



IndiaWilds® Newsletter

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Ecosensitive or Builder sensitive? :

Thomas Hobbes in his 1651 book the Leviathan wrote “***a government is formed more or less by everyone agreeing not to kill or rob each other under the penalty of law***”. At times today, one gets the feeling that the Government has been reduced to such a lowest function.

The Government is supposed to be just and should stand to uphold what is good for the country and not for the good of a vocal majority. The Government is to look for the absolute good. However, most of the times, the Governments tend to look for the “greater common good” which is interpreted as something that benefits one major group of people. So it tends to create a project which it feels is good for more people and hence displaces the few from the project area. To assuage the feelings of the people who are wronged (read displaced), the Government comes out with compensation, which often remains inadequate. The more the Government tends to care for the “greater common good” visualised through a narrow prism, the more its acts appear unjust.

Our elected representatives and other politicians weigh issues based on the perceived vote banks and not whether something is right. In the process morality is tossed away. When one man commits a mistake, it is treated under due process of law. When many people together commit a crime, politicians and lobbies come together to petition and the Government then moves ahead to regularise the crime.

The recent ruling about the ecosensitive zone around Okhla bird sanctuary in Noida appears to be done using a similar logic.

The Okhla Bird Sanctuary was notified twenty five years ago in 1990 by the Uttar Pradesh Government as a protected area however no boundaries were demarcated. In 2005 the National Board of Wildlife became lenient and allowed site specific delineation of boundaries. In 2013 the National Green Tribunal had said that no construction activity will be permitted within the 10 km radius. Now the MoEF&CC has released the final ESZ (Eco-sensitive zone) notification which has reduced the ESZ boundary to 100 meters on the eastern, western and southern side, down from the 10 kms. The ESZ on the northern side is 1.27km.

This move was to facilitate the regularisation of illegally constructed flats by various build-



ers. There are an estimated 50,000 flats illegally constructed in that area. The northern side doesn't have any construction as it is the flood plains, else, that too would have been reduced to 100 meters.



Birds at Okhla

Image Courtesy - Dr. Rajeev Khanna

The Government has acted to save the builder lobby without any concern for the environment and wildlife. This move will set a negative precedent and Eco Sensitive Zones around the country will now redraw their boundaries. We have the toughest rules in the world. However, interpretations of those rules are ridiculous, often blatantly so due to ulterior motives.

However the Government on 24th August organised a press conference to defend itself and said that its move to declare the ESZ boundaries are justifiable. The Minister of State of MoEF&CC Shri Prakash Javadekar said that the purpose of declaring Eco Sensitive Zone is to create a buffer zone, where only regulated activities for specialized eco system will be allowed and this area will work as further ecological protection for Protected Areas (PAs). He said that the declaration of Eco Sensitive Zones will end confusion and bring clarity on the buffer zone.

Shri Javadekar said that the proposals forwarded by the State Governments were sent to Wildlife Institute of India for assessing extent of ESZ, Biodiversity and Wildlife Corridor value and the Geo-coordinates of prominent points on the Ecosystem zone boundary, list of prohibited/regulated activities in the ESZ. The recommendations of WII are examined in the Ministry by an Expert Committee before a final notification is issued and hence the ESZ notification is justifiable.

The Government and its panel of handpicked experts perhaps didn't feel that the highrise apartments will have any impact on the birds. When people move in into the apartments, the place will be changed for ever. There would be bright lights and noise from loudspeakers, machines, vehicles which will cause a lot of stress to the birds. The temperature of the place would increase due to heat-island effect due to the houses and will be exacerbated when the

airconditioners would start running. The glass panes will start reflecting more light and heat into the bird sanctuary, making it even more challenging for the birds.



Spot Billed Duck at Okhla

Image Courtesy - Dr. Rajeev Khanna

Our implementation of rules are abysmal and in many cities throughout India we find sewage and other garbage from the apartments dumped into the wetlands killing it slowly but surely. It won't be surprising if Okhla will soon become like Belandur lake in bangalore.

<https://youtu.be/JHZfwPGd6xU>

Unfortunately the data, if any, on the basis of which the decision to limit the ESZ at Okhla was limited to 100m on three sides is not in public domain. A few days ago, the National Green Tribunal while directing the MoEF&CC to issue the final notification had said that the final notification would also be subjected to judicial scrutiny.

The BJP Government had always talked about “Rama Rajya” and ensuring Governance which will take us to a situation where the modern day India will have as good a Governance as was said to be in the reign of Lord Rama. Unfortunately, one should also remind that Lord Rama in the Epic Ramayana, had even prosecuted his faithful brother Lakshmana. If the MoEF&CC cannot stop itself from pandering to the real estate lobby, then far from excelling in governance, the present regime would be known to have presided on the destruction of India's natural heritage.

Our generation is doing a great disservice to future generations by succumbing to greed and destroying our last remaining wilderness areas.

Ban Polythene bags:

Plastics, especially the polythene bags choke the drains and this is one of the major reasons for waterlogging during the rainy season in cities like Delhi. Due to the near absence of any civic authorities the waste disposal system is in real mess. For unauthorised dumping of construction and other wastes in the drains and other areas, there is no one to monitor and levy fines. So every monsoon one finds waterlogging, resulting in the cities like Delhi and Bombay coming to a virtual standstill during monsoons.

There are very little green areas in and around the cities. So the cattle roaming around have to scavenge and eat the food items dumped by people. Invariably these cows consume the polythene wrappers, foils and bags and these things choke the intestines leading to painful deaths. Fortunately, some of the States are now showing concern for these deaths of cows and have moved in to ban polythene bags.

