

# India Wilds®

## Newsletter

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### Cover Page Photograph:

**Tiger**  
by Sabyasachi Patra

## Farmhouse & Conservation: Need a Holistic Perspective

2020 has been an unprecedented year. COVID 19 pandemic has turned the world topsy turvy. More than 1.4 million people have died worldwide till date and more than 135000 people have died in India. And still the pandemic rages on.

Huge number of people migrated from cities to their villages during the Covid-19 induced lockdown. Majority of the staff of IT companies are working from home. So are teachers and students of schools and colleges. Various Government offices and private sector companies are working at reduced capacity. Many people have lost their jobs. In these unprecedented times as people have been forcibly confined indoors and simultaneously come face to face with death as well as loss in earnings, there has been lot of internal churning in people. Many people have been looking at life differently. Some have changed professions. ( <https://www.wsj.com/articles/pandemic-new-platforms-prompt-surge-in-new-therapists-11601816400> )

### Moving from City to Farming in Rural India:

A lot of middle class people are looking to go back to their villages and start farming. Some who don't have any background in farming are also keen at acquiring land for farm houses and staying and earning their livelihoods away from the pollution and stressed lifestyles that our city life has been associated with. However they forget to change their habits.

We humans are slaves of habit. We try to do everything in the same manner as we had done before. We want to change things to suit the way we have lived our life till date. It is not a recent way of thinking. In the past the British introduced exotic weed *Lantana camara* in India





as a flowering plant. This plant ran wild and has colonized our landscape. It has heavily impacted the grasslands with very little left for wild herbivores as well as domestic livestock. Like the British did for many years, the urban folks who are venturing into rural India are also wanting to change the landscape to the way they believe it should be. And that is going to be disastrous.

In India lot of land still remains uncultivated. Only recently with population growth, improvement in transport infrastructure and finances have made people value the land more and hence try to exploit the land. The urban folks who are trying to buy land in distant villages to set up agriculture, orchards, fisheries and tourism and similar ventures have very less idea about the ways of nature as the society in general is ecologically illiterate. Even people who have studied agriculture don't have holistic idea about the impact of agriculture and the fact that being in sync with nature results in better yields.

### **Perils of Old Mindset:**

Most of the project proponents simply want to flatten the soil by bulldozer as if they are constructing a building and sow whatever crop they want. Their vision of agriculture is mechanized farming in huge flat lands. Unfortunately, that vision itself is the bane of agriculture. Punjab which was earlier touted as a success story in agriculture during the green revolution is now unravelling. They have become synonymous with Delhi pollution as the farmers in Punjab, Haryana burn the paddy stalks to quickly get their fields ready for the next crop.



Traditionally farmers used to plough the land so that the paddy stalks get uprooted and mix in the fields. The farmers then water the fields so that these paddy stalks get decomposed. The farmers also soon sow lentils so that these help in nitrogen fixation. Unfortunately, these days

the farmers simply prefer to burn the paddy stalk and then sow the next crop. Burning results in killing off all the micro-nutrients in the soil. The farmers don't care as they think they will simply put more synthetic fertilizer in the soil. No one realizes that the soil increasingly becomes a toxic chemical mess.

Punjab is now saddled with millions of cancer patients due to their use of synthetic pesticides and synthetic fertilisers in their farms. A train from Bhatinda in Punjab to Bikaner in Rajasthan is known as the Cancer train as every day hundreds of cancer patients board this train. It is estimated that roughly 60% of the people travelling in the train are cancer patients.

<https://www.ndtv.com/india-news/punjab-has-a-cancer-train-few-political-parties-talk-of-the-disease-1654354>

It is an irony that though due to the deadly pandemic people started thinking of leading a healthy lifestyle and hence planned to move to rural India, the agriculture that they are planning is dependent on synthetic fertilisers and pesticides.

### **Impact on ecology of the landscape:**

Simply flattening a part of a hill for agriculture is neither ecologically sound nor is cost effective. Unfortunately, this serious lack of knowledge is leading to huge changes in the landscape. In many places, many wild animals are surviving in degraded lands. On a recent visit to the fringe areas of a reserve forest in Odisha, I found elephant dung near a small stream. It is a common knowledge that poaching of Wild boars, barking deers etc are continuing. However, despite the adverse condition of the landscape, some of these wild herbivores are still found in the night feeding on crops. With more of these lands being bought over by people for starting agriculture, fisheries etc, more people are going to come in close contact with the wildlife. There is more human wildlife conflict waiting to happen.

People need to be educated that when they are moving to a new area to start a new life and lifestyle they also need to leave the old toxic habits and way of life. The agriculture that they want to do has to be organic farming and ought to be in sync with nature. People need to understand the climate as well as the soil composition and decide the kind of agriculture they need to do. In some of the hilly areas bordering the forests, though people want to raise the same age old crops of paddy and wheat, they should be told that there are other options of raising orchards to tap fruits as well as health juice segments. Amla and Aloe vera has been successfully cultivated by people in hilly tribal areas. People are now more inclined to pick up an organic labelled food grains packet from the local mall. Those fetch better returns than selling produce in the local mandi.

It is not necessary to change the lay of the land for farming in hilly areas. When new people are starting farms in villages in lands that had remained uncultivated, instead of trying to level the land it is important to simply remove the weeds and plant. The terrain in the hills are suitable for rain water to quickly runoff and not destroy the crops. In fact unseasonal rains due to climate change this year has resulted in loss of crops in many states. If there was natural slopes then farmers could have easily cut channels to drain off the fields. So in view of climate change it may be prudent to not level the land and create flat lands for agriculture.

