Minister's Conference held in New Delhi on 17th August, 2020. Apart from Prakash Javadekar who holds dual charge of the heavy industries as well as the environment ministry, the Minister of State in the Environment Ministry, Shri Babul Supriyo, other officials in the Ministry, Chief Ministers of the State of Arunachal Pradesh and Goa, Deputy Chief Ministers and 24 Forest Ministers from various States participated in the four-hour long meeting held via video conferencing.

Shri Javadekar further said during his address that, "We have taken many initiatives to bring out transformational changes in our policies and programmes and implement several schemes which includes massive tree plantation, promoting urban forestry through Nagar Van Scheme, Landscape based catchment treatment of 13 major rivers, LiDAR based survey of degraded forest areas for soil moisture conservation projects and launch of National Transit Portal to facilitate smooth movement of Forest produce." These efforts are critical to meet our national and international goals under National Forest Policy, Nationally Determined Commitments and restoration of degraded forest land, said Shri Javadekar.

Experts have often pointed out that you can plant trees but you can't create forests. The urban tree plantations, much of which are monocultures, doesn't do much good to wildlife. When we look at forests we see individual trees or bushes. However, scientists have found that below the ground trees have complex root networks along with micorrhiza in the root tips and they provide support to various other trees like a community. And above the ground in the forests there are complex inter-relationships between various species, trees as well as animals, birds, reptiles, insects etc. The Government while taking credit for various tree plantation projects are giving away pristine forests to industries as well as for dams and other projects. The potential of hard growth trees in carbon sequestration is far higher than younger plantations. So planting trees in lieu of forests diverted for industrial use or for dams, mines, canals and other projects results in huge harm to the environment as there is less carbon captured by the trees. So it is bad for environment, forests and also climate change. The new forest classification counts these tree plantations by communities as well as commercial plantations as forest. So we are of the view that Hon'ble Ministers claim of Government being focused on increasing forest quality is not rooted in facts.

The Prime Minister Shri Narendra Modi in his independence day speech had announced the launch of Project Lion and Project Dolphin. The Union Environment Minister said that the government will launch a holistic Project Dolphin in a fortnight, for the conservation and protection of the Dolphins in the rivers and in oceans of the country.

Project Dolphin will involve conservation of Dolphins and the aquatic habitat through use of modern technology specially in enumeration and anti-poaching activities. The project will engage the fishermen and other river/ ocean dependent population and will strive for improving the livelihood of the local communities. The conservation of Dolphin will also envisage activities which will also help in the mitigation of pollution in rivers and in the oceans. A big problem faced by cetaceans is the noise in the water by motor boats and propellers. Since the dolphins use ecolocation, the sound of motor boats create

lot of stress for them. India is converting many rivers into waterways by stopping the flow of water using barrages. So this is at cross-purpose with the objective of preserving aquatic fauna like Dolphins.

The Union Minister also stated that the government is working towards the Project Lion, that will involve conservation of the Asiatic Lion and its landscape in a holistic manner. The Project Lion will entail habitat development, engage modern technologies in Lion management and address the issues of disease in Lion and its associated species through advanced world-class research and veterinary care. The project will also address Human-wildlife conflict and will be inclusive involving local communities living in the vicinity of Lion landscape and will also provide livelihood opportunities. For years, scientists have been wanting a second home for the lions, and Kuno-Palpur wildlife sanctuary in Madhya Pradesh was found to be ideal habitat. The government of MP went ahead and relocated villagers from within the sanctuary to make it ready for lions. However, Gujarat Government has been steadfast in its refusal to release lions for creating a second home at Kuno-Palpur wildlife sanctuary. The Hon'ble Supreme Court has also given its verdict and asked for lions to be released for Kuno-Palpur sanctuary, but the Gujarat Government and now the Central Government doesn't care for it. Lions are seen from the narrow view of tourism and Gujarat doesn't want to allow any other state to have lions. Despite the same party being in power in Gujarat, Madhya Pradesh and in the centre, the shifting of lions is not happening. In the mean while, lions are facing a tough challenge in Gir and are on their own trying to move out and live in farms and other rural areas.



Lion in Gir

Photo Courtesy - Anand Madabhushi

They are increasingly being found roaming around in streets. Many are dying due to electrocution in the farms or by falling into wells. So unless the central Government is going to solve the core issue of lions i.e. creating new home for them, the Asiatic Lion project is not likely to solve the problem.

At the meeting, Shri Javadekar stressed that states should use CAMPA funds exclusively for afforestation and plantation. "I announce that 80% of afforestation fund shall be utilized only for afforestation/plantation and the rest 20% can be used for capacity building etc. The Centre in August 2019 released Rs. 47,436 crores CAMPA funds for afforestation to various states. Ministry is also going to announce implementation of School Nursery Scheme shortly, said the Union Environment Minister during the meeting.