Chief Minister of Gujarat on Independence day declared "Keeping in view of environment, cattle health & cleanliness, have declared plastic ban across Gujarat". "I was thinking of imposing a ban on use of plastic in Gujarat for four months. Nobody will be able to use plastic from now onwards. No shopkeeper in Gujarat will be able to use plastic," she said. So hopefully before the end of 2015, the ban would be enforced in Gujarat.

The CM of Gujarat said "I had spoken on the issue of plastic with many people and now I have reached a firm decision to ban the plastic because this is the only way to save our cattle,". "Whenever I visited cattle health-care camps, I found that doctors perform surgery on cows and remove plastic from their bodies... in some cases more than 10 kgs. The cows consume the plastic thrown by us," she said.

"We opt for cow milk and ghee, then why shouldn't we take steps to stop using the plastic and take a pledge that we will not throw plastic outside?" the Chief Minister asked.

A number of State Governments have already banned polythene carrybags that are less than 50 microns. However, the efficacy of the ban is laughable. Delhi too had banned polythene bags however one can freely find those. The Maharashtra Envi-

ronment Minister Mr. Ramdas Kadam has also announced the ban in Maharashtra and said that the Govt. of Maharashtra would hand out strict punishments to ensure compliance. For manufacture and sale of polythene bags less than 50 microns, a penalty of between 1 to 5 lakh rupees and a prison sentence of upto 5 years will be slapped on the erring individuals and firms.

The polythene bags along with wrappers and packaging of fast food materials create havoc in our wilderness areas. Many wild herbivores are known to die a painful death after consuming these polythene bags and wafers packets.



© Sabyasachi Patra/www.indiawilds.com

A Deer with a chips wrapper

An elephant was known to die in Sabrimala after swallowing the discarded food wrapped in aluminium foils and polythene bags. One elephant in Mudumalai was lucky enough to discard the polythene bag through its excreta, though I found blood in it. Hopefully it would have survived.



Polythene in Elephant dung

In the Gujarat coast one dolphin was found to have died due to its intestines choking because of polythene bags. Since we don't often come across the carcass of marine animals and also since we are not equipped to do post mortem of such large marine mammals, we don't know the impact of plastics in the marine ecosystem.

Apart from the ban on polythene bags that are less than 50 microns, one has to also consider the deleterious impact of plastics on our environment. Every year billions plastic bags, bottles, wrappers, boxes made of plastic go into landfills. Due to the plastics in the municipal wastes, the municipal authorities face a challenge in incinerating it as burning plastics releases a chemical called dioxin which is carcinogenic. It also causes birth defects.

There are also lot of prescription drugs, mostly expired, that are thrown into the garbage and it goes into landfills. The chemicals from these drugs leach into the ground and pollute the ground water. The municipal authorities can filter the water before supplying it to the people, however, they don't have means to neutralise the chemicals. The Government and municipal authorities have more or less remained aloof about the tremendous impact on the health due to such causes. Unless the people are conscious and start segregating bio-degradable and non-biodegradable items in the households and an efficient take back system is created based on the "polluter pays" principle, we will continue to face the ill effects.

According to Shri Prakash Javadekar, Minister of State for MoEF&CC, "80 per cent of the sewage does not get treated and one-third of the industrial pollution goes into water bodies... This year, we have done three things – more Sewage Treatment Plants and new technology, new rules of waste management – Solid Waste, E-waste, Plastic Waste, Hazardous Waste, Bio-medical waste and construction waste, all rules have been changed and new technology has been brought in and the base has been widened". Though this statement was made by the minister on the 68th Independence day to justify the Swachh Bharat Campaign, the enormity of the problem demands a highly intense and sustained campaign, else it will take a long time if not prove impossible.

This ban on polythene bags is triggered due to the religious feelings associated with the cow and not due to environmental protection rooted in science, a point that should be noted by all the conservationists and wildlife lovers. Elected represent-

atives of people and other politicians are more prone to take up issues with religious connotations to please their constituents rather than issues raised based on their scientific merits.

In 2007 efforts were made by WWF to protect the gangetic dolphins by involving the sadhus and other hindu religious leaders and that had resulted in some media coverage. In 2009 dolphins were declared as the National Aquatic Animal. It is another matter that precious little has been done by the MoEF to protect the habitat of the dolphins as our rivers are increasingly dying due to sand mining, dam construction and pollution.

Successive Governments at the centre had talked about saving the Ganga as it is one of the most sacred rivers and is deep rooted in our psyche. It is another matter that the present Government led by Shri Narendra Modi had told the Supreme Court that it will take 18 years to clean the river Ganga.

With the BJP Government coming to power in the centre as well as in Maharashtra, there have been several demands linked with Hindu rituals. Though some of those demands like allowing people to enter protected areas to perform Naga Panchami negatively impact the health of protected species, it may be prudent to use the religious angle for saving our protected species.

If plastics are being banned to protect the cow, will the Government also wake up to protect the sea cow? The dugongs or sea cows are in great danger due to the Sethusamudram project. This project apart from being environmentally destructive is also not financially viable. Hopefully the BJP Government at the centre will stop this project.

Elephant Poaching in Kerala

A poaching gang in Kerala is said to have killed 28 tuskers and have been recently apprehended by the forest department. It is reported that the mastermind behind this poaching operation, one Aikaramattom Vasu committed suicide.

After the notorious brigand Veerappan's killing, the elephant poaching in South India was reported to have come down. However, any chance of this species bouncing back to health with ever shrinking habitat and increased man-elephant conflicts appears to be quickly vanishing because of such elephant poachers in operation. A former forest watcher by the name Kunjumon has confessed about this gang. Kalarikudiyil Kunjumon was hired as a cook and was witness to this horrific killing spree of this group. K. Kunjumon is said to have informed the forest department officials in Karimbali about these killings but they didn't believe. He then went ahead and informed another forest camp at Edamalayar who acted upon his story. Upon detailed verification his story was found to be true.