Farmers abroad in places like Canada have large land holdings. They keep part of their land as forest with tall trees. Apart from helping in water percolation and ground water recharge and stopping the top soil from being washed away during

rains, the trees also help in attracting birds. In earlier days farmers used to have bushes around the field. Insectivorous birds like bee-eaters, warblers, drongos perch on these trees and bushes and then fly and catch insects. This helps in biocontrol of pests. When fields are very large, these birds can't fly longer distances to catch insects so the insect population goes unchecked in large fields. So the farmers need to relook at the earlier practices and need to adapt those for farming in sync with nature.

Our farmers didn't have idea about marketing their produce and hence are exploited by middlemen. As people from corporate world are venturing into farming, they can create large clusters of land solely used for organic farming and develop good brands. They can form alliances and/or cooperatives with the local farmers and get scale to market as big brands. Once this is done the local farmers can get assured returns without the headache of individually selling their produce. Once the farmers start getting decent returns more people who are currently leaving their villages for working in distant lands can return home.

During the pandemic many people had returned from large metro cities to their villages in states like Odisha, Bihar, UP, Bengal. However, despite the promise of being taken care of by the local state Governments, they didn't find jobs. This led to people again moving back to the big cities. In India our big cities have grown exponentially and this has caused the infrastructure to crumble. These cities pose a huge challenge to the environment and are fueling climate change. So it is time to decongest our big cities and spread employment evenly in the country. When the agriculture sector grows a lot of people can get employment in their own villages and can help reduce the pressure on our big cities. Earlier villages were self-sufficient and were able to solve their problems locally. It is time to recreate those self-sustaining communities who can solve their problems locally. This will help in lesser burden on our planet.

India has the 7<sup>th</sup> largest landmass in the world. However, we have 1.4 billion people so there are massive anthropogenic challenges to our natural world. Conservationists have to increasingly look at our impact on the natural world and help find solutions. Farming has a big impact on nature. Also, the FAO had said that 30% of all food produced goes waste. Without one third of our food grains produced going waste, we would have not needed those lands to be cultivated. Hence, those lands could have run wild and helped other wild species live.

It is imperative that conservationists start working with the agriculture scientists as well as farmers and farm owners help raise awareness to create a holistic perspective and create a model which can help grow crops without damaging the environment and forests.



## Article -

# The Other Side of Zoo Story: Birds from my Window during Lockdown

By Mrs. Shakti Bishnoi

Humans everywhere were forced to self-isolate due to the coronavirus pandemic. The coronavirus pandemic has heralded us into a very strange and uncertain time. The death toll is horrific. But there is a small glimmer of hope. The lack of traffic on the roads and pause in industrial activities and building constructions resulted in lowering of pollution levels. Suddenly one could see the sky and stars and the distant mountains. Nature, which was bleeding due to human actions, suddenly appeared to be breathing a sigh of relief and recovering. Wildlife appear to be venturing out more often into areas where they were none due to lack of human activities. Without the toxic hand of man, the Earth is healing.



We are blessed to stay within the secluded and protected establishment of MILIT, Pune, as my husband is in Armed Forces and posted at such a serene place. I started exploring the avian world within the campus from my window and nearby places. Some people thought birds have suddenly moved in close to us. However, earlier most of the people were too busy to notice them and the high ambient noise levels due to anthropophony or human induced noise had often over powered the bird songs. The birds were singing as they always did with their sweet and soulful melodies ringing all around. The silence due to lack of human activities because of the COVID 19 lockdown had made the bird songs sound way louder. I started enjoying and recognizing the authors of these sweet melodies. I was fortunate to capture them in my camera. The earth is healing. I introduced my daughter the joy of bird watching from window and she was overwhelmed with the sight of birds in close proximity. Slowly and gradually, I started putting grains and water for them to feed and it became the most hap-

## Article -

pening place for birds. We the humans were capturing them and putting them behind bars in zoos. Suddenly the tables have turned as we humans are behind four walls and looking at them through windows and crying for freedom. They knew it.

What we learn is what we see around us, especially in the wild. Every creature in the wild was designed to serve a purpose.



Humans, while advancing in leaps and bounds and inventing various technologies and gadgets, are yet to learn some lessons. COVID-19 gave us that opportunity to explore the Avian World and the world which belonged to all of them since creation of earth. We need to learn from the animals and birds their *raison d'être*, for they are here to teach us their way of life. After all every organism big and small and every natural force is linked by a complex chain of ecological linkages. We the humans have to understand the designs of mother nature.

The Earth has an immense possibility. I started taking out time early morning and evening to





## Article -



click the birds and appreciate them. Sometimes I watched them hiding behind the window of the common room and saw them eating grains and I was barely 3 feet away, such a close look was amazing. From the early morning chirping and twittering throughout the day to the cacophony of sound at their return to the nests at dusk, there is music every where and they are free to explore the majestic earth in all possible ways. We are caged to enjoy them - the other side of ZOO story.



*"Nature does not hurry, yet everything gets accomplished"*. We humans need to look around and observe, and act upon if needed, otherwise nature has its own way. Tap the abundance of universe waiting for us.



## Poem -

### MUNIA STORY

By Miss Kanan Bishnoi



When I wake up in the morning,

Many birds are calling,

Munia is picking up the grass,

For her babies she forecasts,

All the grass she amass,

She makes a nest first class,

We call it.... Jhakaas.

Everyday I stand with a camera,

see Munia has a lot of stamina,

Munias are always nearby,

They are our family and not shy,

In my dreams I also fly,

One day we will all fly in the open sky.



**Miss Kanan Bishnoi**  
(Class 2nd)

## Conservation News -

### **Urgent need to accelerate action to conserve biodiversity: India at UN Biodiversity Summit**

Representing India at the United Nations (UN) Biodiversity Summit virtually on the occasion of 75<sup>th</sup> anniversary of the UN General Assembly, Union Minister for Environment, Forest and Climate Change, Shri Prakash Javadekar, said that on the occasion of the “75<sup>th</sup> anniversary of the UN”, and as we are approaching the end of the UN Decade on Biodiversity 2011-2020 there is an urgent need to accelerate action to conserve biodiversity. Lets join our efforts to put nature on a path to recovery and realize the vision of “*living in harmony with nature*”.