The Nagar Van Scheme which was announced on this World Environment Day for creation of 200 Nagar Van, on forest land by adopting a collaborative approach, involving various agencies like forest and other departments, NGOs, Corporate Bodies, Industries etc, was also discussed at length during the course of the meeting. Initially, the Ministry will be giving grants for fencing and soil moisture works. The primary objective is to create forested area in cities with Municipal Corporation, which will act as lungs of the cities.

School Nursery scheme which aims at involving school students from the young age in nursery and plantation operations was also elaborated and discussed during the course of the four-hour long meeting. The objective of the scheme is to inculcate the spirit of forest and environment in the mind of young students. Scheme guidelines will be shared with the States shortly.

Another important issue highlighted during the meeting by Shri Prakash Javadekar was the study given to ICFRE for river rejuvenation of 13 major rivers which will promote forestry along river, increase ground water recharge and reduce erosion. Similarly, LiDAR technology, an airborne remote sensing method which will assist in identification of the degraded land for construction of soil and water conservation structures and launch of a nationwide National Transit Portalto promote smooth inter-state movement of forest produce, whose pilot was launched recently was also an agenda item of the meeting.

During the meeting the States gave their status of preparedness for implementation of various programmes initiated by Ministry and also conveyed their willingness to associate with all other initiatives of Government of India to promote green cover. States showed enthusiasm and expressed cooperation with MoEF&CC in this endeavour. the order for a further 12 months. Therefore, the present order has been issued, the report said.

All regional offices of the Ministry brought under one roof

With a view to achieving outcomes related to the mandates of Ministry of Environment, Forest and Climate Change (MoEF&CC) in an improved, timely and effective manner, and for this purpose to further enhance its outreach to stake-holders, undertake coordinated action and optimize the utilization of available resources, MoEFCC has approved establishment of 19 Integrated Regional Offices (IROs) of the MoEF&CC. These IROs will start functioning from October 1st, 2020.

The Integrated Regional Offices (IROs) will be established though redeployment of human and other resources available

with 10 Regional Offices of ROHQ Division, 4 Regional Offices of Forest Survey of India (FSI), 3 Regional Centre of National Tiger Conservation Authority (NTCA), 4 Regional Offices of Central Zoo Authority (CZA) and 5 Regional Offices & 3 Subregional Offices of Wildlife Crime Control Bureau (WCCB) in an integrated manner, and their further strengthening. Thus, each IRO shall have representation from existing Regional Office/Regional Centre of MoEF&CC, FSI, NTCA, CZA and WCCB as available to them from time to time.

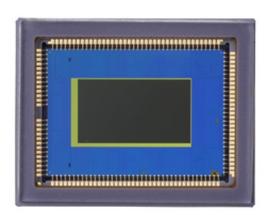
The headquarters and jurisdictions of the 19 IROs (Integrated Regional Offices) will be as under:

The headquarters and jurisdictions of the 19 IROs (Integrated Regional Offices) will be as under:		
No.	Headquarter of IRO	States and UTs under jurisdiction
(i)	Shillong	Manipur, Meghalaya, Mizoram, Tripura
(ii)	Ranchi	Jharkhand, Bihar
(iii)	Bhubaneswar	Odisha
(iv)	Bengaluru	Karnataka, Kerala, Goa, Lakshadweep
(v)	Chennai	Tamil Nadu, Puducherry, A&N Islands
(vi)	Lucknow	Uttar Pradesh
(vii)	Bhopal	Madhya Pradesh
(viii)	Nagpur	Maharashtra
(ix)	Chandigarh	Chandigarh, Haryana, Punjab
(x)	Dehradun	Uttarakhand
(xi)	Jaipur	Rajasthan, Delhi
(xii)	Gandhi Nagar	Gujarat, Daman & Diu, Dadra & Nagar Haveli
(xiii)	Vijayawada	Andhra Pradesh
(xiv)	Raipur	Chhattisgarh
(xv)	Hyderabad	Telangana
(xvi)	Shimla	Himachal Pradesh
(xvii)	Kolkata	West Bengal, Sikkim
(xviii)	Guwahati	Assam, Nagaland, Arunachal Pradesh
(xix)	Jammu	Ladakh, Jammu & Kashmir

Canon launches extreme low light Full HD sensor capable of shooting in 0.08 lux:

Canon has launched a Full HD colour sensor which can shoot in extreme low lights and can record video in even 0.08 lux. This sensor is meant for network and industrial applications. The sensor size is 1/1.8 inches with a pixel size of 4.1 (µm) micrometers. This camera will help in recognising colours which are needed in security applications. This sensor also has a HDR mode which combines two exposures to ensure that the bright areas are not burnt out. It can combine exposures at 0.08 lux and 80,000 lux, so that both the dark areas and the lighted areas come out as one single uniform image and the dynamic range is 120dB. That is a huge range. This sensor is soon going to be available for industrial uses, underwater drones, microscopes etc which can take the benefit of this extreme low light capability.