It may be noted that the forest department has been interacting with the tribals in Vazhachal and Parambikulam and organising them into self-help groups for collecting honey and other NTFP and into eco-tourism etc, however, there have been no information about these elephant killings.

The gang reportedly killed elephants and then used to come back later to retrieve the tusks. This shows that despite the carcass rotting and being scavenged by other wildlife, the Kerala forest department never got clue that elephant poaching has been going on in Vazhachal, Parambikulam, Munnar as well as in the neighbouring Tamil Nadu and Karnataka.

56kg of ivory was seized from the kingpin Vasu's sister. Vasu was later found dead in Maharashtra, with a suicide note by his side. With each kg of ivory being sold at more than a lakh of rupees, this elephant poaching racket would not be just the handiwork of a few people. Since the forest department was not aware, it can be safely assumed that some of them may also be complicit in the crime. Locals say that as usual powerful people are behind this and Vasu was sacrificed since he had too much to reveal. While investigations have been going on, it reveals the systemic deficiencies that continue to haunt our National Heritage Animal.

Declaring wild animals as vermin – MoEF's solution for man-animal conflicts

Javadekar releases data for man-animal conflicts - outlines solution which includes eradicating wild animals

The Minister for MoEF&CC Shri Prakash Javadekar while answering in Rajya Sabha released data regarding animal populations and loss of life in man-animal conflict.

He said that the estimates of population of major wild animals indicate that there has been an increase in number of animals. The number of Asiatic lions has increased from 304 in 1995 to 523 in 2015, Tiger has increased from 1411 in 2006 to 2226 in 2014 and the Elephants from 25569 in 1993 to 29391-30711 in 2012.

Incidences of loss of human lives and damage to crops by wild animals are reported in various parts of the country from time to time. As such data of such incidents are not collated in the Ministry. However, the reports received from the States in National Tiger Conservation Authority and Project Elephant indicate the following data on human death due to Tiger and Elephant.

	Tiger	Elephant
2012-13	22	371
2013-14	24	335
2014-15	26	63
Current Year	Not available	Not available
Total	72	769

Surprisingly the minister said that there is no data for number of people who have lost their lives in man-elephant conflict. Recently the R. K. Srivastav, Inspector General of Forests had said that every year 500 people lose their lives in man-elephant conflicts. The Chattishgarh forest minister had said last month that 63 people were killed in Chattishgarh in Man-elephant conflicts last year. For more details check <http://www.indiawilds.com/diary/indiawilds-newsletter-vol-7-issue-vii/>



Shri Javadekar said that degradation of the habitat including, depletion of water and food availability is considered some of the reasons for wild animals to come out of its natural habitat. Though this statement is true for the existing protected areas, a lot of wildlife also exist outside our protected areas. A lot of migratory corridors of elephants are outside the existing protected area network and the Elephant Task Force report had recommended that these areas be urgently secured by buying up those lands. Unfortunately, the Government has done precious little apart from branding the elephant as the National Heritage Animal.

Wildlife management primarily focuses on improvement of habitats of wild animals by augmenting the availability of food and water in forest areas to reduce the entry of animals from forests to habitations.

He further said that the Central Government provides financial assistance to State/Union Territory Governments under the Centrally Sponsored Schemes of 'Integrated Development of Wildlife Habitats', 'Project Tiger' and 'Project Elephant', for augmenting their efforts for management of wildlife and their habitats.

The assistance is also provided to the States for payment of *ex-gratia* relief, management of wildlife conflict situations and construction/erection of physical barriers, such as barbed wire fence, solar powered electric fence, bio-fencing, boundary walls etc. wherever feasible. In many parts of the country, anti-depredation squads have also been set up to drive away problematic animals.

Keeping in view the losses to crops inflicted by the wild animals, this Ministry, on 24th December, 2014 issued an advisory to the States highlighting the legal provisions under the Wildlife (Protection) Act, 1972 to deal with the human-wildlife conflict situations. Vide this advisory, Ministry has also sought proposals from State/Union Territory Governments, after objective assessment of the situation with details of the areas in which notification under section 62 of the Act, declaring any wild animals as vermin for specified period, could be helpful in management of conflict. The same advisory has also been sent to the Chief Minister's and Environment and Forest Minister's of all the States/Union Territory Governments and also to all the Council of Minister's in the Government of India. Despite vehement protests by conservationists, the MoEF&CC has continued to stick to its stand which reminds us of the British days.

Shri Javadekar further stated that his Ministry has also issued a detailed advisory on 1st June, 2015 to the State/Union Territory Governments regarding the priority actions for management of human wildlife conflict. The State/UT Governments have been requested to institute a 'Human Wildlife Management Strategy' along with other suggested measures for the proper management and prevention of human wildlife conflict situations.

Conservation News

Ashwani Kumar panel rejects TSR Subramanian Report

The panel headed by Ashwani Kumar has rejected the TSR Subramanian report which had aimed to blatantly rewrite and weaken environment and wildlife laws. The TSR Subramanian report was seen as an attempt by the Government to ensure that industrialisation at any cost and would have resulted in decimation of India's wilderness and wildlife.

The Parliamentary standing committee headed by Ashwani Kumar said "should the Government wish to consider specific areas of environmental policy afresh, it may consider appointing another committee by following established procedures and comprising of acclaimed experts in the field, who should be given enough time for comprehensive consultation with all stakeholders so that the recommendations are creditworthy and well considered, which is not the case with the recommendations under review".