The summit is first of its kind ever taken place on Biodiversity in the United Nations General Assembly. The Biodiversity Summit was participated by Head of States/Minister level representing the countries which are party to Convention on Biological Diversity (CBD).

The following are the key points from the Environment Minister’s address:-

- I stand before this august gathering to address the 75<sup>th</sup> Session of the United Nations General Assembly as a representative of one of the seventeen mega-bio-diverse countries in the world.
- Since time immemorial, India has a culture of not just conserving and protecting nature, but living in harmony with nature.
- The emergence of COVID-19 has emphasized the fact that un-regulated exploitation of natural resources coupled with un-sustainable food habits and consumption pattern lead to destruction of system that supports human life.
- However, COVID-19 has also shown that Nature can still be conserved, restored and used sustainably.
- As we are approaching the end of the UN Decade on Biodiversity 2011-2020 there is an urgent need to accelerate action to conserve biodiversity.
- As enshrined in our Vedic scripts “**PrakritiRakshatiRakshita**” that is if you protect nature, nature will protect you.
- Inspired by Mahatma Gandhi, the ethos of non-violence and protection of animals and nature have been suitably enshrined in the Constitution of India and is reflected in several laws and legislations.
- It is due to these beliefs and ethos that India, with only 2.4% of the earth’s land area hosts around 8% of the world’s recorded species.
- I am happy to inform this august gathering that in the course of last decade, India has enhanced the combined forest and tree cover to 24.56% of the total geographical area of the country.
- We now have the highest number of tigers in the wild and have doubled its numbers ahead of the deadline of 2022 and recently announced the launch of Project Lion and Project Dolphin.
- India aims to restore 26 million hectares of degraded and deforested land, and achieve land-degradation neutrality by 2030.
- India has already set aside extensive area for meeting the conservation objectives, contributing to Aichi Biodiversity Target-11 and the SDG -15.
- India has established a comprehensive institutional and legal system to realize the objectives of the Convention on



## Conservation News -

Biological Diversity (CBD).

- India has operationalized a system for access and benefit-sharing provisions of the CBD through a national network of 0.25 million Biodiversity Management Committees across the country involving local people and 0.17 million Peoples Biodiversity Registers for documentation of biodiversity.
- The post-2020 global biodiversity framework that will be adopted at the 15<sup>th</sup> Conference of Parties to the CBD in 2021 provides a good opportunity to enhance efforts to conserve and protect nature.
- India has already taken leadership role in order to conserve biodiversity by organizing two Conference of Parties (CoPs) within a span of less than a year
- We organized CoP-14 of UNCCD during September, 2019 in New Delhi, followed by CoP 13 of the Convention on Migratory Species (CMS) in Gandhinagar in Gujarat during February 2020.
- India has been championing the cause of “climate action” through conservation, sustainable lifestyle and green development model.

The minister invoked India’s cultural ethos, vedas and made some nice statements. We hope the Minister’s actions follows as per the statements made as his ministry is presiding on the decimation of India’s forests and wildlife by diluting Environment Impact Assessment laws and allowing dams and other destructive projects in ecologically fragile areas.

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## Declaration of the Private Sector on Climate Change

Nov 5, 2020

CEOs of few select Private sector companies came together to sign a declaration on climate change.

Following is the full text of the declaration:

1. Recognizing that India is committed to the cause of climate change and has demonstrated exemplary leadership in addressing the challenge;
2. Underlining that the private sector has a pivotal role in creating low-carbon and sustainable economies without compromising collective and holistic growth aspirations;
3. Recalling that India is a Party to the United Nations Framework Convention on Climate Change (UNFCCC) and the objective of the Convention is to achieve stabilization of Green House Gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;
4. Recalling that India has ratified the Paris Agreement which notes that the purpose of the agreement is to enhance the implementation of the convention in accordance with the principles of Equity and Common But Differentiated Responsibilities and Respective capabilities (CBDR-RC), in the light of different national circumstance;
5. RECALLING that India has submitted ambitious Nationally Determined Contribution (NDC) in 2015 under the Paris Agreement for the post-2020 period with eight goals including three quantitative goals viz. reduction in the emissions intensity of Gross Domestic Product (GDP) by 33 to 35 percent by 2030 from 2005 level, achieving about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030, and creating an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by

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2030;

6. RECOGNIZING that in addition to being involved in Government initiatives on sustainable development, the private sector has embarked on a number of voluntary actions on climate change that can contribute towards achieving India's NDC goals;
7. RECOGNIZING that the private sector benefitted from India's participation in Clean Development Mechanism of the Kyoto Protocol and going forward Article 6 of the Paris Agreement offers further opportunities for meeting the climate change and sustainable development objectives;
8. RECOGNIZING that a coordinated response by the Government and private sector on climate change that protects the country's interests and ensures that India is on track towards meeting its climate change obligations under the Paris Agreement is the need of the hour, we will further commit to:
  - a. Set achievable GHG emissions reduction as well as energy efficiency improvement goals and voluntary targets within our won companies through a range of solutions including, but not limited to:
    - promotion of renewable energy;
    - enhanced energy efficiency;
    - enhanced material efficiency;
    - improved processes and technologies;
    - water efficient processes;
    - sustainable and green mobility;
    - research and development;
    - planned afforestation;
    - waste management & recycling.
  - b. Develop and submit an annual report to Ministry of Environment, Forest and Climate Change (MoEFCC) providing qualitative and quantitative information on the contribution of the private sector.
  - c. Pursue the development, exchange and implementation of best practices and strategies on GHG emission reductions and building climate resilience as part of a sustainable development approach.
9. THEREBY we encourage other private sector players to work with us on measures that both tackle climate change and build sustainable economies;
10. FURTHERMORE we also pledge to work with the government on realistic and achievable initiatives with benefits for climate change and sustainable development.
11. BY ENDORSING the declaration, we demonstrate the leadership and resolve of the private sector in formulating a collective, strong and effective climate change response to help combat climate change with benefits for the present and future generations.