For consumer cameras the cost is going to be perhaps prohibitive. Also all the consumer cameras are now moving to 4K and beyond. Hope that in future such kinds of technology can come to consumer cameras, DSLRs and mirrorless cameras as well as video cameras with higher resolutions. However that may be at least some 5-6 years away if not more.



PRESS RELEASE

SINGAPORE, 3 August 2020 — Canon announced today the launch in Japan of the LI7050, a new 1/1.8-inch CMOS sensor capable of capturing color images in full-HD even in low-illumination environments as dark as 0.08 lux1.

The recent growth of IoT technologies has in turn generated increasing demand for network and industrial-use cameras—in particular, cameras capable of image capture in full-HD as well as nighttime color recording. Despite a compact body size of 1/1.8 inches and pixel size of $4.1 \,\mu m$ (micrometers), Canon's newly developed LI7050 sensor makes possible color video recording in full-HD, even under low-light conditions.

The LI7050, while achieving a compact size, features a pixel architecture that enables high sensitivity, thereby making pos-

sible low-noise, full-HD color video recording in low-light environments as dark as 0.08 lux. Conventional nighttime monitoring employs infrared cameras and records video in monochrome. However, network cameras equipped with the LI7050 can capture video at night in such locations as public facilities, roads or transport networks, thereby helping to identify details including the color of vehicles or subjects' clothing. What's more, this compact, high-sensitivity sensor can be installed in cameras for such use cases as underwater drones, microscopes and wearable cameras for security personnel.

Canon's new sensor is also equipped with an HDR drive function that realizes a wide dynamic range of 120 dB. When recording in an environment with illumination levels between, for example, 0.08 lux and 80,000 lux, the sensor's wide dy-

namic range enables video capture without blownout whites and crushed blacks. Thanks to this capability, the sensor enables cameras to record high-quality video, even when positioned at building entrances and other locations where there are significant variations in illumination levels. During normal drive operation, the sensor realizes a



noise level of 75 dB and captures video without blown-out whites and crushed blacks in environments with illumination levels between, for example, 0.08 lux and 500 lux.

The LI7050 supports the MIPI CSI-2 interface utilized by a wide range of consumer and industrial-use cameras, thereby greatly expanding the number of possible equipment combinations. The sensor also meets a variety of industrial needs through such features as a Region of Interest (ROI) function that enables users to select regions to read from the sensor, reducing the amount of read information and allowing for image capture at an increased framerate, and the ability to configure horizontal and vertical inversion directly from the sensor for easy viewing of footage from cameras installed on ceilings and other inverted positions.

Canon has begun sample shipments of the LI7050 from today, and is scheduled to officially commence sales in late October 2020.

Canon announces new firmware for EOS R5 mirrorless camera

Canon has announced a new firmware version 1.1.0 for the new EOS R5 mirrorless camera. This firmware update promises higher video shooting time for the EOS R5 fullframe mirrorless camera. Canon had launched the EOS R5 camera with lot of fanfare as it is the first mirrorless camera to shoot at 8K resolution. Also the EOS R5 can shoot 8K in raw mode internally. However, the EOS R5 shuts down due to overheating. Some enterprising folks found out that the EOS R5 misreads the temperature and shuts down. Now Canon has come out with a firmware update which will be available in September. Reports suggest that apart from bug fixing this firmware update improves the video shooting time, which though not to a great extent but still makes it a bit better.



Firmware **Version 1.1.0** incorporates the following fixes and enhancements:

- Useful messaging is now displayed when [HDMI display: Camera+External monitor] and [Overheat control: on] settings are enabled.
- When using certain RF lenses for movie shooting, the in-lens image stabilization mechanism has been improved.
- Fixes a phenomenon in which the "Slow Synchro" setting screen is not accurately displayed, when the language is set to English.
- Fixes a typo displayed on the communication setting screen, when the language is set to Korean.
- Connectivity during FTP transmission has been improved.
- Fixes a phenomenon, in which the card access time may take longer, when using certain CF express cards.
- Temperature detection and shooting time control in video shooting have been improved. In addition, the total

shooting time when the short-time recording and power-on/off are performed repeatedly at room temperature is improved.

• The phenomenon in which the movie recording time available is not correctly displayed when the Date/Time/Zone is not set has been corrected.

*The firmware scheduled for release in early September will incorporate the following improvements for the RF100-500mm F4.5-7.1 L IS USM.

- -Supports 6-stop image stabilization. (CIPA-compliant)
- -Improves IS capabilities when performing continuous shooting under specific conditions.

Firmware Version 1.1.0 is for cameras with firmware up to Version 1.0.0. If the camera's firmware is already Version 1.1.0, it is not necessary to update the firmware.