"Considering the various objections as aforesaid and comments of the Ministry, the committee finds that objections raised by members of civil society/ NGOs/ experts are prima facie valid and require serious reflection".

Would result in unacceptable dilution of the existing legal and policy architecture established to protect our environment.

Air Pollution Hall of Shame

A WHO urban ambient air quality database from 2014 which tracks the ambient air quality of around 1600 cities from 91 countries has laid bare a shocking truth about the terrible quality of air in Indian cities. In this WHO database, India has got six cities in the world's top ten most polluted cities list. Out of the top twenty most polluted cities list, 13 Indian cities find a place. And to top it all, this infamous list has been headed by Delhi with an annual average of 153 µg/m³ which is six times the maximum limit laid down by WHO.

Sl. No.	City	Country	PM2.5 Annual Mean µg/m ³
1	Delhi	India	153
2	Patna	India	149
3	Gwalior	India	144
4	Raipur	India	134
5	Karachi	Pakistan	117
6	Peshwar	Pakistan	111
7	Rawalpindi	Pakistan	107
8	Khoramabad	Iran	102
9	Ahmedabad	India	100
10	Lucknow	India	96
11	Firozabad	India	96
12	Doha	Qatar	93
13	Kanpur	India	93
14	Amritsar	India	92
15	Ludhiana	India	91
16	Igdir	Turkey	90
17	Narayanganj	Bangladesh	89
18	Allahabad	India	88
19	Agra	India	88
20	Khanna	India	88

Conservation News

Shri Javadekar, the minister of state (independent charge) for MoEF&CC has said that the Government is making consistent efforts to address the issue of air pollution in Delhi and National Capital Region (NCR) and is taking a consultative and cooperative approach to tackle the air pollution in and around Delhi. The Minister has taken three review meetings between April to July 2015 with the Environment Ministers of Rajasthan, Haryana, Delhi, Uttar Pradesh and with the concerned senior officers of municipal bodies and police from these States. Short-term prevention measures have been taken like stopping and burning of bio-wastes, initiating work for major up-gradation of Pollution Under Control (PUC) system, issuing challans of over-loaded goods vehicles, enhancing of parking slots availability, installation of waste to energy plants and strict monitoring of polluting industries.

Though these measures may appear to be a lot, however, it is not going to change the quality of the air in Delhi/NCR region. The Government has to first set right the public transport system. Till the time the public transport system is poor, inefficient, costly and limited in its reach, people will continue to use their own private transport. More air conditioned buses plying regularly throughout the NCR region will help people give up their personal transports.

The unabated construction of houses across the NCR region increases the level of dust in the air and well to do people are now installing air purifiers at home. Unfortunately, despite the real estate industry having some six years of inventory of unsold houses, greed continues to fuel the construction boom and air quality becomes the casualty.

The industries add their bit to increase the pollution levels as our pollution control boards have not done their duty of checking pollution.

The Government of India needs to undertake systemic changes, else the ambient air quality in Indian cities will continue to become worse with each passing day pushing millions into the clutches of disease, poverty and death.

Breathing Clean Air is our fundamental right. I hope the Government of India accepts “Right to Clean Air”.

For further details check: <http://www.indiawilds.com/diary/indiawilds-newsletter-vol-6-issue-i/>

Students for trees - Gov't Launches School Nursery Yojana

The Government has launched the School Nursery Yojana under which nurseries will be created in schools where students will be involved in raising the saplings.

The main objective of the School Nursery Yojana is to create an everlasting bond between the young students and plants and trees. The students will sow seeds, grow saplings in the school nursery, as a part of practical exercise for Biology classes and extra-curricular activities for students of other streams. The students will also carry out a tree census in their school and the locality.

A school Nursery will have a small space of a minimum of 100 sq meter for preparing beds for raising saplings and for nursery-related activities, including preparing, planting a mixture of good earth, soil and manure, filling earthen pots and storage of seeds. Each School Nursery is expected to create a 1,000 saplings every year. The schools will be encouraged to take up composting, rain water harvesting and water recycling to inculcate best practices in young minds. Through the School Nursery Yojana, the Ministry will support schools to provide all the essential facilities for raising of saplings for use of students and schools.

Conservation News

In an event to commemorate the launch of this programme, Shri Javadekar, Minister of State for MoEF&CC said that there can be no better combination than that of students and trees. Shri Javadekar said that the Yojana is being launched in 1,000 schools this year. 'It will be expanded to cover around 5,000 schools next year and to about 10,000 schools in the third year', he said.



More than sixty participating schools received saplings of their choice from a wide range of species including medicinal plants. Some of the species of saplings distributed to the students include – 'Neem', 'Jamun', 'Amaltas', 'Kachnar', 'Bahera', 'Amla' and 'Bigonia'. Some of the herbal plants that were distributed include – 'Tulsi', 'Lemon Grass', 'Giloi', 'Ashwagandha', 'Haldi' and 'Ilaichi'. A packet of seeds too was given to students, which included species such as 'Kachnar', 'Papdi', 'Kaner', 'Neem' and 'Bigonia'. Around 5,000 saplings were distributed to school students and some nearby residents.

Given the large number of students in each school, if each student were to plant a tree, then there won't be space in the schools. Hence the Government should also allow planting of trees in revenue lands and allow people to water and tend to the saplings without any claims to the land. Each school can be earmarked a patch of land so that the students can then engage in the tree planting activities.

Students may also be taught to plant the flowering and medicinal plants in their terrace gardens.

This move will be good in generating awareness. However, we also have to move beyond the superficial level of knowledge of "tree planting is good" and need to explain the importance of planting indigenous tree species native to each locality. The students need to be explained that one can plant a tree but cannot create a forest. The intricate relationship between various species of trees needs to be explained.