This declaration was signed by Tata, Reliance, ITC, Piramal, Dalmia, Mahindra Rise, Tech Mahindra, ACC, Tata Motors, SRF, Tata Chemicals, Adani Transmission, SUZLON, Ambuja Cement, AM/NS India, Vedanta, JSW Steel, Hindustan Power, Dr. Reddy's, SR Rungta Group, ReNew Power, Sun Pharma, ESSAR Oil and Gas, Nayara Energy. Some of these companies are already in controversy directly or below to group who are actively engaged in projects which cause immense harm to environment and wildlife. Much of the declaration also focuses on energy efficiency, water efficiency etc which companies in their normal course will do to reduce the cost. So except for declaring good intent, these companies are not breaking new ground. This is not going to materialistically help in stopping climate change. Unless our Government and corporates take definite action we will not be able to fight climate change. Unfortunately despite all the good sounding words we will



## **Conservation News -**

continue to increasingly face the impacts of climate change in form of frequent cyclones, unseasonal rains, extreme heat waves, desertification, inundation of coastal towns and cities due to sea level rise and face future pandemics.

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## **India has moved to the Centre stage of International Energy Affairs: International Energy Agency**

19 Nov 2020

Executive Director of International Energy Agency (IEA), Mr. Fatih Birol today said that India has moved to the Centre stage of international Energy Affairs and is a role model for other major emerging economies. Speaking at a virtual launch of the Energy Technology Perspectives 2020, a new study of IEA which focusses on the technology needs and opportunities for reaching international climate and sustainable energy goals, Mr. Birol praised the Indian government for its efforts in providing clean energy to millions by way of schemes like *Ujjawala* and *Ujala*.

Delivering the keynote address Environment, Forest and Climate Change Minister Shri Prakash Javadekar said, that the International energy report is extremely important and has raised many valid issues. The Minister highlighted that today India is the only country in the G-20 nations which is 2 degrees compliant in keeping with NDCs presented in Paris, and has taken many decisive actions, in fighting Climate Change, not only at the government level but even at the private level, which shows our commitment and resolve.

The Minister made an appeal to the World that Instead of talking about 2050, we must talk of 2020, of 2030 and 2040 and there needs to phased targets and countries should be committed to achieve those.

Highlighting the key role of finances and technology in providing clean energy and enhanced Climate actions, Shri Javadekar said that country specific, appropriate and affordable technologies is the need of the hour because every climate action comes with a cost. We cannot tax the people for that cost.

Speaking on India's actions on renewable energy the Environment Minister said that India's renewable energy now stands at 89 GW. It has increased by 170 % in the last 6 years which is a significant increase. "Our Hon'ble PM Shri Narendra Modi has declared 175 GW of renewable power by 2022 and our aspirational goal stands at 450 GW of renewable energy.", said Shri Javadekar

"We are improving energy efficiency and simultaneously also giving a big push to e-vehicles. The demand for EVs is growing and the prices are being slashed and we are also providing for more battery charging infrastructure. Battery swapping policy has also been adopted. We are giving subsidy for electrical buses which are already operational across many cities" highlighted the Minister and said that India is contributing massively on the energy front and the government is working tirelessly in this direction.

## **Conservation News -**

The IEA report launched today lays stress, among other things, especially on how Governments have an outsized role to play in supporting transitions towards low emissions by way of effective policy toolkits towards tackling emissions from existing infrastructure and technologies ,strengthening markets for technologies at an early stage of adoption ,developing and upgrading infrastructure that enables technology deployment ,boosting support for research, development and demonstration and expanding international technology collaboration.

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## **India and Finland sign MOU for environment protection and biodiversity conservation**

India and Finland have signed a MOU for developing cooperation between the two countries in the field of Environment protection and biodiversity conservation.

The MoU is a platform to further advance Indian and Finnish partnership and support, exchange best practices in areas like prevention of Air and water pollution; Waste management; Promotion of circular economy, low-carbon solutions and sustainable management of natural resources including forests; Climate change; Conservation of Marine and Coastal Resources; etc. The MoU will strengthen technological, scientific and management capabilities and develop bilateral cooperation in the field of environmental protection and biodiversity conservation on the basis of equality, reciprocity and mutual benefit with due respect to promotion of sustainable development.

The MoU was signed virtually by Shri Prakash Javadekar, Minister of Environment, Forest and Climate Change from the Indian side and Ms Krista Mikkonen, Minister of the Environment and Climate Change, Government of Finland from the Finnish side.

As part of its Nationally Determined Contributions submitted under the Paris Agreement , India has taken three quantitative climate change goals viz. reduction in the emissions intensity of Gross Domestic Product by 33 to 35 percent by 2030 from 2005 level, achieving about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 and creating an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by 2030. India claims that it has achieved its voluntary target of reducing emissions intensity of its GDP by 21% over 2005 levels, by 2020 and is poised to achieve 35% reduction well before the target year of 2030.

Speaking at the event the Minister Shri Prakash Javadekar said that the MoU also provides the possibility to have joint projects in areas of mutual interest. “This MOU will definitely commits us to work together more closely towards on the fulfilment of commitments made under Paris Agreement.”, said the Environment Minister.