Natural History -

COUNTRY NOTEBOOK: March Roller: M.Krishnan:- 25-03-1951

The Sunday Statesman (shared by Shri. Saktipada Panigrahi)

MARCH ROLLER

".......For the Roller is a sedentary bird at other times, respectable, even gentlemanly in a lazy sort of way. All day long it sits on some exposed perch, drab, squat and inert, indifferent to the blazing sun and breeze that ruffles its plumage. I have seen a Roller knocked off its balance and post by a gust of wind, pick itself up in air and resume its seat in the open in the most off-hand manner.

From time to time it comes out with a deep chortle (not a specially refined sound, but guttural enough to have tonal strength), but nothing breaks its bore, slumped repose otherwise. Even when it sights some passing insect and gives chase, bursting into dazzling blues with the spread of its pinions and tail, there is nothing hurried or undignified about its movements-it flaps lazily along on board, sapphire and azure wings, like some gigantic butterfly, takes its prey casually from the air and then flaps in way back to its pole.



What is gentlemanliness, after all, but a superiority to crude emotional displays (or its affectation when others are looking)? The Roller has it even when feeding till late in March.

Then all at once it sheds its reserve, and becomes a thing demented. Love is a powerful influence, even in the highest animals it has been known to induce a sudden, abandoned silliness. The birds ,however, whose emotional lives are not screened by reason or self-consciousness, it often reaches its climax of expression in aerial displays and melody. There is a quickening pattern leading upto a grand finale in their courtship displays, or else an undercurrent of audible, welling fervour.

But the courting Roller goes plain crazy, abandons its perch and flies about with maniac energy and aimlessness. It scours the heavens, not in soaring circles, not in steep, acrobatic loops, but just anyhow. The broad wings lose their good-nature flapping action and beat a pathless course for the bird through the air. At times it flies high and wild, when the colours of its flights and tail grow invisible and dark against the sky. So lost are the blues in the distance, so unlike its lubberly self is it on the wing now, that one who has not seen an ardent Roller before could mistake it for some other bird.

And not content with this exhibition of incoherent flight, the Roller sings-all the time it is flying-an incredibly hoarse voice, but usually it is discreetly laconic. In March ,however, it sings as it flies, and its song is even more pointless than its flight, but fortunately confined to a single note, a long-drawn, grating shout.

It climbs into the sky and dives recklessly earthwards, singing its harsh song unceasingly-on a stii day you can hear the courting Roller from half-a-mile away, and the increase in volume of the song alone is sufficient to tell you for its headlong descent. There are many unaccomplished musicians among birds, but few with such araucous or persistent voice. However, it is voice of love, inspired by the same feeling that prompts nightingale and the lark.

Luckily, the inspiration passes. Once it mates and nests-the event varies with place and climate, but is from April to July-the Roller settles down to the business of perpetuating the species, a thing that it does with its usual sang-froid, and it has no time for giddy flights and song. Later still you find it on some pole in the sun, so staid and sober tat you would have passed the bird by but for a deep-throated chuckle."

- M. Krishnan

This was published on 25-03-1951

Indian Golden Jackal by Shyamala Kumar



Leopard by Mrudul Godbole



Tiger by Sandipan Ghosh



Silver-breasted-Broadbill by Samrat Sarkar



Whistling Duck with brood by Shyamala Kumar



Cat-Snake by Anil Kumar Verma



Planthopper ricaniidae by Jerin Dinesh



Moth by Prajwal Ullal





This is the **140th issue** of IndiaWilds. The photograph of a young tiger cub adorns the cover page. If we were able to understand the thoughts of this tiger cub, then perhaps we would have realised that even the tigers realise that their future is not rosy. They have no idea about official tiger estimation statistics of tiger numbers increasing. Every other day some wildlife sanctuary or national Park loses a part of it to construction of roads, dams and industrial projects. Exotic weeds are overpowering the native vegetation. So hervi-

bores which are the prey species of tigers don't find it conducive to thrive. Poachers who are often hand in glove with the villagers are using snares as well as killing deers and other wildlife for meat and hide. In that situation, each tiger needs more space to find prey. Hence, the tigers have to fight with each other to survive. A tigress mother has to often fight with her adult cubs for space. It's a tough life for tigers.

If we are able to create a holistic plan to integrate all wilderness areas so that wildlife can move in protected corridors from one place to other then there would be less infighting among tigers and there would be easier dispersal of tigers and other wildlife. The conflict with humans will also reduce. However, planning such a network of wildlife corridors to link all the protected areas is a big task which needs long-term planning. And our current rulers need new headlines for social media. There is no focus on long-term planning for environment, wildlife and wilderness areas. Hence our iconic species like tigers will continue to face an uncertain future.

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 you user id and/or password you can mail administrator@indiawilds.com

Regards,

Sabyasachi Patra

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