Hopefully we can avoid the monoculture plantations that we see in many parts of the country.

Government of India establishes National Adaptation Fund on Climate Change

The Government of India has established the National Adaptation Fund on Climate Change (NAFCC) with a budget provision of Rs.350 crores for the year 2015-16 and 2016-17, with an estimated requirement of Rs.181.5 crores for financial year 2017-18.

Conservation News

The NAFCC will be meant for assistance to the States and Union Territories that are vulnerable to Climate Change and help them adapt. NABARD (National Bank for Agriculture and Rural Development) will be responsible for the implementation of the adaptation projects and has been appointed as the National Implementing Entity (NIE).

The focus of the fund is to assist adaptation projects and programmes to support concrete adaptation activities that reduce the effects of climate change facing communities and sectors. The templates for project preparation and guidelines for implementation of the project have been prepared. The guidelines have outlined the objective, priorities, eligible activities, approval process, implementation, monitoring and evaluation mechanism. Shri Prakash Javadekar, the Minister of State for MoEF&CC (Independent Charge) informed the Lok Sabha today that the needy States and Union Territories will be identified based on the State Action Plan on Climate Change (SAPCC) and the relevant missions under NAPCC (National Action Plan on Climate Change).

He further said that as of now, there is no provision for any external assistance to be credited to NAFCC. The scheme has been recommended and approved in the month of July, 2015. As such no financial support from NAFCC has been provided so far for adaptation activities under National Action Plan on Climate Change (NAPCC) and State Action Plan on Climate Change (SAPCC).

IndiaWilds App for Android Mobile

In India most of the internet penetration is happening through mobile phones. And the existing users who have access to desktops and laptops are becoming much more mobile then they used to be a few years ago. So to raise awareness and reach out to more people we need to adapt ourselves and make IndiaWilds easily accessed through a mobile phone using android OS.

Today, I am pleased to announce that we have created a mobile phone app so that people can access IndiaWilds anytime, anywhere without being tied to a computer. No need to type. One can access at the click of a button.

We have developed this app through Business Compass LLC a company based in Randolph, New Jersey, United States so that we create a good app.

Awareness is the first step before a person can become a champion of wildlife. I hope this will help us in reaching out to more people to raise awareness and make a real impact on the conservation landscape. If you have an android device then please download the app from this link:

<https://play.google.com/store/apps/details?id=com.businesscompassllc.indiawilds>

Equipment Discussions -

Canon launches ME20F-SH camera with 4,000,000 ISO (ISO 40 lakh)

Canon today announced the new ultra-high-sensitive ME20F-SH multi-purpose camera that can see in the dark. This camera will change wildlife filming forever.

The following are the salient features.

Resolution: Full HD

Mount: EF mount

ISO: 4,000,000 ie. 40 lakh ISO

Frame rate: 1080 60p, 25p

Sensor size: 35mm full frame CMOS

Minimum subject illumination: 0.0005 lux (Theoretical value based on the following shooting conditions: color, no light accumulation, f/1.2, 30P, 50 IRE)

Pixel size: 19 μm square (Canon 1D X has 6.94 μm pixel)

Output terminals: 3G/HD-SDI and HDMI terminals

Price: \$30,000 us dollars or around Rs. 30 lakh

Dimensions: 4 inchx4.5 inchx4.4 inch

Weight: 1.1 kg

Availability: December 2015



MELVILLE N.Y., July 30, 2015 - Canon U.S.A. Inc., a leader in digital imaging solutions, today has introduced the Company's first multi-purpose camera, the new ME20F-SH, which delivers exceptionally high sensitivity to capture Full HD video with a minimum subject illumination of less than 0.0005 lux¹ (at maximum 75 dB gain setting, equivalent to an ISO sensitivity of over 4,000,000). Nighttime surveillance and security, cinematic production, reality television, and nature/

Equipment Discussions -

wildlife documentaries are just some of the ME20F-SH's many possible usage applications. With the ability to capture color video in extreme low-light conditions and its simplistic and versatile design, the ME-20F-SH Multi-purpose Camera can be easily incorporated into existing infrastructures and systems to provide high-quality video capture even where subjects might not be seen with the naked eye.



Canon's new multi-purpose camera employs an enhanced version of the 35mm full-frame CMOS sensor for Full HD video use that was originally developed by the Company in 2013². Its compact, modular body design allows easy custom configurations for diverse usage scenarios. While capturing video in extreme low-light conditions often requires the use of infrared illumination (a technique that only yields video in black and white), the ME20F-SH camera achieves impressive high-sensitivity performance enabling the capture of color Full HD video with reduced noise in low-light conditions without the need for infrared illumination.

Ultra-High-Sensitivity CMOS Sensor Enables Color Video Capture in Extreme Low-Light Conditions

The ME20F-SH camera's CMOS sensor has pixels measuring 19 μm square³, which is more than 5.5 times the surface area of the pixels on the CMOS sensor featured in select top-of-the-line interchangeable lens cameras⁴. Furthermore, the sensor's pixels and readout circuitry make use of Canon proprietary technologies to achieve both reduced noise and exceptionally high sensitivity on subjects with a minimum

illumination of less than 0.0005 lux. This multi-purpose camera allows users to discern subjects under even some of the dimmest lighting conditions, such as environments lit by artificial illumination or under a moonless night sky. Furthermore, similar to Canon's Cinema EOS System of professional digital cinematography cameras, the ME20F-SH camera includes Canon Log and Wide DR, which make possible a wide dynamic range, delivering high-image-quality video results across a range of illumination environments, from low- to brightly lit conditions.