## Equipment Discussions -

### Canon launches 4.5 million ISO capable Industrial video cameras

Canon has introduced the next generation of Multi-purpose cameras with phenomenal 4.5 million ISO in full HD resolution. These cameras named as ML-100 and ML-105 come with EF mount as well as M58 mount. These cameras can operate at a minimum subject illumination of 0.0005 lux (45 lakh ISO or 75 dB gain setting).



Canon ML camera with 45 lakh ISO capability in EF mount

These two cameras utilise the next generation 19 micron sensor technology for full colour low light image capture. There are many applications for these cameras in the industries where colour images are needed in both daytime as well as in the night. The modular design of the cameras allows implementation and integration into industrial machine vision environments. In industrial areas it is very important to also get the colour for eg. the colour of the cap or dress or car of an intruder is very important in security applications. These kinds of no light environments makes the camera also invisible and able to capture unauthorised intruders without they being aware.

Since the ML series cameras are available in two models (ML 100 and ML105 and in two different lens mounts and two video output configurations to choose from, so Canon calls it as four camera options. The ML-100 camera features a CoaXpress terminal, which allows for the transmission of video, camera-control data and power on a single coaxial cable, ideal for use in industrial systems. The CoaXpress terminal produces 12-bit RAW data output at up to 73 fps and allows for more flexibility during processing. The ML-100 features approximately 2.74 million pixels of maximum video output and supports Region of Interest, which can improve frame rate output up to 164 fps at 720p resolution. The ML-105 camera features a 3G/HD-SDI video terminal and can be suited for standard video environments where Canon image processing, including YCC 4:2:2 10-bit output, is required. The ML-105 features the Canon DIGIC DV4 Image Processor, capable of delivering Full HD resolution at 60fps. Both cameras can be ordered with either an EF or M58 mount for total system design flexibility.

## Equipment Discussions -



With 3G/HD SDI video out terminal

The EF mount gives customers the ability to choose from Canon's still and cinema lens lineup, while the M58 offers lens customization and design choice to the user.

These cameras though aimed at industrial use, help Canon with enough income to pursue further research in this area and develop this field. Earlier this year the Canon ME20F-Sh camera got an Emmy award because of its impressive high ISO ability. The learnings from these cameras invariably trickle down to consumer DSLRs and mirrorless cameras in a few years time.

The M58 mount version of the Canon ML-100 multi-purpose camera is scheduled to be available at the end of December 2020. The other three models are scheduled to be available in April 2021<sup>[iii]</sup>.

## Equipment Discussions -

### Sony launches FX6 Cinema camera

Sony has launched the full frame FX6 cinema camera. FX6 can shoot 4K. It has a 10.2 megapixel full frame sensor.

**Following are the salient features of the Sony FX6 camera:**

**Resolution:** can shoot 4k at 60p, UHD 4K upto 120p, HD 240p at 10 bit 4:2:2 colour

**Sensor:** 10.2 Megapixel full frame back illuminated CMOS Exmor R sensor

**ISO:** Native ISO 800. Expanded from ISO 320 to 409,600

**Processor:** BIONZ XR™ processor which was first used in Alpha 7S III mirrorless camera

**AF:** Fast hybrid autofocus as used in Sony FX9 and in alpha series cameras

**Raw:** external raw output via 12G-SDI at max 4K 60p

**EVF:** There is no EVF attached. It is available as an optional

**LCD:** 3.5" External touchscreen LCD

**Dynamic range:** 15 stops advertised by Sony



**Battery:** Sony BP-U series

**Power consumption:** 18W

**Size:** compact size 6" x 4.6" x 4.5"

**Weight:** 890 grams

**Price:** \$5998 US Dollars



## **Equipment Discussions -**

### **PRESS RELEASE**

#### **FX6 Combines the Best of Sony's Industry-leading Digital Cinema Technology with Advanced Imaging Features from Alpha(TM) Mirrorless Cameras**

##### **FX6 Product Highlights:**

1. 4K 10.2 megapixel full-frame back-illuminated CMOS Exmor R™ sensor
2. Compact and lightweight body design for on-the-go shooting
3. Ultra-high sensitivity with ISO expandable up to 409,600 for very low light conditions
4. 15+ stops of dynamic range<sup>i</sup>
5. S-Cinetone™ look profile, also used in FX9 and inspired by VENICE colorimetry
6. BIONZ XR™ image processing engine, first used in Alpha 7S III
7. Fast Hybrid Auto Focus, also used in Alpha cameras and FX9
8. Recording up to 4K 120p / HD 240p, 10-bit 4:2:2 color depth in full-frame<sup>ii</sup>
9. Support for up to 12G-SDI and 4K at up to 60p 16-bit SDI RAW output
10. Compatible with more than 50 native E-mount lenses

Sony Electronics Inc. today officially announced the FX6 (model ILME-FX6V) camera, the latest addition to Sony's Cinema Line, a series of products that brings the company's expertise in imaging technology to a broad range of filmmakers and content creators.

Sony's Cinema Line, which also includes the VENICE and FX9 cameras, delivers a coveted filmic look cultivated from extensive experience in digital cinema production, as well as enhanced operability thanks to an innovative body design, extensive durability and intuitive customizability.

As part of the Cinema Line, the all-new FX6 incorporates Sony's core technologies of image sensor, processing engine, and AF (autofocus) performance. FX6 is also compatible with the wide range of Sony E-mount lenses for creative flexibility.

"The new FX6 is the latest example of Sony's drive to continuously push the boundaries of imaging technology based on the needs of our customers," said Neal Manowitz, deputy president of Imaging Products and Solutions Americas, Sony Electronics. "With the advancement of our Cinema Line, we are dedicated to enabling the extraordinary skills and talent of today's content creators and cinematographers. The FX6 leverages technology from Sony's industry-leading VENICE cinema camera and marries it with the best of Sony's innovative Alpha mirrorless camera technology."

### **Full-frame Cinematic Image Quality**

The new camera features a 10.2 MP<sup>iii</sup> full-frame back-illuminated Exmor R™ CMOS sensor that delivers a 15+ stop wide dynamic range<sup>iv</sup> with high sensitivity and low noise. FX6's base sensitivity is ISO 800 with an enhanced sensitivity setting of ISO 12,800<sup>v</sup> - expandable up to 409,600<sup>vi</sup> - for shooting in low and very low light conditions. It is capable of recording in XAVC All Intra 4:2:2 10-bit depth with stunning image quality in DCI 4K (4096 x 2160 – up to 60p), QFHD 4K (3840 x 2160 – up to 120p<sup>vii</sup>) and FHD (1920x1080 – up to 240p) for incredibly detailed slow motion. When more convenient file sizes are needed, FX6 can record in XAVC Long GOP 4:2:0 8-bit QFHD 4K (3840 x 2160 – up to 120p<sup>vii</sup>) and 4:2:2 10-bit FHD (1920x1080 – up to 240p). FX6 also includes a BIONZ XR™ image processing engine, first used in the new Sony Al-

## Equipment Discussions -

pha 7S III camera, providing up to four times faster processing performance compared to the FS5 II.

Developed with the same expertise as Sony's world-leading VENICE cinema camera, FX6 offers advanced cinematic color science including S-Cinetone™ for richer tonal reproduction right out of the box as well as S-Log3, S-Gamut3 and S-Gamut3.Cine for post-production flexibility. FX6's cinematic color science is optimized for premium applications by capturing the maximum dynamic range from the sensor and providing creative freedom. Leveraging the color science of VENICE, FX6 also allows productions to easily match footage with other cameras in the Cinema Line.

### Advanced Video Features

Pulling from Sony Alpha's impressive AF features, FX6 offers Fast Hybrid AF by combining 627-point<sup>viii</sup> focal plane phase-detection AF with advanced Face Detection and Real-time Eye AF in high frame rates with continuous AF, allowing camera operators to effortlessly and precisely track fast-moving subjects in slow motion without losing focus. Fast Hybrid AF works with over 50 native E-mount lenses. The camera can also capture up to five times slow-motion with 4K (QFHD) 120fps.

The new FX6 also offers internal electronic variable ND filters for easy and seamless control of the camera's filter density. Users can set variable ND to auto or adjust the filter density manually in smooth increments from 1/4 to 1/128 for perfectly exposed images without affecting the depth of field or shutter angle, even during changing lighting conditions. Combined with the camera's ultra-high sensitivity, the electronic variable ND filter provides users with outstanding creative control in almost any shooting environment.

### Made for Content Creators on the Go

#### *Outstanding Mobility and Operability*

Built with a durable magnesium alloy chassis, measuring just 4.6 inches x 6 inches x 4.5 inches (116 millimeters x 153 millimeters x 114 millimeters) and weighing just 1.96 pounds (0.89 kilograms), FX6 has a compact and lightweight design making it easy for users to grab and shoot at any time. The new camera includes a heat dissipating structure to keep the camera's components within their normal operating ranges to prevent overheating, even during extended recording times. FX6 also features a modular design allowing users to easily pair accessories, such as grips and viewfinders, or attach the camera to other mechanisms, such as gimbals and drones.

FX6's 3.5-inch LCD Viewfinder can be attached on multiple locations of the camera body for added freedom and easy menu control with touch operation. Using a quick access control menu for commonly accessed features, camera operators can change key settings with a single touch - including Codec, Imager Scan Mode, Picture Size and Frequency, Base ISO and Sensitivity, Shooting Mode and Audio Levels.

### Professional-level Reliability

In line with professional workflows, FX6 includes a 12G-SDI output that also supports 16-bit RAW, HDMI output, timecode in/out, built-in Wi-Fi and four channel audio recording (via XLR Interface, Multi-Interface Shoe and built-in Stereo Mic). The new camera also features two media slots compatible with CFexpress Type A cards<sup>ix</sup> for higher overall capacity and faster read and write speeds in addition to SDXC UHS-II/UHS-I cards.

Additionally, Sony's Catalyst Browse/Prepare<sup>x</sup> software facilitates fast and easy editing. Users can import FX6's image stabilization metadata into Catalyst Browse/Prepare to transform handheld footage into incredibly smooth and stable visuals.

## Equipment Discussions -

FX6 also has a dedicated Clip Flag button to easily filter and locate preferred takes using Catalyst Browse/Prepare. This software also reflects metadata indicating when FX6 is rotated or in its normal position, eliminating the need to rotate footage beforehand. FX6 is also compatible with Sony's Content Browser Mobile App to easily monitor and control focus, iris, and zoom remotely<sup>xi</sup>.

### About Cinema Line

Cinema Line is series of professional cameras that have a filmic look, cultivated from Sony's long experience in digital cinema production, and enhanced operability and reliability that responds to the wide variety of creator's high demands.

Cinema Line includes the digital cinema camera VENICE, which is highly acclaimed in the feature and episodic production industry, and the professional camera FX9, which is has been popular for documentary and drama production. With the new FX6, Sony brings versatile creative tools to all types of visual storytellers.

### FE C 16-35mm T3.1 G E-mount Cinema Lens

The FE C 16-35mm T3.1 G (model SELC1635G) lens, announced at IBC 2019, will be available in December 2020 to pair with FX6, FX9 and other full-frame Sony cameras. This new lens supports intelligent shooting functions unique to E-mount cameras - such as fast and accurate AF within shallow depth of field - while also offering manual focus options in a form factor familiar to professional cinema creators.