Canon's Diverse Interchangeable EF Lens Lineup Enables Wide Range of Imaging Possibilities

The new ME20F-SH employs the same EF mount (Cinema Lock type) as Canon's SLR cameras and Cinema EOS System-series of professional digital cameras, allowing users to make use of the Company's extensive lineup of interchangeable EF lenses⁵. By letting users select the ideal lens based on their shooting or application requirements, taking into consideration such factors as angle of view and level of brightness, this multi-purpose camera facilitates a wide spectrum of imaging possibilities.



Equipment Discussions -



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Supports various standard video-recording interfaces

Employing output-only 3G/HD-SDI and HDMI terminals, Canon's ME20F-SH camera enables users working on location to output video via a single cable to a variety of peripheral equipment, including external recorders and monitors.

Equipped with a $\phi 2.5\text{mm}$ stereo mini-jack and a round 8-pin jack for RS-422, the multipurpose camera is capable of connecting with Canon's RC-V100 Remote Controller (released in June 2014; sold separately)⁶. By allowing users to operate the camera or change settings from a remote location, the camera facilitates video capture from inaccessible locations as well as fixed-point surveillance. Furthermore, a $\phi 3.5\text{mm}$ stereo mini-jack allows the camera to connect with an external microphone, enabling users working on location to output audio and video signals to connected peripheral equipment. The Canon ME20F-SH is expected to be available in December 2015 at a suggested retail price of \$30,000.

1. Compliant with the specification method for CCTV devices (TTR-4602B) issued by the Japan Electronics and Information Technology Industries Association (JEITA). Theoretical value based on the following shooting conditions: color, no light accumulation, $f/1.2$, 30P, 50 IRE
2. $1\text{ }\mu\text{m}$ (micrometer) equals one millionth of a meter
3. $19\text{ }\mu\text{m}$ pixel pitch ($361\text{ }\mu\text{m}^2$ surface area) compared to $4.88\text{ }\mu\text{m}$ ($23.81\text{ }\mu\text{m}^2$) of Nikon D810, $8.4\text{ }\mu\text{m}$ ($70.56\text{ }\mu\text{m}^2$) of Sony Alpha ILCE-A7S, and $6.94\text{ }\mu\text{m}$ ($48.16\text{ }\mu\text{m}^2$) of Canon EOS-1D X
4. Details regarding supported EF-series interchangeable lenses are scheduled to be made available in mid-December 2015.
5. ⁶ The RC-V100 requires a firmware update when using the round 8-pin jack for RS-422. Details regarding the firmware are scheduled to be made available in mid-December 2015.
6. Note: HDMI, the HDMI logo and the High-Definition Multimedia Interface are brands and registered trademarks of MI Licensing, LLC

Equipment Discussions -

Product name		ME20F-SH Multi-purpose Camera
Image sensor		35mm full-frame CMOS sensor (single), effective pixel count: approx. 2.26 million pixels
Minimum subject illumination		Less than 0.0005 lux (at maximum 75 dB gain setting, equivalent to an ISO sensitivity of over four million)
Pixel Pitch		19 Microns
Lens mount		Canon EF mount (Cinema Lock type)
Optical filters		ND filter with two density levels (motorized manual / auto) IR cut filter (motorized manual)
Frame rates		59.94P / 59.94i / 50.00P / 50.00i / 29.97P / 25.00P / 23.98P
Gamma		Canon Log, Wide DR, etc.
Video output terminals	3G / HD-SDI	BNC jack (output only) Terminal count: 2 1080P / 1080i / 720P
HDMI	HDMI connector (output only)	
Genlock terminal		BNC jack (input only)
Remote terminal		ø2.5mm stereo mini-mini-jack (Canon-proprietary protocol) Round 8-pin jack (for RS-422, Canon-proprietary protocol)
Microphone terminal		ø3.5mm stereo mini-jack
AF		One-shot AF
Auto-exposure		Combined interlocking (iris / gain / ND / shutter)
White balance		AWB, color-temperature setting (setting range: 2000 to 15000 degrees Kelvin), natural light, light bulb, Setting A, Setting B
Digital teleconverter		2x, 4x
Power input		4-pin XLR DC11-17V Terminal block 2-pin jack DC11-17V
Operating temperature		32 degrees F (0 degrees C) to 104 degrees F (40 degrees C)
Body dimensions		Approx. 4 inches (102mm) (w) x 4.5 inches (116mm) (h) x 4.4 inches (113mm) (d) (excluding protrusions)
Weight		Approx. 2.4 lbs (1.1 kg) (body only)

Equipment Discussions -

Nikon announces AF-S 200-500mm f5.6E ED VR lens

In an interesting development, Nikon has announced a AF-S Nikkor 200-500mm f5.6E ED VR lens.

This lens has a constant f5.6 aperture. It has longer range than the 200-400mm f4 lens. It is also cheaper as it is priced at \$1396.95 usd.

This lens has got extra low dispersion glass so that chromatic aberrations and distortions are controlled, sharpness is increased along with increase in clarity and colour accuracy.



This lens has a Silent Wave Motor autofocus system for quick and silent autofocusing in stills as well as in video modes. One can override to autofocus manually. By turning the focus ring. According to Nikon, the VR mechanism in this lens can handle upto 4.5 stops and hence help a lot in handholding.

Spanning a long, versatile zoom range, the AF-S NIKKOR 200-500mm f/5.6E ED VR Lens from Nikon is a telephoto zoom characterized by a constant f/5.6 maximum aperture for consistent performance throughout the zoom range. The optical design incorporates extra-low dispersion glass to reduce chromatic aberrations and distortions for increased sharpness, clarity, and color accuracy.