The FE C 16-35mm T3.1 G delivers stunning bokeh and corner-to-corner resolution thanks to two XA (Extreme Aspherical) elements with extreme surface precision of 0.01-micron, circular 11-blade apertures in addition to three aspheric lenses that are positioned in a way that effectively reduces field curvature, astigmatism and, in combination with two ED (Extra-low Dispersion) glasses, reduces color distortion. Additionally, floating focus provides outstanding resolution at every zoom position. The new lens also features Nano AR (Anti Reflection) coating, to reduce flare.

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The focus ring offers a 140-degree large angle of rotation for fine control, with distance scale markers for consistent focus reset during multiple takes. Linear Response MF enables smooth manual focus, allowing users to adjust focus accurately and intuitively. Three independent rings for focus, iris and zoom enable users to get the exact creative results they desire. Each ring has the industry standard 0.8mm pitch gear for use of follow focus accessories, and the 114mm barrel diameter is compatible with industry standard matte box accessories. A two-speed servo provides smooth, accurate control of focal length and can be activated from a switch on the lens or a lever on the FX6 Smart Grip.

### Pricing and Availability

The new FX6 full-frame Cinema Line camera will be available in December and will be sold for approximately \$5,999.99 USD and \$8,048.99 CAD, at a variety of Sony's authorized dealers throughout North America.

A new kit featuring the FX6 full-frame Cinema Line camera and FE 24-105mm F4 G E-mount Lens will also be available in December and will be sold for approximately **\$7,199.99 USD and \$9,658.99 CAD**. It will be sold at a variety of Sony's authorized dealers throughout North America.

The FE C 16-35mm T3.1 G lens will be available in December and will be sold for approximately **\$5,499.99 USD and \$7,199.99 CAD**, at a variety of Sony's authorized dealers throughout North America.



## Equipment Discussions -

### Canon has launched RF 70-200 F4 L IS USM lens

Canon has been increasing its RF mount camera and lens ecosystem. The RF mount lens lineup has got a new addition in the form of Canon RF 70-200 F4 L IS USM lens. This is even smaller than the EF 70-200 F4 L IS USM lens. The compact and lightweight nature of the lens makes it Canon's shortest and lightest 70-200mm F4 zoom lens to date. Canon has achieved 32 percent shorter and 11 percent lighter as compared to the EF mount version. This can be attributed to the development in technology as well as lighter weight materials. This would make it much more preferable when one is in treks and when you are trying to fit in lot of equipment into your camera bag. Canon says a lot of the lens elements are bunched closer to the camera body so the centre of gravity shifts and it becomes more balanced while handholding even at the zoom range's telephoto end.



The RF70-200mm F4 L IS USM features two independent Nano USM motors, providing an even greater level of high-speed autofocus for still image shooting as well as quiet and smooth autofocus for video shooting. The lens also incorporates a floating focus control that drives the two lens groups individually while using the two aforementioned Nano USM motors. The floating focus lens element shortens the focusing distance and helps reduce breathing, providing users with fast, consistent and reliable performance.

#### **Additional Features of The Canon RF70-200mm F4 L IS USM Lens Include:**

1. 16 lens elements in 11 groups, including four UD lenses, that help to reduce chromatic aberration
2. Optical Image Stabilizer with up to 5 Stops<sup>[i]</sup> of Shake Correction
3. Up to 7.5 stops<sup>[iii]</sup> of Shake Correction with coordinated control of Optical Image Stabilizer and In-Body Image Stabilizer
4. Three stabilizer modes
5. Customizable control ring that allows photographers to adjust exposure compensation, shutter speed, aperture, or ISO

## **Equipment Discussions -**

6. 12-pin communication system
7. L-Series dust and weather-resistant build with a fluorine coating
8. Minimum focusing distance of 1.97 feet and a maximum magnification of 0.28x
9. Air Sphere Coating (ASC) that helps minimize lens flare and ghosting

The Canon RF70-200mm F4 L IS USM lens is ideal for photography enthusiasts ranging from advanced amateur to professional skill levels. I generally prefer the f2.8 versions of lenses for low light applications. However, these days the high ISO ability of cameras have gone up so I would be fine shooting with this f4 lens.

**Availability:** Early December

**Price:** \$1599 US Dollars. India price is yet to be announced.

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## Equipment Discussions-

### Canon launches cheaper RF 50mm 1.8 STM lens

The 50mm is a popular lens among photographers shooting 35mm format for a long time. It is believed that the 50mm focal length replicates the human field of vision. This perspective allows for the lens to be used in a wide variety of shooting situations, including portraits, landscapes and food photography. And 50mm is often a cheap budget lens which allows photographers to hit the streets and experiment with just one lens and create good visuals. The compact form factor makes it unobtrusive and it doesn't scream professional and attract unwarranted attention to the photographer.



Given this background, it is no wonder that Canon has launched a version of this popular lens in RF mount. The RF 50mm f1.8 STM lens is claimed to be better than the EF mount version. The first visually noticeable improvement is the customizable control ring that has become synonymous with RF lenses. The control ring allows photographers to adjust exposure compensation, shutter speed, aperture, or ISO and with a flip of the side switch can adjust focus. The inclusion of a PMo aspherical lens helps to reduce chromatic aberration and provides high-image quality even at the periphery of the image. Additionally, the combination of the lens shape and Super Spectra Coating (SSC) helps to minimize ghosting and flaring.

#### **Additional Features of The Canon RF50mm F1.8 STM Lens Include:**

Six lens elements in five groups

1. 12-pin communication system
2. Minimum focusing distance of 0.98ft and a maximum magnification of 0.25x
3. Up to 7 Stops<sup>[iii]</sup> of Shake Correction with EOS R Series cameras with In-Body Image Stabilizer

**Availability:** Mid December

**Price:** \$199.99 US Dollars

This is a versatile lens and is compact and cheap. So good to have in your camera bag if you have a RF mount Canon camera.