A Silent Wave Motor AF system produces fast, near-silent focusing performance that suits both stills shooting and movie recording which can instantly be manually overridden by simply turning the manual focus ring. Further contributing to photographing in fast-paced situations and difficult lighting, VR (Vibration Reduction) image stabilization compensates for the effects of camera shake by up to 4.5 shutter speed stops. Additionally, an electromagnetic aperture mechanism is integrated into the lens design to provide greater exposure control stability that is especially beneficial when working with faster continuous shooting rates.

The Nikon 200-500mm f5.6 lens is designed for FX sensors and also can be used in cameras with DX sensors. The minimum focusing distance is 7.2 feet.

This lens takes 95mm filters in the front.

Equipment Discussions -

The Nikon AF-S Nikkor 200-500mm f5.6E ED VR lens will be available in September at an estimated cost of \$1396.95 us dollars. At this price, I feel this lens is going to be a very popular lens and should help shooters move away from the third party lenses like the Sigmas and Tokinas. You can preorder this lens at B&H using the following link:

<http://www.bhphotovideo.com/c/product...990/KBID/13252>

Natural History -

COUNTRY NOTEBOOK: M.Krishnan: 'The Leopard and his spots '

The Sunday Statesman: 26-July-2015 (shared by Shri. Saktipada Panigrahi)

" EVERYONE knows that a Leopard in bush can be incredibly hard to spot. You know he is there, you saw him walk into that clump of lantana and he has not emerged, and so, as your highly-trained logic informs you, he must be there -- but your eyes cannot pick out the shape or colour or rosetted hide of a Leopard.

It is because of his spots that you cannot spot him, because the dots and rosettes serve to disrupt his contours; he is just a murky greyness, crouched low in the spiky, grey bushes, blending so confusingly with his surroundings. It is amazing in what small cover a Leopard can hide: even a patch of groundnut, barely a foot high, will do, for few other animals that size can crouch so flat and inconspicuously as a Leopard. Once I saw a big Leopard caught in the glare of a lorry's headlights on the bare roadside; he literally shrank to two-thirds of his size as he crouched and froze. However, I think the spots on a Leopard are of equally effective cryptic value when the animal is moving fast.



I have seen Leopards many times, both by day and by the light of automobile headlamps, from fairly close, say within 20 or 30 yards. So long as the animal was still, or moving at a walk, I have not had any difficulty in seeing the Leopard (to the extent exposed) clearly and in detail -- I am not referring to Leopards in cover, but to animals seen in open country. But even Leopards in the flat scrub, clear in every hair in a good light, become a grey blur when they break into quick action.

In particular I remember shot by a "jeep hunter" many years ago. It was very dark, and the jeep's headlights cut a swath of brilliant yellow through the night as we drove slowly along a ghat-road. This Leopard crossed the road about 20 yards ahead and the jeep was instantly stopped. He turned his head towards us, and his moustaches fanned out and bristled forward -- every spot and rosette was vividly clear in that revealing light, as he stood there. At the shot, he went straight into the air, as if propelled by some powerful, hidden spring. There were half a dozen of us in the jeep with our eyes riveted on

the Leopard, but not one could say whether he landed to the left or right or which way he went.\$
It was this experience that first made me realise the concealing value of its spots to a Leopard seeking rapid escape.

Since I have had three occasions to verify my theory, and I must say that I believe in it. It is no defect in my vision, which is responsible for this belief -- others, too loose sight of a fast moving Leopard easily. Of course, if the Leopard is in the open, however lightning-swift his jump, one can resume sight of his flight the moment he lands, and because of the brevity of the period during which he was not clearly seen, one has the illusion of continuous observation. Where he lands in obscuring cover, it is really difficult to say precisely when and where one lost sight of him.

The last time this happened was a year ago. A Leopard charged by a Gaur cow sprang into the air and vanished from sight. He has jumped into a large natural pit, overgrown with lantana -- this we knew because we knew there was this lantana-covered pit there -- but neither of the men who were with me could tell exactly where the Leopard has landed. Even the Gaur seemed considerably puzzled.

There was no question of our trying to ascertain, by inspection, in which part of the pit the Leopard was, or even that he was there. If you ask how I can be so certain that it was into the pit that he had gone, I can only say that I knew this by considering the available circumstantial evidence.

All of us clearly saw the Leopard as he jumped -- thereafter, to the mystification of three men and a truculent Gaur cow, he just vanished into thin air. Which was, after all, and even more telling demonstration of the concealing value of his spots than certain knowledge of his exact location inside the pit.! "

- M.Krishnan

This was first published on 17 April 1960 in The Sunday Statesman

Natural History -

Growing stages of Tree hopper(*leptocentrus taurus*) By Dheerendra Singh

Tree hoppers are usually found in groups. Female tree hoppers lay approximately 10-25 eggs, which are usually found stuck to the trunk of trees like Babul and Berries and are protected by carpenter ants. Hoppers and ants share a symbiotic relationship and benefit by living in proximity to each other.



Tree Hopper

Tree Hopper eggs protected by carpenter ants



Natural History -

Tree Hopper Growing stages



These eggs later hatch into baby tree hoppers called Nymph. These nymph colonies are kept clean and protected by the colony of ants living in the vicinity.

Nymph repay this service by producing nectar through various part of their bodies for the ants. This nectar is seen secreted through the neck and the anus of nymphs. Ants continuously stimulate nymph to secrete nectar by stimulating their anus and feed upon it as soon as it secreted.

Some ants share the nectar with other fellow ants



Natural History -

Tree Hopper Growing stages



After a period of 23 days the nymph open up their skin and transform into feathered tree hopper. Ants help nymphs at this stage.

They are still transparent at this stage of development and the process of transformation continues.



Natural History -

Tree Hopper Growing stages



A jumping spider was also observed preying on a nymph. it pounced on it and got hold of the nymph. However a very interesting feature was observed when an ant attacked the spider and saved the nymph. Unfortunately i could not capture this phenomenon. **WRM** swallowing algae

Natural History -

Sea Snakes and Fish Spines

By Abhishek Jamalabad

I am fortunate enough to live in a place where a biologically rich beach lies between my workplace and my home, and the walks to work and back offer quite a lot of new sightings every day. On my walk home a couple of days ago, I came across a hefty adult Hook-nosed Sea Snake (*Enhydrina schistosa*) lying a few metres away from the constantly receding tide line (the tide transitioning from high to low). I am more used to seeing this common reptile as carcasses or dying specimens caught in nets, but was glad to see upon approaching this one that it was very much alive and fairly active. Unlike most other sea snakes, the hook-nosed sea snake is a hardy species that tends to move about when stranded, even thrashing about violently if disturbed. I wondered how it could have got stranded, since the nets are not used at this time of year. Perhaps the odd net being used off-season, I thought.



© Abhishek Jamalabad

This specimen was about 3 feet long and quite hefty. It also had a large fish in its belly. I did not have a snake stick with me, so I tried lifting it up with my umbrella to return it to the water— firstly, it was hard to do so since the umbrella doesn't have a hooked handle, and secondly, the snake thrashed about as expected, and I didn't want to risk handling it improperly. The only other way was to nudge and push it back to the water, which I managed to do. The snake did not swim off, though, which was when I started thinking it might have suffered some internal injury- and then I noticed that it had a fish spine sticking out of its abdomen.

Sea snakes are a group of elapid snakes (relatives of the cobras, kraits, coral snakes etc.) that have evolved to live almost entirely in the sea. Most of them have a diet composed primarily of fish, which can be more dangerous than one would imagine, considering the erectile spines that most of them have on their fins. It is common knowledge that sea snakes are some of the most venomous snakes on the planet, and one theory to back this is that fish are very active prey capable of eas-

Natural History -

ily escaping or injuring the snake by thrashing about if not killed swiftly. They are also swallowed head-first by the snake, to avoid injury from the backward-pointing spines.

Moreover, the hook-nosed sea snake is a specialist that prefers catfish, which have one of the nastiest spines of all fish. So what could have caused this seemingly unusual accident? The potent venom would have ensured the death of the fish before it reached the belly, so it is unlikely it acted in defense after being swallowed. My speculation is that the snake was in distress (either before or after landing on the beach) and attempted to regurgitate the fish, in which case the spine (now moving the wrong way) could easily pierce it. I have seen injured specimens of this species throwing up small fish before. A

large enough fish with strong enough spines would surely be much harder to regurgitate.

Unfortunately, I had to leave the scene as it was, and couldn't keep a track of what happened next. It was raining a lot that day, so the snake would have been safe from sun exposure. I had placed it as close to the tide line as possible, but not in



deep water where it would be helpless if unable to swim. Given how active it was on land, and considering I did not find any carcass on the beach the following day, perhaps it swam off.

Natural History -

Territorial display and fight of Pheasant-tailed Jacana in breeding season **By Samrat Sarkar**

More or less all the waders fight among themselves for food, nest and breeding territories. And it is surprisingly true that the female ones become more involved in these fights. Whereas a single weaver male usually mates with more than one females, the Pheasant-tailed Jacana (PTJ) species female counterparts keep three to four male mates under their firm control. Interestingly, theirs' is a totally female dominated society. This is strange but true and it takes real guts to do this!



And to make this difficult task possible the female PTJ has to very often fight off their female counterparts who encroach on its breeding territory so that her male partners are not allured by those other females.

In the series of pictures posted here I have tried to show one such territorial fight between two PTJs. I presume that both the birds are females, because it is very difficult to identify their gender from distance. Male PTJs also sometimes fight with each other for some reasons. But the fight as shown in this series lasted for a long half an hour and that is why I assumed that both the birds are females and I have seen the defeated bird to backtrack and to leave the territory as well.

The first weapon to ward off an intruder female is to show its territorial display by spreading its wings wide open and inflating its neck and showing off its strength.

The male PTJ build the nest, hatches the eggs, trains its offsprings to feed etc. The female one remains busy maintaining the territory and warding off the intruders. And importantly, the female PTJs do not take part in nest trans-location.

Place - "Boisa Beel", Nadia, West Bengal

Natural History -

Territorial display and fight of Pheasant-tailed Jacana in breeding season

By Samrat Sarkar



The intruder Pheasant-tailed Jacana flies into the new territory

Territorial display of Jakana. Intruder Jakana is on top..



Natural History -

Territorial display and fight of Pheasant-tailed Jacana in breeding season

By Samrat Sarkar



Fight between the two Jackanas start with the Intruder on top..

Intruder is defeated and has to leave the territory



Wildlife Photography -

Symbiotic Relation by Sabyasachi Patra



The baby - Kabini elephants by Shyamala Kumar



Wildlife Photography - Standing Tall by Bhargava Srivari



Skywalk Manas by Samrat Sarkar



Wildlife Photography -

Sloth Bear Climbing for Honey by Sucheth Lingachar



Deep into Jungle by Jitendra Katre



Wildlife Photography -

Jewel of Konkan by Prasad Dingankar



Bristled Grassbird by Nishith Kumar



Wildlife Photography -

Red vented Bulbul (Juvenile) by Mangru Minz



Cuckooshrike in Ranathambore by Vipin Sharma



Wildlife Photography -

Seshachar's Bush Frog by Abhishek Jamalabad



Mating pair of Monkey puzzle



Wildlife Photography -

Indian Rock Python by Dheerendra Singh



I look forward to your inputs and support in preserving the last tracts of wilderness and wildlife left in 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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