## Natural History -

### **COUNTRY NOTEBOOK: Shower Bath: M.Krishnan:- 06-05-1951**

#### **The Sunday Statesman (shared by Shri. Saktipada Panigrahi)**

"I CAME here early in April to keep my annual date with the southern summer. For a week all went well, slowly the budding heat burgeoned. Then suddenly massed clouds rolled up overhead and the rain came down in torrents. A passing shower, I said to myself, while it rained three inches and it passed. the sun burned fiercely in a clear sky the next day and the heat was all more apparent for the interlude. But since morning it has rained again today, the sky is overcast, the air cool, and it looks as though I must wait for my assignation.

Seating on my leaky verandah, I have been watching birds in rain. I happen to have Dewar's 'Birds of the Indian Plains' with me just now-he has a chapter on "Birds in the Rain" in the book, and perhaps he wrote it not far from here. I would like to observe something original about reaction of the birds around me to the shower, but such things do not go by preferences and I have to confirm Dewar largely. He said that birds enjoy the rains acutely, and in India it is rarely that they are forced to take shelter from it.



Mrudul Godbole

Pipit in rain

Photographed by - Mrudul Godbole

"They know naught of rheumatism or ague" they sit in the rain or splash about the puddles, delighted with the opportunity for a shower-bath, and afterwards there is a great shaking out of feathers and preening of wings and they are smart and fresh and glad. Dewar also comments on how the first monsoons bring feasts of termites and other insects for birds and nestlings, and softens terra firma for the probing bill of the Hoopoe. All this is true. An odd group of three Common Mynahs has been parading the gravel path outside for the past hour, wading into every puddle and splashing about, as if trying to

drown themselves in the knee-high water, and still they are not drenched- their well-oiled plumage seems waterproof.

I can hear the neighing call of a White-breasted Kingfisher and know where it is-on the top of a Casuarina pole in the back-yard. Far out, in a field beyond the road, a flock of Cattle Egrets alights on the dazzling wings, surprisingly white in this grey atmosphere, and quarter the wet grass. There are Crows on exposed perches all around, determined not to miss a drop of rain. The only birds I can see that do not seem too keen on a shower-bath is a party of White-headed Babblers sheltering under a mango tree.

Watching these birds, it is obvious that Dewar wrote about the reaction to the rain from accurate observation, but I cannot help feeling that he assigned a wrong motive for their behaviour. It is no craze for originality that makes me say this-it is that I can see no patent signs of joy in these rain-bathing birds. The lives of birds are ruled by instincts mainly and their responses and emotional expressions follow set patterns.

There is a Crow sitting on a dead limb of a Neem not 20 yards from me, and I have been observing it closely for the past half-hour. It has been sitting there dully, unmoving except to fluff its plumage or caw in a sad undertone from time to time-the illustration is from a leisurely sketch of its obliging model. Now if the crow is enjoying the shower, I must say it takes its pleasure sadly; Poe's raven could hardly have made a less sprightly picture had it been out there, on that branch.

Nor can I note any tokens of jubilation in the other birds out in the rain. Dewar says that the normally sedate mynahs shed their reserve when it rains and go mudlarking in the abandoned enjoyment. I am alive to the tonic properties of slush and downpour-it does one's soul good to get drenched and splashed with mud for all ponderous unlovely notions of self-importance and dignity are shed at once, and this sudden jettisoning and the feeling of lightness that follows moves one to frisk about and find life joyful. But I think the Mynahs I see are undignified only because they are bathing, bathing vigorously in two-inch water-few beasts or birds (bar all cats) look their best at their toilet.

Birds are wonderfully equipped for extremes of climate and weather. And they enjoy dust-baths. But that is not saying that they may feel no discomfort from clogging dust and secretions in their plumage. It is not only that their addiction to rain is an unreasoned response, an instinctive utilisation of an opportunity to wash away dust and water-soluble accumulations from their feathers and skins? That would explain their "non-enthusiastic" but sustained insistence on exposing themselves to the first rains after every spell of dry weather."

- M. Krishnan

This was published on 06-05-1951

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## **Wildlife Photography -**

### **Tiger by Shyamala Kumar**



### **Gaur by Sabyasachi Patra**





## **Wildlife Photography -**

**Bat by Prajwal Ullal**



**Hoopoe by Mrudul Godbole**



© Mrudul Godbole



## **Wildlife Photography -**

### **Himalayan Woodpecker by Murugan Anantharaman**



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### **Tickle's leaf warbler by Abhirup Dutta Gupta**





## **Wildlife Photography -** **Damselfly by Arun Acharjee**



## **Moth Caterpillar by Prajwal Ullal**







This is the **143rd Issue** of IndiaWilds Newsletter. A tiger cub hiding in a grassland adorns the cover page of this issue. Grasslands, trees and bushes growing in uncultivated land on the outskirts of a wildlife sanctuary often serve as hiding place as well as cover for adolescent as well as grown up tigers trying to disperse from a wildlife sanctuary. When an adolescent tiger separates from its mother, it has to hunt on its own and survive while avoiding grown up tigers. During these periods they often come in contact with people as hunting livestock is much easier as compared to hunting down wild prey. They also follow the wild herbivore like wild pigs, deers to the farms.

New settlers who arrive in the rural areas to start farming activity are not acquainted with the ways of wildlife. Often they panic when they come face to face with wildlife and this results in unnecessarily chasing and hunting down wildlife. It is important to understand the way India is changing and then raise awareness and protect our forests as well as the lands that currently serve as wildlife corridors.

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

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

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

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

Regards,

**Sabyasachi Patra**

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